# Chapter 20 <br> Blood Relation 

## Introduction

Problems of this type involve analysis of certain blood relations and then inferring on the basis of the given informations. Some examples of such questions are given below that will better illustrate our point:
Ex. 1: Pointing to a man in a photograph, a woman said, 'His brother's father is the only son of my grandfather.' How is the woman related to the man in the photograph?

1) Mother
2) Aunt
3) Grandmother

Soln.: For such type of questions, it is best to 'backtrack', ie start with the last information and proceed backward for example, if it is given that he is the son of the mother of my grandfather's daughter, then we proceed with the last information: 'grandfather's daughter'. Grandfather's daughter means aunt (sister of father). Now, 'mother of my grandfather's daughter' becomes 'mother of my aunt'. Mother of my aunt is my grandmother. Hence, he is the son of the mother of my grandfather's daughter become 'son of my grandmother' which is either father or uncle.

Now, solve the given example,
His brother's father is only son of my grandfather $\Rightarrow$ His brother's father is my father (since only son of my grandfather $=$ my father). Now, his brother's father is my father
$\Rightarrow$ His brother is my brother
$\Rightarrow \mathrm{He}$ is my brother.
Hence, woman is the sister of the man in the photograph. Hence (3) is the correct answer.

Now consider another example,
Ex. 2: Nandini is the only daughter of Madan's sister Sangita's brother. How is Nandini related to Madan?

1) Daughter
2) Niece
3) Cousin
4) Niece or Daughter
5) None of these

Soln.: Nandini $=$ the only daughter of Madan's sister Sangita's brother
$=$ the only daughter of Madan/Madan's brother
$=$ Madan's daughter/niece
Hence (4) is the correct answer.
Ex. 3: $M$ is brother of $K$. T is sister of M. J is brother of T. H is father of J . How is K related to H ?

1) Niece
2) Son
3) Brother
4) Sister
5) Data Inadequate

Soln.: To solve such types of questions, we need to draw a family tree diagram. We have already discussed, in detail in earlier chapters, ("Puzzle" and "Coded Relationship") about "What is family tree?" and "How to draw the family tree for the given relationship-string?". Let us draw family tree on the basis of the information given in the above question, we have,
$\mathrm{H}(+)$
$\mathrm{l}_{(+) \mathrm{J}}-\mathrm{T}(-)-\mathrm{M}(+)-\mathrm{K}(?)$

Obviously, sex of $K$ is not known. Therefore, $K$ is either son or daughter of H . Hence option (5), ie 'Data inadequate' is the correct answer.

## Exercise-1

1. Pointing to a man in a photograph, Leesha said, 'his mother's only daughter is my mother'. How is Leesha related to that man?
1) Nephew
2) Sister
3) Wife
4) Niece
5) Granddaugher
2. Pointing to a photograph of a man, Neha said, "He has no, sisters or daughters, but his mother is the only daughter of my mother." How is the man in the photograph related to Neha's mother?
1) Brother-in-Law
2) Grandson
3) Nephew
4) Can't be determined
5) None of these
3. Mr ' X ' shows three photographs to Mr Y. Pointing towards photograph 1 , he says, "The person in photograph 1 is my uncle, who says 'uncle' to the person in photograph 2, and the person in photograph 3 is called 'uncle' by the person in
photograph 2." How is Mr ' X ' related to the person in photograph 2 ?
1) Grandson
2) Granddaughter
3) Greatgrandson
4) Either 1 or 2
5) None of these
4. A man pointing to a photograph says, "The man is my nephew's maternal grandfather." How is the person in the photograph related to his brother who has no other sibling?
1) Brother-in-law
2) Father
3) Father-in-law
4) Can't say
5) None of these
5. Pointing to a man in the photograph, another man says: "He is the father of the husband of the only daughter of my grandfather's only son." How is the man in the photograph related to the man (who speaks)?
1) Grandfather
2) Uncle
3) Brother-in-law
4) Father
5) None of these
6. Pointing to a boy, Purnima says, "He is the only son of the sister of my brother." How is the boy related to Purnima?
1) Can't be determined
2) Son
3) Nephew
4) Brother
5) None of these
7. Pointing to Priti, father of Rishu says, "She is the daughter of the daughter of the wife of the only son of the grandfather of my sister." How is Sushama related to Priti if Sushama is the sister of Rishu's father?
1) Can't say
2) Mother
3) Aunt
4) Niece
5) None of these
8. Pointing to a woman in a photograph, a man says, "She is the mother-in-law of the husband of the only granddaughter of my own mother-in-law". How is the woman related to the man?
1) daughter
2) wife
3) sister-in-law
4) Niece
5) daughter-in-law
9. Introducing a man, a woman says, "His wife is the only daughter of my father." How is the man related to the woman?
1) Brother
2) Father-in-law
3) Maternal uncle
4) Paternal uncle
5) None of these
10. Pointing towards a girl, a teacher said, "She is the only daughter of the only son of the wife of the father-in-law of my wife". How is the girl related with the teacher?
1) Daughter
2) Niece
3) Sister
4) Daughter-in-law
5) None of these
11. Two persons were quarrelling over their relationship with a man in a photo. One was saying that the man was his grandfather, and another was also saying the same. But they were not brothers. What was the relationship between them?
1) Brother and sister
2) One of them was lying
3) Cousins
4) Data inadequate
5) None of these
12. Pointing to Kedar, Veena said, "His mother's brother is the father of my son Nitin." How is Kedar related to Veena?
1) Niece
2) Aunt
3) Nephew
4) Sister-in-law 5) None of these
13. Pointing to a photograph, a man said to a woman, "She is one of the sisters of the son of the only son of your grandfather." If the woman in the photograph is the sister of the son of the man's father-in-law, then how is the man related to the woman (with whom the man was talking)?
1) Husband
2) Brother
3) Brother-in-law
4) Either 1) or 3) 5) None of these
14. Pointing towards a photograph, Raju said, "His sister is the mother of Vinay, the son of my brother." How is Raju is related to Vinay? Raju is the father of Alok.
1) Brother
2) Uncle
3) Nephew
4) Brother-in-law
5) None of these
15. A man, pointing to a photograph, says, "The lady in the photograph is my nephew's maternal grandmother." How is the lady in the photograph

1) Sister-in-law
2) Mother-in-law
3) Mother
4) Cousin
5) Data inadequate
16. Pointing to a photograph, Y says, "He is the only brother of the only daughter of my sister's maternal grandmother." Pointing to another photograph, X says, "he is the only brother of the only daughter of my sister's maternal grandmother." If among the two photographs, one was either of Mr X or Mr Y , and the photograph, towards which $Y$ was pointing, was not of Mr X , then how is Y related to Mr X ?
1) grandfather
2) paternal uncle
3) maternal uncle
4) Can't say
5) None of these
17. Pointing to a woman in a photograph, a man says, "She is the mother-in-law of the sister-in-law of the only sister of my son." How is the woman related to the man?
1) sister
2) sister-in-law
3) mother
4) wife
5) Can't say
18. Pointing to a man, Radhika said, "His sister is my daughter's brother's mother." How is the man related to Radhika?
1) Brother
2) Father
3) Uncle
4) Grandfather
5) Cousin
19. Pointing to a photograph, Shanti said, "She is the mother of my brother's uncle's son." How is Shanti related to the person in the photograph?
1) aunt
2) niece
3) mother
4) daughter $\quad$ 5) None of these
20. Pointing to a person in a photograph, a lady said, "Her sister is the daughter of my father's son's mother." How is the person related to the lady?
1) Aunt
2) Cousin
3) Sister
4) Mother
5) Can't be determined
21. Pointing to a man in the photograph Sheela said "His father's only daughter is sister of my father". How is sheela related to that man?
1) Wife
2) Sister
3) Niece
4) Daughter 5) Either Niece or Daughter
22. Pointing to a lady in the photograph, Rajesh said, "she is my grandfather's only sons' mother." How is the women related to Rajesh?
1) Daughter
2) Sister
3) Mother
4) Grandmother 5) Aunt
23. Pointing to a photograph, a woman says, "This man's son's sister is my mother". How is the woman related to the man in the photograph?
1) Daughter
2) Mother
3) Granddaughter
4) Mother-in-law
5) None of these
24. A man pointing to a lady says, "Her brother is the father of my only son's sister". How is that lady related to the man?
1) Daughter
2) Sister
3) Granddaughter
4) Niece
5) None of these
25. Pointing towards a person in a photograph, Anita said, "He is the only son of the father of my sister's brother." How is that person related to Anita?
1) Father
2) Cousin
3) Maternal Uncle
4) Brother
5) None of these
26. Pointing to a woman in a photograph a man says: "She is the only daughter of the only daughter of my
brother-in-law's father." How is the woman related to the man?
1) wife
2) mother
3) daughter
4) niece
5) Can't say
27. Pointing to a woman in a photograph a man says: 'She is the mother of my son's only daughter.' How is the woman related to the man in the photograph?
1) daughter
2) wife
3) mother
4) daughter-in-law
5) Can't say
28. Pointing to a man in a photograph a woman says: He is the father of the only grandson of my father-inlaw. How is the man related to the woman?
1) Husband
2) Brother
3) Son
4) Nephew
5) Brother-in-law
29. Pointing to a man in a photograph a woman says. "He is the only son of the only daughter-in-law of my only son's father". How is the man related to the woman?
1) Son
2) Father
3) Son-in-law
4) Grandson
5) Can't say
30. Pointing to a woman in a photograph a man says, "She is the only daughter of my father's only daughter-in-law." How is the woman related to the man?
1) wife
2) daughter
3) daughter-in-law
4) sister
5) sister-in-law
31. Pointing to a man in a photograph a woman says: "He is the father of my only daughter-in-law's father-in-law". What is the man to the woman?
1) Father
2) Brother
3) Husband
4) Brother-in-law
5) Father-in-law
32. Pointing to a woman in a photograph a man says: "She is the only daughter of my wife's mother-inlaw". How is the woman related to the man?
1) Daughter
2) Wife
3) Sister
4) Sister-in-law
5) Mother-in-law
33. Pointing to a woman in a photograph a man says: "She is the only daughter of my father's mother-inlaw". How is the woman related to the man?
1) daughter
2) mother
3) daughter-in-law
4) mother-in-law
5) None of these
34. Pointing to a photograph a woman says: "He is the brother of the daughter of my mother-in-law's only son". How is the man related to the woman?
1) Son
2) Brother
3) Brother-in-law
4) Nephew
5) Can't be exactly determined
35. Pointing to a photograph a woman says: "He is the son of the wife of my husband's father". How is the man related to the woman?
1) son
2) son-in-law
3) brother-in-law
4) brother
5) None of these
36. Pointing to a man in a photograph a woman says: "He is the father-in-law of the wife of the only grandson of my own father-in-law". How is the man related to the woman?
1) son
2) husband
3) cousin
4) nephew
5) son-in-law
37. Pointing to a woman in a photograph, a man says "She is the mother-in-law of the wife of the father of K KONOMAN ${ }^{\text {Pn". How is the woman related to the man? }}$
1) daughter
2) wife
3) daughter-in-law
4) sister-in-law
5) None of these
38. Pointing to a woman in a photograph a man says: "She is the grandmother of the son of my daughter-in-law's mother-in-law." How is the woman related to the man?
1) mother
2) mother-in-law
3) sister
4) wife
5) sister-in-law
39. Pointing to a woman in the photograph a man says. "This woman is the wife of the father of my brother-in-law." How is the woman related to the man?
1) mother
2) mother-in-law
3) sister
4) sister-in-law
5) daughter
40. Pointing to a woman a man says, "She is the sister-in-law of the only daughter of my mother-in-law's husband". How is the woman related to the man?
1) daughter
2) mother
3) sister-in-law
4) daughter-in-law
5) sister
41. Pointing to a man in the photograph a woman says: "He is the son of my sister's mother's husband." How is the man related to the woman?
1) Brother
2) Father
3) Uncle
4) Brother-in-law
5) Father-in-law
42. Pointing to a man in the photograph a woman says: "He is the father of my daughter-in-law's brother-inlaw." How is the man related to the woman?
1) husband
2) brother
3) brother-in-law
4) father
5) father-in-law
43. Pointing to a woman in a photograph, a man says, "She is the mother of my daughter-in-law's husband's only sister." How is the woman related to the man?
1) wife
2) mother
3) sister
4) daughter 5) sister-in-law
44. Pointing to a woman in a photograph a man says, "She is the mother of the father of my wife's only son." How is the woman related to the man in the question?
1) mother
2) wife
3) daughter-in-law
4) mother-in-law
5) Can't say
45. Pointing to a man in a photograph, a woman says, "He is the only son of the only daughter-in-law of my only son's father." How is the man related to the woman?
1) Son
2) Father
3) Son-in-law
4) Grandson
5) Can't say
46. Pointing to a man, a woman says: "He is the brother-in-law of the only son-in-law of my mother's husband." How is the man related to the woman?
1) brother
2) husband
3) brother-in-law
4) son
5) son-in-law
47. Pointing to a person a man said; "This man is the son of my brother-in-law's father's only daughter." How is the man related to the speaker?
1) Son
2) Father
3) Brother
4) Brother-in-law
5) None of these
48. Showing a photograph Rajeev told Shweta. "His mother is the only daughter of your father." How was Shweta related to the man in the photograph?
1) Aunt
2) Mother
3) Wife
4) Daughter
5) None of these
49. Pointing to a photograph, a man said, "She is the daughter of my grandfather's only son." How is the woman related to the man?
1) Mother
2) Daughter]
3) Sister
4) Sister-in-law
5) None of these
50. Pointing to a woman, a man says: "She is the mother of my son-in-law's brother's only sister-in-law." How is the woman related to the man?
1) mother
2) wife
3) sister
4) mother-in-law 5) sister-in-law
51. Pointing to a lady a man said, her mother's husband's sister in my aunt. How is the lady related to the man?
1) Mother
2) Sister
3) Aunt
4) Daughter
5) Granddaughter
52. Pointing to Rekha, Anuj said, "She is the daughter of my grandfather's son." How is Rekha related to Anuj?
1) Aunt
2) Sister
3) Niece
4) Mother
5) Sister-in-law
53. Pointing to a lady in the photograph, Dev Anand said, "This woman is my sister's father's son-in-law's wife". How is Dev Anand related to the woman?
1) Mother
2) Sister
3) Can't be determined
4) Wife
5) None of these
54. Pointing to a photograph Monica said, "He is the brother of the son of my grandfather's only daughter. "How is the man related to Monica?
1) brother
2) cousin
3) nephew
4) Can't say
5) None of these
55. Pointing to a joker, Madhu says, "He is the son of my father's brother's only sister-in-law." How is the joker related to Madhu?
1) Son
2) Brother
3) Cousin
4) Uncle
5) None of these
56. Pointing to a photograph Arun said, "She is the mother of my brother's son's wife's daughter". How is Arun related to the lady?
1) cousin
2) aunt
3) daughter-in-law
4) uncle
5) None of these
57. Pointing to a man, Rohit recalled, 'He is the son of the mother of the father of my daughter.' How is Rohit related to the man?
1) cousin
2) brother
3) uncle
4) son
58. Pointing to a person Rohit said 'He is the younger of the two brothers of the daughter of my father's wife'. How is the person related to Rohit?
1) nephew
2) son
3) uncle
4) brother 5) father
59. Pointing to a woman, Anil said, 'She is the daughter of my grandfather's only son's wife.' How is Anil related to that girl?
1) Brother
2) cousin
3) Father
4) Uncle
5) Husband
60. Pointing to a boy in a photograph, Akhil says, "He is the son of my mother's only son." How is Akhil related to that boy?
1) Uncle
2) Brother
3) Father
4) Cousin
5) None of these
61. Pointing to a boy, Meena says, "He is the son of my grandfather's only son." How is the boy's mother related to Meena?
1) Mother
2) Aunt
3) Sister
4) Data inadequate
5) None of these
62. Pointing to Kedar, Veena said, 'His mother's brother is the father of my son Nitin.' How is Kedar related to Veena?
1) Niece
2) Aunt
3) Nephew
4) Sister-in-law
5) None of these
63. Pointing to a boy, Namrata says, "He is the son of my grandfather's only child." How is the boy related to Namrata?
1) Brother
2) Cousin
3) Uncle
4) Data inadequate
5) None of these
64. Pointing to a girl, Abhishek said, "She is daughter of the only child of my father." How is Abhishek's wife related to that girl?
1) Daughter
2) Mother
3) Aunt
4) Sister
5) None of these
65. Pointing to a woman, Nirmal said, "She is the daughter of my wife's grandfather's only child." How is the woman related to Nirmal?
1) Wife
2) Sister-in-law
3) Sister
4) Data inadequate
5) None of these
66. Pointing to a girl, Arun said, "She is the only daughter of my grandfather's son." How is the girl related to Arun?
1) Daughter
2) Sister
3) Cousin Sister
4) Data inadequate

## Exercise-2

1. L is mother-in-law of $K$, who is mother-in-law of $R$. How is the husband of $R$ related to $X$, who is the father of $P$ ? It is also given that K is the daughter-inlaw of $X$ and $P$ has no brothers or sisters.
1) Grandson
2) Grandfather 3) Son
3) Can't say
4) None of these
2. If Raju is the son of the wife of the son of the father of Amrendra's father, how is Raju related to Amrendra, if Raju's grandfather has no granddaughter?
1) Brother
2) Cousin
3) Either 1 or 2
4) Can't say

K KDUNBAN these
3. Pankaj is the brother of Rekha. Rekha is the wife of Rahul. Rahul is the brother of Suman. What is the relation of Suman to Pankaj?

1) Sister
2) Sister-in-law
3) Brother
4) Brother-in-law
5) No specific relation
4. X's mother is the mother-in-law of the father of $Z$. $Z$ is the brother of $Y$ while $X$ is the father of $M$. How is X related to $Z$ ?
1) Paternal uncle
2) Maternal uncle
3) Cousin
4) Grandfather
5. Binod's son is the son-in-law of Achyut's father. Rani is Achyut's only sister. Binod has only one grandson Pramod. How is Pramod related to Rani?
1) Father
2) Uncle
3) Son
4) Brother
5) Nephews
6. If $A$ is a brother of $B, C$ is the sister of $A, D$ is the brother of $E, E$ is the daughter of $B, F$ is the father of $C$, who is the uncle of $D$ ?
1) $A$
2) C
3) $B$
4) None of these
5) Can't be determined
7. If $P$ is brother of $Q$ and $R$ is sister of $Q$, then how is Q related to P ?
1) Uncle
2) Father
3) Brother
4) Sister
5) Can't be determined
8. A said to B that B's mother was the mother-in-law of A's mother. How is A's mother related to B's mother?
1) Daughter-in-law
2) Mother-in-law
3) Sister
4) Aunt
5) Sister-in-law
9. While going to his office $P$ meets a man $Q$ who is related to $P$, because $P$ has $R$, a son, who is married to $T$. T is the daughter of Q . T has daughter A . How is P related to A ?
1) Grandfather
2) Grandmother
3) Uncle
4) Father-in-law
5) None of these
10. Ramesh says that "Rekha is the sister-in-law of the only daughter of my mother-in-law's husband." How is Rekha related to Ramesh?
1) Sister-in-law
2) Mother
3) Daughter-in-law
4) Sister
5) Daughter
11. A is the brother of $B$. $C$ is married to $D$. If $C$ is the nephew of $B$, how is A related to $D$ ?
1) father-in-law
2) mother-in-law
3) son-in-law
4) daughter-in-law
5) brother-in-law
12. Kalyani is mother-in-law of Veena who is Sister-inlaw of Ashok. Dheeraj is father of Sudeep, the only brother of Ashok. How is Kalyani related to Ashok?
1) Mother-in-law
2) Aunt
3) Wife
4) Cousin
5) None of these
13. $D$ is brother of $K . M$ is sister of $K$. T is father of $R$, who is brother of M. F is mother of K. At least how many sons does T and F have?
1) Two
2) Three
3) Four
4) Data inadequate
5) None of these
14. $M$ is sister of $D . R$ is brother of $D$. $F$ is father of $M$ and $T$ is mother of $R$. How is $D$ related to $T$ ?
1) Brother
2) Son
3) Daughter
4) Data inadequate
5) None of these
15. $K$ is brother of $T . M$ is mother of $K . W$ is brother of $M$. How is W related to T ?
1) Maternal uncle
2) Paternal uncle
3) Grandfather
4) Data inadequate
5) None of these
16. $M$ is sister of $K$. $D$ is brother of $K$. $F$ is mother of $M$. How is K related to F ?
1) Son
2) Daughter
3) Son or Daughter
4) Data inadequate
5) None of these
17. $D$ is brother of $B . M$ is brother of $B . K$ is father of $M$. $T$ is wife of $K$. How is $B$ related to $T$ ?
1) Son
2) Daughter
3) Son or Daughter
4) Data inadequate
5) None of these

## Answers and explanations

## Exercise-1

1. 4; Leesha's mother - man's sister, ie, Leesha is man's niece.
2.2; Man's mother is the only daughter of Neha's mother. Therefore, Neha's mother is the grandmother of man. Hence man is the grandson of Neha's mother.
2. 5; Mr X is the grandson of the brother of the person in photograph 2.
3. 3; The man in the photograph is the father-in-law of the man's brother.
4. 5; Only daughter of one's grandfather's only son $\Rightarrow$ One's sister. Now father of the husband of one's sister means father-in-law of one's sister. Hence 'None of these' is correct choice.
5. 1 ; If Purnima is the only daughter of her father then the boy is her son. But, here we do not know the number of sisters Purnima has.

K KUNDAN
7. 1 ;


Now, if Sushma is the only sister of $X$ then she is the mother of Priti, otherwise aunt.
8. 3; The only granddaughter of the man's own mother-in-law means the daughter of the man's brother-inlaw.
Now, the daughter's husband's mother-in-law means wife of the man's brother-in-law. Hence, the woman is man's sister-in-law.
9. 5; The only daughter of the woman's father is the woman herself. Therefore, the man is the husband of the woman.
10. 1; The wife of the father-in-law of the person's wife $\Rightarrow$ the mother of the person.
Now, the only son of the person's mother is the person himself.
Hence, the girl is the person's only daughter.
11. 4; Here, how many sons and daughters the man in the photo has is not clear. Therefore we can't reach a definite conclusion.
12. 3; His mother's brother is the father of my son
$=$ His mother's brother is my husband
$=$ His mother is my husband's sister
$=\mathrm{He}$ is the son of my husband's sister
$=\mathrm{He}$ is my husband's nephew
13. 4; "The son of the only son of woman's grandfather" $\Rightarrow$ the brother of the woman. Hence the woman in the photograph is the woman's sister or the woman herself with whom the man is talking. Again "the sister of the son of man's father-inlaw" $\Rightarrow$ either wife or sister-in-law of the man. Still we are uncertain that who is the wife of the man but it is certain that the man is either husband or brother-in-law of the woman.
14. 2; From the last part it is clear that Raju is male and Vinay is his nephew, ie Raju is uncle of Vinay.
15. 5; No specific relation. Because, my nephew implies either my sister's son or my brother's son.
16. 3; Each was pointing towards photographs of his/ her maternal uncle. Among the two photographs, one was either of Mr X or Mr Y . It is given that the photograph, towards which $Y$ was pointing, is not of Mr X. Obviously, the photograph, towards which X was pointing is of Mr Y . Hence, Mr Y is maternal uncle of Mr X .
17. 4; Sister of son = daughter. Sister-in-law of daughter = daughter-in-law. Mother-in-law of daughter-in-law = wife.
18. 1; Man's sister = Radhika's daughter's brother's mother $=$ Radhika's son's mother = Radhika $\Rightarrow$ Man $=$ Radhika's brother
19. 2; The person (she) $=$ mother of Shanti's (my) brother's uncle's son $=$ mother of Shanti's uncle's son
$=$ Shanti's uncle's wife (Since mother of son $=$ wife)
$=$ Shanti's aunt
$\therefore$ Shanti $=$ the person's niece
20.3; My father's son's mother = My mother

Daughter of my mother = My sister
Now, the problem boils down to: Her sister = my sister
So she is either the lady's sister or the lady herself.
21. 5; The man in the picture can be her father or uncle, so she is either niece or daughter of the man.
22. 4; Rajesh said "she is my grandfather's only son's mother"
$\Rightarrow$ "she is my father's mother"
$\Rightarrow$ "she is my grandmother"
23. 3; Woman says, "This man's sister is my mother" $\Rightarrow$ "This man's daughter is my mother" $\Rightarrow$ Man is grandfather (from mother's side)
K KUNi8'A ${ }^{4 m a n}$ is granddaughter
24. 2; "Her brother is the father of my only son's sister (= daughter)"
$\Rightarrow$ "Her brother is the father of my daughter (= himself)"
$\Rightarrow$ "Her brother is himself"
$\Rightarrow$ the lady in picture is her sister
25. 4; He is the only son of the father of my sister's brother (= brother)
$\Rightarrow \mathrm{He}$ is the only son of the father of my brother (= father)
$\Rightarrow \mathrm{He}$ is the only son of my father (= brother)
26. 3; Daughter of daughter of brother-in-law's father = daughter of daughter of father-in-law $=$ daughter of wife $=$ daughter.
27. 4; mother of son's daughter $=$ son's wife $=$ daughter-in-law
28. 1; Grandson of my father-in-law $=$ my son $\therefore$ his father $=$ my husband.
29. 4; my only son's father $=$ my husband. daughter-in-law of husband $=$ daughter-in-law. only son of daughter-in-law $=$ grandson.
30. 2; Father's daughter-in-law $=$ wife daughter of wife $=$ daughter
31. 5; daughter-in-law's father-in-law $=$ husband husband's father $=$ father-in-law
32. 3; wife's mother-in-law $=$ mother daughter of mother $=$ sister
33. 2; father's mother-in-law = grandmother daughter of grandmother $=$ mother
34. 1; Mother-in-law's only son = husband. Daughter of husband $=$ daughter. Brother of daughter $=$ son.
35. 5; Husband's father = father-in-law wife of father-in-law $=$ mother-in-law son of mother-in-law $=$ husband.
36. 2; "Only grandson of my father-in-law" = "husband". "Wife of my son" = "my daughter-in-law".
"Father-in-law of my daughter-in-law" = "husband".
37. 5; She is the mother.
38. 1; daughter-in-law's mother-in-law $=$ wife. Son of wife $=$ son. Grandmother of son $=$ mother.
39. 2; Father of my brother-in-law = My father-in-law. Wife of my father-in-law = My mother-in-law.
40. 5; My mother-in-law's husband $=$ My father-in-law. Only daughter of my father-in-law = Wife. Sister-in-law of wife $=$ Sister.
41. 1; mother's husband = father, sister's mother's husband $=$ sister's father $=$ father, son of father $=$ brother.
42. 1; Daughter-in-law's brother-in-law = son. Father of son $=$ husband.
43. 1; Husband's only sister $=$ sister in law, daughter-in-law's sister in law $=$ daughter, mother of daughter $=$ wife
44. 1; My wife's only son $=$ my son. Father of my son $=$ myself. Mother of myself $=$ my mother.
45. 4; my only son's father $=$ my husband. daughter-in-law of husband $=$ daughter-in-law. only son of daughter-in-law $=$ grandson.
46. 1; Mother's husband $=$ father.

Only son-in-law of father $=$ husband
Brother-in-law of husband $=$ brother.
47. 1; Father's only daughter = only sister.

Brother-in-law's only sister = wife
Son of wife $=$ son.
48. 2; Only daughter of your (Shweta's) father $\Rightarrow$ Shweta herself. Thus Shweta is the mother of the man in the photograph.
49. 3; Grandfather's only son $\rightarrow$ father $\rightarrow$ sister.
50. 2; A's brother's only sister-in-law = A's wife.
$\therefore$ Son-in-law's brother's only sister-in-law
$=$ son-in-law's wife $=$ daughter.
$\therefore$ mother of daughter $=$ wife.
51. 2; Lady's mother's husband = lady's father, lady's father's sister = lady's aunt. As is given, lady's aunt is man's aunt, therefore, lady is man's sister.
52. 2; Anuj's grandfathers only son = Anuj's father Now, Anuj's father's daughter = Anuj's sister = Rekha.
53. 2; Sister's father means father

Father's son-in-law's wife means sister
Hence Dev Anand's sister.
54. 4; Her grandfather's only daughter may be her mother or aunt.
55. 2; Brother's only sister-in-law = Wife

Father's wife $=$ Mother
Son of mother $=$ Brother
56. 5; The lady in question is Arun's brother's daughter-in-law. Thus Arun is father-in-law's brother of the lady.
57. 2; Rohit's daughter's father $\rightarrow$ Rohit.

Mother of Rohit's daughter's father $\rightarrow$ Rohit's mother.
Son other than Rohit of Rohit's mother $\rightarrow$ Rohit's brother
58. 4; My father's wife $\Rightarrow$ my mother

Daughter of my mother $\Rightarrow$ my sister.
Brother of my sister $\Rightarrow$ myself or my brother
59. 1; Anil's grandfather's only son's wife = Anil's mother, Anil's mother's daughter is his sister. Therefore Anil is the girl's brother.
60. 3; Photograph is the son of Akhil's mother's only son.
or, Photograph is the son of Akhil. or, Akhil is the father of the boy.
61. 1; One's grandfather's only son $\Rightarrow$ one's father. And the son of one's father $\Rightarrow$ One's brother or oneself. Hence, the mother of the boy is Meena's mother.
62. 3;


Hence, Kedar is Veena's nephew.
63. 1; Son of Namrata's grandfather's only child is Namrata's brother
64. 2; Girl is daughter of the only child of Abhishek's father or, Girl is daughter of Abhishek
Hence girl is daughter of Abhisek's wife.
65. 1; Woman $=$ daughter of Nirmal's wife's grandfather's only child
$=$ daughter of Nirmal's wife's father
= Nirmal's wife
66. 4; Girl = the only daughter of Arun's grandfather's son
$=$ the only daughter of Arun's father or uncle
$=$ Arun's sister or cousin

## Exercise-2

1. 1 ; $\mathrm{X}(+) \Leftrightarrow \mathrm{L}(-)$

I
P(+) $\Leftrightarrow \mathrm{K}(-)$
|
$\mathrm{H} \Leftrightarrow \mathrm{R}(-)$
Hence, $H$ is the grandson of X .
2. 3; Father of the father of Amrendra $\Rightarrow$ Grandfather of Amrendra. Now, the wife of the son of Amrendra's grandfather is either aunt or mother of Amrendra. Hence, Raju, who is the son of the lady, is either brother or cousin.
3. 5; Pankaj (+) — Rekha (-) $\leftrightarrow$ Rahul (+) — Suman

Hence, Suman is brother of Pankaj's brother-inlaw. Hence no direct relation can be determined.
4. 2; Mother-in-law of father
$=$ (Maternal) grandmother.
Since $X$ is son of Z's maternal grandmother, X must be $Z$ 's maternal uncle. Note that $X$ is a male because he is a father.
5. 3; It is clear from the diagram below

6. 1 ; If we represent the information diagrammatically it becomes

$\Rightarrow A$ is uncle of $D$
7. 5 ; $Q$ can be either brother or sister of $P$, but since sex of $Q$ is not known, the exact relationship can't be determined.
8. 1; If B's mother is mother-in-law of A's mother, so, A's mother is daughter-in-law of B's mother.
9. 1 ;


Thus $P$ is the grandfather of $A$.
10. 4; Mother-in-law's husband $\Rightarrow$ Father-in-law. Father-in-law's only daughter $\Rightarrow$ wife. Wife's sister-inlaw $\Rightarrow$ sister.
11. 1; $\mathrm{A}-\mathrm{B}$
(+)
|
$C \Leftrightarrow D$
(+) (-)

## K KUNDAN

12. 5;

13. 1 ;

14. 4;

$D$ is either son or daughter of $T$.
15. 1 ;

16. 3 ;

17. 3 ;


# Chapter Two <br> Assumptions 

## What is an Assumption?

An assumption is something which is assumed, supposed and taken for granted. When somebody says something he doesnot put everything, every aspect of his idea into words. There is a lot which he leaves unsaid. That which he leaves unsaid, that which he takes for granted, may be defined as an assumption.

See the example given below that will better illustrate the concept of assumption.

## Ex. 1: Statement:

"According to me, you should get your child examined by specialist doctor."

## Assumptions:

Specialist doctors are able to diagnose better than ordinary doctors.

## Explanation:

The assumption is valid. One is advising (perhaps his friend) to get his child examined by a specialist doctor. Obviously, he must be assuming that specialist doctors diagnose better than ordinary ones, otherwise he would not have advised thus.
Ex. 2: Statement:
The book is intended to guide the layman to study yoga in the absence of a teacher.
Assumptions:
I. A teacher of yoga may not be available to everyone.
II. Yoga can be learnt with the help of a book.

Explanation:
Both assumptions are correct. The book is intended to teach yoga in the absence of a teacher. This means that the absence of teachers is a possibility: hence $I$ is valid. That the book intends to teach yoga implies that II is also valid.
Ex. 3: Statement:
The next meeting of the Governing Body of the institute will be held after one year.

## Assumption:

The institute will remain in function after one year.

## Explanation:

The assumption is valid. The common practice is to hold meetings of only those bodies that are functional. So, if it is being announced that the next meeting will be held after one year, the announcers must be assuming that the institute will remain functional after one year.
Ex. 4: Statement:
The girl is too clever to fail in the examination. Assumption:
Very clever girls do not fail in the examination. Explanation:
The assumption is correct. The statement says
that the girl won't fail (effect) because she is very clever (cause). Obviously it is assumed that very clever girls do not fail.
Ex. 5: Statement:
Of all the TV sets manufactured in India, X brand has the largest sale.

## Assumption:

The sale of all the TV sets manufactured in India is known.

## Explanation:

The assumption is valid. Here, it is claimed that of all the TV sets manufactured, X brand has the largest sale. No such claim could be made if the sale figures of all brands was not known. Hence, it must have been implicitly assumed in the statement that the sale figures of all brands is known.

## Some Standard Types of Assumptions (Validity of a Given Assumption)

Following are the standard categories of assumptions:
(a) Existence / Non-existence of the subject

This category makes a very simple assumption that what is being talked about must be existing. Similarly, if its absence is being talked about, it must not be existing.

[^0]
## Ex. 9: Statement:

The bright-red sky looked beautiful enough to bring out the poet in him.
Valid Assumption:
The sky appears bright-red sometimes.

## (c) Cause-effect

Some statements mention a cause-and-effect relationship. The conjunctions between the clauses are usually 'therefore', 'as', 'hence', 'thus' etc. In all such cases it would be a valid assumption to say that " this cause leads to this effect". There may be different versions of the question: sometimes the cause-effect relationship may be explicitly stated (see Ex 10), sometimes it may be in the form of "because no cause, hence no effect"(see Ex 11) and sometimes in the form of "Although cause, yet no effect" (see Ex 12).
Ex. 10: Statement:
It rained last night. The grounds must have become wet.

## Valid Assumption:

When it rains, grounds become wet.
Ex. 11: Statement:
As you do not have the expertise, you cannot be selected.
Valid Assumption:
Expertise is essential for selection.
Ex. 12: Statement:
Although the city was under knee-deep water
for four days in this monsoon, there was no outbreak of cholera.
Valid Assumption:
Water-logging usually leads to cholera.

## (d) Course of action

Sometimes a fact / report / observation / study / data is given followed by a suggested course of action. Let us call the given fact / data etc X and the suggested course of action $Y$. Then either some negative aspect of $X$ is mentioned and a course of action $Y$ is suggested or some positive aspect of $X$ is mentioned and a course of action $Y$ is suggested. In the former case, ie, when some negative aspect of X is mentioned, the following assumptions will be valid:
(i) $X$ needs improvement. (see Assumption I, Ex. 13)
(ii) The negative aspects of $X$ (if mentioned) are undesirable/harmful. (see Assumption II, Ex. 13)
(iii) Y will improve X. (see Assumption III, Ex. 13)
(iv) The advantages of adopting $Y$ far outweigh the disadvantages (if any) of not adopting it. (see Assumption IV, Ex. 13)
Ex. 13: Statement: The working atmosphere in our public sector units can only be described as indisciplined and uncoordinated. Therefore, some harsh disciplinary actions need to be taken.

## Valid Assumptions:

I. The working atmosphere of our public sector units is not ideal / needs improvement.
II. Indiscipline and lack of coordination are undesirable in any industry.
III. Taking harsh disciplinary action would improve the working atmosphere of our public sectors.
IV. The benefits outweigh the disadvantages (if any) of taking harsh disciplinary actions.
Similarly, you may contemplate and evaluate the
assumptions if any positive aspect of $X$ is mentioned and a course of action $Y$ is suggested. The logic will be exactly on the same lines.

## (e) Analogy

In some cases it is concluded that, because a cause leads to some effect in one type of objects, it will also lead to the same effect in another type of objects. This is an example of reasoning by analogy. In such cases it is assumed that " The effect of the cause on both the species is similar."

## Ex. 14: Statement:

Properly-fed and starved monkeys were made to run through maze (puzzle). It was seen that starved monkeys could not make their way fast. This proves that the lower intelligence of people in poor countries is the result of malnutrition.

## Valid Assumption:

The effect of malnutrition on the intelligence of the monkeys is parallel to those on human beings.

## (f) Advertisement/notices/appeals

In the cases of advertisements, notice, appeals etc. following assumptions will be considered valid:
(i) An advertisement / appeal / notice does have some effect (see Assumption I, Ex. 15, 16, 17, 18).
(ii) In case of an advertisement, that which is being highlighted is looked for and expected by the people (see Assumption II, Ex. 15).
(iii) In case of a public-interest notice, it is the duty of those who issue it, to issue such notices (see Assumption II, Ex. 18).
(iv) In case of a public interest notice, what is being advised must be beneficial for people and its nonpractice harmful in some way (see Assumption III, IV, Ex. 18).
(v) In case of an appeal, the reason for issuing it exists (you can determine the reason using your common sense) (see Assumption II, Ex. 17).
(vi) In case of an official notice, the effect of its implementation will be beneficial for the organisation (see Assumption II, Ex. 16).

## Ex. 15: Statement:

Banking Services Chronicle-the only magazine that gives exclusive articles on reasoning and quicker mathematics. -an advertisement.

## Valid Assumptions:

I. The advertisement will have some effect on those who read it.
II. People look forward to exclusive articles on reasoning and quicker mathematics.
Ex. 16: Statement:
From next month onwards, it has been made compulsory for every worker to submit a daily report. - a notice issued in a company.

## Valid Assumptions:

I. The notice will be read by the workers.
II. The daily submission of reports by workers will prove beneficial for the company.

## Ex. 17: Statement:

Donate money for the earthquake victims. - an appeal

## Valid Assumptions:

I. The appeal will have some effect on people.
II. There has been an earthquake and the condition of the earthquake victims is pitiable.

## Ex. 18: Statement:

Please do not lean out of the running train. -a notice in the railway compartment

## Valid Assumptions:

I. The people are likely to pay attention to this notice.
II. It is the duty of the Railways to issue such notices.
III. Leaning out of running trains is dangerous.
IV. Not leaning out of running trains ensures safety.

## Cases and Reasons wherein an Assumption Becomes Invalid or Incorrect

Broady, there may be two categories of invalid assumptions:
(i) Where the assumption is outrightly incorrect, and
(ii) Where the given assumption does not look outrightly incorrect but a close look shoWs that it is invalid.

## (i) When an Assumption can be Outrightly Rejected

See the examples given below that will illustrate the concept:
Ex. 19: Statement:
"Use aluminium-the versatile metal-for packing". -an advertisement

## Invalid Assumption:

Aluminium is the only metal used for packing.
It is obvious by the statement that aluminium is a versatile metal for packaging. These may be many more but not all would be versatile. Where does one get any hint that aluminium is the only metal possible for packaging?
Ex. 20: Statement:
"Get your child examined by a specialist doctor".A tells B.
Invalid Assumption:
B will not heed to A's advice.
Generally one advises somebody with an assumption that the advice would be listened to. How could we conclude that $B$ will not heed to A's advice?

Take another example to further illustrate this point.

## Statement:

A's advice to B-"If you want to study Accounts, join Institute Y."

## Assumptions:

I. Institute Y provides good Accounts education.
II. B listens to A's advice.
[Here, both the assumptions are valid. If $A$ advises $B$ to join a particular institute, A must have assumed that the particular institute was a good institute. While advising B , A must also have thought that B would listen to A's advice.]

## Ex. 21: Statement:

The government has increased the price of bread. Invalid Assumption:
The price of bread was very low.
Generally prices are increased not beause they are low but because these are compulsions agency that goes around raising prices of everything that is cheap. In fact, all Govts try their best to keep inflation under control (that is, tï keep the prices low.) They raise prices only because they are not left with any choice and they need
revenue. Yes, when they raise prices they do try to raise rices of only those goods in particular whose prices are lower than what could be tolerated. But even then, the word "Very low" in the given assumption is definitely questionable.

## (ii) When an Assumption Cannot be Outrightly Rejected

## (a) Restatement

An assumption will be invalid if it is a mere restatement - putting it in different words of the given statement. The following examples illustrate this point:
Ex. 22: Statement:
Since certain sections of the society are going to be unhappy whenever reforms are implemented, there is little that can be done to prevent it except abandoning it.
Invalid Assumption:
Some people would not like the implementation of reforms.
Ex. 23: Statement:
Of all the TV sets manufactured in India, brand X has the largest sale.
Invalid Assumption:
No other brand of TV sets has as high a sale as brand X .

## (b) Obversion

Obversion is a slightly different case of restating the same fact. In it, two of the trio (subject, verb, predicate) are changed into negative which changes the appearance of the sentence without changing its meaning. An obverted form of the statement is an invalid assumption.

## Ex. 24: Statement:

Friendship is beneficial. Invalid Assumptions:

(c) Conversion

The given assumption will be invalid if it is only a converted form of the given statement.
Ex. 26: Statement:
Some / many historians harm the society by distorting facts.

## Invalid Assumption:

Some of those who distort facts and harm society are historians.
Ex. 27: Statement:
No unexperienced fellow could be employed. Invalid Assumption:
No one who could be employed should lack in experience.

## (d) Inference

The given assumption is invalid if it is an inference derivable from the given statement. Because we know that a statement is based on assumption but an inference is based an statement.

## Ex. 28: Statement:

Ram went to Gaya on 27th July. Shyam went two days after him.
Invalid Assumption:
Shyam went to Gaya on 29th July.
Ex. 29: Statement:
Religion is based primarily and mainly upon fear; it is partly the fear of the unknown and partly the wish to feel that one has a saviour who will stand by in times of despair and defeat.

## Invalid Assumption:

Man's fear of the unknown and defeat makes him religious.

## (e) Long-drawn conclusion

An assumption will be invalid if it makes too far-fetched reasoning or long-drawn conclusion, even if it appears to be probably correct.

The following examples illustrate the point:

## Ex. 30: Statement:

Religious instruction leads to a curiosity for knowledge. So all teaching should be done in religious spirit.
Invalid Assumption:
Curious persons are good persons.
Ex. 31: Statement:
The Central Excise Collectorate has begun the exercise of smooth transition from licence system to simplified registration system for all the manufacturers. - a news item
Invalid Assumption:
The Central Excise Collectorate had carefully reviewed the licence system.

## Keywords

In judging the validity of a given assumption, special case should be taken of some keywords. See the difference that a single word/phrase can make.

## (a) Definitive Words

There are some words that lend a greater degree of emphasis - more weight - on the sentence than some others. These words impart a kind of exclusiveness to the sentence and thereby reduce the range or scope of the sentence. Some of these keywords are: 'only', 'best', 'strongest', 'all', 'definitely', 'certainly'etc. All these words have some kind of certainty associated with them and you should be able to understand it. Consider the following examples:

## Ex. 32: Statement:

The BoP crisis has worsened and the government should make every effort to boost exports.
Assumptions:
I. Exports are the best solution to avert the BoP crisis.
II. Exports are a reasonably good solution to the BoP crisis.
III. Exports are the only solution to overcome the BoP crisis.
IV. The BoP crisis will definitely be averted by boosting exports.
V. The BoP crisis will probably be averted by boosting exports.

## Explanation:

In the above example, II and $V$ are valid assumptions while I, III and IV are not. The
reason is that I, III and IV use definitive words such as 'best', 'only' and 'definitely'. The statement in the question mentions a fact that the BoP crisis has worsened and then makes a suggestion that exports should be boosted. Undoubtedly, the author of the advice is assuming that exports should help the country overcome the BoP crisis or that exports are a good (or, say, 'reasonably good') solution to BoP crisis. But there is no hint whatsoever that exports are the only solution or the best solution or a definitely effective solution.
The above example illustrates how the use of definitive words may lend a different 'tone' to a sentence and how one should be careful about them.

## (b) Conjunctions

When a statement consists of two clauses and the clauses are connected by a conjunction, the nature of the conjunction used, goes a long way in detecting the assumption that the author must have made. Some significant conjunctions are : 'because', 'so', 'therefore', 'despite', 'in spite of', 'even after', 'although', 'as', 'as a result of'. When one clause of the sentence mentions an event / fact / suggestion called $\mathbf{A}$ (let us say) and the other clause of the sentence mentions another event/ fact/suggestion called $\mathbf{B}$, then depending upon the conjunction the following assumptions can be concluded.
(a) $\mathbf{A}$ (because / as a result of ) $B \Rightarrow$ It is assumed that $B$ leads to $A$.

Ex. 33: Statement:
The literacy scenario will improve after the national awareness drive.

## Valid Assumption:

National awareness drive on literacy is a good means of improving the literacy rate.
(b) $\mathbf{A}$ (therefore/hence) $\mathbf{B} \Rightarrow$ It is assumed that $A$ leads to B.
Ex. 34: Statement:
The record has been broken by an Indian, therefore all Indians must be feeling very proud. Valid Assumption:
Breaking of a record by a fellow countryman makes other citizens proud.
(c) $A$ (even after / in spite of / despite) $B \Rightarrow$ It is assumed that usually $A$ does not occur when $B$ occurs.

## Ex. 35: Statement:

There was a murder last night even after the police had arranged for maximum security around the area.

## Valid Assumption:

Arrangement of maximum security is usually sufficient to prevent murders.
(d) Not $A$ (even after/in spite of/despite) $B \Rightarrow$ It is assumed that usually $A$ occurs when $B$ does.

## Ex. 36: Statement:

There was no outbreak of cholera this year in spite of the continuous deposition of rain water for four days.
Valid Assumption:
Deposition of rain water usually leads to cholera.

## (c) Connotive Phrases

Sometimes it so happens that an author would say what he wants to say but you may miss that he has said any such thing because the words that the author uses to say it are slightly indirect, slightly unconventional. We shall call these connotative or connotive phrases. For example, "It is true that ..." can be written as
(a) It would be correct to say that...
(b) Even the most sceptic of men would agree that...
(c) It can be claimed with reasonable degree of truth that...
Similarly, "It is false" can be written as:
(a) It would be highly misleading to say that ...
(b) Nothing could be farther from truth than....
(c) It is baseless to say that ....

Although the role of connotative phrases in the type of questions that are asked thesedays is very limited, they have been mentioned so they do not escape your eyes whenever you come across them.

## Thumb Rule

(i) The answer-choice "either of them is implicit" is very rarely correct for assumption questions.
(ii) Remember Ex. 6 to Ex. 18 and follow these examples as rules.

## Practice Exercise-1

Directions: In each question below is given a statement followed by two assumptions numbered I and II. An assumption is something supposed or taken for granted. You have to consider the statement and the following assumptions and decide which of the assumptions is implicit in the statement. Give answer

1) if only assumption I is implicit.
2) if only assumption If is implicit.
3) if either I or II is implicit.
4) if neither I nor II is implicit.
5) if both I and II are implicit.
1. Statement: Teachers should strive to acquire learning competence, develop commitment to objectives and improve performance.

## Assumptions:

I. Nowadays, teachers are money-minded and have strayed away from their main objective.
II. The future of a country depends a lot on teachers.
2. Statement: Most of the defence personnel are capable of choosing between right and wrong since they have basic qualifications

## Assumptions:

I. Basic qualification is necessary to differentiate between right and wrong.
II. Some defence personnel are unable to differentiate between right and wrong.
3. Statement: Mr ' $X$ ' has already played the best part of his cricketing life and now he is just passing time.

## Assumptions:

I. Mr ' X ' should now quit cricket.
II. Mr ' X ' does not want to quit cricket.
4. Statement: Unless the officials do their duty honestly and with the spirit to serve the nation, the constitution of any number of safety boards amounts to nothing but paper work.

## Assumptions:

I. Safety boards are useless.
II. Employees of the department can prevent accidents.
5. Statement: In India, whenever a disaster occurs it is time for the government to constitute a committee.

## Assumptions:

I. Making committees is an unnecessary exercise and is meant to fool the public.
II. No committee's recommendations has been implemented in the past.
6. Statement: A film is no different from a poem, a story or a painting. Can one think of erasing a painting for instance? Or, ask a poet to delete some lines of
his work? Sounds ridiculous! It is the same thing about a film: one must see it in the form the director wants us to see it.

## Assumptions:

I. Boards usually pressurise directors of a film to cut some shots.
II. Filmmakers should have the right to show whatever they want.
7. Statement: Except emergency services like ambulance, fire brigade and the police, no vehicle should be given priority on the roads.

## Assumptions:

I. There are some vehicles other than emergency services which are given priority on the roads.
II. People will not mind the disturbance in traffic caused by emergency services vehicles.
8. Statement: Mahatma Gandhi would have been pained to see that leaders in his country have been reduced to high living and simple thinking, instead of the other way round.

## Assumptions:

I. Mahatma Gandhi is father of the nation.
II. Mahatma Gandhi believed in simple living and high thinking.
Statement: The next time you pick the handset of your telephone, you may hear a pre-recorded voice reminding you of your democratic right - the right
to cast your vote.
Assumptions:
I. The pre-recorded voice will increase the polling percentage.
II. People avoid casting their votes.
10. Statement: The Bhagavad Gita speaks of God's intervention in the affairs of human beings to restore righteousness.

## Assumptions:

I. Bhagavad Gita is a holy book.
II. Human beings are guided by God.
11. Statement: Some are forced to leave their novels just when they are reaching its tantalising end.

## Assumptions:

I. Novels are very interesting and no one wants to put it down without finishing it.
II. Students generally are afraid of their parents while reading novels.
12. Statement: There is no good coaching arrangement for CBSE board exam available anywhere in the country. Students are forced to depend on substandard private tuitions of their locality.

## Assumptions:

I. Coaching is necessary for fetching good marks in the examination.
II. Now a days coaching is a good business.
13. Statement: The railways have been fudging accident figures for years in order to paint a rosy picture of their safety performance.

## Assumptions:

I. These days railway accidents are very common.
II. Passengers prefer safest mode of transportation.
14. Statement: We might come from different cultures, but we are part of one world. What I found in meeting my wife and eventually marrying her is that human values are not necessarily different.

## Assumptions:

I. The speaker and his wife belong to two different countries.
II. Generally, people differentiate between two cultures.
15. Statement: Not even a collapsing world looks dark to a man who is about to make his fortune.

## Assumptions:

I. Entrepreneurs are ready to face any challenge that comes their way.
II. The statement will only boost up the morale of the listener.
16. Statement: We protect other living things such as plants and animals because they are not really any threat to us.

## Assumptions:

I. Carnivorous animats are not a threat to us.
II. Man is strongest and wisest among all living creatures.
17. Statement: The government of India has requested for a loan from the International Bank for Reconstruction and Development (IBRD) towards the cost of the construetion works for widening the existing two lanes to $4 / 6$ lanes of the National Highways.
Assumptions:
I. IBRD will provide the loan to the government of India.
II. The number of vehicles is increasing in India.
18. Statement: Although our literacy rate is increasing, our basic beliefs have not undergone any significant change. We do not think logically on certain matters.

## Assumptions:

I. Thinking of an individual depends on his literacy.
II. Literate persons can think better than illiterate persons.
19. Statement: All astrology is fake. Some eminent people have categorically stated that stars and planets have no influence on human life.

## Assumptions:

I. The speaker believes the statement of eminent people.
II. Eminent people never give wrong statements.
20. Statement: The DTC has the lowest fares in the country and perhaps, as a consequence, provides also the worst city bus service anywhere.

## Assumptions:

I. The fare of buses depends on the prices of diesel oils.
II. The increased fare will improve the services provided by DTC buses.
21. Statement: The management of the municipal corporation has come up with an ingenious idea for shirking work.
Assumptions:
I. Municipal corporation has lack of man-power.
II. The employees of municipal corporation are inefficient in their work.
22. Statement: People think nothing of spitting out from a moving bus, throwing empty Uncle chips packet by the roadside and dropping banana skins from the car window and even flushing construction debris down the sewer lines.

## Assumptions:

I. People lack civic sense.
II. The speaker knows civic manner.
23. Statement: Infiltration of criminals into politics is a dangerous development and the voters should oppose such candidates irrespective of their party labels.
Assumptions:
I. Criminals can fight elections.
II. Even big national parties grant tickets to criminals.
24. Statement: The big boys are getting ready - and this battle could be more viciously fought than ever before.

## Assumptions:

I. There is a price war going on between two leading companies.
II. People enjoy watching such battles.
25. Statement: With the help of General Motors, Daewoo in India could be one of the strongest players in the auto market.

## Assumptions:

I. Daewoo alone is not sufficient to be strongest in the auto market.
II. General Motors is a multinational company.
26. Statement: There were no tickets to this show. But entry was restricted.
Assumptions:
I. The organisers know who are to be allowed in
the show. tickets to restrict the entry in the show.
27. Statement: Do not buy any gold jewellery till this Monday.

## Assumptions:

I. The prices of gold jewellery is to be slashed down after Monday.
II. Law and order problem will not be there after Monday.
28. Statement: "Buy the most contemporary design. That way you'll be seen driving the latest. And in case you want to sell it, you will always get a good price ...." - Advertisement of a car.

## Assumptions:

I. People want to buy those models of cars whose resale value is high.
II. The design of a car plays an important role in purchasing it.
29. Statement: The dawn of the new millennium could affect computers and computer-run activities.
Assumptions:
I. The dawn of the new millennium will be sad for some people.
II. The Y2K specialist can solve the problem.
30. Statement: If a doctor's degree is your ambition, then the choice of a good guidance institution is half the job done.

## Assumptions:

I. Without proper guidance, it is very hard to be a doctor.
II. Institute alone can't help a student in his success.
31. Statement: You need one who is as serious as you are - and equally dedicated.
Assumptions:
I. Nothing can be done alone.
II. The speaker is talking about a student and his teacher.
32. Statement: The skills are aplenty and the ambition and capability are already in our hands; now, we need to break down the barriers.

## Assumptions:

I. Skills, ambition and capability are the prerequisites for any major task.
II. Breaking of barriers is very hard task.
33. Statement: The gestation period for a business on the net is a tenth or a hundredth of that in the physical world.

## Assumptions:

I. Business through net is preferable.
II. Saving of time is very important in business.
34. Statement: He continues to be busy as he was while handling the premier investigating agency.

## Assumptions:

I. Nowadays he is busy writing books.
II. The speaker is talking about the ex-CBI chief.
35. Statement: The Shiv Sainik is like a burning torch, who shall burn the evil and show the path of life to those struggling in darkness.

## Assumptions:

I. Shiv Sainik is a ray of hope for the desperate.
II. Those struggling in darkness can take the help of Shiv Sainiks.
36. Statement: Political circles in the capital were puzzled over the publication of an advertisement in some newspapers.

## Assumptions:

I. Politicians read newspapers.
II. The advertisement in the newspaper was a rare one.
37. Statement: "You need eyes and ears everywhere." CIA officer.

## Assumptions:

I. CIA is the best detective agency of the world.
II. It is very hard to keep eyes and ears everywhere.
38. Statement: The Environmental Pollution Authority hs proposed that the auto-rickshaws which clog Delhi streets and pollute its air should be converted to run on clean fuels.

## Assumptions:

I. The "clean fuels" which are accessible in the market are likely to reduce pollution.
II. In the city pollution auto-rickshaw population is a significant factor.
39. Statement: Protection of national interest becomes paramount in the case of MNCs in many situations. Assumptions:
I. Parties other than MNCs are always found prudent in protecting natinal interest.
II. MNCs are often fond misusing environmental resources which is a national property.
40. Statement: Paging industries have been going through tough times partly because of the fact that the industry went through a period of unsustainable growth where subscribers were attracted more by the gifts accompanying a pager than by the service which it offered.

## Assumptions:

I. Gifts accompanying a product always attract large number of customers.
II. Unsustainable growth is found harmful in the long run.
41. Statement: A brand is essentially a seller's promise to consistently deliver a specific set of features, benefits and services to the buyers.

## Assumptions:

I. A branded good always gives satisfaction to the buyers.
II. An unbranded good does possess the same set of features as that of branded goods.
42. Statement: From the worldwide advertising hype one would imagine that the new year 2000 will be a magic wand changing with a swishing wave, India and the world.
Assumptions:
I. One's imagining greatly depends on advertisement.
II. There will be nothing new on the millennium eve.
43. Statement: If there were posters available of these men, they would have replaced Shahrukh and Sachin on many hostel walls by now. - about top IT professionals.

## Assumptions:

I. The posters of IT professionals are not available in the market.
II. Nowadays top IT professionals are most popular among students.
44. Statement: The Net can be for India what oil was for West Asia.
Assumptions:
I. Most IT entrepreneurs of the world are Indians.
II. India can have a monopoly in IT sector in the world market.
Statement: Haye fun this new year eve, but not at others' cost. - Delhi Police

## Assumptions:

I. Generally, people celebrate new year's party on other's expenses.
II. People will enjoy the new year eve with a bang.
46. Statement: Reckless partying can lead to health problems and you may reach a hospital straight from the discotheque.

## Assumptions:

I. Heavy drinking is the main reason of health problems.
II. Sometimes dancing may lead to health problems.
47. Statement: Live a full life. Don't drink and drive. Delhi Traffic Police in its ad.

## Assumptions:

I. Driving after drinking may cause accidents.
II. Some people generally drive after drinking.
48. Statement: The finance ministry freshly brought out a huge revenue deficit because customs and excise and done badly due to severe industrial slowdown.

## Assumptions:

I. Excise and customs has a good stake in revenue
collection of the government.
II. Customs and excise has a strong link-up wiht industrial performance.
49. Statement: If you are a middleman, the Internet's promise of cheaper prices and faster services can "disintermedi-ate" you.

## Assumptions:

I. Middlemen are often found as a major hindrance to efficient working of the economy.
II. Middlemen have the main role of assisting the transaction between the producer and the consumer.
50. Statement: The Net has a lot of useless sites floating around and $w w w$.bigwaste.com is one of them, the difference being that it admits to being a big waste of time.

## Assumptions:

I. Most of the websites claim to be useful ever when they are not so.
II. The Net has no mechanism to distinguish useless sites from useful ones.
51. Statement: "We are in talks with the Japanese Bank for International Cooperation (JBIC) for the second tranche of Rs 1,600 crore." - Delhi Metro Rail Corporation (DMRC) chairman
Assumptions:
I. DMRC has already received the first tranche of the loan from JBIC.
II. Talks for receiving the first tranche of the JBIC loan have been finalised.
52. Statement: "In every community where we sell our brands, we must remember we do not do business in markets; we do business in societies." - A marketer Assumptions:
I. Shops and markets are of no use in selling a brand.
I. The understanding of social behaviour is a must for the marketers.
53. Statement: Consumers are often deceived by terms like "goods once sold will not be taken back" or the goods are transported at "owner's risk".
Assumptions:
I. Bearing in mind these phrases, consumers are reluctant to-seek compensation.
II. Such phrases do not provide a blanket exemption for the seller or the transporter.
54. Statement: Some days you settle down peacefully with your morning coffee. Then you open the papers and the adrenaline picks in.

## Assumptions:

I. Coffee and papers are an integral part of the common man's life.
II. On some days the papers carry sensational news.
55. Statement: Mr Speight with the help of some gunmen arrested the PM of Fiji.

## Assumptions:

I. The Prime Minister was corrupt and was not keen in the development of the country.
II. Democratic system is very weak in the country.
56. Statement: "Students are not allowed to wear western dresses on the university campus." - V.C. of a reputed university.

## Assumptions:

I. It looks vulgar and encourages more eve-teasing.
II. If the girls will come to the college in Indian
dresses then they will concentrate more on studies.
57. Statement: "Reservation policy for SC/ST should be extended for another ten years." - Labour Minister.

## Assumptions:

I. Reservation is still necessary for them to uplift them socially and economically.
II. SCs/STs are not so capable so they are given reservation.
58. Statement: "Traffic police will be provided with alcometers to identify drunken drivers." - Police chief.

## Assumptions:

I. So many accidents take place everyday because of drunken drivers.
II. Alcometers is a machine which can identify the drunken persons very easily.
59. Statement: Residents of XYZ colony agitated for irregular water supply.

## Assumptions:

I. Agitation is a right way to get the water supply.
II. Residents of the colony have acute problem of water supply.
60. Statement: "Come and join my political campaign." - A political leader to film stars.

Assumptions:
I. People have more faith on the film stars.
II. Film stars are big crowd-pullers.
61. Statement: "There should be no screening of film Kohram until further decision." - A High Court order.

## Assumptions:

I. People abide by the decision of High Court.
II. Kohram is an objectionable movie.
62. Statement: "Nobel laureate Dr. Amartya Sen will be presented a Lifetime Card for free travel." - Chairman of Indian Airlines.
Assumptions:
I. This is a good way of advertising the company. II. Dr Amartya Sen is the pride of India.
63. Statement: "This time electronic voting machines will be used during elections."- Chief Election Commissioner.
Assumptions:
I. It will reduce malpractices during counting of votes.
II. Electronic voting machine is convenient for the voters to use.
64. Statement: "The ElectionCommission should curtail election expenditure." - President of India

## Assumptions:

I. Election Commission can be directed only by the President of India.
II. It is the Election Commission which can curtail the election expenditure.
65. Statement: The world gold production has continued to grow irrespective of the price hike.

## Assumptions:

I. Quantity of gold produced doesn't affect its price in the market.
II. In case of price hike the production of gold should be reduced.
66. Statement: In the country, which has over 70 television channels, hundreds of newspapers, thousands of magazines and a sensation through 'dotcoms', the demand for journalists would never die down.

## Assumptions:

I. TV channels and dotcom companies are mushrooming by the day.
II. Journalists are the pillar of our democracy.
67. Statement: "Strict action would be taken against the Municipal Corporation of Delhi employees if found guilty of connivance in illegal encroachments."The new Municipal Commissioner.

## Assumptions:

I. Some employees of MCD indulge in corruption.
II. The warning given by Municipal Commissioner will minimise corruption.
68. Statement: Thick milk does not mean high-quality milk - Issued in public interest by a reputed milk company.

## Assumptions:

I. There is misconception among the people that thick milk is good.
II. Some companies are producing adulterated thick milk.
69. Statement: Citizens and nations reveal their character by the way they treat their elderly and the disabled. Assumptions:
I. Elderly and disabled are the most respectable in society.
II. Elderly and disabled are the people who need help of the society.
70. Statement: Unemployment has increased in spite of the Indian economy growing well.
Assumptions:
I. Economic growth is supposed to create more job opportunities
II. There are certain factors other than economic growth which influence employment.
71. Statement: It is not unknown in India that inquiry reports, usually compiled with considerable care, are shelved and forgotten as soon as the initial outrage dies down.
Assumptions:
I. The credibility of inquiry reports has considerably gone down in India.
II. Inquiry reports in India are never implemented up to the expectations of the victims of a crisis.
72. Statement: India is suffering because citizens have given and taken votes based on caste/religion and not principles.
Assumptions:
I. The days of value-based voting are numbered in India.
II. The voting based on principles has the potential to nullify the problems created by the politics of caste and religion.
73. Statement: "Our population is now 100 cr. Let's have small family for stronger India."- a nasal message sent by the MTNL.

## Assumptions:

I. Public messages sent through communication media are effective tools to achieve the desired end.
II. The runaway population growth seems to be a major cause of worry for the government.
74. Statement: A society is in danger when those who have never learned to obey have been given the right to command.
Assumptions:
I. A good commander should be disciplined.
II. The speaker has witnessed the vices of the society being controlled by undisciplined leaders.
75. Statement: Today when there is so much talk about revising the Constitution, we have to consider whether it is the Constitution that has failed us or it is we who have failed the Constitution.

## Assumptions:

I. Only the revision of Constitution will not serve the intended purpose unless there is willingness among the people to abide by it.
II. All is not right with governance.
76. Statement: People of Indian Origin (PIO) maintain their cultural traditions and values even though they have settled comfortably in their adopted countries.

## Assumptions:

I. Indian culture is flexible enough to be adjusted with any other culture.
II. Indian culture is superior to other cultures.
77. Statement: DTC authorities have planned to advertise various products on bus tickets to put them to good use.

## Assumptions:

I. Passangers will read the advertisement printed on tickets.
II. DTC authorities will get advertisements under this proposal.
78. Statement: The parents of students are demonstrating at Legislative Council to protest against fee hike revision by the capital's educational institutions.

## Assumptions:

I. The parents are unable to afford increased fee.
II. In view of large-scale protestation Legislative Council may direct the capital's educational institutions to stop the fee hike.
79. Statement: "All the State Govts and UTs should go for compulsory video-filming of the post-mortem examinations in the cases of custodial deaths."in case of custodial deaths.
II. The kith and kin of the victims do not get justice for custodial violence.
80. Statement: Income in the hands of women contributes much more to the household food security and child nutrition than the income controlled by men.

## Assumptions:

I. Women pay more attention to household nutrition.
II. Men are more interested in outside affairs.
81. Statement: "The state's executive machinery should take all necessary measures to stop hazardous and poisonous effluents from being discharged into Yamuna." - A court order

## Assumptions:

I. The water of Yamuna is contaminated.
II. State machinery has failed to take adequate measures to prevent the problem of water pollution in Yamuna.
82. Statement: If betting and match-fixing play a vital role in cricket, which makes the game ungentlemanly and ugly, there is absolutely no use of wasting precious time to watch the game of cricket which cheats the innocent.

## Assumptions:

I. This contagious disease may spray to other games.
II. Cricketers indulge in betting and match-fixing, and are exploiting innocent public feelings.
83. Statement: Metropolises might provide everything - education, jobs and a good lifestyle - but they score miserably when it comes to life's basic necessities.

## Assumptions:

I. The speaker is talking about irregular water and electricity supply.
II. A large number of people in metros are still deprived of life's basic necessities.
84. Statement: If you lose after competing hard that's fine. If you lose without trying hard, that's what disappoints me.

## Assumptions:

I. Losing after trying hard is excusable.
II. Losing without effort is regrettable.
85. Statement: In India that is short of nearly every essential commodity, there is only one product that we stock in excess: ministers.

## Assumptions:

I. The more the number of ministers the easier it is to stock larger commodities.
II. The strength of ministry should be reduced.
86. Statement: Courts are no longer cathedrals. They are casinos where the throw of the dice matters.

## Assumptions:

I. Nowadays, the courts do not provide justice to deserving people.
II. The courts are not fulfilling the objective for which they were established.
87. Statement: There are lessons to be learnt even in defeats.

## Assumptions:

I. Some people do not take their defeats seriously.
II. The people who learn in their defeat may become successful in future.
88. Statement: The Union Govt needs to give greater attention to, and provide larger resources for, primary education and primary health.

## Assumptions:

I. Primary education and primary health are in deteriorating state in our country.
II. Primary education and primary health are essential for improving all-round living standards of people of any country.
89. Statement: People are bound to reject changes in the basic structure of the Constitution and any interference in the traditional communal harmony.

## Assumptions:

I. This is a statement given by a leader of a party in opposition.
II. The government in power is making a move to amend the Constitution.
90. Statement: Over the years, successive railway ministers have utilised the employment potential of the railways in order to boost their political careers.

## Assumptions:

I. Over the years, Railways has witnessed tremendous vacancies for employment.
II. The political career of a political leader depends upon the direct benefit given by him to the people of his constituency.
91. Statement: "Safety will be the primary concern. I
hope that these enhanced outlays will go a long way in ensuring a safe and sound journey for the millions of passengers." - Railway Minister in her speech.

## Assumptions:

I. Railways has failed to ensure adequate safety measures for its passengers.
II. Safety measures are likely to prevent railway mishaps in future.
92. Statement: There was a time when the rivers were pure. The earth clean, the air clear. Those days have gone. But there are still ways for you to live healthy.

## Assumptions:

I. The environment affects the health of people.
II. People are responsible for making the environment polluted.
93. Statement: It may sound harsh but it is true that people no longer feel safe in the hands of the police.

## Assumptions:

I. Police are unable to protect the citizens.
II. There is no certainty of one's life in police custody.
94. Statement: Governments, NGOs and social organisations routinely come up with announcements and informative advertising to create public awareness about various health threats and lifestylerelated diseases.

## Assumptions:

I. These advertisements will help to minimize the health-related problems.
II. Such advertisements create awareness among the people.
95. Statement: Ideas have always been more potent than the actual protagonists who act them out.

## Assumptions:

I. Famous protagonists can make any idea famous despite their less importance.
II. Both ideas and protagonists have the same
96. Statement: The NDMC is wasting money and valuable resources, asking people to file their property returns by issuing big advertisements.
Assumptions:
I. Nowadays people are not interested in filing their property taxes.
II. Advertisements on smaller scale can also serve the same purpose.
97. Statement: Winners don't do different things. They do things differently.

## Assumptions:

I. Doing things differently matters a lot.
II. Slow and steady wins the race.
98. Statement: "If the Indian men play to potential they have a good chance to make the grade this time in Thomas Cup." - The coach of Indian badminton team.

## Assumptions:

I. Indian men have the potential to win the trophy.
II. Indian men have the potential but they do not want to perform good.
99. Statement: Police-community relationship has been going downhill over the years and the gap between public expectation and police performance has been constantly widening.

## Assumptions:

I. Police is a part of community.
II. The police-community relationship should be healthy.
100.Statement: If a region is crying for development, establish a new university, an advanced medical institute and a centre for agricultural research there - and wait for the results.

## Assumptions:

I. Only creation of new states would not speed up development.
II. Development can be achieved by spreading education.
101. Statement: For members at IIC, seek out those who have topped the services exams, distinguished themselves in graduate studies or have made a mark at an early age in the arts or the media.

## Assumptions:

I. The present selection process for membership has lack of transparancy.
II. Present members of IIC are not up to the expectations of the IIC.
102.Statement: "Disconnect your TV cable connections" - A maulana issued a fatwa because of thin attendance during prayers at the mosque.

## Assumptions:

I. TV programmes are more popular than prayers.
II. Prayer is more important than watching TVs.
103. Statement: The long-term health of the nation and its democratic policy should be primary concern of all political parties in contrast to short-term remedies which are at best pain-killers.

## Assumptions:

I. The short-term policy benefits the political parties in winning elections.
II. Only long-term democratic policy is in the best interests of the country.
104. Statement: No civilised state today can deliberately violate the international declarations and conventions and covenants relating to the minorities.

## Assumptions:

I. All civilised states enforce the international declarations, conventions and covenants equally.
II. Minorities all over the world should be given protection by the concerned governments.
105. Statement: "A statesman or a man who has to deal with public affairs cannot ignore realities. The nonrecognition of realities leads to artificial policies and programmes." - JL Nehru

## Assumptions:

I. Artificial policies and programmes can not provide advantage to people.
II. In general, people at the helm of affairs ignore realities and undertake populist measures.
106. Statement: In the present globalised scenario it is time for a total overhaul of the system.

## Assumptions:

I. The prevailing system is not suitable for the necessities of a globalised economy.
II. Globalisation is the buzzword of the new world order.
107. Statement: Consumer is the focal point of economic liberalisation, globalisation and reforms. Any manufacturing activity or service to succeed has to satisfy him.
Assumptions:
I. Very few companies are concerned with consumer satisfaction.
II. Consumer satisfaction is best investment in a competitive economy.
108. Statement: "Develop a strategic plan for Internet adoption. Do not treat the Internet any differently than you would treat any other crucial business decision." - A Manager, IBM India

## Assumptions:

I. All crucial businesses need a strategic plan to succeed.
II. Internet is the need of the hour.
109. Statement: Nowadays some people have made it a business to organise rallies and demonstrations agianst big projects citing environmental and social reasons.

## Assumptions:

I. Big projects are necessary.
II. Environmental and social reasons attract people towards rallies.
110. Statement: Various state governments will compete with one another to announce cash prizes they intend to facilitate Olympic medal-winners with.

## Assumptions:

I. Such announcements by the state governments will boost the morale of players.
II. Winning medal in Olympics is a matter of pride for the state governments.
111. Statement: The textbook variety of the profession and practice of democracy has not worked in countries like India where ground realities are different.

## Assumptions:

I. Democracy is not suitable for poor countries.
II. The ground realities of different countries differ from one another.
112. Statement: "The days of ghazal can never be over." - A singer

Assumptions:
I. Aspiring singers should concentrate on ghazal rather than on pop.
II. Ghazal has been written off by many.
113. Statement: "Railway wagons of Eastern Railway will carry your message." - ad by Eastern Railway. Assumptions:
I. Other railways are already in practice and earning profits.
II. The railway will get responses for the above ad.
114. Statement: Order can be maintained only when law becomes enforceable. Law implies the corpus of rules or injunctions that need to be obeyed by one and all without exception.

## Assumptions:

I. The acceptance of a law by the people is a must for its effectiveness.
II. There is a section of people who are law unto themselves.
115. Statement: Sanskrit is a 'dead' language and its study in schools is obsolete.

## Assumptions:

I. Sanskrit has no utility in our day-to-day life.
II. Schools should teach the students only such matters as are related to what they want to do in their lives.
116. Statement: "In India, the wheels of justice hardly move." - An American newspaper
Assumptions:
I. Judicial process in India is dilatory, expensive, and beyond the reach of common people.
II. It is necessary for a civilised society to have a prompt judiciary.
117. Statement: To India and Indians, monsoon can be a bringer of bounty as well as harbinger of death.

## Assumptions:

I. The economy and the vast majority of the people in India are still dependent on rain.
II. In India, almost every year some part or the other is ravaged by floods.
118. Statement: So long as there is a caste-based society in our country, there is no harm in having castebased organisations to look after the welfare of their castes.

## Assumptions:

I. There is nothing wrong in having religious organisations to spread their ideals.
II. Political parties cannot look after the welfare of different castes like caste-based organisations can.
119. Statement: After destroying the Kshatriya kings, Parasuram asked the gods a way of penance.

## Assumptions:

I. Parasuram deemed the act of destroying the kings to be a sin.
II. There is a way out even after having committed such ghastly acts.
120.Statement: We grew up in joint families, which meant less space for the individual.

## Assumptions:

I. Big houses were unknown in the past.
II. One has to make much adjustment in a joint family.
121. Statement: Our urban young are less at ease with their own language than with English!

## Assumptions:

I. One feels most comfortable with one's mothertongue.
II. English language books sell more than their vernacular eounterparts.
122.Statement: The average American can afford hobbies that a typical middle-class Indian can only dream of. Assumptions:
I. There is much difference in material circumstances between India and the US.
II. Economic prosperity offers a conducive climate for a variety of interests to flourish.
123. Statement: Banking has traditionally been a highly-sought-after career because of its stability and the growth prospects it offers.

## Assumptions:

I. People of modern times do not value stability any longer.
II. People love stability but not stagnation.
124.Statement: "Well, if we accept all the demands we'll end up with 763 new states!" - A caption in a cartoon

## Assumptions:

I. Demands have been voiced for the creation of 763 states.
II. The demand of new states is hitting the headlines.
125. Statement: "I am actually enjoying my experience in the forest and even my health is quite fine." - A message from a hostage

## Assumptions:

I. The well-wishers of the hostage may panic.
II. The well-wishers of the hostage may go into a frenzy.
126. Statement: Keeping in mind the visual aspect of theatre, only selected incidents of Buddha's life have been taken.

## Assumptions:

I. The romantic aspect of Buddha's life will be shown in the play.
II. Not every aspect of one's life is worthy of being enacted on the stage.
127. Statement: "If the play on Buddha is received well, we may even do a play on the life of Lord Krishna and Ram." - A director

## Assumptions:

I. If one play goes well, then others also will.
II. The success of this play will be an indication of the people's taste.
128. Statement: In order to check incidents of fire in the Walled City area, godowns of hazardous chemicals and paper of the area will be shifted to Narela and Ghazipur respectively.

## Assumptions:

I. Incidents of fire cannot occur in Narela or Ghazipur.
II. Paper is a highly combustible material.
129.Statement: "While weighing sweets, we do not include the weight of the box which is used to carry the sweets." - A notice in a sweet shop

## Assumptions:

I. Cost price of a box is not less than the cost of any sweets in terms of the cost price of each according to weight per gram.
II. People prefer to pay only for the weight of the sweets they buy.
130.Statement: "In my opinion if one is desirous of purchasing a car one should buy Mercedes only because the least number of cars that are stolen each year is that of Mercedes." -Mr X says to Mr Y.

## Assumptions:

I. People who want to purchase a car are financially capable of buying Mercedes car.
II. Mercedes car is one of those cars, percentage share of which is meagre in total cars sold in India.
131. Statement: "People of state $X$ were 'forced to eat rats' due to starvation and malnutrition." - A public interest writ petition filed in the court by an NGO.

## Assumptions:

I. The court will issue a notice to the state government to relieve the vast sections of the people of such acute distress.
II. The court has the power to issue direction to the respective state to ensure protection and preservation of human rights.
132. Statement: "With Corp Junior Account stop worrying about money, concentrate on your studies. Our features are: No delays, no transaction cost ... plus the safety of dealing with a Government of India enterprise." - An advertisement of a Bank X
Assumptions:
I. Most of the people have faith in dealing with a Government of India enterprise.
II. Customers want the cheapest and the most hasslefree service.
133. Statement: "When forces like the Special Operation Group (SOG) are set up, some excesses are bound to happen and some innocents suffer. But we should be satisfied with the success of this SOG."-View of
a citizen of an area where SOG has launched its operation

## Assumptions:

I. Seen in the larger interest of the people, agonies of the innocent is a small price to pay.
II. It is quite difficult for SOG to get the desired result without any negative impact.
134. Statement: Instead of burning the leaves, bury them in compost pits, by which it gets converted to natural manure, making it beneficial for the soil. - A notice issued in public interest by Department of Environment

## Assumptions:

I. Whenever leaves are burnt in the open, the air gets laden with tiny particulate matter which raises air pollution to alarming levels, which causes severe respiratory disorders and eye infections to those exposed to it.
II. Benefits gained from ashes of leaves burnt are not as much as the benefits gained from the natural manure obtained from leaves by burning it.
135. Statement: "A tempting cup of garma garam Georgia now awaits you at every street corner. So no matter who you are or where you go, a Georgia Vending Machine will hand you the same clean, delicious cup of tea in Regular, Adrak, Elaichi and Masala. And if you're looking for a change try the Regular, Mocha and Cappuccino coffee. One sip will make you realise why every other alternative is a mere compromise!"-An advertisement
Assumptions:
I. Most of the people need delicious cup of tea or coffee with a change in taste.
II. Every person is addicted to either tea or coffee.
136. Statement: "If you ask me about the daunting challenges that I face, I would say that my government's first priority is to improve the existing law and order situation. Then follows the issue of prices of commodities."-Mr Y, a newly appointed PM of country

## Assumptions:

I. If a citizen of country $X$ can sleep peacefully, he/ she can then think of providing food to his/her family, ponder over education and move about freely in the country.
II. Prices of the commodities affect the common man greatly.
137. Statement: "Human rights are only for human beings, not for terrorists. It is an insult to human rights to protest on behalf of those found guilty of terrorism." - Mr X

## Assumptions:

I. Terrorists do not deserve sympathy.
II. Act of terrorism is against humanity.
138. Statement: "The finding of 'higher resistance' in malarial parasites was also significant as the analysis was done using the modern technique of DNA sequencing. Although the sample size was only 50, there could be no doubt about the results." - A scientist

## Assumptions:

I. Modern techniques are more trustworthy than traditional or obsolete techniques.
II. Lesser the size of the sample, higher the chances of reliability.
139. Statement: "Our state does not need State Human Rights Commission, therefore we have abolished State Human Rights Commission." - CM of state ' X '

## Assumptions:

I. There will be no cases of violation of human rights in state ' X '.
II. State ' X ' has alternative provision to tackle cases of human rights violation.
140. Statement: "We need to instil a sense of pride among the people for the rich cultural heritage of the country and its various regions." - Speaker of the Lok Sabha

## Assumptions:

I. Culture is what gives meaning to our lives and identity to us as a social community.
II. To instil a sense of pride among the people for the rich cultural heritage is almost impossible.
141. Statement: Faculty of a reputed institute ' $Y$ ' has advised the students to buy Magical Book Series of BSC Publishing Co if they do not want to miss the opportunities of being recruited as PO in PNB.

## Assumptions:

I. Students may ignore the advice and continue to prepare with the study materials provided only by coaching Y.
II. Students of the institute Y have enough money to arrange for the books.
142. Statement: "Always use zebra crossings and subways to cross the road safely." - A notice by the City Traffic Police

## Assumptions:

I. Road safety is not an option but a must for pedestrians.
II. Safety can be increased by making people aware of tips regarding road safety.
143. Statement: "High-tension wire can be extremely dangerous. Keep a safe distance from them." - A notice by Delhi Transco Limited

## Assumptions:

## I. High-tension wires are laid in complete

 accordance with the law along routes that are legally approved by the concerned authorities.II. Buildings are sometimes constructed near hightension lines after they have been laid, thereby reducing the minimum required safe distance to
144. Statement: "Honourable citizens of state, ' $X$ ' please rise and rat on your power-thrieving neighbour. You could win a motorcycle, a colour TV set or a washing machine." - UPPCL

## Assumptions:

I. In order to get these gadgets, people of state ' X ' will put, even their good relation with the neighbour on stake, and inform the UPPCL, if their neigbbour indulges in power-thieving.
II. Cost on initiative to encourage citizens will be less than the increase in the revenue through such incentives.
145. Statement: "Irrespective of who comes to power, what is of prime importance is to heal the badly shaken lives of the people of state ' $X$ ' with the assurance that things would not go haywire in future." - A citizen of state X

## Assumptions:

I. The tenets of good governance and development must form the bedrock of the party that forms the next government in the state.
II. To concentrate on the prime needs of the citizen is the only way by which the image of tarnished state ' X ' can be improved.
146. Statement: "There should not be any delay in filing a complaint. If a policeman is not helpful or harasses a woman, the victim should note his name and belt number and send a complaint to senior officials specifying the place where he was on duty." Women's cell lawyer

## Assumptions:

I. Most of the victims are literate.
II. Senior officials will take disciplinary action against the guilty policemen.
147. Statement: "Buy durable pillows of company ' $X$ '. The pillows have been made from 100\% imported downs and feather; have the natural property to take the contour and shape of your head, neck and shoulder while you sleep; and are very popular abroad as well as in the domestic market." - An advertisement

## Assumptions:

I. Immense popularity of a product is a sign of the good quality of a product and its usefulness.
II. People desire for blissful sleep that keeps them ticking for the rest of the day.
148. Statement: "Oil the wheels that India moves on" is the cry of bicycle manufacturers in the country.
Assumptions:
I. The bicycle and components industry is a priority focus area possessing capability of thrusting export.
II. Bicycle is the most affordable mode of transport.
149. Statement: "No representative is authorised to collect cash. Do not pay cash to anybody. All subscribers are requested to make payments only through cheques/DD in favour of the company."- An instruction to subscribers by company X
Assumptions:
I. If it is not said explicitly, the subscriber may claim for their payments in cash in case any irregularities are made by the representatives.
II. Representatives of company $X$ are not trustworthy. 150. Statement: "On this auspicious occasion of Republic Day let us take the resolution to help the droughtaffected 4.3 crore population and 4.5 crore livestock of the state."-An appeal by the CM of state X to its citizens

## Assumptions:

I. Citizens' participation will ensure pride and respect of all sections of society as well as overall development of the state.
II. Miseries of people affected by drought will be lessened through people's participation.
151. Statement: Better understanding and cooperation among the exporters is needed. Effort should be to complement each other, rather than competing among themselves. - View of an agriculturist

## Assumptions:

I. Exporters stand to lose if they act as competitors.
II. Farmer-industry co-operation can work wonders.
152. Statement: Bottled water companies ' X ' and ' Y ' ruled out any contamination of their products, saying these had been produced under rigorous quality control regime meeting all standards set by the Bureau of Indian Standards (BIS).

## Assumptions:

I. Production under rigorous quality control regime gives trustworthy results.
II. BIS has been entrusted with the responsibility to set quality benchmarks.
153. Statement: By 2010, India will be the country with the greatest number of heart patients.
Assumptions:
I. The number of heart patients all over the world can be found out.
II. By 2010, India will be the most populated country in the world.
154. Statement: Unlike other known forms of threat, AIDS spreads its tentacles slowly but steadily. When billions of dollars are being pumped in to counter terrorism, such a seriousness is not being observed against this sure killer. - Comments of a citizen

## Assumptions:

I. Government's perception of AIDS requires to undergo a sea change.
II. AIDS poses more threats to human life than terrorism.
155. Statement: "When Mr X and Mr Y stepped out for toss on the ground it was evident that one of them was in positive frame of mind while the other was tense, fearing defeat and elimination from the tournament."-An ex-captain of a cricket team

## Assumptions:

I. Panic always sets in when a team is playing after a spate of defeats.
II. There are some days when a player achieves magical heights, when he is unstoppable and when every other player in the arena looks woefully inadequate.
156. Statement: "Mail your grievance and confidential information to the commissioner of police." - Request

157. Statement: "Beware! Recycled coloured plastic bags contain harmful colour pigments, which, on coming in contact with food particles, make food unfit for consumption, resulting in severe food poison, allergies and in extreme cases even death."-A scientist

## Assumptions:

I. Non-biodegradability nature makes plastic bags an environmental hazard.
II. Use of plastic bags is harmful and has cascading effects on human life.
158. Statement: "In view of a likely fiscal deficit of around five per cent, there is no denying the need for a consensus to trim government expenditure." - View of Mr X

## Assumptions:

I. Trimming government expenditure is an effective tool to curb fiscal deficit.
II. Trimming government expenditure is not an effective tool to curb fiscal deficit.
159. Statement: India's dismal performances in the World Cup notwithstanding, cricket betting is on in full swing in the country. - A news

## Assumptions:

I. Dismal performances of India discourages betting business all over the world.
II. Bookies are making merry.
160. Statement: I heard the news as soon as I woke up in the morning. I felt shattered.

## Assumptions:

I. The incident took place before I woke up.
II. The news was shocking.
161. Statement: "God bless all the parents whose children passed away in the Yamuna waters." - A student.

## Assumptions:

I. The student believes in God.
II. Some children have died by drowning.
162.Statement: "I think illiterate and drunk drivers should not be employed, at least for children." says X.

## Assumptions:

I. Literacy helps in driving.
II. Children have a status equal to the adults.
163. Statement: Owing to urgent repair on a main line from the Wazirabad waterworks, water supply will be at low pressure on Thursday.

## Assumptions:

I. Repair impedes water supply.
II. Water can be had even on low pressure.
164. Statement: Another strange thing I noticed last night was that the lights of the drawing room were on.

## Assumptions:

I. A thief must have come in.
II. Usually, the drawing room lights are off at night.
165. Statement: "Women should be given vocational training in their work." - An advice
Assumptions:
I. Vocational training may increase efficiency of an individual.
II. Women are likely to get benefited from vocational training.
166. Statement: "People who swindle crores of taxpayers" money go scot-free while petty thieves, who probably rob out of desperation, are given third-degree punishment and are often victims of custodial deaths." - View of Mr X

## Assumptions:

I. All persons should be equal before law.
II. Punishment should be given to the culprit according to the degree of the infringement committed by the culprit.
167. Statement: "Look under your seat. There could be a bomb. Raise alarm. Earn reward." - A written instruction to passengers of a bus

## Assumptions:

I. Passengers will read the instruction and may abide by it.
II. Passengers' participation may ensure more security.
168. Statement: The Government $X$ has proposed to create two new service cadres of Rural Development Service and Rural Engineering Service to strengthen the Panchayati Raj model.

## Assumptions:

I. New cadres may help implement the Government's schemes for empowerment of rural communities.
II. There may be some practical difficulties in implementation of various schemes launched by the Government X .
169. Statement: "Policies and programmes and seminars cannot change the women's status. There is a greater need for attitudinal change in the society towards working women." - View of Mr X

## Assumptions:

I. It is possible to make change in the attitude of the society towards working women.
II. Status of the working women is not satisfactory.
170. Statement: "Government of State X's step, according to which it has been decided to provide cooked meal to the students of all primary schools of the states, is not a proper and judicious step."-Criticism by a person

## Assumptions:

I. Students may hesitate to eat the cooked meal provided by the Government.
II. The cooked meal served to the students may be hazardous for the health of students.
171. Statement: "Although no war was witnessed during the tenure of prime ministership of Mr X , a large number of top bravery medals were conferred upon many cops in the name of curbing terrorism and eliminating terrorists of different organisations belonging to our own states." - View of a citizen
Assumptions:
I. It is disgraceful of cops to name the act of killing of terrorists of our own country as an act of bravery.
II. A war is less harmful for a country than menace of terrorism.
172.Statement: "Completely eliminating the say of executive is not acceptable; merit, ability, competence, integrity and suitability of the candidate alone are not enough for appointment of High Court Judges."

- A journalist

Assumptions:
I. A person's social outlook, concern for public interest and promotion of equality and his/her political outlook are also equally important.
II. Executive consultation will ensure greater transparency of the appointment.
173. Statement: "Never use obvious PIN like your car registration no., birthdate, telephone no., etc. Change your pin every three months." - An instruction to customers of a bank who enjoy ATM facilities

## Assumptions:

I. ATM cards issued by a bank to customers might be lost by some customers.
II. Some people may try to use ATM cards of others clandestinely to withdraw money.
174. Statement: "We provide subsidised tea to the labourers - pay only Rs 2 instead of Rs 2.50 and get a cuppa of tea." - An advertisement

## Assumptions:

I. Labourers may afford a cup of tea at Rs 2 per cuppa.
II. Subsidised prices attract customers.
175. Statement: Dowry system can not be eradicated from our society unless we change the people's mindset. Assumptions:
I. Existence of dowry system is not desirable in a society.
II. It is possible to bring a radical change in people's mindset.
176. Statement: "No war, yet 1874 Indian Armymen killed or hurt during the 10 -month forward deployment
along the Indo-Pak border last year." - Opposition leader

## Assumptions:

I. Our Armymen have to soldier on without even the necessities like decent helmets, proper webbing or bullet-proof jackets.
II. The casualties during the 10 months have surpassed the estimated limit of casualties along the Indo-Pak border.
177. Statement: Instead of limiting capital punishment to the rarest of the rare cases, it should be made mandatory for crimes like murder, rape, drug trafficking, child molestation and all anti-national activities. If a person does not respect the law, let him at least fear it.

## Assumptions:

I. When a man is sentenced to death for whatever crime he has committed, he should at least die a painless death.
II. A person convicted of a heinous crime deserves no kindness.
178. Statement: "It is tall claims that our state $X$ is progressing on industrial front. Rising unemployment by leaps and bounds is enough to collaborate it." - View of a politician of state X

## Assumptions:

I. If the state were progressing on the industrial front it should have been reflected in the unemployment situation.
II. Progress on industrial front reduces financial
179. Statement: In a bid to discourage cattle owners from letting their animals loose on the roads the Municipal Corporation of City X has enhanced the fine from Rs 4000 to Rs 5000.

## Assumptions:

I. Inerease in fine may decrease the stray cattle menace.
II. The subsequent fine is quite a large sum and it should prompt the owner to get his cattle back as early as possible.
180. Statement: "Learn to solve Quantitative Aptitude in 3 seconds besides Data Interpretation (without written steps) by-our experts or take back Rs 10,000 / - as penalty." - An advertisement of XYZ Coaching Institute
Assumptions:
I. It may not be possible to read each of the questions within three seconds by a candidate.
II. It will be a hard nut to crack for all aspirants to solve questions of Data Interpretation without any written work.
181. Statement: High Court of state ' $X$ ' has decided to do away with the summer vacations in order to dispose of pending cases.

## Assumptions:

I. Vacation for the courts is a vestige of the Raj period.
II. The step taken by the judiciary will compel the Government to fill up all the vacancies in the court.
182. Statement: The Government has transferred the entire staff of police station ' X ' and a magisterial inquiry has been ordered into the mysterious death of a man in the police station.

## Assumptions:

I. Magisterial inquiry may be able to reveal the cause of death of the man in the police custody.
II. Transferring the entire staff may pave the way to hold free and fair enquiry.
183. Statement: "Bring alive your education dreams. Avail loan today and pay as your start earning." - An advertisement of a bank XYZ

## Assumptions:

I. Most of the students who need loan, prefer flexible repayment options besides no processing fees or service charges.
II. Students who need loans prefer loans without collateral security.
184. Statement: In an attempt to make the conditional access system "consumer-friendly", the government issued a notification asking cable operators to declare pay channel rates by June 15 .

## Assumptions:

I. Cable operators may not be able to declare pay channel rates by June 15 due to lack of adequate time.
II. Everyone has their own business compulsions and wish to test their own market.
185. Statement: "Despite a draconian crackdown against software pirates announced by country X last year, the country remains the world's third largest market for bootleg computer programs." - A journalist

## Assumptions:

I. Computer piracy is declining globally but increasing in country X.
II. A draconian crackdown against software pirates may bring the bootleggers to heel.
186. Statement: "Problems with your spouse and too little time to hash things out? Online couple therapy may be for you." - An advertisement

## Assumptions:

I. People may have faith in online therapy.
II. Couples on the run expect comparable results from online "chats" mediated by a professional and face-to-face therapy on a psychologist's couch.
187. Statement: "If you see any street lights on during the day, or notice pilferage of electricity, do inform us." - A notice by NDPL to-common people

## Assumptions:

I. Watching TV together and using one fan/cooler/AC will help conserve electricity.
II. Power generation is limited; joint efforts to conserve power would help maintain reliable supply of electricity.
188. Statement: One of the groups of militants of our organisation, which had been successful in making its way into the Indian territory, kidnapped a local resident of the area and forced him to act as a guide.

## Assumptions:

I. Local residents of a particular area possess good knowledge about the path in and around the area.
II. Despite the use of force against an individual, he or she may guide properly and accurately.
189. Statement: Being unable to accommodate adequate training session for the national team, country X has decided not to defend the LG Cup it won last year in the city $Z$.

## Assumptions:

I. Without playing several matches against major soccer-playing nations, it will be futile to defend the LG Cup.
II. Underpreparedness of the team may result in failure for country $X$.
190. Statement: "I want Multinational Companies (MNCs) to be out of the water business. I don't mind them in road construction or some other areas." - Statement of a waterman while educating the people on the community's water right

## Assumptions:

I. Water is basic to life and the community should own it.
II. The MNCs are on the prowl to buy the rivers.
191. Statement: Courier companies, led by big names are planning $25-30 \%$ hike in courier and parcel rates, as an initiative, following $67 \%$ hike in on-board courier rates by domestic airlines.

## Assumptions:

I. If the courier rates were not increased, the industry would suffer huge losses which would retard its growth, leading to closure of operations.
II. The hike in courier and the parcel rates may be able to reimburse the expenses incurred due to hike in on-board courier rates by the domestic airlines.
192. Statement: "Before you hire a domestic help, get his/ her background verified through us. Your family's safety depends on this simple step." - City police

## Assumptions:

I. Police verification of domestic help is an effective step in crime prevention.
II. Verification of people's domestic help's antecedents is a simple process.
193. Statement: "My life has become a burden for too many people and my step of jumping off a multistoreyed housing complex will bring happiness for many people. I do not blame anyone for my act. Please let me die peacefully." - A suicide note written by a 19-year-old girl.

## Assumptions:

I. Jumping off a multistoreyed housing complex will cause death.
II. Jumping off a multistoreyed housing complex is the easiest among the various way of ending lives, such as hanging, burning and consuming poison.
194. Statement: "Despite hike in tariff, power is still cheap in the city X." - Power Minister

## Assumptions:

I. The cost of purchasing electricity or its generation is much more in city X than in the neighbouring states.
II. Hike in tariff makes the power costly.
195. Statement: "Supporting the Reserve Bank of India's clean note policy, we have introduced special polythene currency note packets. These are secure, transparent and unstapled. Please do help us to maintain this." - a request to customers of Bank

## XYZ

## Assumptions:

I. Writing anything on currency notes is not in tune with RBIs clean note policy.
II. Only people's participation is enough to get the desired result expected through RBI's new policy.
196. Statement: "India needs a dedicated military satellite for future defence purposes where communication will play a vital role in quick decision-making." Chief of Air Staff

## Assumptions:

I. Future wars would be fought through air and aerospace.
II. Speedy communication ensures faster decisionmaking.
197. Statement: "We are taking care of this historic house, putting our lives at risk." - A statement made by an employee of ASI

## Assumptions:

I. The house is more precious than human lives.
II. One takes utmost care of something when one puts one's life at risk to do so.
198. Statement: "From the dawn of civilisation, India's tradition of respect for cultural diversity and spiritual values has been the bedrock for its intercultural dialogue and interaction with civilisations, countries and nations." - Ministry of HRD

## Assumptions:

I. Other countries have no respect for cultural diversity and spiritual values.
II. The concept of a "Dialogue Among Civilisations" has assumed greater importance with the emergence of the global scenario.
199. Statement: The cabinet decided to wind up various existing authorities on environment and set up a National Authority headed by a Supreme Court judge besides six regional authorities to help Ministry of Environment and Forests.

## Assumptions:

I. These new authorities may be able to look after a particular eco-sensitive area or a regional issue.
II. These new authorities may help re-organise and streamline the of functioning of Ministry of Environment and Forests.
200. Statement: "It is very regrettable though issues pertaining to the elderly and the disadvantaged children do find space in the media, the "treatment" given to them is often shallow and rarely reflects
their actual condition." - View of Mr ' X ' Assumptions:
I. The media should not gloss over the real problem faced by the old.
II. The radio and print media touch upon the problems of the elderly but the information
201.Statement: "Government employees, including doctors working in state-run hospitals and dispensaries, have no right - fundamental, legal, moral or equitable - to go on strike." - Supreme Court

## Assumptions:

I. Government employees hold society to ransom by going on strike.
II. Strike as a weapon is mostly misused, which results in chaos and total maladministration.
202. Statement: "Never touch or even go near any unclaimed object lying around in public areas, however attractive they may seem." - A notice issued in public interest by city police $X$.

## Assumptions:

I. Attractive and unclaimed objects lying around public areas are not supposed to be disastrous elements by the common people.
II. Unclaimed object lying around in public areas may be disastrous.
203. Statement: "No matter which career path you choose in photography, there are skills you need in order to succeed: visual skills, technical, camera and lighting skills and digital imaging skills besides the most important element of success - proper training." View of Mr Z

## Assumptions:

I. A strong sense of visual style and compositional skills in addition to training in the technical intricacies of photography may make a photographer more successful.
II. A sound education provided by a quality photography training can help one to gain the skills one needs to succeed.
204.Statement: "The monsoon is here. So are the mosquitoes Beware of total diseases! So do not leave in open on the roof of the house, unused/broken articles like bottle, cups, tyres etc." - A notice issued in public interest by Directorate of Health Services [DHS]
Assumptions:
I. Mosquito spreads fatal diseases and steps to control mosquito breeding can prevent the spread of the diseases.
II. Unused/broken articles are capable of holding rainwater
205.Statement: The Law Commission of India has called for sweeping changes in life insurance laws not only to promote insurance business in the country but also to protect policy holders from hassles in claiming settlements.

## Assumptions:

I. The interests of policy holders had not been entirely satisfied particularly in the area of claims settlement.
II. Sweeping changes in life insurance laws are possible. "Are you creative and outgoing? Do you enjoy communicating ideas and working with others? A career in photography offers the opportunity to create art and work in a rewarding professional field of endeavour." - An advertisement
Assumptions:
I. Making commercial quality photographers requires technical expertise and creativity.
II. There are some people who want to be successful photographer.
207.Statement: "If you are serious about professional photography and committed to taking the next step, Advanced Studies Classes at photography institutes will teach you what you need to know to get started." - A tells B

## Assumptions:

I. Those who are looking for a stepping-stone to gain confidence and knowledge need training classes.
II. Professional photographers at the institutes offer hands-on instruction, opportunities to enhance portfolios, and lifelong contacts that can help students build careers in photography.
208. Statement: "If you are selling your car/vehicle, retain copies of identification documents with photographs of buyer, such as driving licence, ration card, election ID card etc. A simple way to fight terror." - A notice issued in public interest by city police $X$

## Assumptions:

I. The vehicle people want to sell could be misused by terrorists.
II. Each and every individual wants to buy old cars/ vehicles.
209.Statement: I will not resign until proved guilty. - A politician in his speech
Assumptions:
I. There are demands for his resignation.
II. There are some charges levelled against the politician.
210. Statement: Buy ' $X$ ' dairy milk - fresh, pure and hygienic. - An advertisement

## Assumptions:

I. Other brands of milk are also available.
II. ' $X$ ' dairy's milk is the most expensive.
211. Statement: Woman is the embodiment of sacrifices.

## Assumptions:

I. Man should not make sacrifices as this role is entrusted to females.
II. Women usually make sacrifices.
212.Statement: It is none other than humans who destroy humanity.
Assumptions:
I. Man is man's enemy.
II. Humans are destructive.
213. Statement: The government should reject the demand for a separate state for tribals in state $A$.

## Assumptions:

I. The government has the power to grant a separate state.
II. Tribals are generally very cruel.
214. Statement: When the hammer does not work, use a sledge hammer.

## Assumptions:

I. A sledgehammer is more powerful than a hammer.
II. Different tools are required in different conditions.
215. Statement: This move has been taken from the point of view of exchange rate management.
Assumptions:
I. Such a move is not desirable.
II. No other move is possible.
216. Statement: "Vote for the Congress to complete the unfinished agenda started by great leaders like Nehru, Indira Gandhi and Rajiv Gandhi, and to tackle problems faced by the country such as poverty, injustice and exploitation of the poor, women and children." - a leader.

## Assumptions:

I. Nehru, Indira Gandhi and Rajiv Gandhi were Congress leaders.
II. Poverty is an issue of serious concern to the voters.
217. Statement: One should see the problems the so-called Asian Tigers are undergoing, and the huge loans they are forced to take from the IMF. India should learn from what has happened in these Asian countries.

## Assumptions:

I. If India does not exercise caution, it will also go the way Asian Tigers have.
II. Taking loan from IMF is not a good sign.
218. Statement: "I endorse X's demand to reveal the names involved in the kickbacks immediately." - Y, a political leader

## Assumptions:

I. Both X and Y belong to the same party.
II. Y will be a beneficiary of the revelation of names.
219. Statement: Ali Sardar Jafri is a representative in the fight against injustice and oppression in society. Assumptions:
I. Jafri is not the only one who is fighting against injustice and oppression in society.
II. The problems of injustice and oppression will be solved through fighting against these.
220. Statement: Political pressure seems to have resulted in the soft stand taken by RBI in favour of Sahara and Peerless groups, thus discriminating against other NBFCs.

## Assumptions:

I. An influence in the corridors of power leads to relaxations.
II. Both Sahara and Peerless are NBFCs.
221.Statement: "The fundamental requirement is a government that seeks a consensus and cooperation. It is when governments behave arbitrarily and try to impose their will without discussion and when they consider dissent as anti-national and approach the house with closed mind that disruption arises." Leader of the opposition

## Assumptions:

I. If the Government takes a decision keeping the view of opposition in mind, there might not be any act of disruption.
II. Views of opposition is a matter of great concern. 222. Statement: "It has never happened in Parliamentary history that a member has been selected by the Prime Minister, given oath by the President, and another member does not want to ask him a question." - PM of country X when some members of Lok Sabha refuse to ask any question from the defence minister.

## Assumptions:

I. If a person does not give due respect to a person who has been appointed constitutionally, it is a matter of concern.
II. Happening of new things in parliament are incorrect and illegal.
223.Statement: "The Indira Gandhi National Open University (IGNOU) has indicated that it would soon be commissioning 15 more transmitters for 'Gyan Vani', a radio channel on education, to include Delhi, Visakhapatnam, Lucknow, Bhopal, Mysore, Raipur, Ahemadabad, Rajkot, Guwahati and Varanasi."Director of IGNOU.

## Assumptions:

I. People of these area need educational information.
II. IGNOU's existing infrastructure is capable of making these facilities available.
224.Statement: The PM of country $X$ warned country $Y$ not to interfere with the Island's legislative election because the vote represents the people's will.

## Assumptions:

I. Leaders of country $Y$ have tried to influence the polls during the past elections.
II. The election in country X is its internal affairs.
225.Statement: "To defuse the hotbed of instability in country X , it is necessary to use a flexible combination of forces-political, legal and economic measuresto target the sources of terrorist, extremist and narcotic threats." - A member of Commonwealth of

## Independent states (CIS)

## Assumptions:

I. The hotbed of instability is vulnerable and needs some special measures.
II. A flexible combination of political, legal and economic measures to target the sources of terrorist, extremist and narcotic threats are possible.
226.Statement: "The government has planned to unveil a new FDI policy by the next month to attract foreign investors." - Spokesperson of the govt

## Assumptions:

I. The new FDI policy will be able to attract those foreign investors who are ready to invest in India but shying away themselves due to some unadaptable process of clearness.
II. Foreign investors will welcome this new policy.
227. Statement: "Our country has decided to give all types of support to country X in its objective to itself poliofree by 2002." - Health minister of country Y
Assumptions:
I. Without the support of country Y , country X will not be able to make itself polio-free.
II. Country X is not capable of making itself poliofree by 2002.
228. Statement: "Our country $X$ has decided not to provide air passage for the aeroplanes of country $Y$ because it was later found hatching conspiracy to bring anarchy in our country through destructive work of several militant outfits." - Spokesman of the government
Assumptions:
I. The pressure mounted by this move is likely to change the overt and covert policy of country Y towards intentions country X .
II. This move is likely to attract global attention towards the evil of country Y against country X.
229. Statement: Bharat Sanchar Nigam Limited has announced a sharp reduction in STD rates for both peak and non-peak hours despite knowing the fact that this move will compel it to incur a loss of Rs 3000 crore in the first six months.
Assumptions:
I. Other major telecom companies may reduce their STD rates for both peak and non-peak hours.
II. Reduction in STD rates is likely to provide enormous profit in the long run.
230.Statement: Keshav's mother instructed him to return from the city by train instead of taking the river route if flood situation became grimmer.

## Assumptions:

I. Keshav may not be able to decide on a proper course of action if the situation of flood turns worse.
II. Both the routes will continue to function even after the aggravated flood situation.
231. Statement: People living in border areas of country X have started selling their crops at low prices after the tense situation with neighbouring country $Y$.

## Assumptions:

I. The tense situation in the border area is likely to lead to a war, which may further harm their livestock.
II. The neighbouring country might succeed in forefeiting their crops if disputes erupt in the border areas.
232.Statement: Buy our magical book on quicker maths and get techniques to solve those complicated sums within seconds which you were unable to solve in quicker way. - An advertisement of X pub co of books for students

## Assumptions:

I. Students know the procedure of solving the sum through traditional or other methods except quicker methods.
II. Only the books of quicker maths of X publishing company contains short-cut techniques.
233. Statement: We have neither sufficient vehicles for patrolling nor night vision glasses and sophisticated weapons; how can we be able to curb the militancy?

- A Commander of Border Security Force


## Assumptions:

I. Militancy can't be curbed.
II. Physical facilities of security forces help in increasing of efficiency of forces.
234. Statement: Since my childhood I always liked the poem of poet X and I made my efforts to learn from the style of the poet to be a good poet. - Mr Y
Assumptions:
I. It is possible to learn some qualities from the poems of a good poet.
II. Poems of poet X were in existence during the childhood of Mr Y.
235. Statement: Our book on Non-Verbal Reasoning has been written systematically for students who are new to the subject and now they do not require to join any coaching institute to learn the subject. - An advertisement

## Assumptions:

I. Students need a systematically written book on Non-Verbal Reasoning.
II. Students need the help of a coaching institute.
236. Statement: "Please note that the candidates have to bring their own typewriters at the time of the test of typing skill." A condition in an advertisement Assumptions:
I. Candidates will not be able to bring their own typewriters.
II. Candidates will be able to bring their own typewriters at the time of skill test.
237. Statement: "Instances of brides being illtreated for insufficient dowry are too common to make news and it seems that even position and rank are no guarantee that a woman will receive her in-laws' respect." - A report in a newspaper

## Assumptions:

I. It does not behove a woman at a higher post to be deprived of in-laws' respect for insufficient dowry.
II. Torturing for dowry is not a trivial issue.
238. Statement: "If you are keen to improve your English vocabulary, access the online dictionary service Your dictionary.com (http://www.yourdictionary.com) and sign up with its 'send me the Word of the Day everyday' mailing list service." -An advice to the readers of a newspaper

## Assumptions:

I. People want to acquire a good vocabulary that enables one to use the right word in the right context.
II. Learning of a new word everyday via e-mail is the only possible way.
239. Statement: "Entry of HTVs is banned."-A notice on the main entrance of a flyover

## Assumptions:

I. People know the meaning of HTV.
II. The notice will have no impact on the people.
240.Statement: "While solving a sum related to cubes and cuboids you compelled me to draw a sketch of cuboid on the black board but what will happen when you will go through the chapter of Profit and Loss, where you will have to calculate profit gained by a dishonest shopkeeper?" - A teacher X to a student Y.

## Assumptions:

I. The student will require a sketch of while calculating profit earned by the dishonest shopkeeper.
II. The student should try to solve the sum related to cubes and cuboids without drawing a sketch of cuboid.
241.Statement: "Despite knowing the fact that the examination paper of $X$ will consist of hundred questions on Reasoning we can't predict the ratio of verbal to non-verbal reasoning." - A tells B.

## Assumptions:

I. Examination paper of X will consist of both verbal and non-verbal reasoning.
II. Some candidates who are appearing for the examination $X$ need some information regarding the ratio of the questions of verbal and non-verbal reasoning.
242.Statement: "The investors who have made investment through Agents may get their coupons from the Agents on production of original savings instrument to the Agent." - A condition to public under a small saving schemes for investment
Assumptions:
I. Agents will have sufficient coupons to distributeto investors.
II. No coupon will be provided directly from the main office.
243. Statement: "How can an alliance be possible with those hypocritical parties who fight for the poor and use billionaires as symbols?" - Leader of party Y
Assumptions:
I. Party ' Y ' is the only real fighter for the poor and the downtrodden.
II. The objectives of the parties should reflect in their deeds also.
244. Statement: The courts should strive to give speedy and fair justice and keep off from politics as well as corruption. At the same time it should develop commitment to objectives and improve its performance.

## Assumptions:

I. Nowadays, courts are delaying in giving justice and have strayed away from their main objectives.
II. The future of humans depends a lot on the judiciary.
245. Statement: "Most of the students are capable of choosing right course for study as well as for their career because they have educated parents." - Mr X

## Assumptions:

I. Educated parents are necessary to choose the right course for study or for a prosperous career.
II. Educated parents become helpful to their offsprings when the latter need some advice.
246. Statement: "How is it that only the northern part of the country is involved in the Ram temple movement when the whole nation has Ram devotees? If we want to rise above these petty political machinations there is an urgent need for a new breed of Indians with a mindset attuned to the present scenario and instilled with values generated by centuries of true Indian civilisation." - Mr Y

## Assumptions:

I. India comprises different types of mindsets.
II. True Indian civilisation among the citizens is desirable to inculcate the citizens with a lesson of harmony.
247. Statement: The leader of country ' $X$ ' has sent his special envoy to the capital of country ' Y ', seeking the help of its PM to defuse the western crisis. - A report in a newspaper

## Assumptions:

I. ' Y ' is one of the western countries which has responded positively in building international peace.
II. Efforts made by the PM of ' Y ' is likely to defuse the crisis in the western country.
248. Statement: "With 17" PC Monitor of company X, get Laxmark Z13 colour Inkjet Printer absolutely free with one-year guarantee period." - an advertisement Assumptions:
I. More people will now be attracted towards 17 " PC Monitor of company $X$ due to this scheme.
II. Offer of providing free goods to the customers with some other goods of a company is likely to increase the sale of the company.
249. Statement: "Medical and defence communities should always keep vigil as prompt diagnosis and early intervention could reduce morbidity and mortality and mitigate the ill-effects of a biological attack." Mr ' X ' makes ' Y ' aware of his opinion.

## Assumptions:

I. Biological attack is not desirable for society.
II. Medical and defence communities are equipped with the instruments of diagnosis.
250.Statement: "New auto policy allows $100 \%$ foreign funding and has kept in mind the need to address emerging problems and make the auto sector WTOcompatible". - Heavy Industries Minister

## Assumptions:

I. Auto policy needs to be formulated according to the needs of the citizens.
II. A policy aimed at making any sector WTOcompatible and hassle-free is considered to be a good policy.
251.Statement: "' $X$ ' steel company has approached the problem of rebar corrosion holistically by developing continuously cast, thermo-mechanically-treated (TMT) low-carbon, high-strength and high-ductility weldable rebars with superior corrosion resistance for concrete structure work." - MD of ' X ' Steel Company.

## Assumptions:

I. Corrosion of reinforcing steel in concrete is a complex phenomenon.
II. A marriage between high-quality steel bar and high-performance concrete is desirable to ensure longterm durability of reinforced concrete in construction work.
252.Statement: "With our advanced broadband technology, you can now experience the best action on the internet without the worry of huge telephone bills, and at prices as low as Rs 500 per month. An advertisement of company X .

## Assumptions:

I. Now more people will have access to internet.
II. People need to experience the best action on the internet.
253. Statement: "English is easy if you follow our book English Is Easy." - An advertisement of a Publishing Company

## Assumptions:

I. Most people aspire to learn English.
II. One can't learn English without following the book English Is Easy.
254. Statement: "Soft drinks' penetration in rural areas is only 10 per cent. If we have to hook the rural folk we need to give them single-serve soft drink packs at low price points." - CEO of ' X ' Company

## Assumptions:

I. Purchasing power of the people living in rural areas is low and it will make the people unable to purchase the beverage of company ' X ' even at low price points.
II. Low margin-high volumes is a way of successful business.
255. Statement: "Why do we put pressures on children to do exercises when they become adamant not to do the same? Why not opt for other mediums such as break-dance etc to fulfil the desired objectives?"

## Assumptions:

I. Break-dances and exercises have some common benefits.
II. Children would not have any hesitation participating in breakdances.
256. Statement: "We do not know why government is saying an agreement has been reached on the issue of proposed dilution of government holding in the joint sector automobile company, when neither party is, however, willing to divulge details of the proposed rights issue." - Senior representative of Company 'Y'.

## Assumptions:

I. An agreement is said to be reached only when both the parties divulge details of the relevant issues.
II. Government makes people fool by false representation.
257. Statement: "Almost two months after a girl was found dead in a multi-storey apartment, the police are exploring the possibility of using a lie-detector to verify statements." - A report in a newspaper

## Assumptions:

I. The lie detector may not help the police to confirm their suspicions.
II. So far the police have not used scientific techniques of interrogation and investigation to unravel the mystery behind the death of the deceased.
258. Statement: "Indian software institutes fulfil the world's demand of excellent software." - A news heading

## Assumptions:

I. Indian software institutes are quite capable of producing world-class software.
II. In the field of software India has become far better than any other country of the world.
259. Statement: $M r$ ' $x$ ', the fast bowler of country ' $y$ ', bid adieu to Test cricket to focus more on next year's World Cup. - Mr Z
Assumptions:
I. Mr 'x' will be fit for next year's World Cup.
II. World Cup cricket is more important than Test cricket.
260.Statement: "As far as prediction about your success in the forthcoming PO examination is concerned, it becomes necessary to know your level of preparation." - 'A' tells 'B'

## Assumptions:

I. Knowledge of preparation of ' $B$ ' will indicate whether ' $B$ ' will succeed in the examination or not.
II. Every competitor needs prediction about the result of his/her preparation for the examination.
261. Statement: "If Miss ' $J$ ' can ask for the extradition of Mr ' $Z$ ', supremo of a militant organisation, for the assassination of former PM, why can't families of British citizens, killed in state ' $X$ ' with the connivance of chief minister ' $Y$ ', ask for his extradition to UK to stand trial?" - A criticism made by a person.

## Assumptions:

I. Killings in state ' X ' were as deadly as the assassination of the former prime minister.
II. Mr ' Y ' is a culprit and so is Mr ' $Z$ '.
262. Statement: "If you have any information about drugs you can contact the officers of Narcotics Control Bureau." - An instruction to the people by Narcotics Control Bureau

## Assumptions:

I. Every person has information (more or less) about drug trafficking.
If it is not said explicitly, people will not convey the information they have about illegal drug trafficking.
263. Statement: "Please change the colour pattern of your number plate of vehicle on or before 1st July, 2002 as per the directions by Transport Department." - A request by Transport Department to owners of twowheelers and four-wheelers.

## Assumptions:

I. The stipulated time is enough for the owners to make requisite changes in number plates.
II. People will abide by the request of the Transport Department.
264. Statement: "Since most diseases result from faulty lifestyles or bad eating habits, why should animals suffer in the research for cure for these man-made ills?" - View of Mr Y

## Assumptions:

I. Initiatives aimed at prevention are better than cure of a disease.
II. It is not desirable to harass a species for the faults of another species.
265. Statement: "There is a need to take steps that would assuage the feelings of all the communities and strengthen the forces of tolerance, brotherhood and amity in state ' X ', where communal violence has done immense damage." - Mr Z, leader of opposition.

## Assumptions:

I. A person equipped with true qualities of humanity is more likely to encourage harmony among communities.
II. To assuage the feelings of the communities is not a hard nut to crack.
266. Statement: "How painful it is that even fifty years after Independence a section of the country's population is not being considered as its citizens!" - A note in a newspaper about citizenship of a section in country X .

## Assumptions:

I. Fifty years is a long time span during which it is feasible to provide citizenship to every section of the population of country X .
II. Independence of a country ensures more powers to its citizens.
267. Statement: "Sanjay Leela Bhansali (a film director) should be lauded and not criticised for the huge budget of Devdas (a film)." - A comment by Mr X
Assumptions:
I. A person is not worthy of criticism only because of violation of limit of a single factor.
II. Unless a person pumps in money, he/she cannot be the best in a field like cinema.
268. Statement: "Had my father been alive, he would never have allowed me to join films."- Miss X, a singer
Assumptions:
I. Sometimes tragedy brings prosperity in the life of an individual.
II. Film industry witnesses many ups and downs, therefore there is no guarantee that prosperity will come in life.
269. Statement: "Our study materials do not necessarily satisfy one's greed but certainly satisfy one's need to become a Probationary Officer (PO)." - An advertisement of ' X ' coaching Institute
Assumptions:
I. Need to become a PO can be satisfied with certain I. Need to become a PO can be satisfied with certain
amount of efforts but one's greed can not be amount of efforts but one's greed can not be satisfied with certainty.
II. Desires of most of the people (who aspire for PO) are not conducive to their real requirements.
270.Statement: "If you believe that stars and planets influence the course of your life, then the four-album series Navagraha is meant for you. It is the collector's series for those who want to keep their fortunes intact."- An advertisement

## Assumptions:

I. Some people hanker after a prosperous life without labouring.
II. Astronomy plays a vital role in one's life and cautions one against unfavourable situations.
271.Statement: "Only you know what is better strategy for you. So listen to various views but implement what suits you the best." -An ultimate success formula to youngsters by an IAS topper among women.

## Assumptions:

I. Some people need help from others while choosing an appropriate strategy for preparations.
II. Each individual has the capacity to judge herself as well as adopt right courses of action after selfevaluation.
272.Statement: "There should be a joint patrolling by Indian and Pakistani forces to check infiltration of militants into Jammu and Kashmir."-PM of India

## Assumptions:

I. Joint patrolling scheme is the only possible and practical way to check infiltration.
II. Pakistan Government will turn down India's proposal of joint patrolling of LoC as unworkable in the present circumstances.
273. Statement: "Unrestricted, free and fair competition is the only process to bring out the most competent and committed of the aspirants to political leadership."

- A note in a newspaper


## Assumption:

I. Political leadership is facing character crisis everywhere.
II. Existing condition of the country is conducive to unrestricted, free and fair competition so that the most competent and committed candidate can be found out.
274. Statement: "Readers are recommended to make appropriate enquiries before sending money, incurring any expenses or entering into any commitment in relation to any advertisement published in our newspaper." - An instruction to readers through newspaper ' X '.

## Assumptions:

I. Most of the readers can be persuaded easily by false and alluring advertisements.
II. Appropriate enquiries are likely to reduce the cases of fraud and other malpractices.
275. Statement: "Register as a voter and secure your voting right." - Notice issued in public interest by Chief Electoral Officer
Assumptions:
I. Some people still lack right of voting due to lack of proper registration.
II. "Voting right" is essential to make one's life more dynamic, comfortable and prosperous.
276. Statement: "We realise that your needs change over time. Our wide range of insurance solutions is designed keeping these changes in mind. So, whatever stage of life you are at, whatever your needs may be, you can count on us to have a solution."
An advertisement
Assumptions:
I. People are attracted towards renovations.
II. A wide range of insurance solutions is likely to garner more customers.
277. Statement: The Election Commission has deputed a nine-member high level team of official to assess the situation in state ' X ' and gauge the feasibility of holding early Assembly elections.

## Assumptions:

I. State ' X ' has just got out of its predicament as a result of communal riots.
II. People of state ' X ' will co-operate with the high level team of officials in its objectives.
278. Statement: If the government wants to stop child marriages, why not pass a law incorporating a clause that marriages so solemnised will be illegal and treated as child rape?

## Assumptions:

I. Child marriages still exist in our society.
II. Severe punishment is more likely to rid the society of evils.
279. Statement: "Provide scholarships to the children in primary schools to increase the number of students in school." - View of Mr X

## Assumptions:

I. Scholarship will attract the children to school.
II. Those children who are deprived of money but intelligent will attend the school and scholarship will make their aspirations feasible.
280.Statement: "Smartness cannot be the only criteria for deciding a person's personality."- Mr Y
Assumptions:
I. Persons with equal smartness are not necessarily treated equally.
II. Personality of a person is not linked only with smartness.
281. Statement: "Everyone desires to buy a mobile phone." - a student

Assumptions:
I. Mobile phones are not a necessity but an item of luxury.
II. Mobile phone makes one more active.
282.Statement: "Top rankers of forthcoming examination for probationary officers will definitely be from our classroom coaching." - Co-ordinator of XYZ classroom coaching
Assumptions:
I. Most of the intelligent competitors are from XYZ coaching institutes.
II. Question-paper of the forthcoming examination will be entirely based on the concept-building papers of XYZ institute.
283. Statement: "It has become the need of the hour that we should entrust all the power, regulating our franchisees, to one person to maintain smooth running of our franchisees as well as the organisation."- An employee of XYZ institute.

## Assumptions:

I. Entrusting powers to more persons will cause flexibility and indiscipline and as a result regulation of organisational work will be hindered.
II. Smooth running of franchisees is necessary for

284 the organisation
284. Statement: "Buy ' $X$ ' washing machine and win a free trip to the Asian Games in Korea." - An advertisement of a product in India.
Assumptions:
I. Most of the people do not want to wash the clothes
II. Free trips to the Asian Games in Korea will give good entertainment to the buyers.
285. Statement: "If you are facing distress-like situations, say physical assault, molestation, eve-teasing, harassment or any such situation but are reluctant to report to the Police Station, call 3317004 and get prompt assistance from specially trained Women Police Officers. You will be ensured of confidentiality." Director-General of police of state ' X '.

## Assumptions:

I. In some cases, despite facing distress-like situations women do not file a complaint against the bad guys due to some social compulsions.
II. Victims of physical assaults etc are more likely to express their trauma to specially trained Women Police Officers than to male police officers.
286. Statement: "The film Ek Chhotisi Love Story is OK to watch once and nothing more. I am convinced that Koirala (the actress of the film) and Nair (the director
of the film) are together in the ongoing debate on vulgarity in the film. The former has decided to get a stay while the latter has decided to go ahead with the release only because they knew the movie didn't have much in it. -View of a viewer of the movie Ek Chhotisi Love Story

## Assumptions:

I. Raising much hue and cry on trivial issues is likely to give boost to a weak film.
II. A controversy over a film generates curiosity among viewers.
287. Statement: Religion-based parties are a negation of our political system. Rather than solve problems, they will only aggravate them.

## Assumptions:

I. India is a secular country.
II. Indian people follow different religions.
288. Statement: There can be no heroism without courage. But courage is characteristic of many kinds of people who are by no means heroes, such as pirates, robbers and blood-thirsty raiders.

## Assumptions:

I. A person who risks or loses life only for the sake of some noble cause is a hero.
II. Heroism can not be thought of without some sort of violenc
289. Statement: For making any democracy successful, judiciary must be free from the control of executive or legislature.
Assumptions:
I. Judiciary is the only wing which cares for the needs and aspirations of citizens.
II. Any kind of interference in the functioning of judiciary will hamper its spirit.
290.Statement: The progress in the IT field has been tremendous, despite the country running into rough weather on political as well as economie front.
Assumptions:
I. Though the political and economic scene in the country has been abysmal it has not cast a shadow over the growth of the IT sector.
II. There is no linkage between the political, economic and corporate-related activities within the country.
291. Statement: Democracy will suffer great damage if the all-pervading nexus between criminals and politicians is not effectively questioned by enlightened people from all walks of life.

## Assumptions:

I. Criminalisation of politics will give a major blow to the rule of law.
II. It is only in the hands of the people to break the nexus between politicians and criminals.
292.Statement: Politicians turning into ministers is a natural transformation even if the quality of performance rarely matches expectations.

## Assumptions:

I. No ministers have adequate quality and skills.
II. Ministers should be able to handle their job efficiently.
293.Statement: Some ambitious political leaders themselves use grievances of minorities as empty slogans to grab political power.

## Assumptions:

I. Such leaders have no mass base nor genuine support, except for an occasional emotional upsurge.
II. Playing with the minority cards gives some leaders political berth but the status of their subjects remains unchanged.
294. Statement: India's strength lies in its pluralism and diversity. In fact, even western countries which tended to be quite monolithic are fast becoming pluralistic and diverse.

## Assumptions:

I. Diversity has become the order of the day.
II. No country can ignore the diversity among their populace.
295. Statement: When corrupt practices become a way of life, society degenerates and political stability is endangered.
Assumptions:
I. Corruption harms every segment of society.
II. Only corruption-free society can have political stability.
296. Statement: "Those without a voter identity card will not be permitted to vote even if their names are in the eligible voters' list." - Election Commissioner on the eve of election
Assumptions:
I. Voter identity cards have been issued to all the voters in the country.
II. Voter identity cards have not been issued to all the voters in the country.
297.Statement: The disinvestment in banks will eliminate scams and also reduce NPAs thus strengthening the nation's finances.

## Assumptions:

I. Privatisation of banks will improve the Indian economy.
II. Corruption in private organisations is less than that in government organisations.
298. Statement: If universities in each state adopt the regional language as their medium of instruction, it will severely restrict the inter-state mobility of students and teachers.
Assumptions:
I. Inter-state mobility of students and teachers is a major problem for the government.
II. There are so many languages in India.
299. Statement: Care should be taken to see that language learning does not become much of a burden on the students.
Assumptions:
I. Students are already overburdened.
II. Languages do not play any important role in professional life.
300.Statement: Lack of transparency in financial and investment policies and bureaucratic delays are major hurdles as India tries to integrate its economy into the global market.

## Assumptions:

I. The investment policies need to be changed for large-scale globalisation in India.
II. Bureaucrats in India are corrupt.
301. Statement: Neglecting the manufacturing sector and veering towards the information technology industry is what has led to the slowdown in the economy.
Assumptions:
I. The growth in manufacturing sector can boost the Indian economy.
II. Information technology industry needs less manpower than manufacturing sector.
302.Statement: "Imparting greater economic value to the time and labour of the poor through technological and knowledge empowerment should receive priority." - An economist's opinion

## Assumptions:

I. The poor get very little wages for their labour.
II. Only upliftment of the poor can enhance the economy of a country.
303. Statement: "International players are role models and set examples by their actions on the field. Whatever we do on field makes impact on younger generation." - Zimbabwean captain Heath Streak

## Assumptions:

I. International players should be cautious in their approach.
II. Most of international players lack good behaviour on the field.
304. Statement: Globalisation should not be seen as an automatic remedy for all economic maladies. It must be tinkered so that its benefits are not denied to the poor.

## Assumptions:

I. Until poverty is wiped out, economy can't be boosted up.
II. Globalisation is the only solution for making economy healthy.
305. Statement: "Nowadays the audiences too have become very intelligent. You cannot con them with money." - Anupam Kher after his removal from the multicrore television game show Sawal Das Crore Ka

## Assumptions:

I. Sawal Das Crore $K a$ is not a very popular game show.
II. Intelligent persons cannot be lured by money only.
306. Statement: No reform of income-tax law can be completed without a reasonable and rational personal income-tax rate structure in our country.

## Assumptions:

I. Until the present exemption limit for individuals is not raised, tax evasion and black money can't be checked.
II. Developed countries have reasonable income-tax rate structure.
307. Statement: India has had a long and honourable history of writers on social concerns but the problem is that Indians don't have a sense of history.
Assumptions:
I. The individual bias of an author affects the spirit of history but this is not the case with social issues.
II. The present issues of social concern can not constitute a part of history.
308. Statement: The functioning of Nehru's democratic system remains the best guarantee of Indian pluralism. But it has also served to create and perpetuate India's various particularisms.

## Assumptions:

I. No leadership other than that of Nehru's could ensure harmony in diversity in India.
II. In a diverse country like India it is not easy to mitigate particularisms.
309. Statement: Anybody smitten by the urge of seizing and wielding power forms a political party, gets it registered and starts collecting funds for the party through various means.

## Assumptions:

I. Politics is a convenient means to become high and mighty.
II. Political leaders use party funds for their personal benefits.
310. Statement: Public sector is a great source of corruption. And in fact this is the reason why government servants make concerted efforts to ensure that the transition to privatisation of this sector is stalled.

## Assumptions:

I. Public sector employees want to stay earning money through wrong means.
II. Private companies can manage the country's resourses more efficiently.
311. Statement: With the entire administrative system of the country steeped in corruption, any attempt at diluting the powers of the CVC must be thwarted by all, and especially the media.

## Assumptions:

I. Media works as the most important instrument of control against the people in power.
II. CVC reputation is beyond reproach.
312.Statement: The emergence of acute competition because of fresh entry of companies benefits the consumer.

## Assumptions:

I. The monopoly of a company in a specific sector is not good for consumers.
II. When competition among companies increases, the consumer get better quality, new technology, discounts and innovative sales schemes.
313. Statement: India suffers a huge loss of power annually. Technically described as transmission and distribution losses, this is a euphemism for largescale theft.

## Assumptions:

I. India has an adequate power generation capacity.
II. Large-scale transmission and distribution losses are not possible.
314. Statement: The most important quality a model should possess is confidence. One need not be conventionally good-looking to be a model.

## Assumptions:

I. To become a model what counts is not a goodlooking face but knowledge, confidence and elegance.
II. Good looks are no criteria for being a model.
315. Statement: "The economic fortunes of the USA would determine the health of the Indian economy." - FICCI president

## Assumptions:

I. Indian economy has no independent existence of its own.
II. The US economy influences the world economy.
316. Statement: Integrity and simplicity of life are not regarded as virtues any more.
Assumptions:
I. Nowadays cunning and fraud is the gateway of success.
II. Only those qualities are virtues which help to earn name and fame.
317. Statement: Legislation alone cannot change entrenched customs and social attitudes. Women's plight is compounded by their ignorance of rights
and reluctance to seek legal remedies even when they are aware of them.

## Assumptions:

I. Only literacy can change entrenched customs and social attitudes.
II. Women are generally subject to ill-treatment in our society.
318. Statement: "In 20 years, physics would become redundant because scientists will have solved the mysteries of the universe." - Stephen Hawking.

## Assumptions:

I. Physics is the science in which we study about the Universe.
II. Most of the mysteries of the universe have already been solved.
319. Statement:The investment in human development must continue because only with the help of educational institutions of a high standard can the country maintain the flow of talent.

## Assumptions:

I. A country can't be branded as developed if it lacks talented persons.
II. In the present scenario high-standard educational institutes are lesser in number than that required.
320.Statement: Urdu is neither the language of Indian Muslims only nor of all of them. It is an Indian language which belongs to all of us like all great languages.

## Assumptions:

I. Urdu originated and developed in India.
II. Muslims understand that Urdu is their own language.
321. Statement: "There is enough for man's need, and not for his greed." - Gandhiji

## Assumptions:

I. Needs can always be satisfied with certain amount of effort but greed ean not be-at any cost
II. Man is greedy by nature.
322. Statement: There is no value-based education at all. Education has become commercial with malpractices taking place at various levels. Assumptions:
I. Commereialisation of education has immensely harmed our social interests.
II. Values and education should be synonymous with each other.
323. Statement: History should not be used in the contemporary context to promote hatred between communities.

## Assumptions:

I. Some politicians have come to power mainly by using history for political ends.
II. History should be seen within itself and not outside its purview.
324. Statement: "People will be ready to spend big money on a course, if big money can be made in a related industry." - An industrialist

## Assumptions:

I. The demand of any professional course is related to its relevance.
II. A less expensive course lands a person in a lessearning net.
325. Statement: An earthquake is a natural phenomenon but the scale of death is definitely not.

## Assumptions:

I. High-rise buildings are very much unsafe for human lives during natural calamities.
II. The large scale of migration from the rural areas to the towns and lack of proper civic planning there is behind the massive loss of human lives.
326. Statement: Good batsmen or good bowlers cannot be judged from their performance in one or two matches.

## Assumptions:

I. Giving frequent chances to freshers is a must for judging their capacity as a good batsman or bowler.
II. The average of runs scored by a batsman and wickets taken by a bowler stretched over several matches is the real index to judge them as good or bad performers.
327. Statement: "Invest in the pension plans of LIC and ensure lifelong security and best returns." - An advertisement.

## Assumptions:

I. People will respond to this ad.
II. People want lifelong security.
328. Statement: "They started it and as long as they were doing it, it was all fine. But the moment we do it, it all goes wrong." - Finance minister of country ' X ' on the Opposition's stand on privatisation.

## Assumptions:

I. The Opposition should respond positively to wellintentioned actions of the government.
II. Privatisation is good for the health of country X's economy.
329. Statement: Good marks alone don't make you successful in life. It is how many marks you got by understanding the subject that matters.

## Assumptions:

I. Higher marks can be scored in exams by rote.
II. The utility of education is not confined to exams alone; it has much wider importance in our life.
330. Statement: Don't take a job just for money. Take a job to serve people and benefit them more and more.
Assumptions:
I. Most of the people work solely for money.
II. A job/assignment undertaken out of interest and social responsibility not only gives money and status to a person but also a mission in life.
331. Statement: For the educated and ambitious people the only alternative to enforced poverty now seems to seek business fortune and employment opportunities abroad.

## Assumptions:

I. Government polices are insufficient in providing employment to the educated people.
II. Educated and ambitious people are not satisfied with the available business fortunes and employment opportunities.
332. Statement: "Despite being busy directing films and producing serials for TV, I am always on the lookout for acting assignments" - An actor director in an interview.
Assumptions:
I. Direction is a responsibility which one can't enjoy because it is a high-calibre job.
II. A good actor is paid more heavily than a good director.
333. Statement: Any democratic process is deeply flawed if it excludes women from polity.

## Assumptions:

I. Like men, women are an integral part of society.
II. Except in a few developed countries, women have not been given proper representation in polity.
334. Statement: Stagnant industrial growth in the past two years has crippled job opportunities in urban India.

## Assumptions:

I. Industrial growth in India is linked with global industrial ups and downs.
II. Industries are the mainstay for job-seekers in urban areas.
335. Statement: Winning votes and capturing power alone is not enough. Winning the hearts of the people also matters.

## Assumptions:

I. People expect their representatives to behave impartially, transparently and work for public welfare.
II. Winning votes and winning the hearts of the people are interrelated.
336. Statement: Central Recruitment Board has declared final results for Bank PO and (CRB) enlisted 218 candidates, twenty more than the announcement in advertisement.

## Assumptions:

I. Surplus candidates might be selected provisionally.
II. The CRB has the power to alter the number of candidates to be recruited.
337. Statement: "I don't think our bowlers bowled badly. We just didn't have the runs on the board to win us the game."- A captain of ' X ' cricket team.
Assumptions:
I. Bowlers alone cannot bring victory for a country in a match.
II. In spite of bad bowling, batsmen can bring the match in their team's favour.
338. Statement: The anti-defection law is ineffective not because it is defective but because the enforcing authority, the speaker of the legislature, is obsessed by party politics. - Chief Election Commissioner of country X.
Assumptions:
I. Enforcing authority needs to be impartial in a democratic country.
II. Country X is suffering from horse-trading in politics.
339. Statement: We have to fashion liberalisation for ourselves. If you have to wear a hat of liberalisation, please wear one that fits your head. - Former PM of country X.

## Assumptions:

I. The economy of country X is not conducive to meet liberalisation.
II. The policy of liberalisation pursued by the incumbent government is adversely affecting the interests of many sections of our society.
340. Statement: "All chocolates are bad for teeth. So why not eat the tastier ones?" - an advertisement

## Assumptions:

I. One should eat chocolates.
II. Nobody eats chocolates.
341. Statement: Our soul accepts new material bodies giving up the old and useless ones, just as a person puts on new garments.

## Assumptions:

I. The soul is like a clothes-hanger.
II. The soul is immortal.
342. Statement: Those who say that the Indians have a dangerous level of tolerance - to the extent that they would tolerate even non-independence for peace - forget the history of India.

Assumptions:
I. Some persons believe that Indians are tolerant to a dangerous level.
II. Some persons do not believe that Indians are tolerant to a dangerous level.
343. Statement: A chariot is made of wheels, horses etc. But none of these parts is the chariot itself.

## Assumptions:

I. A chariot is an incomplete construction.
II. Parts can never substitute the whole.
344. Statement: When I retaliate, I shall go one step further in violence.

## Assumptions:

I. Violence has been used against me.
II. I do not take an offence lying down.
345. Statement: When we can't even buy a fan, how can we afford a cooler?

## Assumptions:

I. We can't afford a cooler.
II. A cooler is costlier than a fan.
346. Statement: Some people think that they can achieve anything with practice. They forget that there is a thing called "born genius".

## Assumptions:

I. Practice is not necessary for success.
II. A born genius is always successful.
347. Statement: Some of our staff are not giving their full output. We must punish them. - A manager to his colleague

## Assumptions:

I. The manager is in a position to punish the erring II. The manager may not be in a position to punish the erring staff.
348. Statement: "Persons who have got the passes need not stop for security checks. They can go inside without this formality." - a notice at a function
Assumptions:
I. The function is not very important from the security point of view.
II. Those having passes can be trusted.
349. Statement: "I always listened to my inner voice. And that is why I was saved from sin on many occasions." - Gandhi in his autobiography

## Assumptions:

I. Our inner voice asks us not to sin.
II. Gandhi never committed a sin.
350. Statement: How can you be so rude? Your father was such a polite person!

## Assumptions:

I. Politeness is hereditary.
II. Politeness is not hereditary.
351. Statement: Whenever I come to watch the match, India loses a wicket. So I will not see the crucial India-Pak match on Friday.

## Assumptions:

I. My coming to watch is one cause of India losing a wicket.
II. India will win the match on Friday.
352. Statement: There must be some addictive substance in Gutkha. Whenever I don't chew it for more than two hours, I feel uneasy.

## Assumptions:

I. Feeling uneasy is a sign of addiction.
II. Gutkha should be taken once every two hours.
353. Statement: I can't make it in the UPSC exam. I am just not hardworking.

## Assumptions:

I. Hard work is necessary to succeed in UPSC exam.
II. UPSC exam is tough.
354. Statement: I hope to succeed in the SBI PO exam. They had more vacancies.
Assumptions:
I. The more the vacancies, the greater the chances of success.
II. SBI PO exam is easier.
355. Statement: It is high time the RBI took a look at infrastructure lending by commercial banks.

## Assumptions:

I. Infrastructure lending is the best service commercial banks can provide.
II. At present the RBI does not pay attention to infrastrueture lending by commercial banks.
356. Statement: By wining the Booker Prize, Arundhati Roy gives Indian writing in English global acceptance.
Assumptions:
I. Booker prize is a sign of recognition for English writing.
II. Indian writing in English has come of age.
357. Statement: Indians are no longer aghast when they come across stories of corruption.
Assumptions:
I. Earlier, corruption came to Indians as a shock.
II. Corruption is not a new phenomenon.
358. Statement: The people promoting aids to hedonistic activities are far more dangerous than our external enemies.
I. Our external enemies are not dangerous.
II. Hedonistic activities can't be performed without aids.
359. Statement: The Indian cricket team trounced pakistan 4-1 in Toronto to lift the Sahara Cup.

## Assumptions:

I. Both India and Pakistan participated in the Sahara Cup.
II. Only India and Pakistan participated in the Sahara Cup.
360. Statement: This book is for those who are interested to know more about 'Indian History'.
Assumptions:
I. People who are interested to know about the author may read books.
II. Every book may attract some readers.
361. Statement: Helping the poor is the real service to humanity.

## Assumptions:

I. Poor people are in need of help from others.
II. If we do not help poor, we will not be called human beings.
362. Statement: The police in India have to cope with tremendous stress and strain while having to maintain security and order.

## Assumptions:

I. In other countries, the police do not have to undergo stress and strain while doing their duty.
II. The police are expected to do their duties without stress or strain.
363. Statement: If children are to manage our world in future, then they need to be equipped to do so.

## Assumptions:

I. The world has always educated children.
II. It is possible to educate children.
364. Statement: There is no shopping complex for this colony; people have to go to the main market.

## Assumptions:

I. This colony may be far from main market.
II. The people do not want to go to the main market.
365. Statement: Take this 'oven' home and you can prepare very tasty dishes which you were unable to prepare earlier. - An advertisement of $X$ brand oven.

## Assumptions:

I. The user knows the procedure recipe of tasty dishes but does not have the proper oven to cook.
II. Only ' $X$ ' brand oven can cook very tasty dishes.
366. Statement: "Please note that the company will provide accommodation to only outside candidates if selected." - A condition in an advertisement.

## Assumptions:

I. The local candidates would be having some or other arrangement for their stay.
II. The company plans to select only local candidates.
367. Statement: Traffic police be given anti-pollution masks while manning traffic signals.
Assumptions:
I. The traffic police will be able to carry out their work after wearing the mask.
II. The masks are safe for wearing and there is no other adverse side-effect.
368. Statement: Since the First Five-Year Plan, the Indian policy-makers have acknowledged the services rendered by the voluntary agencies.
Assumptions:
I. Voluntary agencies have been in existence in India even before the First Five-Year Plan.
II. Voluntary agencies have contribution in designing
of the First Five-Year-Plan.
369. Statement: As a nation we are committed to protect and promote the interests of all those who are socioeconomically vulnerable.

## Assumptions:

I. It is possible to protect and promote interests of socio-economically weak people.
II. A nation should have certain commitments for its people.
370. Statement: 'This book has been written for every one and does not require readers to have any experience in handling computers.' - An author of a book on computers.

## Assumptions:

I. It is possible to learn computers with the help of a book only.
II. It is possible to learn to handle computers only after reading the book.
371. Statement: Health is the foundation of well-being, virtue, prosperity, wealth, happiness and salvation. Assumptions:
I. Happiness results in health and well-being.
II. People desire to be happy, prosperous and virtuous.
372. Statement: 'Authorised Indian Edition - illegal for sale or distribution outside India' - A publisher's note on the cover page of a book.

## Assumptions:

I. Indian editions may be in demand in nearby countries.
II. It may be possible to sell or distribute this book outside India.
373. Statement: Pollution is a slow poison, and therefore social scientists and the media must work together to create sensitivity among people.

## Assumptions:

I. Media is well informed and aware about the effects of pollution.
II. Media is likely to influence people to raise their sensitivity towards various problems.
374. Statement: In country ' $X$ ' a public servant cannot claim immunity from prosecution for any objectionable act committed while performing his official duty.

## Assumptions:

I. A public servant is likely to commit an objectionable act while performing his official duty.
II. Every one is equal before law.
375. Statement: The entry of multinational companies in India has led to higher efficiency of the Indian companies who are competing with them.

## Assumptions:

I. Employees of multinationals may serve as models for Indian company's employees.
II. Competition will reduce many Indian companies to ashes.
376. Statement: 'Only candidates having B. Tech., B.E., MBA and MCA with at least one year's exposure to software will be considered for admission to our course' - Admission criterion of a reputed software training institute.

## Assumptions:

I. The candidates having requisite background are likely to complete the course successfully.
II. The institute is choosy about admitting candidates to its courses.
377. Statement: 'If you would like to have any more information of XYZ credit card, call us between 8.00 am and 8.00 pm 365 days of the year' -An advertisement of 'XYZ credit card company'.
Assumptions:
I. Competition produces more friendly customer service.
II. The company values and appreciates the need of the customers.
378. Statement: 'You are expected to be frank and objective while writing your self appraisal report'. -An instruction for writing self-appraisal report

## Assumptions:

I. Unless cautioned, people may tend to be a little shy and less objective while writing their selfappraisal report.
II. Every self-appraisal report helps the person in his further development.
379. Statement: The higher echelons of any organisation are expected to be models of observational learning and should not be considered as merely sources of rewards and punishments.

## Assumptions:

I. Employees are likely to be sensitive enough to learn by observing the behaviour of their bosses.
II. Normally bosses are considered as sources of reward and punishment.
380. Statement: 'But, out of $A, B, C$ and $D$ products, you buy ' $B$ ', which alone is based on international technology. - A shopkeeper tells a customer.

## Assumptions:

I. The customers normally accept the recommendation of the shopkeeper.
II. Use of international technology is supposed to ensure better quality standards.
381. Statement: The organisation should promote employees on the basis of merit alone and not on the basis of length of service or seniority.

## Assumptions:

I. Length of service or seniority does not alone reflect merit of an employee.
II. It is possible to determine and measure merit of an employee.
382. Statement: Highly brilliant and industrious students do not always excel in the written examination.

## Assumptions:

I. The written examination is good mainly for mediocre students.
II. The brilliant and industrious students cannot always write good answer in the exam.
383. Statement: 'Country A would explore all channels to diffuse current tensions with country B and bring peace on its borders.' - Statement of spokesperson of country A.

## Assumptions:

I. Country A is desirous to diffuse current tension and restore peace with country $B$
II. It is desirable to use more than one channel when complex issues are to be settled amicably.
384. Statement: Two months ago, it was announced that

Central government pensioners would get dearness relief with immediate effect but till date, banks have not credited the arrears.' - A statement from Pensioners' Forum.
Assumptions:
I. Most of the banks normally take care of the
pensioners.
II. Two months' time is sufficient for the government machinery to move and give effect to pensioners.
385. Statement: 'The bridge was built at the cost of Rs 128 crores and even civil bus service is not utilising it. What a pity to see it grossly underutilised!' - A citizen's view on a new flyover linking east and west sides of a suburb.
Assumptions:
I. The building of such bridges does not serve any public objective.
II. There has to be some accountability and utility of money spent on public projects.
386. Statement: 'Use our product to improve memory of your child; it is based on natural herbs and has no harmful side-effects.' - Advertisement of a pharmaceutical company.

## Assumptions:

I. People generally opt for a medical product which is useful and has no harmful side effects.
II. Improving memory of child is considered as important by many parents.
387. Statement: The traders of State $K$ would observe a statewide bandh as the state has failed to meet their demand to resolve sales tax and other issues.

## Assumptions:

I. The traders of State $K$ have earlier tried other usual procedures to get their problems solved.
II. State K is not keen to solve the problem of traders.
388. Statement: India must earn a lot of foreign exchange to achieve her target of economic development.
Assumptions:
I. India desires to achieve the target of economic development.
II. It is possible for India to earn more foreign exchange.
389. Statement: "As you want to succeed in life, you must work hard." 'A' tells 'B'.
Assumptions:
I. 'B' is capable of doing hard work.
II. All those who have worked hard have succeeded in life.
390. Statement: The nutritional status of children in India is better compared to that in other developing countries.

## Assumptions:

I. It is not possible to estimate nutritional requirement of children in other countries.
II. India can become a developed country.
391. Statement: He teaches behavioral science but see how he behaves with others?
Assumptions:
I. Our behaviour is controlled by others.
II. One is expected to follow what one preaches.
392. Statement: Economic development and social justice should go hand in hand.

## Assumptions:

I. Only economic development can bring social justice.
393. Statement: "I have not received telephone bills for nine months in spite of several complaints."-A telephone customer's letter to the editor of a daily. Assumptions:
I. Every customer has a right to get bills regularly from the-telephone-company.
II. The customers complaints point to defect in the service which is expected to be corrected.
394. Statement: Greater public participation results in good civic governance. - Statement of Municipal Commissioner of city ' $A$ '.

## Assumptions:

I. The municipal office is not competent to effect good civic administration.
II. Good civic governance is a matter of collective will and effort of the people and administration.
395. Statement: To investigate the murder of the lone resident of a flat, the police interrogated the domestic servant, the watchman of the multistoried buildings and the liftman.

## Assumptions:

I. The domestic servant, watchman and the liftman can give a clue about the suspected murder.
II. Generally in such cases the persons known to the resident is directly or indirectly involved in the murder.
396. Statement: If the city bus which runs between Cheka Naka and Vande Park is extended to Shramnagar, it
will be convenient. - Appeal of residents of Cheka Naka to the city bus company.

## Assumptions:

I. The convenience of the city bus company is much more important than the needs of the consumers.
II. The city bus company is indifferent to the aspirations of the residents of Shramnagar.
397. Statement: Desirable and qualified candidates should submit their application form along with the requisite qualifications and their biodata. - An advertisement for admission.

## Assumptions:

I. Merely having qualification and aptitude for the job does not make a person suitable for the job.
II. Many candidates shall apply because they are interested in the job.
398. Statement: It has been felt that at a time when the airline faces tough competition and is passing through critical economic conditions, the remaining higher posts should be opened for outside professionals instead of filling them up with insider applicants.

## Assumptions:

I. The internal applicants only aspire for promotion without contributing much to the organisation.
II. It is most likely that problems of the airline would be solved by experienced professionals.
399. Statement: KLM company has decided to issue debentures to mop up resources.

## Assumptions:

I. KLM company has already explored other sources to collect resources.
II. There are very few competitors in the market for the products of KLM company.
400.Statement: "Tenders are invited from reputed contractors for pre-qualification." - The tender notice of a public sector company
Assumptions:
I. The company seeks to do quality business. II. The company expects contractual and competitive rates for its work.
401. Statement: The state government ' $X$ ' is committed to restrict smoke levels on the roads of the metropolis as per the desired parameters.
Assumptions:
I. It is possible to determine the smoke levels.
II. A committed government can carry forward welfare measures for its people.
402.Statement: "To reduce the oil pool deficit it has been decided to hike the prices of diesel and petrol."The spokesman of the government

## Assumptions:

I. The amount earned by this increase may be substantial enough to reduce the deficit.
II. There may be widespread protests against the price hike.
403. Statement: The $X$ passenger car manufacturing company announced a sharp reduction in the prices of their luxury cars.

## Assumptions:

I. There may be an increase in the sale of their luxury cars.
II. Other such car manufacturers may also reduce their prices.
404. Statement: A foreign film producer rendered his apology before Indian society for misinterpreting an Indian epic.

## Assumptions:

I. Indians are very sensitive to the misinterpretation of their epics.
II. It is possible to derive wrong meaning from the epic.
405. Statement: Lalit's mother instructed him to return home by train if it rains heavily.

## Assumptions:

I. Lalit may not be able to decide himself if it rains heavily.
II. The trains may ply even if it rains heavily.
406. Statement: The Government of India has decided to start a track II dialogue with its neighbour to reduce tension in the area.

## Assumptions:

I. The neighbouring country may agree to participate in the track II dialogue.
II. The people involved in track II dialogue may be able to persuade their respective Governments.
407.Statement: The host in one of the popular TV programmes announced that the channel will contact the viewers between $6.00 \mathrm{a} . \mathrm{m}$. and $8.00 \mathrm{p} . \mathrm{m}$. on weekdays and the lucky ones will be given fabulous prizes.

## Assumptions:

I. The people may remain indoors to receive the phone call.
II. More people may start watching the programme.
408. Statement: The ' $X$ ' group of employees' association have opposed Voluntary Retirement Scheme to the employees of some organisations.
Assumptions:
I. Only those employees who are not efficient may opt for the scheme.
II. The response of the employees may be lukewarm towards the scheme and it may not benefit the organisation to the desired level.
409. Statement: In view of the statement on the ongoing strike of work by the employees, the government has agreed to work out an effective social security programme.

## Assumptions:

I. The striking employees may not be satisfied with the announcement and continue the agitation.
II. The striking employees may withdraw their agitation with immediate effect and start working.
410.Statement: The head of the organisation congratulated the entire staff in his speech for their sincere effort to bring down the deficit and urged them to give their best for attaining a more profitable position in future.

## Assumptions:

I. The employees may get motivated and maintain and if possible enhance their present level of work.
II. The employees may now relax and slow down in their day-to-day work as there is no immediate threat of huge deficit.
411. Statement: "Private Property, trespassers will be prosecuted" - A notice on a plot of land.

## Assumptions:

I. The passerby may read the notice and may not tresspass.
II. The people are scared of prosecution and, therefore, never tresspass.
412. Statement: The government has set up a fact-finding mission to look into the possible reasons for the recent violence in the area.

## Assumptions:

I. The mission may be able to come up with credible information about the incidents.
II. The people in the area may cooperate with the mission and come forward to give detailed information related to the incidents.
413. Statement: An advertisement: If you want to follow the footprints of an ideal leader, wear ' X ' brand of shoes.

## Assumptions:

I. Most people like to become ideal leaders.
II. One can't become ideal leader unless one wears ' X ' brand of shoes.
414. Statement: Every citizen must be committed to the social cause; if he is not, his citizenship should be cancelled.

## Assumptions:

I. It is possible to find out whether a citizen is committed to the social cause or not.
II. Citizenship of any citizen can be cancelled.
415. Statement: An advertisement: Now you can own a new car in just Rs 1,999 per month.

## Assumptions:

I. People do not want to buy used cars.
II. Most people can afford to pay Rs 1,999 per month for a new car.
416. Statement: Beware of dogs. Our dogs do not bark but they are trained to distinguish between genuine guests and intruders.

## Assumptions:

I. Barking dogs rarely bite.
II. Our dogs could be dangerous for intruders.
417. Statement: Without reforming the entire administrative system, we cannot eradicate corruption and prejudice from the society. Assumptions:
I. The existence of corruption and prejudice is good. II. There is enough flexibility to change the administrative system.
418. Statement: The regulatory authority has set up a review committee to find out the reasons for unstable Assumptions:
I. The investors may regain confidence in stock market by this decision.
II. The review committee has the expertise to find out the causes for volatility in the stock market.
419. Statement: "Get rid of your past for future, get our new-generation fridge at a discount in exchange of old." - An advertisement

## Assumptions:

I. The sales of the new fridge may increase in the coming months.
II. People prefer to exchange future with past.
420.Statement: "Learn computer at no cost and make your life more meaningful."-An advertisement Assumptions:
I. People prefer to join courses without any fees.
II. Knowledge in computer makes life more meaningful.
421. Statement: The government has decided to launch food-for-work programme in all the drought-affected areas.

## Assumptions:

I. The government has the machinery to implement the food for work programme in all the drought affected areas.
II. There is enough food in stock to implement the programmes successfully.
422.Statement: The head of the organisation has decided to reward those employees who will help reducing expenditure substantially by suggesting innovative techniques.

## Assumptions:

I. The employees may be able to come out with innovative ideas.
II. The employees may be encouraged to apply their mind to earn the reward.
423. Statement: The civic authority has advised the residents in the area to use mosquito repellents or sleep inside nets as a large number of people are suffering from malaria.

## Assumptions:

I. Local residents have enough money to arrange for the repellents or nets.
II. People may ignore and continue to get mosquito bites as they have other pressing needs.
424. Statement: The Government should engage the Army for the rapid rehabilitation of people affected by the cyclone.

## Assumptions:

I. Only the Army can rehabilitate the people affected by the cyclone quickly.
II. The Army can take up works other than war also.
425. Statement: His recent investment in the shares of company ' $A$ ' is only a gamble.
Assumptions:
I. He may incur loss on his investment.
II. He may gain from his investment.
426. Statement: Government should deploy the Army at least this year for the rehabilitation of people affected by cyclone because cyclone visits suddenly.

## Assumptions:

I. The Army should be deployed for all such sudden incidents.
II. Some precautionary plan is being made to prevent destruction eaused by cyclone.
427. Statement: It is not true always that the adoption of latest technology ensures increased productivity and capacity.

## Assumptions:

I. It is possible to prove that increased productivity and capacity are due to adoption of latest technology.
II. The productivity and capacity can be increased by discarding latest technology.
428. Statement: If you could not collect the required amount by oral call you must publish an advertisement in a widely read newspaper.

## Assumptions:

I. People rarely respond to oral call.
II. Generally people are reluctant to read an advertisement in a newspaper.
429. Statement: The Union Government has decided to withdraw existing tax relief on various small savings schemes in a phased manner to augment its tax collection.
Assumptions:
I. People may still continue to keep money in small
savings schemes and also pay taxes.
II. The total tax collection may increase substantially.
430. Statement: The Government has decided to levy 2 per cent surcharge on the tax amount payable for funding drought relief programmes.

## Assumptions:

I. The Government does not have sufficient money to fund drought relief programmes.
II. The amount collected by way of surcharge may be adequate to fund these drought relief programmes.
431. Statement: The ' $X$ ' Housing Finance Company has offered its services to search a suitable home at no extra cost for those who avail housing loan from it.

## Assumptions:

I. The customers may prefer to take housing loan from ' X ' Housing Finance Company as they can save a lot of their time and money spent in searching a suitable home.
II. No other Housing Finance Company has offered any such extra services alongwith housing loan.
432. Statement: World Health Organisation has decided to double its assistance to various health programmes in India as per capita expenditure on health in India is very low compared to many other countries.

## Assumptions:

I. The enhanced assistance may substantially increase the per capita expenditure on health in India and bring it on par with other countries.
II. The Government funding is less than adequate to provide basic medical facilities in India.
433. Statement: The government has decided to hold the employers responsible for deducting tax at source for all its employees.

## Assumptions:

I. The employers may still not arrange to deduct tax at source for its employees. II. The employees may not allow the employers to deduct tax at source
434. Statement: The X-Airlines has decided to increase the passenger fare by 15 per cent with immediate effect.
Assumptions:
-I. The demand for seats of the X-Airlines-may remain unchanged even after the hike of fare.
II. Other airline companies may also hike the passenger fares.
435. Statement: "Our bank provides all your banking requirements at one location." - An advertisement of a bank
Assumptions:
I. Customers prefer to carry out all banking transactions at one place.
II. People may get attracted by the advertisement and carry out their transactions with this bank.
436. Statement: Bank ' $A$ ' has announced reduction of half percentage on the interest rate on retail lending with immediate effect.

## Assumptions:

I. Other banks may also reduce the retail lending rates to be in competition.
II. The Bank 'A' may be able to attract more customers for availing retail loans.
437. Statement: The ' $M$ ' Cooperative Housing Society has put up a notice at its gate that salespersons are not allowed inside the society.

## Assumptions:

I. All the salespersons will stay away from the ' M ' Cooperative Housing Society.
II. The security guard posted at the gate may be able to stop the salespersons entering the society.
438. Statement: It is not true that the mightiest superpower always wins wars and gets accolades from other countries.

## Assumptions:

I. Winners are sometimes admired and appreciated.
II. Winners are occasionally criticised.
439. Statement: Nobody can predict as to how long our country would take to contain the unfortunate and disastrous terrorist activities.

## Assumptions:

I. It is impossible to put an end to terrorist activities.
II. Efforts to control the terrorist activities are on.
440. Statement: Wars must be discouraged vehemently even though majority of the victims might have been a nuisance to peace-loving people.
Assumptions:
I. Some people create problems to peace-loving people.
II. Wars kill majority of the wicked people.
441. Statement: In the recently imposed war, global public opinion was dishonoured by the economically strong and scientifically advanced superpower.

## Assumptions:

I. Superpowers need not take any heed of global public opinion.
II. Global public opinion should have been against the imposition of war.
442. Statement: Wars must be discouraged vehemently even though majority of the victims might have been a nuisance to peace loving people.
Assumptions:
I. Innocent people are also killed in wars.
II. Vehement opposition to wars may have some desirable impact
443. Statement: The government has decided to pay compensation to the tune of Rs 1 lakh to the family members of those who are killed in railway accidents.
Assumptions:
I. The government has enough funds to meet the expenses due to compensation.
II. There may be reduction in incidents of railway accidents in near future.
444. Statement: The $X$-Airlines has temporarily suspended flights to a few destinations for the next four days due to the strike call given by the Pilots' Association.
Assumptions:
I. The airlines may be able to restore all the flights after four days.
II. The Pilots' Association may withdraw the strike call within four days.
445. Statement: The civic authority has appealed to the citizens to cooperate in curbing rampant power theft in the locality.
Assumptions:
I. The local citizens group may respond to the request and form groups of people to detect such cases of power theft.
II. Those who are engaged in stealing power may stop doing so for fear of social castigation.
446. Statement: The Parent Teacher Association (PTA)
of a school has informed the Principal that they will not send their children to the school unless the school authority reduces the fees with immediate effect.

## Assumptions:

I. Majority of the parents may agree with the PTA and may not send their wards to the school.
II. The school authority may accede to the demand of the PTA and reduce the fees.
447. Statement: 'If you are first class graduate, our organisation is the best place for you to work." - An advertisement

## Assumptions:

I. No other organisation may require first class graduates as they may not get adequate number of applications.
II. First class graduates may get attracted and apply to this organisation.
448. Statement: Provide mid-day meals to the children in primary schools to increase the number of students attending schools.
Assumptions:
I. Mid-day meals will attract the children to the schools.
II. Those children who are otherwise deprived of good food will attend the schools.
449. Statement: Salary cannot be the only criteria for deciding a person's potential.

## Assumptions:

I. Persons with equal potential are not necessarily paid equally.
II. Salary of a person is not linked only with the potential.
450. Statement: "Everyone desires to buy a personal computer." - statement of a college student.

## Assumptions:

I. Personal computers are not a need but a luxury.
II. Use of personal computer improves quality of skill.
451. Statement: "The city's top-ranker for SSC examination this year will be definitely from our school." - Principal of a School ' X '.
Assumptions:
I. The teachers of the school have prepared their students thoroughly
II. Most of intelligent students in the city are studying in School ' X '.
452. Statement: "It has become a necessity to computerise all the functions of our Institute to maintain the present position." - statement of the Director of XYZ Institute.

## Assumptions:

I. Unless computerised, the Institute will fall behind in the race.
II. The functions of the Institute are too complex to be handled manually.
453. Statement: "'Music Loving Club' has announced a wide variety of programmes by the visiting musicians." - An advertisement
Assumptions:
I. A large number of people are interested to get entertainment through the programme.
II. The artistes may attract a large number of audience.
454. Statement: Central Bank, which is the largest bank in the country, has decided to reduce its workforce by 30 per cent so that its banks may work efficiently.
Assumptions:
I. The Bank can perform all its activities after the reduction in workforce.
II. The surplus employees may be asked to adopt early retirement scheme before leaving the bank.
455. Statement: The Principal instructed all the teachers to be careful in class because some students may disturb other students.

## Assumptions:

I. The teachers may handle the situation properly and they may restrict the naughty students.
II. The students will welcome the decision of the Principal.
456. Statement: The State Government has abolished the scheme of providing concessional air ticket to students.

## Assumptions:

I. Students will not travel by air in future.
II. The students who resort to travel by air can bear the expenses of air ticket.
457. Statement: The police has served a notice to the residents with immediate effect to be careful of the antisocial elements wandering in their areas.
Assumptions:
I. The local residents may pay heed to this notice.
II. The antisocial elements may ply to other areas.
458. Statement: The General Administration Department has issued a circular to all the employees informing them that henceforth the employees can avail their lunch break in any of the half-hour slot between $1.00 \mathrm{p} . \mathrm{m}$. and $2.30 \mathrm{p} . \mathrm{m}$.

## Assumptions:

I. The employees may welcome the decision and avail lunch break at different time slots.
II. There may not be any break in the work of the organisation as the employees will have their lunch break in different time slots.
459. Statement:- The state government has decided to appoint four thousand primary school teachers during the next financial year.
Assumptions:
I. There are enough schools in the state to accommodate four thousand additional primary school teachers.
II. The eligible eandidates may not be interested to apply as the Government may not finally appoint such a large number of primary school teachers.
460. Statement: The school authority has decided to increase the number of students in each classroom to seventy from the next academic session to bridge the gap between income and expenditure to a large extent.

## Assumptions:

I. The income generated by way of fees of the additional students will be sufficient enough to bridge the gap.
II. The school may get all the additional students in each class from the next academic session.
461. Statement: The Government has decided against reduction of prices of petroleum products though there is a significant drop in the crude oil prices in the international market.

## Assumptions:

I. The prices of crude oil in the international market may again increase in the near future.
II. The present price difference of petroleum products will help the government to withstand any possible price rise in future.
462. Statement: The Govt. has made an appeal to all the citizens to honestly pay income tax and file returns reflecting the true income level to help the Government to carry out developmental activities.

## Assumptions:

I. People may now start paying more taxes in response to the appeal.
II. The total income tax collection may considerably increase in the near future.
463. Statement: "We should revise the wage structure in order to retain our good employees." - Comment of a member of the Management Committee of a company Assumptions:
I. Wage structures of other companies involved in parallel activities are better.
II. Wage structure is one of the most important factors for the employees of the company.
464. Statement: "Do not indulge in unfair practices or else you will be sacked from the college." - Warning to the students from the principal of a college.
Assumptions:
I. Some of the students were found using unfair practices.
II. The principal's warning may deter the students from using unfair practices.
465. Statement: "Invest in our regular scheme and earn an interest of at least 10\%." - Advertisement by a Financial Institution

## Assumptions:

I. $10 \%$ interest may attract a good number of investors.
II. No other scheme offers interest as high as $10 \%$.
466. Statement: "Make use of computers to maintain your data and get rid of the hassle."-An advice to the administrative staff by the management
Assumptions:
I. Members of the administrative staff are conversant
in operating computers.
II. Maintaining administrative data is an important
activity for any organisation.
467. Statement: "For easier and faster communication,
use our broadband connections." - An advertisement
Assumptions:
I. Many people are looking up for best communication facilities.
II. Broadband connections are preferred mode of communication.
468. Statement: "Enrol with us before 30th November to get the advantage of our $20 \%$ discount offer." - An advertisement by a coaching class

## Assumptions:

I. Discount offer is bound to attract good students as well.
II. Even those students who cannot afford to pay the fees of coaching classes may join this class.
469. Statement: "Join our Yoga institute to keep yourself completely fit." - An advertisement
Assumptions:
I. People may prefer exercise to medication.
II. There is an awareness to a great extent about Yoga exercises among people.
470. Statement: If you want to get a good job you must have at least the basic knowledge of computers.

## Assumptions:

I. All good jobs involve use of computers.
II. Computer knowledge has been made an essential criterion by most of the companies nowadays.
471. Statement: As a measure to avoid occurrence of the epidemics due to monsoon the civic authorities have organised free vaccination camps all over the city.
Assumptions:
I. There may be a good response to the camps organized by civic authorities.
II. People are generally aware about the need for vaccination.
472. Statement: In view of the large number of cases of suicides committed by the farmers in State $X$ the State Government has decided to waive off the agricultural loans granted to the farmers.

## Assumptions:

I. This may stop further cases of suicides committed by the farmers in State X.
II. This move of the Government may be welcomed by the public at large.
473. Statement: The government has decided to provide monetary relief to the farmers in the drought-hit areas.

## Assumptions:

I. The farmers of the affected areas may accept the government relief.
II. The government machinery may be able to reach the affected farmers to provide relief.
474. Statement: All the students of a school were instructed by the Principal to reach school at least 15 minutes before the stipulated time for the coming month.

## Assumptions:

I. The parents of the students of the school may protest against the Principal's instruction.
II. The parents may request the Principal to withdraw the instruction.
475. Statement: Railway authority has started Internet booking facility of long-distance trains and also delivering the tickets at the doorstep through courier service at a little extra cost.

## Assumptions:

I. Many customers may now book their tickets through internet, resulting into less crowd at ticket booking offices.
II. Most of the customers may still buy their railway tickets at the booking counters.
476. Statement: "If you have obtained 75 per cent or more marks in X Std examination, your admission to our coaching class for XII Std is guaranteed."- An advertisement

## Assumptions:

I. Bright students do not generally opt for attending coaching classes.
II. The coaching class has adequate capacity to accommodate all such students.
477. Statement:The municipal corporation has given permission for holding fun fairs in the local football ground during the holiday season.

## Assumptions:

I. The local residents may protest against the corporation's decision.
II. Many people may not participate in the fun fair.
478. Statement: A nationalised bank issued an advertisement in the national dailies asking the eligible candidates to apply for 100 posts of chartered accountants.

## Assumptions:

I. The eligible chartered accountants may respond to the advertisement.
II. There may be adequate number of eligible chartered accountants who may want to join a nationalised bank.
479. Statement: The municipal authority announced before the onset of monsoon that the roads within the city will be free of potholes during monsoon.

## Assumptions:

I. The roads were repaired so well that potholes may not reappear.
II. People may not complain even if the potholes reappear.
480. Statement: "Our Europe Holiday Package costs less than some of the holiday packages within the country." - An advertisement by an Indian travel company

## Assumptions:

I. People may prefer to travel to foreign destinations than to the places within the country at comparable cost.
II. People generally take their travel decisions after getting information from such advertisements.
481. Statement: The retail vegetable vendors increased the prices of vegetables by about 20 per cent due to non-availability of vegetables at lower prices at the wholesale market.

## Assumptions:

I. The customers may totally stop buying vegetables at higher prices.
II. The customers may still buy vegetables from the retail vendors.
482. Statement: A large number of students and parents stood in the queue to collect forms for admission to various under-graduate courses in the college.
Assumptions:
I. The college authority may be able to admit all those who stood in the queue.
II. The college authority may have adequate number of forms for all those standing in the queue.
483. Statement: The General Administration Department has issued a circular to all the employees informing them that henceforth the employees can avail their lunch break at any of the half-hour slots between 1.00 pm and 2.30 pm .

Assumptions:
I. The employees may welcome the decision and avail lunch break at different time slots.
II. There may not be any break in the work of the organisation as the employees will have their lunch break at different time slots.
484. Statement: The Government has decided against reduction of prices of petroleum products though there is a significant drop in the crude oil prices in the international market.

## Assumptions:

I. The prices of crude oil in the international market may again increase in the near future.
II. The present price difference of petroleum products will help the government to withstand any possible price rise in future.
485. Statement: The Govt has made an appeal to all the citizens to honestly pay income tax and file returns reflecting the true income level to help the Government to carry out developmental activities.

## Assumptions:

I. People may now start paying more taxes in response to the appeal.
II. The total income tax collection may considerably increase in the near future.
486. Statement: The state government has decided to appoint four thousand primary school teachers during the next financial year.

## Assumptions:

I. There are enough schools in the state to accommodate four thousand additional primary school teachers.
II. The eligible candidates may not be interested to apply as the Government may not finally appoint such a large number of primary school teachers.
487. Statement: The school authority has decided to increase the number of students in each classroom to seventy from the next academic session to bridge the gap between income and expenditure to a larger extent.

## Assumptions:

I. The income generated by way of fees of the additional students will be sufficient enough to bridge the gap.
II. The school will get all the additional students in each class from the next academic session.
488. Statement: Even though the number of sugar factories is increasing at a fast rate in India, we still continue to import it from other countries.

## Assumptions:

I. Even the increased number of factories may not be able to meet the demand of sugar in India.
II. The demand for sugar may increase substantially in future.
489. Statement: The government announced a heavy compensation package for all the victims of the terrorist attacks.

## Assumptions:

I. Such incidents of terror may not occur in near future.
Compensation may mitigate the anger among the citizens against the current government.
490. Statement: Many organizations have switched over to online mode of examinations.

## Assumptions:

I. Candidates from all parts of the country may be well-versed using computers
II. Online mode of examinations helps in recruiting more capable personnel.
491. Statement: Government has decided to relocate all the factories from the city with immediate effect to reduce pollution.

## Assumptions:

I. Pollution in the city is being caused only because of the factories existing there.
II. People may be able to manage travelling daily to the relocated factories.
492. Statement: Gambling through lotteries is banned by the Central Government in all the states with immediate effect.

## Assumptions:

I. This may save innocent citizens from getting cheated of their hard-earned money.
II. The citizens may not gamble in any other way if the lotteries are banned.
493. Statement: Many employees of the organisation applied for special sabbatical leave of two years to pursue higher education.

## Assumptions:

I. The management of the organisation may not grant leave to most of these employees.
II. These employees may be able to complete their education during the sabbatical leave.
494. Statement: The college administration has instructed all the students to stop using cell phones within the college premises.

## Assumptions:

I. The students may stop using cell phones in the college premises.
II. The students may continue to use cell phones in the college premises.
495. Statement: The Govt has decided to levy congestion tax on passengers traveling by air to and from the metro cities.
Assumptions:
I. The tax so collected may be adequate to meet part of the expenses for providing additional resources to handle huge traffic.
II. Passengers traveling by air to and from these cities may be able to pay extra amount by way of congestion tax.
496. Statement: The local citizens group submitted a memorandum to the civic authority for allowing them to convert the vacant plot in the locality into a garden at their own cost.

## Assumptions:

I. The local citizen group may be able to gather enough funds to develop the garden.
II. The civic authority may not accede to the request of the local citizen group.
497. Statement: Most of the private companies have decided against awarding annual increase in the salaries of their employees for the previous year due to the current economic situation.

## Assumptions:

I. Majority of the employees may leave their job to protest against the decision.
II. These companies may announce hike in salaries next year.
498. Statement: Mr X started at 9.00 am from his residence to attend a meeting scheduled to be held at 11.00 am and instructed his assistant to meet him at the venue of the meeting and hand over the relevant documents.

## Assumptions:

I. Mr X may arrive at the meeting place before 11.00 am.
II. Mr X's assistant may be able to arrive at the venue before commencement of the meeting.
499. Statement: The city transport corporation has introduced air-conditioned buses on various routes to attract people travelling to their work places by car and hence reduce congestion on the roads.

## Assumptions:

I. Majority of the people may still prefer to travel to their work places in their own cars.
II. Many people may now opt for these buses for travelling to their work places.
500.Statement: The state govt has announced an amnesty scheme for all the housing societies defaulting on payment of municipal taxes asking these societies to pay upfront six per cent of the dues and regularize their status without any penalty.

## Assumptions:

I. Most of the defaulting housing societies may now opt for the amnesty scheme and pay up their dues.
II. Other housing societies which have been paying their taxes regularly may file case against the govt for discriminatory practices.
501. Statement: The railway authority has announced suspension of movements of train on the main track within the city limit for carrying out major repair works on Saturday and Sunday and advised the commuters to plan their journey accordingly.

## Assumptions:

I. The commuters may protest against the decision of the railway authority and may disrupt other transport services.
II. The municipal authority may be able to deploy additional buses during Saturday and Sunday to help the commuters.
502.Statement: "If you are a first-class graduate with good communication skills and also have work experience of at least two years in sales-related activities, you are welcome in our organization." -An employment advertisement.

## Assumptions:

I. Many with good communication skills may not respond to the advertisement.
II. All the first-class graduates may possess good communication skills.
503. Statement: Many people fell ill after consuming meal at a wedding reception and were rushed to the nearby govt and private hospitals.
Assumptions:
I. The relatives of the affected people may refuse to take them to the Govt hospitals.
II. The nearby hospitals may be able to attend to all the affected people.
504.Statement: The govt has recently announced an incentive package for setting up new business ventures in the rural areas and promised uninterrupted power supply to all the units.
Assumptions:
I. The govt may be able to supply adequate power to all such units.
II. People living in the rural areas may welcome the govt decision.
505.Statement: The municipal authority blocked movement of traffic in and around the temple on the main festival day.

## Assumptions:

I. Very large number of devotees may visit the temple on the main festival day.
II. People travelling to the areas near the temple may postpone their journey by a day unless they have very urgent work in that area.
506. Statement: The government has instructed all the private schools in the city to maintain the current fees for at least two more years.

## Assumptions:

I. The authorities of private schools may not follow the govt instruction as they are not dependent on govt funds.
II. The parents of the students of private schools of the city may still be eager to pay higher fees.
507. Statement: The municipal authority has decided to demolish the old bridge on a bus road for constructing a new flyover.

## Assumptions:

I. The traffic department may be able to divert movement of vehicles through alternate roads.
II. The people travelling in the nearby areas may demonstrate to protest against the authority's decision.
508. Statement: A major retail store announced thirty per cent reduction on all food items during the weekend.

## Assumptions:

I. People may still prefer buying food items from other stores.
II. A large number of customers may visit the retail store and buy food items.
509. Statement: The railway authority has rescheduled the departure time of many long-distance trains and put up the revised timing on its website.

## Assumptions:

I. The passengers may note the change in departure times from the website.
II. The passengers may be able to notice the change and board their respective trains before departure.
510. Statement: The school authority has decided to give five grace marks in English to all the students of Std IX as the performance of these students in English was below expectation.

## Assumptions:

I. Majority of the students of Std IX may still fail in English even after giving grace marks.
II. Majority of the students of Std IX may now pass in English after giving grace marks.
511. Statement: The civic administration has asked the residents of the dilapidated buildings to move out as these buildings will be demolished within the next thirty days.

## Assumptions:

I. The civic administration may be able to demolish these buildings as per schedule.
II. The residents of these buildings may vacate and stay elsewhere.
512. Statement: The captain of the school football team selected only fourteen players to play all the eight matches of the interschool football competition.
Assumptions:
I. There may be adequate number of football players
II. The captain may be able to play in all the matches.
513. Statement: Mohan requested his mother to arrange for food for about thirty persons as he invited all his friends to celebrate his birthday.

## Assumptions:

I. Most of Mohan's friends may come to his house on his birthday.
II. There may not be more than thirty who may attend Mohan's birthday party.
514. Statement: A very large number of aspiring students applied for admission to the professional courses run by the renowned college in town.
Assumptions:
I. All the applicants may be able to get admission to the college.
II. The admission process adopted by the renowned college may be fair to all the applicants.
515. Statement: The state administration banned gathering of more than fifty people at any place during the visit of foreign dignitaries to the city.

## Assumptions:

I. People may avoid gathering at any place in the city during the period of visit of foreign dignitaries.
II. Many people may ignore the prohibitory orders and gather to get a glimpse of the dignitaries.
516. Statement: The Govt decided to levy a toll tax of Rs 100 for every vehicle using the superhighway connecting the two big cities of the state.

## Assumptions:

I. Majority of the vehicles travelling between these two cities may not use the superhighway.
II. The govt may not be able to recover the cost incurred for constructing the superhighway from the toll tax collection.
517. Statement: The teachers of all the degree colleges went on an indefinite strike in protest against the Govt's decision to postpone the pay revision to next year.

## Assumptions:

I. The Govt may suspend all the striking teachers.
II. The Govt may revise the pay of the college teachers in the current year.
518. Statement: The govt has decided to earmark a separate lane in the metropolis for passenger vehicles with more than one occupant.

## Assumptions:

I. The move may help decongest the roads of the metropolis.
II. Many people may resort to car pool system to avoid
traffie snarls.
519. Statement: Manish invited all his friends to his house for dinner on his birthday and requested his mother to arrange for the birthday party.

## Assumptions:

I. Most of Manish's friends may attend his birthday Manish's mother may be able to make all the arrangements including food for all his friends.
520.Statement: The civic authority of the metropolis has decided to suspend sanctioning of new building proposals for six months and assess the impact of the current building projects on the city's amenities.

## Assumptions:

I. The builders' lobby may move the court against the civic body's decision.
II. The civic authority may be able to complete the impact study in about six months.
521. Statement: The railway authority has announced that it will carry out major repair work for two days beginning Saturday on the main line connecting the two big cities in the state, bringing the rail service to a halt.

## Assumptions:

I. People may reschedule their journey in view of the railway authority's decision.
II. People may still plan their travel by train between the two cities even on these two days.
522.Statement: The govt has directed all the degree colleges to declare results of all the examinations within a fortnight after the last date of examination.
Assumptions:
I. The college authorities may not be able to declare all the results within the stipulated time.
II. Many college authorities may not be able to conduct all the examinations in time.
523. Statement:The driver of the huge truck pulled the emergency brakes to avoid hitting the auto rickshaw which suddenly came in front of the truck.

## Assumptions:

I. The auto rickshaw driver may be able to steer his vehicle away from the oncoming truck.
II. The truck driver may be able to stop the truck before it hits the auto rickshaw.
524. Statement: The doctor warned the patient against any further consumption of alcohol if he desired to get cured from the ailment and live a longer life.

## Assumptions:

I. The patient may follow the doctor's advice and stop consuming alcohol.
II. The doctor may be able to cure the patient from the ailment if the patient stops consuming alcohol.
525. Statement: The Chairman of the company urged all the employees to refrain from making long personal calls during working hours in order to boost productivity.

## Assumptions:

I. Majority of the employees may respond positively to the Chairman's appeal.
II. Most of the employees may continue to make long personal calls during working hours.
526. Statement: The local cultural club decided to organise a musical event to raise money for the construction of the club building.

## Assumptions:

I. The local residents may not allow the club to organise the musical event in the locality.
II. The money collected by organising the musical event may be substantial enough for the club to start construction.
527. Statement: The traffic police department has put up - huge notice boards at all the major junctions of thecity, warning drivers to refrain from using cell phones while driving or else their licences will be impounded.
Assumptions:
I. The drivers of the vehicles may ignore the warning and continue using cell phones while
driving.
II. The traffic police department may be able to nab most of the offenders and impound their licences.
528. Statement: The largest domestic airlines corporation has announced new summer schedules in which more number of flights in trunk routes are introduced.

## Assumptions:

I. More number of passengers may travel by this airlines corporation during summer months in trunk routes.
II. Other airlines companies may also increase the number of flights in all the sectors.
529. Statement: The chairman of the company decided to hold a grand function to celebrate silver jubilee during the next weekend and invited a large number of guests.
Assumptions:
I. The company officials may be able to make all the necessary preparations for the silver jubilee celebration.
II. Majority of the guests invited by the chairman may attend the function.
530. Statement: The largest computer manufacturing company slashed the prices of most of the desktop models by about 15 per cent with immediate effect.

## Assumptions:

I. The company may incur heavy losses due to reduction in prices of the desktop.
II. The sales of desktop manufactured by the company may increase substantially in the near future.
531. Statement: The school authority decided to rent out the school premises during weekends and holidays for organising various functions to augment its resources to meet the growing needs of the school.

## Assumptions:

I. The parents of the school students may protest against the decision of the school authority.
II. There may not be enough demand for hiring the school premises for organising functions.
532. Statement: The local civic body has urged all the residents to voluntarily reduce consumption of potable water by about 30 per cent to tide over the water crisis.

## Assumptions:

I. Many residents may reduce consumption of potable water.
II. Many activists may welcome the civic body's move and spread awareness among residents.
533. Statement: A very large number of people stood in the queue for buying tickets for the one-day international cricket match scheduled to be played in the city on the next day.

## Assumptions:

I. No other one-day international cricket match may be played in the city for the next six months.
II. Majority of those who stood in the queue may be able to get ticket for the one-day international cricket match.
534. Statement: The highway police authority put up large boards at regular intervals indicating the speed limit and dangers of over-speeding on the highways.
Assumptions:
I. Most of the motorists may drive their vehicles within the speed limit on the highways.
II. Motorists generally ignore such cautions and overspeed on the highways.
535. Statement: The employees association urged its members to stay away from the annual function as many of their demands were not met by the management.

## Assumptions:

I. Majority of the members of the association may not attend the function.
II. The management may cancel the annual function.
536. Statement: The sarpanch of the village called a meeting of all the heads of the families to discuss the problem of acute shortage of drinking water in the village.

## Assumptions:

I. The sarpanch had earlier called such meetings to discuss about various problems.
II. Most of the heads of families may attend the meeting called by the sarpanch.
537. Statement: The municipal corporation advised all the people living in the shanties along the beaches to move to higher places during monsoon.

## Assumptions:

I. Many people living in the shanties may leave the
city and relocate themselves elsewhere in the state.
II. Majority of the people living in the shanties along the beach may try to relocate to higher places during monsoon.
538. Statement: Please send an official letter rather than semiofficial on this subject this time.
Assumptions:
I. The format and emphasis of different types of letters is different.
II. We can send different types of letters on the same subject.
539. Statement: Please check the availability of two tickets from Delhi to Lucknow.

## Assumptions:

I. The person checking knows the desired mode of travel.
II. The person checking knows the details of the person travelling.
540. Statement: If you want to increase your writing speed, use 0.7 pen.

## Assumptions:

I. There are different types of pen available.
II. The person being told understands what is 0.7 pen.
541. Statement: In order to build more space, extra FSI needs to be bought.

## Assumptions:

I. The person being told does not know the meaning of FSI.
II. More space will reduce the construction cost.
542. Statement: Let there be a signboard also indicating the directions and instructions.
Assumptions:
I. Signboard can be prepared without using any language.
II. Signboard is the only effective tool to indicate directions.
543. Statement: Banks should always check financial status before lending money to a client
Assumptions:
I. Checking before lending would give a true picture of the client's financial status.
II. Clients sometimes may not present the correct picture of their ability to repay loan amount to the bank.
544. Statement: The government has decided to run all commercial vehicles on bio-fuels in order to save the depleting fossil fuel reserves.

## Assumptions:

I. It is possible to switch over from fossil fuels to bio-fuels for vehicles.
II. Sufficient amount of bio-fuel can be produced in the country to run all commercial vehicles.
545. Statement: To save the environment enforce total ban on illegal mining throughout the country.

## Assumptions:

I. Mining which is done legally does not cause any harm to the environment.
II. Mining is one of the factors responsible for environmental degradation.
546. Statement: Give adequate job-related training to the employees before assigning them full-fledged work. Assumptions:
I. Training helps in boosting the performance of employees.
II. Employees have no skill sets before training is provided to them.
547. Statement: Take a ferry or a boat instead of a bus to reach the Kravi islands faster.

## Assumptions:

I. The islands being in remote location are not easily accessible.
II. Ferries and boats are available to travel to Kravi islands.
548. Statement: A leading university has begun a practice of displaying results only on the Internet rather than on the main notice boards.

## Assumptions:

I. All the students enrolled with the university have access to Internet at home.
II. Most of the students referred to the results displayed on both the internet as well as the notice boards earlier.
549. Statement: In order to replenish the nutrients in the soil, it is important to grow different types of crops every alternate season.

## Assumptions:

I. A crop can never be grown for the second time in the same field.
II. If a different crop is grown in the successive season, no additional nutrients such as fertilizers are required to be added to the soil.
550. Statement: If farmers want to improve their yield, they must use organic fertilizers in place of chemical fertilizers.

## Assumptions:

I. Chemical fertilizers have certain ill effects on health.
II. Chemical fertilizers do not produce as much yield as the organic fertilizers.
551. Statement: Store eatables in the deep freeze in order to preserve these for a long time.

## Assumptions:

I. Food material remains eatable freezing for a long time.
II. It is not possible to store any eatable at room temperature even for a shorter period of time.
552. Statement: A leading NGO decided to open a library containing books and newspapers of all major publishers in a remote village.
Assumptions:
I. All other nearby villages already have similar libraries.
II. There is adequate number of literate people in the village.
553. Statement: If parking space is not available in office, park your vehicles in the mall and walk to the office. Assumptions:
I. The mall is at a walkable distance from the office.
II. The office does not allow visitors' vehicles in its premises.
554. Statement: Farmers must immediately switch over to organic fertilizers from chemical fertilizers for better yield.

## Assumptions:

I. All the farmers use only chemical fertilizers.
II. Organic fertilizers are readily available to the farmers.
555. Statement: An advertisement by bank X - 'Our interest rates for education loans are lower than those of any other bank.'

## Assumptions:

I. Some other banks also provide education loans.
II. Interest rates charged on education loans are different for different banks.
556. Statement: For any kind of problem with your mobile phone, contact our helpdesk immediately.

## Assumptions:

I. Helpdesk has a solution to all kinds of problems related to mobile phones or will guide accordingly.
II. Unless the problem is reported immediately, it cannot be solved.
557. Statement: Use our medicine to fight the problem of obesity.
Assumptions:
I. Other slimming medicines available in the market do not reduce weight.
II. Obesity cannot be controlled without medicines.

## Practice Exercise-2

Directions: In each question below is given a statement followed by three assumptions numbered $I$, II and III. An assumption is something supposed or taken for granted. You have to consider the statement and the assumptions and decide which of the assumptions is implicit in the statement. Then decide which of the answers (1), (2), (3), (4) and (5) is the correct answer.

1. Statement: "Bar Council of India (BCI) has decided to go on a hunger strike to protest the implementation of the Legal Services Authority (Amendment) Act." Chairman of BCI

## Assumptions:

I. The amendment has several loopholes and is bound to hurt the litigants' interests.
II. All the members of BCI will welcome the decision.
III. The hunger strike held in front of the court will put a pressure on the respective authority.

1) Only I
2) Only I and II
3) Only I and III
4) All I, II and III
5) None of these
2. Statement: Despite strong opposition, the controversial Prohibition of Forcible Conversion of Religion Bill was passed by the Tamil Nadu Assembly with the AIDMK and the BJP outvoting the combined opposition of the DMK, the Congress, the Pattali Makkal Katchi and the Left parties. - A news

## Assumptions:

I. Conversions create resentment among several sections and also inflame religious passions, leading to communal clashes.
II. Conversions only lead to the isolation of the converted.
III. Strong opposition puts hindrance before a bill in taking final shape.

1) All I, II and III
2) Only I and III
3) Only I and II
4) None of these
5) Only II and III
3. Statement: For the third time in a row this week, the Indira Gandhi International Airport was put on a full alert today after Air India received an anonymous message that two terrorists laden with explosives were aboard its Mumbai-Delhi-Hong Kong flight. An authority of Indira Gandhi International Airport

## Assumptions:

I. Anonymous message is not likely to be hoax call.
II. Anonymous message is likely to be a hoax call.
III. Alertness might be helpful in reducing the menace.
$\begin{array}{ll}\text { 1) Only I and III } & \text { 2) Only II and III } \\ \text { 3) Either I or II and III } & \text { 4) Only III } \\ \text { 5) None of these } & \end{array}$
4. Statement: "You should be very careful so that the society does not adversely comment on the police leadership." - A statement made by a CBI officer to the newly recruited young officers

## Assumptions:

I. The society always indulge in adverse comments
II. People's trust in the police force is not up to the desired level.
III. Society has the efficiency to judge accurately about the police leadership.
$\begin{array}{ll}\text { 1) Only I and II } & \text { 2) Only II and III } \\ \text { 3) Only I and III } & \text { 4) None } \\ \text { 5) None of these } & \end{array}$
5. Statement: "If we really want to reduce the menace of smoking, we need to reflect our intention through our deeds, our creations such as movies, in which incidence of smoking is shown much higher than the actual cigarette consumption among the Indian population." - View of Mr X.
Assumptions:
I. There is a strong link between films and viewers' behaviour.
II. Smoking shown in movies results in corresponding increase in smoking among the public.
III. Menace of smoking can be reduced by proper planning followed by appropriate efforts.

1) Only I
2) Only II
3) Only II and III 4) Only I and III
4) All I, II and III
6. Statement: "Why are only highprofile people considered to be adventurous? The villagers in India, who have no buses, walk barefoot for miles on dusty, untarred roads. Isn't that more adventurous than rafting or gliding?" - View of a person

## Assumptions:

I. It is a Herculean task to walk barefoot for miles on dusty untarred roads.
II. Rafting and gliding are considered adventurous by the people.
III. Walking barefoot for miles on dusty untarred roads is not considered adventurous by the people.

1) Only I and II
2) Only II and III
3) Only I and III
4) All I, II and III
5) None of these
7. Statement: "You should publish the names of the ten worst colleges or institutions, which will lead to an overall improvement of Indian institutes." Request of a reader to the editor of a weekly magazine.

## Assumptions:

I. The management and administrators of the respective institutes will come under pressure
and will be compelled to improve the condition of the institutes if the names of the institutes are published in the weekly magazine.
II. The move will be helpful for admission-seekers from being a victim of degraded standard of the institutions.
III. The editor may concede the request and take positive steps in this regard.

1) Only I and II
2) Only II and III
3) Only I and III
4) All I, II and III
5) None of these
8. Statement: "City ' $X$ ' should have more women driving public transport because most do not like to speed unnecessarily, prefer not to talk on mobiles while driving, do not listen to blaring music and rarely skip red lights." - A minister of state $X$

## Assumptions:

I. More women driving buses and autos will usher more job opportunities for women.
II. Women are more disciplined than men on the roads.
III. If women start driving buses and autos it would increase chances of safety for commuters.
$\begin{array}{ll}\text { 1) Only I and II } & \text { 2) Only II and III } \\ \text { 3) Only I and III } & \text { 4) All I, II and III }\end{array}$
5) None of these
9. Statement: "Performing complex mental tasks whilst driving is dangerous." - A psychologist

## Assumptions:

I. Thinking too much reduces the ability to spot potential problems and react to them safely.
II. Handsfree phone conversations are as safe-or as risky - as talking to a passenger, depending upon the demands of conversation.
III. Insecurity of humans is a man-made problem.

1) Only I and II
2) Only II and III
3) Only I and III
4) All I, II and III
5) None of these
10. Statement: The board of directors of ' $X$ ' coaching institute - a premier coaching institute - has decided to charge a fixed amount of $\mathrm{Rs} 10,000 /$ month from each of its franchisees in urban area and Rs 5000/month in rural area.

## Assumptions:

I. Profits gained by franchisees in urban area differ from that in rural areas.
II. Franchisees will be able to pay the respective charges according to the respective categories.
III. It is feasible to expand branches and control them by fixing a target.

1) Only I
2) Only II
3) Only I and II
4) Only III
5) None of these
11. Statement: "Most schools in India continue to be teacher-driven, where students have little participation in the learning process. There is no response to societal changes that have been induced by globalisation, developments in communications, networking and technology." - A criticism made by Mr X

## Assumptions:

I. True education means greater participation of students and congruence with societal changes.
II. Education can't be obtained by assuming teacher as the only source.
III. It is desirable that education be imparted by considering those factors in mind which are in tune with the needs of the student.

1) Only I
2) Only II
3) Both I and II
4) Both II and III
5) None of these
12. Statement: "We must select educators and not academics. They should have the ability to teach in the canteen or even at bus stop!" - Mr X

## Assumptions:

I. Teaching is an art. It asks for a thorough knowledge of the subject as well as the ability to put across that knowledge to others.
II. The skills required in transmitting knowledge are, at times, quite different from a person's receiving skills.
III. It is not necessarily true that a good student will also be a good teacher.

1) Only I
2) Only I and III
3) Only II and III
4) All
5) None of these
13. Statement: The World Food Summit in Rome was on the verge of becoming a fiasco on its opening day when western countries stayed away, prompting accuslations of indifference to the fate of the malnourished and starving people because the third world countries send civil servants and ministers rather than prime ministers and presidents.

## Assumptions:

I. Prime ministers and presidents are more efficient than civil servants and ministers.
II. Prime ministers and presidents enjoy more power than civil servants and ministers.
III. A meaningful outcome can be obtained only when the real powers attend a summit.

1) Only I and II
2) Only II and III
3) Only I and III
4) None of these
14. Statement: Mandatory verification of identity before acquiring a prepaid cellular connection is taking a toll on numbers. - CEO of a cellular company

## Assumptions:

I. Lesser subscribers have joined due to decrease in subscription rate.
II. Unnecessary delay as well as red-tapism discourages consumer's appetite.
III. Holders of cellulars do not want to reveal their identity.

1) Only I and II
2) Only II and III
3) Only I and III
4) None
5) None of these
15. Statement: "If you did not have a mobile connection of MTNL you will feel a jolt when you come to know about a unique, free incoming facility from 10 PM to 8 AM, without any condition, for any network." - X tells Y

## Assumptions:

I. X knows about the facilities provided by other mobile services.
II. X wants Y to be a subscriber of MTNL mobile services.
III. People like free incoming facilities without any condition.

1) Only I
2) Only I and II
3) Only II and III
4) Only I and III
16. Statement: Hurdles in restoring security in travelling through train will be removed by the railway ministry and travelling by train will once again be perceived as safe.

## Assumptions:

I. The railway ministry has created hurdles in travellers' security.
II. Today travelling by train is not considered safe.
III. It is possible to make train journey safe.

1) Only I and II
2) Only II and III
3) Only I and III
4) All I, II and III
5) None of these
17. Statement: "Addictive 'gutka' and 'paan masala' with or without tobacco has been banned from Aug 1, 2002 in Maharashtra, where even school and college students were increasingly becoming their consumers." - A court notice

## Assumptions:

I. Some of the 'gutka' manufacturers may not abide by the court's directions.
II. School children and college students are vulnerable to gutka.
III. Consumers as well as manufacturers of 'gutka' will abide by the court's directions.

1) Only II
2) Either I or III and II
3) Either I or III only
4) Only II and III
5) None of these
18. Statement: "Some lessons from Israel, especially in the field of curbing terrorism, would be relevant to us." - Defence Minister of India.

## Assumptions:

I. Israel has a good strategy and a better facility to counter terrorism.
II. Israel has a bitter experience of countering terrorism.
III. Israel and India have inherited a lot of commonness in terms of land, people and society. 1) Only I and II
3) Only II and III
5) None of these
19. Statement: "The return of country $X$ as a full-fledged member of the Commonwealth is dependent on the 'credibility' of the election which will be in process next year." - Head of Commonwealth Observers'
Group (COG).

## Assumptions:

I. 'Credibility' of the election process can be measured in tangible terms.
II. Election process in country X always remains a matter of debate for the world community.
III. World community has a common desire to restore democracy and its ethics all over the world.

1) All I, II and II
2) None
3) Only I
4) Only II
5) None of these
20. Statement: "The Indian Meteorological Department has proposed to hold a brainstorming session of weather experts next month to try and study the causes for the failure of the just-concluded summer monsoon in the country."-Spokesperson of Indian Meteorological Department

## Assumptions:

I. The behaviour of the just-concluded monsoon was intriguing.
II. Thorough scientific investigation is likely to reveal the causes of failure of the monsoon.
III. Brainstorming sessions organised in the past didn't prove fruitful.

1) All I, II and III
2) None
3) Only II
4) Only I and II
5) None of these
21. Statement: "Why are you looking sad? Did you not get bonus this year also"? - Mr X says to Mr Y
Assumptions:
I. Mr X is the well-wisher of Mr Y .
II. Expression of sadness on one's face is a sign of one's financial crunch.
III. If one gets bonus, one does not remain sad.
1) All
2) Only I
3) Only I and II
4) Only II and III
5) None of these
22. Statement: Non-Brahmin well-versed with rituals, could be appointed as a pujari as well. - Ruling of Supreme Court.

## Assumptions:

I. Brahmins don't have a monopoly over performing puja in a temple.
II. Mere eligibility for a post is enough to lay claim to the candidatureship for the post.
III. People will comply with the verdict given by SC.

1) All I, II and III
2) Only I and II
3) Only II and III
4) Only I and III
5) None of these
23. Statement: "Every successful person who claims to have come from a village has achieved success after he or she left the village." - A leader of party X

## Assumptions:

I. The average Indian village is a place with little capital, low technology and limited market access.
II. Opportunity for growth is more in metro cities.
III. Opportunities for growth are scarce in villages.

1) All I, II and III
2) Only I and III
3) Only II and III
4) Only I and II
5) None of these
24. Statements: "Today 1 am rejecting your proposal to play a cricket match against your team because of absence of $\mathrm{Mr} Z$ but tomorrow I am ready to play against your team at any cost." - Mr X says to Mr Y
Assumptions:
I. Mr Z will be available tomorrow.
II. Match will be played tomorrow irrespective of availability of Mr. Z .
III. Mr Y will be ready to play a match against Mr X tomorrow.
1) All I, II and III 2) Either I or II and III
2) Only II and III
3) Only I and III
4) None of these
25. Statement: "An asteroid which burned up in the earth's atmosphere in June could have triggered a mistaken nuclear war between India and Pakistan had it detonated over South Asia." - Statement of Mr X in a report in The New York Times.

## Assumptions:

I. India and Pakistan are equipped with nuclear weapons.
II. Neither India nor Pakistan had the sophisticated sensors that could determine the difference between a natural NEO (near-earth object) impact and a nuclear detonation.
III. India and Pakistan have no good relationship with each other.

1) Only I
2) Only I and II
3) Only II and III
4) Only I and III
5) All I, II and III
26. Statement: "A court can convict an accused solely on the basis of a dying declaration but such a declaration should be free from any doubt and the victim making the statement should be mentally fit." - Supreme Court

## Assumptions:

I. One who is not mentally fit always makes statements untrustworthy in nature.
II. Declaration made by the dying person is likely to be true.
III. It is possible to distinguish whether a declaration is dubious or not.

1) Only I
2) Only I and II
3) Only II and III
4) Only III
5) None of these
27. Statement: "The ' $X$ ' state cabinet endorsed our proposal to stagger shopping timing by allowing markets to remain open til 10 PM to make it more dynamic." - A leader of traders

## Assumptions:

I. If it is taken well by traders, the state government will permanently alter the closing time for all prominent markets in the city.
II. There is a need to boost the commercial activities in the city.
III. Keeping the market open longer is likely to enhance sales as well as making shopping more convenient for people with late working hours.

1) Only I
2) Only I and II
3) Only II and III
4) Only I and III
5) None of these
28. Statement: The high court of state ' $X$ ' has directed the state government ' X ' to issue a notification making speed governors compulsory for all four-wheelers in the city to check high-speed driving.
Assumptions:
I. Speed governors will put an end to accidents. II. Speed governors will help in reducing the possibilities of road accidents.
III. High speed of vehicles on the road causes accidents.
1) Only I
2) Only II and III
3) Only I and II
4) None of these
29. Statement: "We believe that the adjustment that has already taken place in the value of the rupee is adequate. There is no ground for a further weakening of the rupee." - RBI governor

## Assumptions:

I. The value of the rupee has depreciated recently.
II. Dollar-buying has been on the rise.
III. Currencies do not fall after a certain level.

1) None
2) Only III
3) Only I and III
4) Only II
5) Only I and II
30. Statement: For realising a $7 \%$ GDP growth rate, we would need our gross investments to increase to 28 30 per cent. This is not a tall order.

## Assumptions:

I. $7 \%$ GDP growth rate seems to be a far cry.
II. The more you invest, the better the GDP growth.
III. The GDP growth rate is the indicator of a nation's development.

1) Only I
2) All the three
3) Only II
4) Only III
31. Statement: "Let us enter into a deal with company $Y$ to come out of our financial crisis." - Company X
Assumptions:
I. Company Y can bail company X out of its financial crisis.
II. Two companies can enter into a deal.
III. Company Y is financially sound.
1) Only II and III
2) Only II
3) Only I and III
4) Only III
5) None of these
32. Statement: "Though party $A$ is firm on the ouster of party $B$, it is unlikely to reap any benefit from it." a political observer

## Assumptions:

I. Party A expects to benefit from the ouster of party B.
II. Politics is a game of manoeuvring and manipulations.
III. The political scenario is peaceful.

1) Only I
2) Only II
3) Only III
4) All the three
5) None of these
33. Statement: The 'licence raj’ might have been vanquished by the reforms but 'inspector raj' is thriving.

## Assumptions:

I. The 'licence raj' is the same as the 'inspector raj'.
II. The reforms should have put an end to the 'licence raj'.
III. The 'inspector raj' is a menace.

1) None
2) All the three
3) Only I and III
4) Only II and HI
5) Only III
34. Statement: "A rare opportunity to be a professional while you are at home." - An advertisement for computer-literate housewives by a computer company Assumptions:
I. Some housewives simultaneously desire to become professional.
II. Computer industry is growing at a fast pace.
III. It is possible to be a professional as well as a housewife.
1) Only I and II
2) Only II and III
3) Only I and III
4) Only II
5) None of these
35. Statement: India's economic growth has come at a terrible price of increased industrial and vehicular pollution.

## Assumptions:

I. Pollution is a part of industrial society.
II. Indian economic growth is based on only industrial growth.
III. A country desires economic growth with manageable side-effects.

1) Only I
2) Only II
3) Only I and III
4) Only III
5) None of these
36. Statement: Efforts to develop technologies more appropriate to the needs of the poorest sections of society need to be further intensified.
Assumptions:
I. Nothing is impossible if proper efforts are made.
II. Technology needs are different for different sections of society.
III. It is possible to develop appropriate technologies for various economic sections of the society.
1) Only I
2) Only III
3) Only II
4) Both II and III
5) None of these
37. Statement: "We have the distinction of being the only company in India as well as the second in the world to have won an ISO 9002 quality certification in our line of business"- Statement of company X's Chairman.

## Assumptions:

I. There were not many companies in the line of business of Company ' X '.
II. Getting ISO 9002 in the line of business of Company ' X ' is not easy.
III. The company ' X ' desires to expand its business.

1) Only I
2) Only II
3) Only III
4) Only II and III
5) None of these
38. Statement: Move into the upper echelons without paying a steep price. Book a luxurious flat with us. - Advt. of a construction company for its prestigious project

## Assumptions:

I. It is possible to join the select band of rich people by hard work.
II. Staying in luxury without paying steep price is the criterion of upper crust of society.
III. Booking a luxurious flat is very easy now.

1) Only II
2) Only III
3) Only II and III
4) None
5) None of these
39. Statement: The employees' association has appealed to the Managers of Company ' $S$ ' to introduce written examination for Clerical cadre recruitment to prevent selection of incompetent persons.
Assumptions:
I. So far the Company ' $S$ ' used to select candidates without conducting a written examination.
II. A written examination can help to identify
competent persons.
III. At higher level written examination may not be of much use.
1) Only I and II
2) Only II and III
3) Only III
4) Only I and III
5) None of these
40. Statement: The Government of India has set up onestop facilitation counters manned by trained staff to attend to the various needs of the foreign tourists at all the international airports.

## Assumptions:

I. There are adequate trained staff available to man these counters in shifts.
II. The services provided by these counters will help boost inflow of foreign tourists.
III. Majority of the foreign tourists need variety of services when they reach India.

1) Only I and II are implicit
2) Only II and III are implicit
3) Only III is implicit
4) All are implicit
5) None of these
41. Statement: The ' $X$ ' car manufacturing company has decided to increase price of the cars in A, B and C segments ranging from $5 \%$ to $10 \%$ with immediate effect as the steel prices have risen considerably in the recent past.

## Assumptions:

I. The prices of cars other than in A, B and C segments are already very high and need not be increased.
II. The rival car manufacturing companies may also increase the prices of cars in these segments.
III. There may be adequate demand in the market of the cars in these segments even after the price hike.

1) Only I is implicit
2) Only II is implicit
3) Only III is implicit
4) Both I and III are implicit
5) All are implicit
42. Statement: The university authority has decided to decentralise conduct of terminal examinations and give this responsibility to each college for its students to avoid delay in declaration of results.

## Assumptions:

I. The colleges are equipped to carry out this responsibility
II. There may not be uniformity in evaluation standard across the colleges.
III. The students may welcome this new development.

1) None is implicit
2) Only II and III are implicit
3) Only I and II are implicit
4) Only I and III are implicit
5) None of these
43. Statement: The civic authority has decided that all the factories located inside the city limit be shifted outside to reduce the level of environmental pollution in the city.
Assumptions:
I. The pollution level in the city in future may reduce after these factories are shifted outside the city limit.
II. Enough usable land is available outside the city limit for these factories.
III. Many of these factories may shift to some other smaller town to remain profitable.
1) Only I is implicit
2) Only I and II are implicit
3) Only II is implicit
4) Only II and III are implicit
5) None of these
44. Statement: All the single-screen theatre halls in the city have declared indefinite strike and have warned that they will not withdraw strike unless the government accepts their demand of reducing entertainment tax to $50 \%$ of the present level and also treat these halls at par with multi-screen halls on all the relevant matters.

## Assumptions:

I. The employees of all the cinema halls may disagree with the management and may appeal to the government to declare the strike illegal.
II. The government may accept all the demands of the striking cinema halls to avoid any backlash from the public.
III. The general public may support the cause of the cinema hall owners and put pressure on the government to accept their demands.

1) None is implicit
2) Only I is implicit
3) Only III is implicit
4) Only II is implicit
5) All are implicit
45. Statement: A one-day token strike was called by the employees in Government organisations to protest against privatization of profit-making Public Sector Undertakings."

## Assumptions:

I. The Government may favourably consider the views of the employees.
II. Strike is the most popular tool used by people to protest.
III. The strike may bring pressure on the Government, forcing them to reconsider the decision.

1) Only I is implicit
2) Only II is implicit
3) Only I and III are implicit
4) All I, II and III are implicit
5) None of these
46. Statement: "Buy a variety of items from our shop and get upto 20\% discount." - An advertisement

## Assumptions:

I. Many people will visit the shop to get the benefit of discount.
II. Customers may go to some other shop if the discount is not offered.
III. Offering discount is the best way to attract customers.

1) Only I is implicit
2) Only II is implicit
3) Only III is implicit
4) Only I and II are implicit
5) None of these
47. Statement: "The municipal corporation of the city is granting permission to builders for new construction of high-rise buildings in the city, despite the appeal from the environmentalists to avoid overcrowding." Assumptions:
I. The corporation will take care to fulfil the
minimum requirements providing infrastructure in the area for the newly constructed building.
II. Corporation is expecting good earnings by way of taxes from the high-rise buildings.
III. The corporation has taken the residents of the area into confidence and assured them of no inconvenience to them due to new construction.
1) Only I is implicit
2) Only II is implicit
3) Only III is implicit
4) Only I and II are implicit
5) None of these
48. Statement: "Our school provides all facilities like school bus service, computer training, sports facilities. it also gives opportunity to participate in various extra-curricular activities apart from studies." - An advertisement by a public school.

## Assumptions:

I. Nowadays extra-curricular activities assume more importance than studies.
II. Many parents would like to send their children to the school as it provides all the facilities.
III. Overall care of the child has become the need of the time as many women are working.

1) Only I is implicit
2) Only II is implicit
3) Only I and II are implicit
4) All I, II and III are implicit
5) None of these
49. Statement: "Graduates with first-class are eligible to apply for the admission to MBA courses in our Institute". - An advertisement by a Management Institute.

## Assumptions:

I. Only those who are first-class graduates can cope up with the studies for MBA courses.
II. There are plenty of first class graduates who are likely to apply for admission to MBA.
III. The reputation of the Institute may get affected if students having less than first class are admitted.

1) Only I is implicit
2) Only II is implicit
3) Only III is implicit
4) Only I and II are implicit
5) All I, II and III are implicit

Directions ( $0.50-54$ ): In each question below is given a statement followed by three assumptions (A), (B) and (C). An assumption is something supposed or taken for granted. You have to consider the statement and the following assumptions and decide which of the assumptions is implicit in the statement.
50. Statement: The police authority cordoned off the entire locality for the entire day and stopped all vehicular movement for the visit of a top functionary of the government in view of the threat perception and advised all the residents in the area to limit their movement outside their dwellings.
Which of the following assumptions is/are implicit in the-above-statement?
(A) The police personnel may not be able to control the vehicular movement in the locality and may seek help from the armed forces.
(B) People living in the locality may move out of their houses for the day to avoid inconvenience.
(C) The Govt functionary may request the police authority to lift the ban on the movement of residents of the locality outside their dwellings.

1) None is implicit
2) Only (A) is implicit
3) Only (B) is implicit
4) Only (C) is implicit
5) Only (B) and (C) are implicit
51. Statement: The apex body controlling universities in the country has decided to revise the syllabus of all the technical courses to make them focused towards the present needs of the industry, thereby making the technical graduates more employable than they are at present.
Which of the following assumptions is/are implicit in the above statement?
(A) Technical colleges affiliated to different universities may not welcome the apex body's decision and may continue with the same syllabus as at present.
(B) The industry may welcome the decision of the apex body and scale up their hiring from these colleges.
(C) The Govt may not allow the apex body to implement its decision in all the colleges as it may lead to chaos.
1) None is implicit
2) Only (A) is implicit
3) Only (B) is implicit
4) Only (C) is implicit
5) Only (A) and (B) are implicit
52. Statement: Govt has urged all the citizens to use electronic media for carrying out their daily activities, whenever possible, instead of using paper as the manufacture of paper requires the cutting down of a large number of trees causing severe damage to the ecosystem.
Which of the following assumptions is/are implicit in the above statement?
(A) Most people may be capable of using electronic media to carry out various routines.
(B) Most people may have access to electronic media for carrying out their daily routine activities.
(C) People at large may reject the govt's appeal and continue using paper as before.
1) Only (A) is implicit
2) Only (B) is implicit
3) Only (A) and (B) are implicit
4) Only (C) is implicit
5) None of these
53. Statement: The Govt has decided to auction construction of highways to private entities in several blocks across the country on build-operate-transfer basis. Which of the following assumptions is/are implicit in the above statement?
(A) An adequate number of private entities may not respond to the Government's auction notification.
(B) Many private entities in the country are capable of constructing highways within a reasonable

54. Statement: The airlines have requested all their bona fide passengers to check the status of flight operations before leaving their homes as heavy fog is causing immense problems to normal flight operations.
Which of the following assumptions is/are implicit in the above statement?
(A) Majority of the air passengers may check the flight status before starting their journey to the airport.
(B) The Govt may take serious objection to the notice issued by the airline company.
(C) Majority of the passengers may cancel their tickets and postpone their journey till the situation becomes normal.
1) None is implicit
2) Only (A) is implicit
3) Only (B) is implicit
4) Only (C) is implicit
5) Only (A) and (C) are implicit

## Answers and explanations

## Practice Exercise-1

1. 1; I is implicit. That is why the speaker is desirous of showing the teachers the correct path. II is not implicit: teachers should be ideal but there is no clue why.
2. 2; As in the statement it is given that most of the ...., hence II is implicit. I is not implicit. Basic qualification is not necessary but sufficient to differentiate between right and wrong.
3. 5; Both are implicit. The phrase 'passing time' confirms both the assumptions.
4. 2; Even a good suggestion by safety boards cannot prevent accidents if the employees will not desire to implement those suggestions. Hence II is implicit and I is not implicit.
5. 4; Nothing can be assumed about the success and failure of the committees.
6. 5; The context is that of films. And the comparisons are to "erasing" a painting and "deleting" lines. Hence I is implicit. The entire statement is a plea for II.
7. 1; I is implicit; hence the distinction is being made. II is not implicit: giving priority to emergency services is a social necessity; one can't bother for whether the people will mind or not.
8. 2; Mahatma Gandhi would have been pained to see "high living and simple thinking" leaders means that he believes in the exactly opposite nature, ie simple living and high thinking. Hence II is implicit. I cannot be assumed from the given statement.
9. 5 ; Why does the concerned authority need to remind people about democratic right? Definitely because of II. Hence II is implicit. When people will cast their vote naturally polling percentage will increase. Hence I is implicit.
10. 1; The book which speaks about God is holy book. 11. 1; 'Forced to leave' clearly indicates that no one wants to put it down on their own and everyone enjoys reading it. Hence $I$ is implicit. II has no relation with the statement.
11. 2; Why too many sub-standard private tuition centres in all locality? - only because of assumption II. Hence II is implicit. I is not implicit.
12. 5; Why does Railways need to show a good safety performance? Definitely because of II.
13. 5; As speaker is comparing cultures and talking about the world, I is implicit. As speaker used the term I found... means II is implicit.
14. 4; I is an implication, not an assumption. II is not implicit because we don't know the context in which the statement is said.
15. 4; I is not implicit: the statement has nothing to do with what the animals eat. II is not implicit because (a) merely giving protection does not fit one with these attributes; and (b) even if (a) were true, we are not protecting all the animals.
16. 5; The government is thinking that IBRD will give the loan, that is why they have applied for it. Hence I is implicit. Why do they need to widen the road? Definitely because of II. Hence II is implicit.
17. 1; The comparison of literacy with logical thinking hints about I. But comparison of literate and illiterate can't be assumed from the statement.
18. 5; As speaker is using the statement of eminent people to give strength to his statement, he believes in eminent people and assumes that they are always true.
20.2; The worst bus service is because of lowest fares. So, it is clear that the speaker is assuming that increase in fare will improve the service. Hence II is implicit. The speaker is relating fare with services only. Hence I can't be an assumption.
19. 2; Why did management search ingenious idea for shirking work? Definitely because of II. Hence II is assumed. Nothing can be assumed about the employee strength of the corporation.
20. 2; I may be a restatement or conclusion, but it is not an assumption. Hence I is not implicit. As the speaker is pointing out about bad manners, it can be assumed that he knows civic manner.
21. 5; As the speaker is advising to oppose criminal candidates in elections, it can be assumed that criminals can fight elections. Hence I is implicit. The phrase irrespective of their party labels hints about II.
22. 4; I is not exhaustive. It may be about elections on tough fight between two popular candidates; may be the war between the US and Russia .... Hence I is not implicit. About II, nothing can be assumed.
23. 1; As the speaker is predicting that General Motors and Daewoo can be strongest player in the auto maket only together, clearly means that he is assuming that Daewoo alone is not sufficient to be No. 1. Imposing tickets generally serves two purposes restricting unlimited entry and raising money. The latter has no use here. Now, in the statement, it is given that there were no tickets and entry was restricted, clearly indicates that both are implicit.
24. 4; I and II may be the reason for stating such a warning. But these are not exhaustive.
25. 5; Both are implicit. That is why the advertiser is stressing on both design and its resale value.
26. 4; II can't be assumed from the statement because nothing is given about Y2K specialist. I is not an assumption but a conclusion.
27. 5; The term half the job done helps in assuming both the assumptions. Half means students too need to do hard labour for the rest half. Hence II is implicit. I is implicit since the half provided by guidance is also necessary.
28. 4; II can't be assumed. It may be about two business partners, two scientists... As there is no must term in the statement, I is not implicit.
29. 1; The assumption $I$ is valid. The speaker is assuming that by possessing such qualities, one may overcome bottlenecks in the way to success. We can't assume whether possessing such qualities is hard or not. Hence II is not implicit.
30. 4; The speaker is comparing between the two types of business. So neither we can assume which one is preferable nor whether saving of time in business is important or not. It is certain that time can be saved, but whether it is important or not can't be assumed from the statement.
31. 4; Neither the name of the department nor the post held by him can be assumed from the statement. Hence II is not implicit. Also, nothing about his present job status can be assumed. Hence I is not implicit.
32. 1; II may be a conclusion but it is not an assumption. I is implicit. That is why the speaker is saying so.
33. 5; How did they know about the advertisement? Hence it can be assumed that they read newspapers. Why did they get puzzled over the publication of the advertisement in the newspaper? All the advertisements can't puzzle all persons of the same profession. Hence it can be assumed that the advertisement was a rare one.
34. 4; Neither can we assume about the CIA nor about the toughness of its work from the statement.
35. 5; Assumption I is implicit because otherwise it would not have been prescribed. As the Environmental Pollution Authority is concerned with auto-rickshaws, assumption II seems quite plausible.
36. 4; National interest could or could nto be paramount for other industrial concerns. So assumption I is not implicit. There is not even a mention of environmental resources. We can treat assumption II as a possibility but it is not necessarily so.
37. 2; Gift scheme gave a spurt to paging industry but we cannot generalise it. So assumption I is not implicit because of the word always. II is implicit. That is why paging industries are now going through tough times.
38. 4; Seller's promise doesn't mean that the good will give satisfaction to buyers. Hence I is not implicit. Nothing can be assumed about unbranded goods from the statement. Hence II is not implicit.
39. 1; The connection between "advertising hype" and "one would imagine" makes I implicit. II is not implicit: what the speaker assumes is that there might be some change but not on the grand scale being talked about.
40. 5; The speaker has used the name of Sachin and Shahrukh because of their popularity among young students. Replacing their posters clearly hints that II is implicit. I is clearly an assumption.
41. 5; West Asia has a large stock of oil resources; that is why they have monopoly in this sector. Similarly, the speaker is assuming that India has human resources (in the form of IT entrepreneurs) which will lead it to become no. 1 in this field or contribute a large part to India's economy. Hence both are implicit.
42. 2; Here "others' cost" means others' peace, others' safety.... but certainly not others' expenses. Hence I is not implicit. II is implicit; that is why Delhi police has issued the statement.
43. 3; When we say that "reckless partying can lead to health problems", we assume that either heavy drinking or dancing - we can't think of any other
illness-causing element - is the culprit.
44. 5; I is implicit in the tone of warning. II is implicit because when we stop people from doing something, we assume that they generally do so.
45. 5; The way the poor performance on excise and customs fronts has been shown to be the cause of the "huge revenue deficit" makes I implicit. Similarly, II is implicit from the way it affected customs and excise.
46. 2; Assumption I is in fact a conclusion. Assumption II is implicit from the word "disintermediate".
47. 1; I is implicit from the "difference" being pointed out. II is beyond the scope of the statement.
48. 2; Talks for second tranche is expected only after talks for the first tranche have been finalised. But the actual amount may still be in the pipeline.
49. 2; The sentence should not be taken too literally.
50. 5; Both the assumptions are implicit. This is why the speaker believes that consumers are "deceived".
51. 2; I is not implicit. Maybe, the "you" here refers only to the elite. But II is implicit; that is why "adrenaline kicks in" on opening the papers.
52. 4; Both may be conclusions, but not assumptions.
53. 1; The VC is assuming I; that is why he has restricted wearing western dresses on the campus. We can't relate their studies with their dress and hence assumption II is not implicit.
54. 4; The assumptions are not implicit because it is possible that the minister has neither of these convictions but is acting under sheer political compulsion.
55. 5; The move to make use of alcometers must have been necessitated because of the large number of accidents. Hence I is implicit. II is implicit from the fact that it will identify drunken drivers.
56. 2; The statement is merely a report while $I$ is a value-judgement. Hene it is not implicit. II is implicit from "irregular water supply"
57. 2; Film stars are public figures and popular so they can gather more crowd. And assuming this, the political leader has invited them to pull the crowd. Hence II is implicit.
58. 1; When the High Court passes an order, it assumes I. II is not implicit because the court has merely assumed that the film is controversial. Whether it is objectionable will be established only when the decision is finally taken.
59. 5; Companies like Indian Airlines regard conferring of such largesse on popular figures like Dr Amartya Sen as a standing publicity of its own. Hence both the assumptions are implicit.
60. 5; Why the need to use the electronic voting machine? Chief Election Commissioner is definitely assuming I. Any system won't be recommended if it is not convenient to use for common people. Hence II is implicit.
61. 2; The term only is objectionable in I. Hence I is not implicit. Why has the President directed the Election Commission to curtail the expenditure? Definitely, he is assuming II.
62. 2; The speaker is assuming II; that is why he has used the term irrespective while comparing the gold production with price hike (inflation). I is not implicit; the assumption is that price hike affects gold production.
63. 4; I may be a conclusion but it is not an assumption. Hence I is not implicit. Nor is he assuming about the role of journalists in the society before delivering his statement. Hence II is not implicit.
64. 5; Whenever a warning of this sort is given, the following assumptions are implicit: I. There is something foul in the air; there can be no smoke without fire; and II. The warning will have a positive effect in checking the problem.
65. 1; I is implicit; it is to dispel this myth that the statement has been issued in public interest. but being inferior in quality is not the same as being adulterated; hence II is not implicit.
66. 5; The need to treat properly the elderly and the disabled stems from both the assumptions.
67. 1; The speaker is assuming $I$; that is why he has stated so. In his opinion as the economy is growing well, employment rate should increase. He is not assuming about any other factor that influences employment.
68. 4; From the statement it is clear that the speaker has no doubt about the credibility of inquiry reports. Hence I is not implicit. II has too strong a word in never.
69. 4; I is not implicit because it implies that valuebased voting still prevails, though it does not have too long a future. But the statement clearly suggests that value-based voting is absent. What about Assumption II, which talks of the potential of value-based voting? Well, the only potential the speaker has in mind is that it's a step in the positive direction. But can it undo what has been done? We don't know.
70. 5; Such messages are sent to get control of a problem. II is the implicit problem. I is expected to help in getting control of the problem.
71. 1; The speaker is assuming that there should be certain qualities in the commander to command the society well. $I$ is a genuine quality. Hence I is implicit. It is possible that the speaker is predicting on the basis of his knowledge and not experience. Hence II is not implicit.
72. 5; The speaker is assuming $I$; that is why he has attached equal importance to both - the constitution and adherence of the people to its provisions. The speaker assumes II; that is why he delves into its causes.
73. 1; I is implicit; that is why the PIOs have mainatined the Indian culture even in alien settings. But II is not implicit because a comparaison between the two cultures is nowhere hinted at.
74. 5; DTC authorities are assuming both the assumptions; that is why they have planned so.
75. 2; Even able parents may be not willing to pay the increased fee. Hence I can't be assumed. Why are they demonstrating in front of Legislative Council? Clearly, they are assuming II. Hence II is implicit.
76. 5; The NHRC is assuming both; that is why this new system has been made compulsory.
77. 2; I is a restatement. But II is implicit because it is on this assumption that the comparison has been made.
78. 5; Why did the court intervene and direct the state's executive machinery?
79. 2; I is not implicit. The statement has no relationship to other games. II is implicit because the speaker talks about the consequence only after assuming this.
80. 2; It is hard to reduce the generalised version to a particular field. Other possibilities may also be considered, such as sanitation problem, ... Hence I is not implicit. II is implicit because it is this that makes the speaker take potshot at metros.
81. 4; Both are sort of restatements.
82. 2; From the tone of the statement it is clear that the speaker is not satisfied with the large (excess) number of ministers in India and wants reduction in this number. Hence II is an assumption. I is not an assumption.
83. 5; Both assumptions I and II have nearly same meaning. Clearly, the speaker is assuming that courts are not fulfilling the objective (provide justice to deserving people) for which they were established. The rich can change the judgment in their favour (throwing dice).
84. 2; Taking defeat seriously and taking lessons from the defeat are two different matters. Hence I is not implicit. Why do we need to take lessons from our defeat? The answer clearly is to be successful in future. Hence II is implicit.
85. 2; I is not implicit. It is possible that the situation is improving instead of deteriorating, but the statement is being made because this improvement is not enough. On the other hand, II is implicit because it is this essentiality that makes the speaker talk about what the Govt needs to do.
86. 2; The statement may be given by a lawyer or any other critic. So we can't assume that this is given by an opposition leader. But the speaker is assuming II. That is why he takes about people rejecting the changes.
87. 5; I is implicit: this is what the speaker has in mind when he talks/ of having "utilised the employment potential." The speaker is assuming II that is why he is relating the employment potential of railway with the political career of the leader.
88. 5; The railway minister is assuming that previous ministers have failed in providing adequate safety to the passengers. That is why she will give more attention to safety, hoping that her step will prevent accident in future. Hence both the assumptions are implicit.
89. 1; I is implicit here. That is why the speaker is talking about another way of living when the environment has been polluted. II can't be assumed from the statement.
90. 3; From the term harsh it is clear that the speaker is assuming that the police are not serving the purpose for which they are there. The meaning of the two assumptions is different. Hence either I or II.
91. 5; Why are these advertisements given by these organisations? Clearly, they are assuming both I and II.
92. 4; Both assumptions contradict the statements.
93. 3; Either of the two is implicit. Maybe, the speaker thinks that irrespective of how much you advertise, you won't attract tax-filers. The other
possibility is: why waste money when less of it can be as effective?
94. 1; I is implicit: it does matter a lot; that is why it goes on to make winners. II does not fit here.
95. 1; The coach is assuming I, otherwise he won't stress on his men's potential. II can't be assumed: the intention of player is a different matter.
96. 2; The speaker is assuming II; that is why he is concerned about the failure of the relationship.
100.2; The speaker is assuming II that is why he has referred to things related to education. Assumption I has not been hinted at in the statement.
101.2; From the given statement it cannot be inferred whether transparency exists or not. Hence I is not implicit. II is a valid assumption; that is why the speaker has jotted down new guidelines for selection process.
102.5; The maulana is assuming both. He feels that though programmes are more popular than prayers, they are less important. Hence the appeal.
97. 2 ; The speaker is assuming II, that is why he has put emphasis on long-term measures rather than short-term ones. Nothing about the electionwinning interests has been hinted at here.
98. 2; I may have a broad range. Hence it is not implicit. II can be assumed from the statement.
99. 1; Nehru is assuming I; that is why he is against artificial policies. II is not implicit.
106.5; I is implicit; that is why the need for overhaul of the system. H is also implicit in the phrase "the present globalised scenario".
107.2; II is definitely an assumption. But nothing about the policies of different companies can be found out from the statement.
108.2; I is not implicit. We don't know about success of businesses in general. II is implicit; hence the appeal for Internet adoption.
100. 1; The way 'business' is used in the given statement implies assumption I. Whether the rallies will get the support of the people on such issues or not, is not in the mind of the speaker. He is only against such demonstrations. Hence II is not implicit.
110.5; The announcement of awards serves both the purposes.
111.4; Here the assumption is: The method of governance of a country should be according to the ground realities of that country. Hence I is not implicit. II is not implicit because we don't know whether the speaker has other countries in mind.
112.2; II is implicit by the very need of the singer to defend ghazal. I is not implicit because the singer does not compare ghazal to pop.
101. 2; Eastern Railway may be initiator of this practice. Hence I is not implicit. Assuming I, the Eastern Railways officials have advertised so.
102. 5; Because he is assuming I that is why he has used the term 'enforceable' in his statment. Speaker is assuming II; that is why he stressed that law should be obeyed by all without exception.
103. 5; Both are implicit. The term 'dead' clears speaker's intention.
104. 4; The newspaper's view on the expensiveness of justice can't be guessed from the given statement.

Hence I is not implicit. In assumption II, the term 'civilized society' twists his view.
117. 5; Both are implicit.
118. 2; I is not implicit. Note: So long as there is .... means option is situational. He assumes that caste-based organisations are the best caretaker of caste-based society. Hence II is implicit.
119. 1; I is implicit in the word penance - an act to wash away one's sins. II is not implicit. From the statement, we don't know whether the gods showed Parasuram the way out.
120.2; Here "less space" does not imply physical space so much. Instead, it implies less freedom.
121.1; Note the exclamation mark(!). Which implies that the phenomenon is surprising. Hence $I$ is implicit. II is a conclusion, not an assumption.
122.5; Both are implicit in the affordability factor.
123.2; We don't know whether "people of modern times" are opposed to what has "traditionally" been there. Hence I is not implicit. II is implicit because "growth prospects" are as important as "stability".
124.2; Note that the caption is one in a cartoon. So 763 is clearly an exaggeration.
125.3; The message from the hostage is an attempt to keep his well-wishers normal. If not calmed, they may react in either of the two ways.
126.2; I is not implicit because the speaker does not have any particular aspect in mind. II is implicit, hence the editing with the visual aspect in mind.
127.2; The statement is not one about staging of plays in general. Hence $I$ is not implicit. It is about whether the depiction of a religious figure on stage appeals to the audience. Hence II is implicit.
128.2; I is not implicit. The assumption is not that fire cannot occur but that it is less likely in Narela or Ghazipur. II is implicit; that is why, of all the items, hazardous chemicals and paper are being moved out.

## 129.2;

130.1; Only I is implicit. That is why $X$ opines to buy Mercedes cars if one is desirous of buying a car.
131. 5 ; Filing a writ in court is aimed at seeking legal action against the concerned state. Hence, both I and HI are implicit.
132.5; The features highlighted by the advertisement are based on assumptions I and II.
133. 5; Why are some excesses bound to happen? The speaker must be assuming II. Again, to be satisfied with the success of SOG implies that the speaker must be assuming I also.
134. 2; Assumption I goes very deep. Hence, it is not implicit. But, assumption II is implicit. That is why the notice stresses on buying the leaves instead of burning it.
135. 1; Assumption $I$ is implicit. That is why the advertisement highlights "And if you're looking for a change".
136. 4; I is not implicit because it assumes too many things: education and free movement are beyond the scope of the statement. II is not implicit because the PM only assumes that law and order affects the common man more than prices do.
137. 5; Both I and II are implicit. The speaker does not consider terrorists as human. He must be assuming II. Hence, II is implicit. Why is the speaker not in favour of using human rights to
protest for those found guilty? He must be assuming I also.
138. 1; The tone of the statement implies that the speaker must be assuming I. That is why he uses the word 'significant' for the analysis done. The word 'although' used in the statement implies that the speaker makes the assumption that lesser the size of sample, lesser the chances of reliability.
139. 3; It is not clear from the statement what the CM is exactly assuming. But the tone of the statement implies he must be assuming either I or II.
140.1; Why the need to instil such a sense of pride among the people? The speaker must be assuming I. II is not implicit because one does not desire for a need unless one assumes it to be feasible.
141.2; Note that if one advises others to purchase a thing X , the former assumes that the latter have enough money to purchase it.
142.5; Both I and II are implicit. Why did the city traffic police need to issue such a notice? It must have assumed II. Again the word 'always' used in the notice makes I implicit.
143. 4; Both I and II can't be correlated with the statement. Hence, neither I nor II is implicit.
144.5; I is an assumption because the statement uses the gadgets as an allurement. II is obvious. Note that the initiative is aimed at improving the financial condition of the company by reducing theft. Hence, the company must be assuming II.
145. 1; I is implicit. The "badly shaken lives" will be headed through development. "That things would not go haywire" can be assured through good governance. II is not implicit: we don't know whether the image of the state has been tarnished.
146. 5; How can an illiterate person write the name and belt number of erring policeman? Hence, the speaker must be assuming I. Again, the instruction to send a complaint to senior officials implies that the speaker must be assuming II also.
147.5; I is implicit; that is why the advertisement emphasises the popularity of product abroad as well as in domestic market. The natural property focussed on in the ad is conducive to facilitating sound sleep. Hence, II is also implicit.
148. 2; I may or may not be an assumption. But II is obviously implicit. That is why the manufacturers need to oil the wheels that India moves on.
149. 1; Only I is implicit. Why does the company need to issue such instruction? It must be assuming I. The motive behind the instruction may be to ensure convenience in keeping the records regarding transaction of the company. Hence, II is not implicit.
150.2; I may or may not be an assumption. But II is obvious. That is why the CM appeals for people's participation.
151. 1; Why does the agriculturist focus on 'better understanding', 'co-operation' and 'complementing' among the exporters? He must be assuming I. Assumption II can't be correlated with the statement. Hence, II is not implicit.
152.5; The ground on which the authorities of the bottled water companies ruled out any contamination in their product is its production under rigorous
quality control regime. Hence, the companies' authorities must be assuming I. Assumption II is also implicit in the last part of the statement.
153. 1; I is implicit. Otherwise how can the number of heart patients in all countries of the world be compared to one another? II is not implicit because the statement does not talk about population.
154. 5; Both I and II are implicit. I is implicit. That is why the speaker points towards the lackadaisical approach of the government in combating AIDS. The word 'sure killer' implies the speaker must be assuming II also.
155. 4; I is not implicit because 'spate of defeats' can't be correlated with the statement. On a similar basis II also can't be correlated with the statement.
156. 4; The request of the city police implies that the city police assume that "some people have grievances". Assumption I is not implicit due to the words "All categories". II is also not implicit because the statement does not say anything about flying squad of vigilance branch.
157. 2; Non-biodegradable nature of plastic bag can't be correlated with the statement because the statement does not say whether plastic is biodegradable or nonbiodegradable. Hence, I is not implicit. But II is obviously implicit. That is why the scientist uses the word 'Beware' in his statement before asserting the negative features of plastic bags.
158. 1; Only I is implicit. That is why Mr X advocates for the need for a consensus to trim government expenditure.
159. 2; I is not implicit because of its last portion, ie "all over the world". II is implicit since betting is on in full swing.
160.4; Both I and II are implications, not assumptions. I and II are not that on which the statement is based but something that is implied by the

##  <br> 161. 1;

 Consider this statement: "I heard a shocking news and felt shattered." Then the assumption is: "Shocking news shatters a person."I is implicit: an atheist would not invoke god for blessings. U is not an assumption but a restatement. "passed away in the Yamuna waters" itself means "died by drowning in the Yamuna."
162. 1; I is implicit: the proposal that drivers employed should not be illiterate has to be based on this assumption. II is not implicit. In fact, the assumption is just the contrary. The use of "at least for children" assumes that children are or should be privileged ones.
163.5; I is implicit because of the cause-effect relationship. II is also implicit because a thing cannot happen unless it is possible.
164. 2; I is not an assumption. It is an inference being drawn out of the "strange thing." But assumption II is implicit. It is this departure from the usual that makes "last night" strange.
165. 5; Why does the person gives an advice to provide vocational training to women in work? There must be a positive and constructive role of the training. Hence I is implicit. II is also implicit. Otherwise the training will be useless.
166. 5; The view of the speaker is in the form of a critic. He feels against the discrimination in punishment
given to the swindlers and petty thieves. Hence, he must be assuming I and II also.
167. 5; The purpose to get help from the instruction to ensure security can't be fulfilled unless the instruction is read by the passengers. Hence, both I and II are implicit.
168. 1; Name of the given service cadres implies that these cadres may help in upliftment of the living condition of rural people. Now, the government proposition implies that the government must be assuming I.
169. 5; I is implicit because it make no sense to talk of something without the existence of its possibility. II is implicit; that is why the speaker suggests tools to make change in the women's status.
170.4; We cannot say what ground the critic assumes on the basis of which be terms it "not a proper and judicious step".
171.4; I is not valid because we don't know whether the contrast expressed in the view is critical or merely a statement of fact. II, if at all an assumption, can only be false.
172.2; I is not implicit because it goes into unnecessary details. H is implicit; that is why the speaker stresses on the role of executive in the appointment of High Court Judges.
173. 5; The instruction to customers is aimed at ensuring safety and restricing unauthorised person's accessibility to any individual's account. Hence, the speaker must be assuming that an unauthorised person can access others' account.
174. 5; Both I and II are implicit. Why is the rate of the cup of tea reduced to Rs 2 for labourers? I must have beeen assumed. Again, the real motto of an ad is to increase the number of customers as well as sales. Hence, II must also be assumed.
175. 1; Only I is-implicit. II is not implieit beeause of the word 'radical'
176. 2; I goes into details. Hence, I is not implicit. But II is implicit; that is why the opposition leader issues such a statement.
177.2; I is irrelevant. Hence $I$ is not implicit. But II is implicit; that is why the speaker suggests the stringent punishment.
178. 1; Here II is irrelevant. Hence, II is not implicit. But I must have been assumed by the politician; otherwise how can the status of industrial progress be related with unemployment?
179. 1; I is implicit because this is the motive behind increasing the fine. II is not implicit because of the second part of the statement.
180.2; The advertisement is based on the following assumptions:

* Learners want to solve more and more questions in less time.
* Learners want to solve DI without written steps.
* It is possible to solve Quantitative Aptitude in 3 seconds.
* Penalty in case of failure of claim will make a positive impact on readers of the ad; etc.
Hence, I is not implicit. II is obvious. That is why the advertisement goes like this.

181. 4; We have nothing substantial to correlate the given assumptions. Neither I nor II is implicit.
182.5; The initiative taken by the government is aimed
at delving into the reasons of the mysterious death and also at punishing the guilty. Order of magisterial inquiry implies that the government must be assuming I. Why has the entire staff of police station X been transferred? The government must be assuming II also.
182. 4; The statement does not mention anything regarding repayment structure or collateral security. Hence, neither I nor II is implicit.
183. 4; The timeframe given by the government implies that the government must be assuming that the time given is adequate for operators to declare pay channel rates. Hence, assumption I is not implicit. Assumption II is not implicit because it is beyond the scope of the statement.
184. 2; Global computer piracy is not mentioned in the statement. Therefore, assumption I is not implicit. But assumption II is implicit. That is why the journalist uses the word 'despite' in his statement.
185. 1; Why has such an advertisement been published by the advertiser? Definitely, the advertiser is assuming I. Assumption II is not implicit because it goes into details.
186. 2; Assumption I may not be implicit. It is beyond the scope of the statement due to lack of any specific clue. But assumption II seems quite plausible. That is why people's participation has been sought.
187. 5; Assumption I is implicit. That is why the militants kidnapped the local resident. Assumption II is also implicit. Otherwise the militants would not have faith in the resident.
188. 2; The tone of the statement implies that the speaker assumes training session is necessary for the team. Hence, assumption II is implicit. But the statement does not indicate what type of training

## 190.1;

 session it should be. Hence, assumption I is not implicit. Since the given statement has been made by the waterman while educating people on the community's right, the waterman must be assuming indulgence of MNCs in water business as disastrous for the people. Note that the speaker is not averse to indulgence of MNCs in road construction or some other areas. This implies water business has some special importance. Hence assumption I is implicit. Assumption II is not implicit because the indulgence of MNCs does not necessarily imply that they are going to buy the rivers.191.2; Assumption I goes into details, therefore, it is not implicit. Again the initiative to be taken is aimed at countering the problem. Hence, II must be implicit.
192.5; The request made by the city police to common people implies that the city police assumes that the verification of domestic help is necessary to put a tab on increasing rate of crime. Hence, I is implicit. Assumption II is also implicit. If it is a "simple step", the process involved must be simple.
193. 1; The tone of the statement implies that the speaker must have assumed I. That is why she uses the words "let me die peacefuly." But the statement gives no indication about the comparison to other ways of suicide. Hence, assumption II is not implicit.
194. 2; Assumption $I$ is not implicit because it rather contradicts the statement. But assumption II is implicit; that is why the word "despite" has been used in the statement.
195. 4; Assumption I is not implicit because introducing polythene packets may have nothing to do with writing on the notes. Assumption II is not implicit because of the word 'only'.
196. 2; I may or may not be an assumption. But assumption II is implicit; that is why communication is termed as having a vital role in quick decision-making.
197. 2; The tone of the statement implies that the person assumes that the historic house is more precious than his life. But assumption I includes all human lives. Hence, I is not implicit. Again, caring for the house, putting lives to risk, implies that the speaker must be assuming II.
198. 2; Nothing has been mentioned about other countries. Hence, $I$ is not implicit. But assumption II is implicit. That is why the ministry focusses on intercultural dialogue and interaction with civilisations, countries and nations.
199. 5; The decision of the Cabinet to set up new authorities implies that the cabinet must be assuming I. Hence, I is implicit. II is also implicit; that is why the cabinet displaced the existing authority with a new one.
200. 1; I is implicit; that is why in the speaker's view the matter is regrettable. II is not implicit. Note that the statement says about media, not the radio or print media especially.
201. 4; The decision of the SC implies that the SC must be assuming the strike by the employee to be detrimental for the society and at the same time it must be dissatisfied with the way of strike. But the word 'ransom' can't be correlated with the statement. Hence, I is not implicit. The same is true for the words 'chaos' and 'total maladministration'.
202. 5; Why did the city police need to issue such notice? It must be assuming that people lack awareness of the ill-effects of touching unclaimed objects. Hence, both I and II are implicit.
203.5; I is implicit; that is why the speaker mentions the desired skills in addition to proper training. Again, why does an entrant need a proper training? Obviously, the speaker must be assuming II also.
204.5; Why did the DHS need to issue the notice? How can these initiatives save people from the fatal diseases? Obviously I is the assumption behind it. Again, how can unused/broken articles lying on the roof can be mosquito-friendly? Obviously, II is the assumption behind it.
205.5; Why was the need felt to make the change? There was certainly something dissatisfactory. Hence I is the assumption behind it. II is obvious.
206.2; I is rejected because nothing has been told about technical expertise. The advertisement must have been targeted at the people who want to be successful photographer. Hence II is an assumption.
207.1; The person $A$ is certainly assuming that to get started one needs some teaching. Hence I is clearly an assumption. But nothing is said about
professional photographers' contribution. Hence II is not an assumption.
208.1; Why retain a photograph document? So that it comes handy in fighting terror. In other words, who knows the buyer may be a terrorist or may serve as a means of terrorism. Hence I is implicit. II is beside the statement.
209.5; If there were no demands for resignation, why would the politician say, "I will not resign"? Hence I is implicit. Again, he talks of being proved guilty. A proof of guilt comes only after the levelling of charges. Hence II is implicit.
210.1; I is implicit because advertisement of a particular brand is usually placed in order to compete with other available brands. II is not implicit because price and quality are not inextricably related.
211.2; I is a bizarre assumption. The statement does not assume anything about what men or women should (not) do. II is implicit because to become the embodiment of something, much has to be proved first.
212.2; I is not an assumption but an inference. II is implicit because unless one is destructive, one cannot destroy something.
213.1; I is implicit because the power to reject something is usually possible only when one has the power to grant it.
II has no connection whatsoever with the statement.
214.3; If A needs to be substituted by B, we assume that $B$ is more appropriate than A. Now, the appropriateness of sledgehammer may be due to either of the following reasons: (a) a sledgehammer is more powerful; (b) though not more powerful, it works because different tools are required in different conditions. (b) may be explained by the following example: A chalk cannot be said to be more powerful than a pen. But when it comes to

## 215.4 ;

 writing on a blackboard, you would use a chalk, I is not implicit: since the statement is silent on whether the move would have a good or a bad impact, it does not make any assumption about the move's desirability. II is also not implicit. In fact, the assumption is on the contrary. If we say that this move has been taken from a particular point of view (that of exchange rate management), we assume that other moves are also possible.216.5; I is implicit. Look at how their name is taken in the same breath along with the mention of Congress. When a leader draws attention of the voters to a problem, he assumes that the problem seriously concerns them.
217. 1; I is implicit : India is being asked to learn. Which assumes India may also be threatened by a similar problem. Note carefully that II is not implicit. What is assumed is that being forced to take loan from the IMF is not a good sign. If one simply takes loan, that is, voluntarily so, that may be considered a healthy growth.
218.2; I is not an assumption but an inference, and that too a wrong one. II is implicit : why else would a political leader ask for revelations if it were not for some gain?
219.1; I is implicit because of the word representative. When we talk of X being a leader or a
representative, we assume that X leads a group of persons with similar bent of mind. In other words, he is not the only one of that kind. II is not implicit.
220. 5; I is implicit. If $X$ seems to have happened, it is usually assumed that X happens. Again, II is also implicit: since the speaker compares Sahara and Peerless to other NBFCs, he assumes that these two are also NBFCs.
221.5; Assuming II only, the leader of the opposition has made such statement. I is also implicit because the root cause of disruption in the house is lack of consensus.
222. 1; I is implicit but II is not. Happening of new things might be good or bad in nature.
223.5; Whenever a plan is aimed at for a particular locality, the planner assumes that the locality needs that plan. Hence I is implicit. II is also implicit. If an institution makes a plan to provide facilities to the people, clearly those facilities are missing and are required.
224.2; I is not implicit. II is implicit. Because if any country warns another country not to interfere with the happening in its country, then it must have been assumed that the happening in its own country is its internal affair.
225.5; The statement is made by assuming II. That is why such measures have been aimed at. The talk of the requirement of the combination makes I implicit.
226.2; Assumption $T$ is not implicit because it goes into details which cannot be assumed. II is implicit because when you announce a policy, you generally assume that it will find favour with the target group.
227.4; External support makes things easier. But we cannot assume that the success of a programme hinges only on this external support. Hence I is not implicit. II is not implicit because the objective wouldnot be set if the capability did not exist in the first place.
228.5; Both I and II are implicit because the purpose of the move is to pressurise country $Y$ as well as to attract global attention.
229.2; Assumption I is not implicit because though the perceived threat of competition may be one of the reasons behind this move, we can't say so with certainty. But II is implicit: shrewd warriors often lose the battle to win the war.
230.5; I is implicit because this is why Keshav's mother needed to instruct him. II is also implicit because a choice between two options can be made only when both the options exist.
231.1; War between two countries makes the life of the people miserable. Selling of crops at low prices is on the basis of assumption I. II is not implicit because it is far-fetched.
232.1; I is implicit from the phrase "unable to solve in quicker way". The word 'only' makes the assumption II non-implicit.
233.2; I is not implicit because the commander is considering about the equipment required to curb militancy. He must be assuming II. Consideration over equipment is related with the efficiency of forces.
234.5; Efforts of Y obviously makes I implicit. One does
not make effort to reach an impossible target. The wording 'Since my childhood' makes II also implicit.
235.3; The ad assumes that there are two options: either learn from a good book or join a coaching institute. However, the former option is assumed to be preferable.
236.2; Generally any condition is given in an advertisement (especially in the form of instruction) with an assumption that people have the ability to follow it. Hence I is not implicit. II is obvious.
237.5; I is implicit because the focus of the statement is on a woman at higher post. II is implicit from the wording 'too common to make news'.
238. 1; You don't advise someone unless he needs it. Hence I is implicit. But II is not because of the word 'only'.
239. 1; Whenever a notice is issued it is assumed that there will be some impact of this notice on the people. Hence II is not implicit. But I is obvious.
240.5; $X$ gives an example and compares in such a manner that he assumes a situation similar to the existing problem; therefore he must be assuming I. II is also implicit because it is the motive behind the statement of X .
241.5; The word 'ratio' used by A makes I implicit. Need of prediction of the ratio of questions of verbal to those of non-verbal reasoning makes II implicit.
242.1; Authorising the agents to distribute coupons makes I implicit. But II can't be correlated with the statement.
243.2; I is not implicit due to the word 'only'. II is obvious because this is the assumption on which the criticism made by the leader of Y is based.
244. 1; I is implicit. That is why the speaker is desirous of showing the courts the right path. II is not implicit. The judiciary should be ideal but there is no clue why.
245.2; I is not implicit because of the word 'necessary'. II is obviously implicit.
246. 1; Confinement of Ram temple movement in the northern part of India indicates that the speaker must be assuming I. II is not implicit. Mr Y does assume the desirability of true Indian civilisation. But is it for "harmony"? We don't.
247.2; I is not implicit. But II is implicit because seeking help from the PM of the country Y implies that the leader of country X has some hope from the PM of the country Y.
248.5; People looks for goods which are cheap as well as durable. Hence I is implicit. Since the scheme has been initiated with the aim of attracting more customers and further strengthening the company, II is also implicit.
249.5; Advocating prompt diagnosis makes II implicit. Again, making effort in the direction of mitigating the ill-effects of a biological attack indicates that the speaker must be assuming I.
250.2; Assumption II is implicit. That is why the minister stresses on "WTO compatible". I is irrelevant.
251.5; Both I and II are implicit. Efforts made by the company is aimed at the problem related with corrosion. Hence the MD must be assuming I. II is also implicit on the same ground.
252.5; Purpose of advertisement is aimed at making more
people have access to internet. Hence I is implicit. Advocating for best action on the internet indicates that the speaker must be assuming II.
253.1; I is implicit; that is why the company has advertised thus. II is not implicit: the ad does not claim it to be the only way to learn English.
254.2; Low price points have been accepted as instruments for penetration in rural areas. Hence II must have been assumed. I is obviously not implicit. Because if a company decides to penetrate in rural areas by providing the drinks at low price points then the company must be assuming that people in rural areas will be able to purchase the cold drinks at reduced price.
255.5; Talking of break-dances as a substitute for exercise makes I implicit. At the same time when a substitute is talked about it must have been assumed that it will be suitable for the existing situation. Hence II is also implicit.
256. 4; I is not implicit. In fact, the statement assumes that it's no use saying that an agreement has been reached as long as the details are not divulged. II is distorting the statement too much.
257.4; The statement is based on the hindrances and ill-effects of delay in proper action. Neither assumption carries the above sense. Hence both are not implicit.
258. 1; Assumption I holds good because otherwise the said institutions could not have fulfilled the respective demands of other countries. Assumption II is not implicit: just because you lend someone a particular help (excellent in nature) does not imply your overall superiority.
259.5; When you prepare yourself for an event, you assume your participation in it. Bidding adieu to Test cricket and focussing on the forthcoming World Cup makes asumption II implicit.
260.1; I is implicit in the words "it becomes necessary". II is not implicit because of the word "every".
261.5; Comparison made by the person between events I and II indicates that the speaker must be assuming both I and II.
262.2; I is not implicit because of the word 'every'. Narcotics Control Bureau assumes that some of the people must have information; but it does not assume that all the people have information regarding drug trafficking. II is obviously implicit. That is why instruction is being given.
263.5; The request comprises a fixed time. If one fixes a deadline for a particular thing, one must be assuming I. II is also implicit because if a person requests for something from another, the former assumes that the latter will abide by it.
264.5; I is implicit. Look at how Mr Y is blaming "faulty lifestyles" and "bad eating habits" - they are instances of brazen violation of preventive measures. II is implicit, that is why Mr Y expresses his resentment.
265.4; The statement assumes nothing about the kind of people who are fit to deliver the goods. Hence I is not implicit. Again, the statement says there is a need to assuage the feelings. But it does not assume whether doing so would be easy or difficult. Hence II is not implicit.
266. 1; Only I is implicit because of the words even fifty years after'. II is not implicit.
267.4; I is not implicit because we don't know what X assumes about other factors. II is not implicit either. We don't know why X assumes him to be lauded.
268.4; I is not implicit because we can't say with certainty that Miss ' X ' assumes her life to be full of prosperity and the prosperity in her life came only after the death of her father. II may or may not be the true reason behind the reluctance of her father. Hence, II is also not implicit.
269.5; I is implicit; that is why the advertisement advocates to satisfy one's need. II is also implicit because if study materials of ' X ' coaching institute are capable of satisfying one's need for PO, it must be capable of satisfying the real requirements of a true aspirant for PO. Hence, the speaker must be assuming II.
270.2; I may or may not be a true assumption. Hence I is not implicit. II is obviously implicit; otherwise there would not have been the advertisement.
271.5; Both I and II are implicit. If someone gives a ultimate success formula to youngster, then he/ she assumes I. Second sentence of the statement makes II implicit.
272.4; Hence, I is not implicit because of only. II is also not implicit because if PM is talking about joint patrolling then PM must be assuming that other party will also support the plan.
273.2; Suggestion made in the note is aimed at adopting a way that brings out committed aspirants for political leadership. This implies political leadership is facing a crisis of true leadership. But can we assume that it is so everywhere? No. Hence, I is not implicit. If one suggests something to someone, he assumes his/her suggestion is practically possible. Hence, II is implicit.
274. 5; One does not give instruction to any one unless he/she assumes the latter needs it. This implies that the readers need the instruction. This makes I implicit. Again, if one suggests someone an initiative, the former assumes the initiative is likely to solve the respective problem of the latter. Hence II is also implicit.
275. 1: Why such notice? CEO must be assuming I.
276.5; The advertisement talks about renovation in schemes and wide range of solutions. Why such ads? It is likely that these two qualities of schemes will attract customers. Hence both I and II are implicit.
277.2; I is not an assumption. Deputing a high level team for a particular objective implies that the EC is assuming the team will succeed in its objective and for this people of the state will co-operate with the team.
278.5; The statement is in the form of a suggestion and it is aimed at stopping child marriages. Note that one does not suggest any initiative to remove a problem unless he assumes the problem is still in existence. Hence, I is implicit. Now, why a severe punishment? The speaker must be assuming. II. Hence, II is also implicit.
279.5; The scheme will attract students, particularly those students who have no money to pursue education. So both assumptions are implicit.
280.2; Tone of the statement makes II implicit.
281.4; The student doesn't necessarily assume the basis of this desire.
282.4; Neither I nor II is implicit. Only intelligent competitors are not the basis of the statement of the co-ordinator. Hence I is not implicit. II may or may not be assumption. Hence, II is also not implicit.
283. 2; I goes deep into reason. Hence $I$ is not an assumption. II is obvious; that is why the person suggests his/her view.
284. 2; I may or may not be an assumption. Advertisement of a product is done keeping in mind that there must be some buyers. Hence, I is not implicit due to the word 'Most'. But since the objective of the advertisement is to attract customers by giving them a chance of free trip to Asian Games, the speaker must be assuming II. Otherwise, why will people prefer a free trip to a foreign country?
285.5; Why an assurance of ensuring confidentiality along with an easy access to register a complaint? The speaker must be assuming I. Again, why specially trained Women Police Officers? The speaker must be assuming II also.
286.5; The tone of the viewer implies the entire hue and cry over the film is not genuine. Since the viewer is convinced that the duo the director and the actress) is together, it implies that he is assuming I and II.
287. 1; While making the statement assumption I was in the mind of the speaker; that is why he is against the religion-based parties in Indian politics. II is not an assumption because secularism may be practised even in a country where there is only one religion.
288. 1; The speaker is assuming $I$; that is why in spite of the courageous deeds of robbers, pirates, .... and other anti-social elements, they are not heroes. Courageous work can be undertaken in both violent and non-violent ways. Hence II is not implicit.
289.2; Judiciary also cares but it is not the only wing which cares. Hence I is not implicit. Clearly, the speaker is assuming that judiciary must be independent so that it can do its best. Hence II is implicit.
290.4; I is more of a restatement. If there were no linkage between corporate and political or economic conditions of the country, the speaker would not use despite in his statement. Hence II is not implicit.
291.5; Why does the speaker want that people take action in the matter? Clearly, he is assuming II. I is also implicit in "Democracy will suffer".
292.2; The speaker is assuming II; that is why he is not happy with the quality of performance of ministers. Hence II is implicit. I is an extreme case. It is possible that most of the ministers are inefficient but not all. Hence I is not implicit.
293. 2; II is implicit. The term "ambitious" confirms it. It is possible that they have some mass base and they use the grievances to take lead over their rivals. Hence I is not implicit.
294. 4; Here both may be conclusions but certainly are not assumptions. The speaker is a supporter of pluralistic society.
295. 1; The speaker is assuming $I$; that is why he has
told so. While making the statement, his prime concern was corruption and not political stability. Hence II is not implicit.
296. 2; If 'I' were the Election Commissoner's assumption, he would not have talked of "those without a voter identity card". So II is a valid assumption.
297.2; $I$ is a restatement. Hence does not follow. Disinvestment in banks means moving towards privatisation. Clearly, the speaker is assuming II; that is why he talks about elimination of scams.
298.2; I is not implicit. On the contrary, the restriction of this motility is assumed to be a problem. II is implicit; that is why we talk of "regional language".
299.4; It is possible that because of the difficulty of language learning courses, students quit their studies in the middle. Assuming this reason, he may have stated so.
300.1; There may be other reasons for bureaucratic delays, e.g. long enquiry process by different departments on different angles. Hence II is not implicit. I is implicit; that is why he has told so.
301.4; He may be assuming that manufacturing sector and information technology industry should be run together with equal stress to boost the economy.
302.1; It is clear that the economist assumes that at present the time and labour poor does not have much economic value. Hence I is implicit. Now, why does he advocate for the measure? This is not very clear. Maybe he also has the economy of the country in mind. But not necessarily. He may be more interested in the poor than in the country.
303. 1; I is implicit. It is possible that his statement is general and his intention is only to explain the impact of players on the youngsters.
304.4; The speaker is more concerned about poverty and wants that the impact of globalisation reach to the poor to eliminate their poverty. He is thinking little about the booming of the economy.
305.5; From the tone of Kher's remarks both the assumptions can be considered.
306.4; Assumption I is not exhaustive. Hence it is not implicit. The speaker has nothing to do with other countries. He is talking about his country only. Hence II is not implicit.
307.2; The speaker is assuming that history and social concerns are two different subjects and both have different ways of writings. Hence II is implicit. But I is not implicit.
308.4; It is clear that Nehru was the best leader to ensure harmony. This implies that there were other leaders also to ensure harmony though Nehru was the best. Hence I is not implicit. II can be a conclusion.
309.5; From the tone of the statement it is clear that the speaker is assuming both.
310.5; According to the speaker, it is because of I the public sector employees do not want the transition of their sector into private sector. Hence I is implicit. II is implicit because corruption decreases efficiency.
311.5; Why is the speaker against diluting the powers of CVC? Clearly he is assuming II. The speaker is assuming I ; that is why he is pleading for the
media to do its work.
312.5; If competition benefits the consumer, monopoly must be harmful to him. Hence I is implicit. II is implicit because these are the ways in which a consumer benefits from competition.
313. 2; If there is a huge loss of power, it is being assumed that a lot of power is being generated. But one can't assume whether the generation or its capacity is adequate. Hence I is not implicit. II is assumed from the element of suspicion present in the statement.
314. 4; I is a restatement. Hence it is not implicit. Good looks are not the same as being conventionally good-looking. Confidence brings good looks even to the conventionally not-so-good-looking. Since good looks are being ruled out only in the conventional sense, II is not implicit.
315. 4; Influence of one economy on the other does not imply that the latter has no independent existence. Hence I is not implicit. Just because the US economy influences the Indian economy, one can't conclude that II is being implied. The influence can be felt even if India's bilateral trade with the US is of a large volume.
316. 5; The speaker assumes that the very notion of value system has changed.
317. 2; The speaker is assuming II that is why he is talking about the entrenched customs and social attitudes towards women and about their plight getting compounded. I is not an assumption here.
318. 5; I is implicit by the link established by the speaker between "physics" and "mysteries of the universe". II is also implicit because 20 years is not too big a period.
319. 1; I is implicit from the thrust on human development through educational institutions. II is not implicit: we don't know whether the investment is needed to open new institutions or merely maintain the old ones.
320.1; Assuming $I$, it is an Indian language. II is not the assumption here because it is possible that other communities have this bias.
321.5 ; You can arrive at the statement only when you assume I. Hence I is implicit. He is assuming II and he wants that this habit should be given up.
322.5; Clearly, the statement is a lament for the fact that education is turning into just a moneyspinning business. It is getting detached from values, which are at the care of a society. Hence, both are implicit.
323.4; Who are using history in the contemporary context can't be determined. Hence I is not implicit. It may be used to spread harmony among various communities. Hence II is not implicit.
324. 1; I is implicit because it is this demand that makes people "spend big money". II is beside the point.
325.4; There may be several other reasons for the largescale deaths during earthquakes. eg use of lowquality building materials, electric current.
326.5; Clearly, the speaker does not believe in one-match wonders. Hence, I is implicit. II is also implicit because consistently good performance over a long stretch can be measured in terms of average.
327.5; Because of II LIC has advertised so. If I were not the assumption, they would never advertise.
328.5; The finance minister says that the Opposition is
opposing only for the sake of opposing. Which means the measure he is advocating, namely privatisation, is good. Hence II is implicit. And once II is assumed, I also becomes implicit.
329. 2; Higher marks can also be scored by using unfair means. Hence I is not implicit. II is implicit.
330. 1; I is implicit; hence the warning. II is not implicit because we can't assume that all social responsibility jobs give money.
331. 1; The speaker is assuming I. And its solution he has advised in his statement. II is also implicit. Hence the need to seek fortune abroad.
332.4; I and II may or may not be an assumption. It is possible that he is assuming that an actor is more popular among the audience than directors and producers and that is why he looks out for acting assignments.
333. 1 ; I is implicit; that is why the speaker talks about the flaw in the "democratic process". II is not implicit in the given theoretical statement.
334. 2; I is not implicit because the statement has nothing to do with "global" phenomenon. II is implicit; that is why job opportunities have been crippled.
335. 1; I is a valid assumption. This is the way to win the hearts of the people. II is not implicit. The statement points to the fact that winners of votes often pay little attention to hearts.
336. 2; How do we know whether the selection is provisional? Hence I is not implcit. II is implicit: that is why it has selected 20 more candidates.
337. 1 ; The blame is being squarely laid on the batsmen.
338. 5; I is implicit from the speaker's demerit being pointed out. II is also implicit. That is why "the anti-defection law is ineffective".
339. 2; The former prime minister is against the way liberalisation policy is being pursued by the govt and not against the idea of liberalisation itself.
340. 4; The ad does not promote chocolate eating in general; it only says that if one eats chocolates, why not eat the tastier one? So I is not implicit. II is of course contrary to what the ad says.
341. 4; The soul accepts new bodies just as a person accepts new clothes - this being equated to the soul being a clothshanger is very crude philosophy. I should be rejected. Again, the immortality of the soul is not proved beyond doubt in the given statement. Unless a statement clearly said that the soul never ceases to accept new clothes this assumption would be suspect.
342.5; The statement talks about some persons who say that Indians are tolerant to a dangerous level. So I is assumed in as much as such people are assumed to be existing. Further, the author refutes the claims of such persons. Hence, the author himself is proof that there are some persons who do not believe that Indians are tolerant to a dangerous level.
343. 2; The crux of the statement is that although the wheels, horses etc. make up the chariot, they are not the chariot. In other words, parts can never substitute for the whole. So II is implicit. I is not hinted at in the statement.
344. 5; The phrase "one step further" implies that some violence has already occurred and the author plans to move "one step further" from this level of violence. Further the word "retaliate" implies
that violence has been against the author to which he plans to give a befitting reply. Hence both I and II are implicit.
345. 5; I is obvious from the statement. II is obvious by the way cooler is compared to fan in the statement.
346. 4; I is not true for everybody. The statement means to say that practice may not be sufficient for success if one is pitted against a born genius. In other words, it means that practice is necessary but it may not be sufficient. II is not implied beyond doubt. It is supported by the statement only in a vague fashion.
347. 1; If a manager contemplates punishment for the erring staff, a capability to punish must be assumed.
348. 2. Allowing pass-holders without checking does not necessarily mean less risks. It could be done because of time factor or other reasons. But one thing is definite. Those having passes must be assumed worthy of trust. Without this being true, allowing them without check-ups makes no sense. Hence II is implicit.
349. 1 ; If fistening to the inner voice can save one from sin, assumption I must be valid. Assumption II is uncertain. The statement merely says that Gandhi was saved from sinning on many (not every) occasions. So chances of a few transgressions can't be ruled out merely on the basis of the given statement.
350. 1; If a polite person's son being rude is a matter of shock then it must be assumed that politeness usually passes from father to son. So I is implicit.
351. 1; First the author says that whenever he watches, India lose a wicket. Then he declares that "so" he will not see the next crucial match. The assumption here obviously is that if he doesn't watch the match India will not lose wickets. In other words, his coming to watch is one cause of India losing a wicket. II is uncertain. No hint is made on winning or losing.
352. 4; Feeling uneasy is not a sign of addiction in itself. Feeling uneasy after avoiding Gutkha is a sign of addiction. [Read I carefully. If you have the book Magical Book: Analytical Reasoning, refer to page it immediately.] Secondly, a thing that is suspected to be addictive can never be advised to be taken every two hours! Both I and II are not implicit.
353. 5; The author says that he won't succeed in UPSC exam. Reason? Because he is not hardworking. Obviously, hard work is essential for success at UPSC exam. Further, if hard work is a necessary prerequisite of any exam, the exam can't be easy. Both I and II are implicit.
354. 1; The author says that he hopes to succeed in SBI PO exam. Reason? They had more vacancies. Clearly, more vacancies are taken as giving a higher chance to succeed. So I is implicit. II is not. The statement makes no comment about the degree of toughness of the exam.
355. 2 ; If we say that it is high time $X$ did something, we assume that X is not doing that at present. Hence, assumption II is implicit. But I is not implicit. Infrastructure lending is one of the services but whether it is the best we do not know.
356. 1; I is implicit because if Booker Prize brings global acceptance, it must be a sign of recognition. II is not implicit. The coming of age of Indian writing in English may be an inference, but not an assumption.
357. 5; If a thing is no longer so, we assume that earlier it was so. Hence I is implicit. Again, if corruption came as a shock earlier, we further assume that corruption was there. Hence II is implicit.
358. 4; If $X$ is more dangerous than $Y$, we assume that $Y$ is also dangerous. But I is not implicit because it states just the contrary. II is also not implicit. We rather assume that hedonistic activities can be performed with aids.
359. 1; I is implicit because one team cannot defeat the other unless both participate. II cannot be assumed. There may have been other teams which were eliminated before India met Pakistan in a five-match final.
360.2; I is not implicit because it talks about a subject, not the author. II is implicit because when we say that a book is for a particular target segment, we assume that such a target segment exists.
361. 1; I is implicit: how else can helping the poor be a service? II is not implicit because not all human beings are in the "service" business.
362.2; I is not implicit because the statement is based only on what happens in India. II is implicit because of the concern shown by the statement.
363. 2; I is not implicit because we don't know whether the statement is based on past experience. II is implicit because education is very important in equipping the children.
364. 5; Both the assumptions are implicit because of the need felt for a shopping complex in the colony itself.
365. 1; The term 'which you were unable to prepare earlier' clearly means even though the user knows the procedure of some special preparation, he does not have a proper oven to cook. Hence $I$ is implicit. The statement assumes that ' X ' can cook tasty dishes but does not rule out all other ovens from doing so.
366. 1; Accommodation to only outside candidates clearly indieates that loeal candidates will be having their own arrangement for stay. Hence I is implicit. It is no where mentioned that outside candidates will not be selected. Hence II is not implicit.
367. 5; Providing anything for a solution automatically leads to the fact that the provider has assumed that neither it will disturb while working nor it has any adverse side effect, and that it will rather promote the work.
368. 1; I is implicit. Because of I, the policy-makers have acknowledged the services rendered by the voluntary agencies. II is not implicit. Designing and service contribution are two different things.
369. 5; If it is impossible then why would a nation commit so? Hence I is implicit. The term As a nation used in the statement and then about its commitment for its people confirms II.
370.4; As only is used in both the assumptions, none is implicit.
371.2; I is not implicit. The statement puts it the other way round. That is, health results in happiness. II is implicit, hence the statement.
372.5; Definitely because of assumption I and II the publisher has warned in the cover page of the book.
373. 5; Sensitivity can be created by the media only when it possesses both these attributes.
374. 1; I is implicit. The provision would not have existed if there were no likelihood of such an act being committed. II is not implicit. Merely debarring public servants from immunity does not ensure equality for all.
375. 3; Higher efficiency will be brought about in either the case. When you have good models, the environment improves. On the other hand, even if this not be case, fear of being eliminated leads to adaptation in the Darwinian fashion.
376. 5; I is implicit. That is why the demand for qualification and experience. II is also implicit. Unless the institute were choosy, it would have welcomed one and all, without imposing any restrictions.
377.2; I is not implicit: Competition from whom? There are no such hints in the statement. II is implicit: it is this appreciation that has propelled the credit card company towards such an excellent customer service.
378. 1; I is implicit; hence the caution "to be frank and objective". II is not implicit. The statement does not hint towards the motive of the report.
379. 5; I is implieit; that is why the talk of "observational learning". II is also implicit; note the use of the word merely.
380.5; I is implicit: it is with this belief that the shopkeeper makes the recommendation. II is also implicit; that is why the shopkeeper emphasises on "international technology".
381.5; I is implicit. Note that the statement makes a distinction between merit and seniority. II is implicit: only when you can determine something that you make it the basis for further decision.
382.2; What we are being told about brilliant students does not have anything to do with mediocre students. Hence I is not implicit. But II is implicit. This must be the reason why the brilliant students do not always excel.
383. 5; I is implicit. If the desire were not there, why the statement? II is also implicit; hence the emphasis on "explore all channels".
384.2; I is not implicit. The grievance is against the govt, not against the banks. Banks serve only as a medium for transfer of money. II is implicit from the phrase "two months ago".
385. 2; I is not implicit in its present form. The author assumes that it is unproductive unless utilised. II is implicit; hence the lament on its underutilisation.
386. 5; The company is assuming II, that is why it has manufactured the medicine. Why has the company stressed on the constituents and the effect in its advertisment? Definitely because the company management is assuming I.
387. 1; Failure to meet the demands is possible only when the demands have been raised in the first place. Hence I is implicit. II may be a conclusion but not an assumption.
388. 5; I is implicit. Tools for an objective are talked about only when the desire for such an objective exists.

II is implicit because it makes no sense to talk of something without the existience of its possibility.
389. 1; ' $A$ ' is assuming $I$, that is why he has suggested hard work to B. Hence I is implicit. The word All is too strong in II. Hence II is not implicit.
390.4; Assumption I contradicts the statement. Nothing can be assumed about the scale of becoming developed. Hence II is not implicit.
391. 2; I is not implicit. There is no hint regarding who controls our behaviour. II is implicit. The statement takes exception at the fact that he does not apply to himself what he teaches.
392.2; I is not implicit. The statement only says that the two should go together, not that one results from the other. II is implicit; that is why the emphasis on social justice.
393. 5; The customer is assuming I that is why he has lodged several complaints of not receiving his telephone bills. As he has informed about this to the editor of a daily, he expects to correct the system. Hence II.
394. 2; The statement does not point to the competence of anybody. It merely hints at the power of cooperation.
395. 5; The police is assuming I that is why they have interrogated them. Hence I is implicit. II is a more generalised form of I. Hence implicit.
396. 4; We are in no position to pass any judgment at present. We may assume these only if the appeal is rejected.
397. 4; I is not implicit because this is an ad for admission, not for a job. II is also not implicit for the same reason. You don't seek admission.
398. 2; The intention of internal applicants can't be assumed from the given statement. II is implicit; that is why they want to recruit outside professionals.
399. 1 ; Whenever a decision is taken by the company it goes through every aspect threadbare. Hence I is implicit. Debentures can be issued even when there are a large number of competitors. Hence II is not implicit.
400.5; The company's authority is assuming both that is why they have invited tenders from reputed contractors. The term reputed confirms I. II is a universal assumption as the principal reason of inviting tenders.
401.5; The govt has promised to bring down the smoke level because it is possible to determine the level. Hence I is implicit. II is implicit because containing pollution is also a welfare measure.
402.1; Any measure is taken with its efficacy in mind. Hence I is implicit. But II is not implicit because there is nothing in the statement that suggests the fear of a threat.
403.3; The company may have either of the two situations in mind. Generally, reduction in price is expected to lead to increase in sales. Hence I is implicit. Alternatively, it is possible that the decision has been taken with other manufacturers in mind. In that case II may be implicit even without assumption I.
404.5; Why the apology? It is a submission to the sensitivity of the Indians. Hence I is implicit. II is implicit in the word misinterpreting.
405.5; Lalit's mother is instructing him what course to take if it rains heavily. Clearly, she assumes his incompetence in taking a decision of his own. Hence I is implicit. Returning by train is possible only when the trains ply. Hence II is implicit.
406.5; A decision to start any sort of dialogue with one's neighbour assumes that the neighbour will also participate in it. Hence I is implicit. II is implicit because track II dialogue can be meaningful only when the respective Govts agree to abide by it.
407.5; The host of the programme is assuming both. Announcement to distribute fabulous prizes has the clear purpose to enhance the viewership.
408. 4; The employees' association is generally concerned with the welfare of employees and not with the benefit of the organisation. Hence II is not implicit. I, also, is not an assumption.
409.2; Assuming II only, the government has agreed to work out an effective social security programme.
410.1; To motivate the employees and hence for the enhancement of their work, the head of the organisation congratulated the entire staff in his speech and appreciated their effort.
411. 1; Whenever sueh notices are displayed it is assumed that those who are concerned with the notice will read the notice and follow the messages in it. Hence I is implicit. If II were true, it is not necessary to display such notices.
412.5; Here both the assumptions are valid. If it were not so, there would be no benefit of setting up
sueh mission.
413. 1; I is implicit; that is why the advertisement has been given. Second one is absurd.
414. 5; I is obviously implicit. II is also implicit; that is why cancellation of citizenship has been talked about.
415. 2; I is vague. But II is implicit because the fixation of amount as Rs 1999 per month must have been done after assuming II.
416. 2; The wording "Beware of dogs" makes II implicit.
417. 4; I is not implicit. The valid assumption is that the existence of corruption and prejudice is not desirable. II is also not implicit. The statement is silent on whether the administrative system can be reformed.
418. 5 ; Why a review committee to find out the reasons for unstable stock prices? Concerned authority must have assumed I. Hence I is implicit. One does not entrust a work to another unless the former assumes that the latter has the efficiency to do that work. Hence, II is also implicit.
419. 5; Assumption $I$ is implicit. Why has such advertisement been published by the advertisers? Definitely, the advertiser is assuming I. II is also implicit; that is why advertiser advocates doing so.
420.5; The idea behind facilitating learning computer at no cost is aimed at attracting learners. Hence I is implicit. II is also an assumption; that is why the advertisement advocates learning computer.
421.5 ; Both I and II are implicit. The government does not launch its programme unless it assumes that it has the basic infrastructure to implement it.
422.5; Why a reward for a good suggestion? Obviously, authorities are assuming that the reward will
enthuse employees to evolve innovative techniques. Hence, II is implicit. On the other side, seeking help from employees in order to evolve an innovative techniques implies that employees may have the required calibre. Hence, I is also implicit.
423. 1; I is implicit; that is why the civic authorities are advising so. II is not implicit. No one gives advice to another unless the former assumes that the latter will follow the advice.
424.2; Engaging the Army for the rehabilitation work by the government implies that the government assumes that the Army possesses the required ability to rehabilitate the affected people rapidly. Hence, II is implicit but I is not implicit because of the word 'only'.
425.3; Investment in the shares of company ' $A$ ' has been termed as 'a gamble'. This implies the speaker must be assuming that the investment may either incur loss or bear profit.
426.4; I is not implicit (note the word 'at least this year'). II can't be correlated. Hence, II is also not implicit.
427. 1; The words 'not true always' implies that sometimes the move bears positive results. Hence, the speaker must be assuming I. II is obviously not implicit.
428.4; The tone of the statement only implies that the speaker assumes that newspapers are more effective than oral call. The given assumption I is not implicit because of the word 'rarely'. II is also not implicit because it contradicts the valid assumption. Note that here the valid assumption is "people will read an advertisement in a newspaper".
429.2; I is not implicit. It is assumed that people will pay taxes. That is why II is implicit. But the
$\int$ Govt does not necessarily assume that people will continue with these schemes. Maybe it is discouraging people from being mere savers rather than investors.
430.5; No government decides to impose extra taxes unless it assumes that the amount it has is insufficient to serve its purpose. Hence, I is implicit. II is also implicit; otherwise the government would have increased the levy from the targeted $2 \%$.
431. 1; I is implicit from the tone of the offer of the ' $X$ ' Housing Finance company. But II is not implicit.
432.2; The real concern of WHO is the low per capita expenditure on health in India. Now, how will the initiative taken by WHO minimise the concern? The assumption is that the enhanced assistance may substantially increase the per capita expenditure on health in India. But, assumption I is not implicit due to the last part of it, ie 'and bring it on par with other countries.' Again, no one provides help to others unless one assumes that the other needs it. Hence, assumption II is implicit.
433. 4; When decisions are taken, the assumptions are positive. It is assumed that various sections would facilitate the implementation of the decision. Hence neither is implicit.
434. 1; The step taken by the airlines must have been aimed at to earn more revenue. The desired result can't be obtained without assuming I. Hence, I is
implicit. II may or may not be an assumption.
435. 5; Generally, an advertisement is given to attract customers. Hence, assumption II is implicit. The advertisement mentions some feature. Why will the mentioned feature attract customers? Hence I must be assumed.
436. 2; Why did bank ' A ' reduce the interest rate on retail lending? The step taken by the bank must be aimed at generating more revenue. Hence, II must be assumed. I may or may not be an assumption. Hence, I is not implicit.
437. 5; When a notice is given by an organisation to a group of persons, the former assumes that the latter will follow it. Hence, I is implicit.
438. 2; The tone of the statement implies that sometimes the mightiest superpower does not get accolades from other countries even after winning the war. Hence the speaker must be assuming II. The tone of the statement stresses on the failure of the mightiest to get accolades from other countries despite winning the war. Hence, I is not necessarily implicit.
439. 2; I is not implicit. In fact, the statement suggests it is possible to contain terrorist activities. What is disputed is "how long". But II is implicit. The action has begun, though its end is not in sight.
440. 1; I is implicit from the victims being "nuisance to peace-loving people." II is not an assumption. Note that the assumption here may be: "Majority of the people killed in wars are wicked."
441. 4; Dishonouring of global public opinion by the superpower implies that the speaker must be assuming that the global public opinion is against the imposition of war. But note that II says: "... should have been ... ." Hence, not implicit. I is not implicit either. It is, in fact, contrary to the speaker's assumption.
442.5; The word 'vehemently' used in the statement implies that the speaker must be assuming II. Why is the speaker in favour of discouraging wars vehemently even though majority of the victims might have been a nuisance to peace-loving people? The speaker must be assuming that war is disastrous for peace-loving people also. Hence, I is implicit also.
443. 1 ; The decision taken by the government implies that the government must be assuming I. Note that no organisation/government/person takes decision to compensate the victim unless it assumes that it has adequate fund to satisfy the expenses. II can't be correlated. Hence, II is not implicit.
444. 1; Why has the suspension of flights been mad for a limited period of four days? It must have been assumed by the authorities of X-Airlines that the crisis may be over after this limited period. Hence, assumption I is implicit. II may or may not be an assumption. Hence, II is not implicit.
445. 2; Request made by civic authorities to the citizens implies that the authorities must be assuming that the citizens will respond positively. Now look at assumption I. It may or may not be an assumption because the way of responding by the citizens may not necessarily be the same as mentioned in the assumption.
Hence, assumption I is not implicit. Again,
request made by the authorities implies that the authorities must be assuming that their effort will reduce the problem of power theft. Now, how can they assume this? Obviously, II is an assumption.
446. 5; Why did PTA take such a harsh decision? They must be assuming that its decision may compel the principal to reconsider the school fees. Hence, assumption II is implicit. Again, how can the decision usher such result? Obviously, PTA must be assuming that parents of the students will cooperate. Hence, assumption I is also implicit.
447. 2; Assumption $I$ can't be correlated with the statement. Hence, assumption I is not implicit. Now, why did the authority go for the advertisement? Obviously, II must be assumed. Hence, only II is implicit.
448. 5; The scheme will attract the children, particularly those who have no good food available at home. So both assumptions are implicit.
449. 1; I is implicit. If it wee not so, equal potential would have implied equal salary and vice versa. This one-to-one correspondence could have made salary the only criteria to judge potential.
If II were implicit, if would mean salary is linked with factors other than potential. That is, potential can't be the only criteria to decide salary. But this is on a track different from wheat the statement goes on.
450.4; Material desires of a person are determined by three factors - the basic necessity, the utility of items purchased and the appetite for luxury items. Hence I can't be the assumption. II is also not implicit.
451. 1; As a Principal, he trusts his teacher that they would have prepared the students thouroughly. So that they could appear in the list of toppers. Hence I is implicit.
 Only intelligence cannot be the basis of the Principal's statement. Hence II is not implicit. I is implicit from the need "to maintain the present position". But why the question of lag? Must be because computers are much more efficient than manual labourers. And this holds true only for complex tasks. Hence II is implicit.
453. 5; Why has the club announced a wide variety of music programmes by the visiting musicians? The organisers must be assuming that the musicians may be able to play a variety of programmes to interest the people. Besides this, they must be assuming also that the programme will attract audience. Thus, both I and II are implicit.
454. 1; I is implicit; that is why the bank expects to work efficiently. II may or may not be an assumption. Hence, II is not implicit.
455. 1; I is implicit; that is why the principal instructed the teachers to carry the responsibility. II is not implicit. The mischievous section may not welcome the decision.
456. 2; I is not implicit. In reality it contradicts the actual assumption. Again, why, has government abolished the scheme? The government must be assuming II.
457. 1; The notice has been aimed at reducing criminal activities. How can the criminal activities be reduced without people's participation? Hence,
the police must be assuming I. But we are not sure about II. Hence, II is not implicit.
458. 5; If any circular is issued for an individual or a group of people then it is assumed that the individual or the group of people will abide by it. Hence, I is implicit. Again, why did the authority need to issue such circular? It must have a constructive purpose regarding the services provided by the organisation. Hence, II is also implicit.
459. 1 ; Why did the government take such an initiative? The government must be assuming that these teachers may be useful in improvement of primary education. How can the objective mentioned above be obtained without assuming I. II is absurd. Hence, II is not implicit.
460.4; I is not implicit because according to the statement the move is supposed to bridge the gap between income and expenditure to a larger extent. II may or may not be an assumption because of the word 'will'.
461. 1; The government is adamant not to reduce the prices of petroleum products despite the significant drop in the crude oil prices in the international market. Why? It must have some constructive objective which compelled the government to do so. Hence, I is implicit. We can't correlate II with the statement. Hence, II is not implicit.
462.5; Why did the government go for the appeal? It must be assuming that the people will abide by it and the appeal may generate more revenue. Hence, both I and II are implicit.
463. 2; I may or may not be an assumption. Note that if the two companies X and Y are paying equal salaries to their employees and the growth prospects of employees is-better in Y (in-comparison-of X ) then many employees working for the company X may prefer to work for the company Y. But II is obvious. Hence, only II is implicit.
464. 5; Why did the principal of the college warn the students? The principal must be assuming that the warning may bring the situation under control. And how can the situation be under control without II? Hence, II must be assumed. Again, what compelled the principal to go for such a warning. It is I. Hence, I is also implicit.
465. 1; How can the advertisement be meaningful without I? Hence, I is implicit. II may or may not be an assumption. Hence, II is not implicit.
466. 5; If ' $A$ ' advises ' $B$ ' to do something, then the former assumes that the latter has the required expertise to do it. Hence, I is implicit. Again, why did the management need to advise regarding use of computers? It is obvious that the management must be assuming it to be necessary. Hence, II is also implicit.
467. 1; I is implicit
468. 4; I highlights. Hence I is not implicit. II can't be correlated with the statement; hence II is not implicit. The given advertisement is based on the following assumptions:

* A discount may make the course fee seem less burdensome.
* A discount may attract more and more students.
* Most of the students want coaching classes at a lesser fee.

469. 2; I is not implicit because of the word 'medication'. The objective of the advertisement can't be achieved without II. Hence, II is implicit.
470.2; I is not implicit because of the word "All". II is implicit: it is this that makes the speaker say "you must have at least the basic knowledge of computers.
471.5; How can the objective of the civic authorities be meaningful without the people's participation? Hence, I must be assumed. Again, how can the people's participation be possible without II? Hence, II must be assumed.
472.5; I is an assumption because the government is assuming that the initiative taken by it is an effort to rectify the problem. II is obvious because the initiative taken by the government has been aimed at benefiting the farmers.
470. 5; If the government has made a plan to provide relief to the farmers, it must be assuming that the plan can be executed. The objective can't be fulfilled without I and II. Hence, both I and II are implicit.
471. 4; The Principal must be assuming that the students will abide by the instruction. Note that if a person instructs someone or a group of persons, the former assumes that the latter will abide by it. Hence, both I and II are not implicit.
472. 1; The initiative taken by the railway authority has been aimed at making the service-customer friendly. Hence, I is implicit. II may nor may not be an assumption. Hence, II is not implicit.
473. 2; From the advertisement, it is obvious the advertiser must be assuming II. Hence, II is implicit. I goes rather against the statement. Hence, I is not implicit.
477.4; The step taken by municipal corporation has been aimed at good entertainment for the local residents during the holidays. The municipal corporation must be assuming that local residents may participate in the fun fair with great fanfare. Since I and II go against the above assumption both I and II are not implicit.
478.5; The advertisement would become meaningless if the two assumptions were not implicit.
474. 1; I is implicit in the claim being made in the announcement. When you make a claim, you highlight your achievement. But II is irrelevant. Such "cooperation" from the people one does not expect.
480.5; Assumption I is implicit as the motive behind the comparison. II is implicit in the purpose of advertising.
475. 2; Whenever a vendor increases prices, he assumes that his commodities will sell even at the increased price.
482.2; Admission is still a far way off. We are only at the form collection stage and hence I is not implicit. But II is implicit as it is this assumption that has prompted people to stand in the queue.
476. 5 ; A decision is taken when it is felt that it would be accepted by most of the people concerned. Hence I is implicit. II is also implicit as the reason behind the need.
477. 4; It is not necessary that price rise be there on the mind of the govt while taking the decision. Hence
neither I nor II is implicit. In fact, the truth is that our petroleum companies are running losses even after the drop in international prices.
478. 5; Both are imminent positive outcomes assumed.
479. 1; I is implicit because teachers can't be appointed in a vacuum. II is more of a presumption.
480. 5; When a move is made, it is assumed to be effective. Hence I is implicit. It is also assumed that the stipulated target will be met. Hence II is implicit.
481. 1; Assumption I is implicit because it is this that makes us import sugar in spite of the increase in the number of sugar factories. But II is not implicit because "future" is beyond the scope of the statement.
482. 2; Compensation is a way of sympa-thising with the victims, not a deterrent to terrorism. Hence II is implicit but I is not.
483. 1; Assumption I is implicit because only then the switching over makes sense. But II need not be an assumption. The switching over may have been prompted by economic factors or those of convenience.
491.2; Assumption $I$ is ruled out because of the word only. But II is implicit because without considering this factor relocation won't make sense.
484. 1; Assumption 1 is implicit as the govt's moves are generally aimed at protecting the interests of the masses. But II is not implicit because of "any other way". There might be other means of gambling which the govt does not consider significantly detrimental for the people.
485. 2; When one applies for leave, one assumes that it would be granted. Hence I is not implicit. But Assumption II is implicit because only then the period of "two years" assumes meaning.
486. 1; When you instruct someone to do something, you assume that he may do it. Hence I is implicit and II is not.
487. 5; Assumption is implicit as this is the purpose assumed while levying the tax. II is also implicit because when a rule is framed, it is assumed that people are capable of following it.
488. 1; Assumption I is implicit in "at their own cost". Assumption IL is contrary to what the eitizens may have assumed.
489. 4; Were it assumed that the employees might leave, such a decision would not be taken. Hence Assumption I is not implicit. Assumption II is not implicit because "next year" is present nowhere in the picture.
490. 5; Both are implicit in Mr X's instructions to his assistant.
491. 2; II is implicit as it serves the purpose of introducing AC buses. Contrary to this, I is not implicit as it defeats the purpose.
500.1; I is implicit because whenever a scheme is announced, it is assumed that people will welcome it. II is not implicit. Had fear been there on the mind of the govt, it would have refrained from introducing such a scheme.
501.4; I is not implicit because an announcement is made with the assumption that it will be positively received. II is not implicit because the municipal authority is not covered by the ambit of the statement.
502.4; If the response does not come, as Assumption I says, the ad won't make sense. Hence I is not implicit. II is not implicit; hence the qualification "with good communication skills".
503.2; Assumption $I$ is absurd. In such illnesses, the patients are rushed to hospitals, irrespective of how the relatives may behave. II is implicit in rushing the affected people to the nearby hospitals.
504.5; When a promise is made by someone, they assume that they would be able to fulfil it. Hence $I$ is implicit. Since the business ventures are planned to be set up in rural areas, II must be implicit.
505.5; I is implicit as the cause of blocking the traffic. II is implicit because whenever we plan something, we assume that the conditions may be favourable enough.
506.4; Whenever an instruction is given, it is assumed that it may be followed. Hence I is not implicit. II is also not implicit. If at all the govt does assume something about the parents, it is to the contrary: that the parents may not be able to pay higher fees.
492. 1; I is implicit as diversion would be necessary while the construction goes on. II is not implicit as negative reactions are not assumed.
508.2; When prices are reduced, the motive is to attract customers. Hence I is not implicit but II is.
509.5; Both have been assumed by the railway authority while putting the revised timing on the website.
510.2; Grace marks are given with the assumption that adding these marks will lead to positive result.
511.5; I is implicit in the deadline given. II is implicit in the notice given to the residents to move out.
493. 1; I is implicit; otherwise more players would have been selected. II is not implicit because even without the captain, there will be sufficient
494. number of players.
495. 1; I is implicit in the preparation being made. But II is not implicit as "about thirty" implies "nearly thirty - maybe a few less, maybe a few more".
496. 2; I is not implicit because of the word "All". II is implicit as applicants assume a fair selection
497. 1; When an order is passed, it is assumed that people will comply with it.
498. 4; Assumption I is irrelevant while II is contrary to the assumption being made.
517.2; When workers go on a strike, they assume a positive response, viz, the authorities may heed to their demands.
499. 5; Note that the "separate lane" decision is an incentive. Now an incentive is given with a motive in mind (Assumption I) and with the hope of people falling for it (Assumption II).
500. 5; Assumption I is implicit in the invitation. Assumption II is implicit in the request Manish makes to his mother.
520.2; Assumption I is not implicit because adverse impacts are not assumed. II is implicit in the period of suspension being six months.
521.1; Assumption I is implicit because such an announcement is made with the hope that people will heed to it. For the same reason, Assumption II is not implicit.
522.4; With such negative assumptions, the statement would lose its meaning.
501. 2; The driver does not have control on what the auto driver will do. Hence I is not implicit. But II is implicit as one assumes the outcome while taking an action.
502. 5; I is implicit in the very giving of the advice. II is implicit in the condition attached.
503. 1; I is implicit: when you urge someone to do something, you assume a positive response. For the same reason, II is not implicit.
504. 2; If I were implicit, such a decision would not be taken. II is implicit in the purpose of fund-raising that has been mentioned in the statement.
505. 4; When a warning is given, it is assumed that it will be heeded to. Hence I is implicit. II is not believed to be the motive behind a warning (even though the police often create such an impression among the people that they are seen as extortionists; well! Let that be on a lighter note.).
506. 1; Without passengers, the increase would make no sense. Hence I is implicit. II may be a probable reason but not a necessary one for the increase.
507. 5; I is implicit: you don't hold a function without being ready for the preparations. II is also positive: when you invite someone, you assume that he will come.
508. 2; Price have been slashed with the assumption that sales will increase, thus leading to profit.
509. 4; Both of these assumptions are negative.
510. 1; A request is made to the people with the assumption that they would comply. Hence I is implicit. II talks of activists and is hence beyond the scope of the statement.
511. 2; I is not implicit: Even if other matches are played in the near future, people may like to see this match. H is implicit: When you stand in the queue, you hope to get ticket.
512. 1; The boards have been put with the assumption that they may have a positive impact.
513. 1; Only I is implicit. II may not be there in the association's mind. It may only be assuming that a reduced attendance may drive home the employees' point.
514. 2; There is no indication of an earlier meeting. Hence I is not implicit. II is implicit in the calling of the meeting.
515. 2; I is not implicit because the corporation has not advised the people to leave the city.
516. 5; I is implicit from the need of different types of letters on different occasions. II is implicit from "official" and "semi-official".
517. 1 ; I is implicit because only then the person checking can check the availability. But II is not implicit. Personal details are generally required at the time of booking tickets.
518. 5; Obviously, 0.7 is one of the types. Hence I is implicit. II is also implicit or else the statement would make no sense.
519. 4; When we mention something to someone, we assume they know its meaning. Hence $I$ is implicit. But II is not implicit as the details cannot be assumed.
520. 4; The statement does not give any clue to the use of language. Hence I is not implicit. II is not implicit because of only.
521. 1; I is implicit in the norm prescribed in the sentence. This is why checking is being advised. Again, what would the banks check? Obviously, what the clients reveal. Banks would assume the revelation to be true. Hence II is not implicit. However, II is vague. If cross-checking is what the speaker has in mind, II would become implicit.
522. 1; If the govt has taken the decision, it must have assumed that its implementation would be possible. II would not be implicit because of "produced in the country". It is possible that the govt has import on its mind for the said purpose.
523. 2; It is not implied that legal mining does not harm and illegal mining does all harm. It is only implied that illegal mining is more harmful for the environment. This happens because norms are flouted with impunity in illegal mining.
524. 1; I is implicit in the need for training. But II takes things to an extreme with the phrase "no skill sets".
525. 2; I is not an assumption because there may be several reasons for the preference being stated. II is implicit because you ask someone to employ a means only when you assume that the means is available.
526. 4; The assumption is that students have access to the Internet. But it is not necessary that they have this access at home. Hence I is not implicit. Again, past practice may not have been borne in mind while switching over to Internet-only display. Hence II is not implicit.
527. 4; I is rather contrary to the assumption. The need to grow different types of crops is talked about precisely because there is a likelihood of farmers growing the same crop again and again unless instructed. Again, growing different type of crops is important but not sufficient. Hence II is not implicit. I is not implicit as the action of the NGO need not be based on comparison. II is implicit as literacy is necessary to make the library successful.
528. 1; I is implicit because only then does the direction to walk make sense. II is not implicit as the statement makes no distinction between the members of the office and the visitors.
529. 2; I is not implicit because of the word "all". II is implicit because only then does the appeal to switch over make sense.
530. 5; The comparison is possible only when I is assumed. Same for II.
531. 1; I is implicit because of the use of "any" in the statement. II is not implicit. It is possible that the problem can be solved even later. The instruction to contact "immediately" is only for the sake of convenience of the customer.
532. 4; I would be implicit if the statement said "Use only our medicine ...". Again, the instruction to use is only of an advisory nature, not mandatory. Hence II is not implicit.

## Practice Exercise-2

1. 5; I is not implicit: will it hurt the litigants' interests or the lawyers'? II is not implicit because of the word all. III deviates by mentioning the venue.
2. 5; Only III is implicit. Note that the statement is a piece of news. What the journalist assumes about the conversion and its impact can't be explicitly said. But the words "despite strong opposition" indicate that the journalist must be assuming III.
3. 1; Why was the airport was put on a full alert? The authority must be assuming I. Hence, I is implicit but II is not. Again, to put the airport on a full alert indicates that the authority must be assuming III also.
4. 5; Suggestion or direction to young officers by the officer is aimed at making the new recruits aware of their responsibilities. Assumptions I can't be correlated with the above statement. II is an assumption: this is what leads to adverse comments. III is not implicit: chances are the judgment is inaccurate; hence the extra caution.
5. 5; How can the menace of smoking be reduced if we restrict or reduce the showing of smoking in movies? Obviously, the speaker must be assuming assumptions I and II. Assumptions III is also implicit. That is why the speaker stresses on those deeds and creations which are conducive to reducing the menace of smoking.
6. 4; The tone of the statement implies that, in the speaker's opinion, walking barefoot for miles on dusty roads should be considered adventurous. Hence, the speaker must be assuming I. To convince others about his opinion he makes comparison between walking barefoot rafting gliding. Why? He must be assuming the assumptions III and II also.
7. 3; The reason of the person's request to the editor to publish the names of the worst colleges, is obvious. How will the request lead to an overall improvement in the institution? The person must be assuming I. Hence, assumption I is implicit. II may not be an assumption. But III is implicit because if someone requests for something to others, the former assumes that the latter will concede it.
8. 2; I is not an assumption because the minister does not have the employment perspective. The positive features used in the statement in order to support more women driving public transport implies that the speaker must be assuming II and III.
9. 5; Only I is implicit. II and III can't be correlated with the statement. Hence, II and III are not implicit.
10. 3; I is implicit; that is why there is discrimination in charges. II is also implicit; one does not take a decision unless one assumes it feasible. But nothing can't be said with certainty about III.
11. 5; I and II are implicit because the speaker stresses on little participation of students. III is also implicit because the speaker wants an education system which is designed keeping the changes of society in mind.
12. 3; I is not implicit because it mentions the words 'thorough knowledge'. Hence I can't be correlated with the statement. II and III are implicit; that
is why the speaker distinguishes an educator from an academic.
13. 5; The last portion of the statement makes I implicit. Dissatisfaction of western countries is owing to the absence of prime ministers or president of member-countries. Hence II is also implicit. On the same basis III is also implicit.
14. 5; Either II or III is implicit. The number have decreased because of "mandatory verification of identity". Why? Either it is the fear of consequent procedural delay or people fight shy of revealing their identity. Assumption I is unrelated to the statement.
15. 5 ; I is correct because otherwise $X$ can't hint at the fact about the unique facility provided to MTNL subscribers. II is also correct. Why else should X tell this to Y? III is also correct. Why will Y feel a jolt? Hence, all are correct.
16. 2; If someone takes an initiative to remove the hurdles, it is not implied that he/she is the one who has created it. Hence, I is not implicit. II is implicit because it is the problem for which initiatives are being taken. III is also implicit because one does not undertake an effort unless he/she assumes the difficulty can be overcome.
17. 4; I is not implicit. A direction is given assuming that the person, for whom the direction is meant, will follow it. Hence III is implicit. While stating the intensity of the problem, school children and college students are mentioned. Hence, the speaker must be assuming II.
18. 5; People take lessons from those who have a better idea and experience to deal with the problems which people are facing. Hence I and II are implicit. Again, comparison between the two countries implies that assumption III holds. That credibility can be gauged is all that we can assume. Whether it can be measured is beyond our scope. Hence I is not implicit. II is not implicit because of 'always'. Besides, both II and III attempt to equate the Commonwealth with the world community.
19. 4; What induced Indian Meteorological Department to propose a brainstorming session on the issue of just-concluded summer monsoon? It is the assumption I which made them do so. II is obvious; otherwise why is a brain storming session needed? We sometimes take an initiative on the basis of positive result obtained through a similar initiative in the past. A negative result of a similar brainstorming session can't be an assumption for the proposed brainstorming session. Hence, III is not implicit.
20. 4; Mr X may be taunting Mr Y. Hence I is not implicit. II and III are implicit from the way "looking sad" and "getting bonus" have been linked by Mr X.
21. 1; I is implicit; that is why ruling goes like this. Declaring non-Brahmin, having desired qualities, also eligible for pujari implies that II must be an assumption. No court delivers its verdict unless it assumes that people will abide by it.
22. 5; I is not implicit because it goes into too much of
specifics. II is not implicit because leaving the village does not necessarily mean migrating to metro cities. III is obvious.
23. 3; Since Mr X is determined to play against Mr Y's team the next day, he must be assuming III. II is implicit because of the words "at any cost".
24. 5; The phrase 'nuclear war' used in the statement indicates that the speaker must be assuming I. The word, 'mistaken' implies that he must be assuming II also. Why does the speaker think of the possibility of war between India and Pakistan? He must be assuming III also.
25. 3; I is not implicit because of the word 'always'. The importance of 'dying expression' for conviction implies that the Supreme Court must be assuming II. How can a person judge the veracity of a statement without having the capacity to distinguish whether the statement is doubtfree or doubtful. Hence, III is also implicit.
26. 3; I is not implicit. But II and III are obviously implicit; otherwise shopping time would not have been proposed to be enhanced.
27. 3; I assumes too much. But why is there a need of speed governors for all four-wheelers? The court must be assuming II and III.
28. 3; The governor says that there would not be "further weakening of rupee." Which is based on the assumption that the rupee has weakened in the recent past. Hence I is implicit. II is not implicit; dollar-buying may be one of the reasons for the depreciations of the rupee. But one cannot assume this. III is implicit: note the use of the word adequate.
29. 3; I is wide off the mark. In fact, it's just the contrary of what the statement says. II is implicit: when a statement is of the form A should be done for B, we-assume that $A$ leads to $-B$. II- is not implicit.
30. 5; All the three are implicit. Since company $X$ talks of entering into a deal, it must be assumed that two companies can enter into a deal. So II is implicit. Again, I is implicit because how can company Y help company X unless it is capable to do so? Besides, this capability must be based on-being financially sound. So HII is implicit.
31. 1; A statement of the form though $X, Y$ is unlikely is based on the assumption that $X$ leads to $Y$.
32. 4; I is false; if the two were the same, how could they meet two different fates? II is implicit; look at the way in which 'inspector raj' is being contrasted with 'licence raj', which the reforms have put an end to. III is implicit: if you wish to get rid of something, you assume that it is a menace.
33. 3; Assuming I, the company has advertised for housewives. If it were not possible, the company would not go for such an ad. Hence III is implicit.
34. 3; I is implicit in the phrase "industrial ... pollution." II is not implicit because of the word only. III is implicit from the concern shown at the "terrible price".
35. 4; The term 'nothing' has a broad range of connotations. Hence I is not implicit. Since the speaker is talking of sectional need-based technology development, he is assuming both II and III.
36. 4; Since it is hard to get ISO 9002 certification, he
is trying to highlight company's achievement and by doing that expansion of his business is in his mind.
37. 4; Nothing is hinted about "hard work" or "upper crust of society. Hence neither I nor II is implicit. III is also not implicit: In general, it is not very "easy"; rather, one has to pay "a steep price".
38. 1; To appeal to start the written examination clearly hints about assumption I. Employees' association assumes II that is why they have appealed so.
39. 4; Why did the government take such an initiative? It mut be assuming III. Hence, III is implicit. Again, any measure is taken by a government with its efficacy in mind. Hence, II is implicit. Again, how will the initiative taken by the government fulfil the objective? Hence, the government must be assuming I.
40. 3; I need not be implicit because we don't know about the company's policy regarding other segments. Again, if a manufacturer increases the price of products, the manufacturer assumes that there may still be adequate demand in the market of its products. Hence, III is implicit. Thus reject the options 1), 2), 4) and 5). Note that II may or may not be an assumption.
41. 4; If an organisation or a person entrusts a responsibility to an organisation or a person, the former assumes that the latter will carry out the responsibility properly. And how can an organisation or a person carry the entrusted responsibility without having the required expertise? Obviously, I is implicit. Also, it is supposed that a university takes a decision with a constructive purpose which will have positive impact on the students' future. Obviously, the university authority must be assuming III. Hence,
42. 2; Why did the civic authority take such an initiative in order to reduce the pollution? It must be assuming that the move will fulfil the desired objective. Hence, I is implicit. And, how can the move be made effective? Obviously, the civic authority must be assuming II. Hence, II is implicit. HII can't be correlated with the statement. Hence, III is not implicit.
43. 1; The strike involves only two parties: the cinema halls and the government. The employees or the public have nothing to do with the strike. Hence I and II are not implicit. II is not implicit because of the word all.
44. 3; Why did the employees call a strike? They must be assuming that strike can be an effective tool. It can put pressure on the government and the government may be compelled to consider the views of the employees. Hence, I and III are implicit. II goes beyond the scope of the statement. Hence, II is not implicit.
45. 4; Let us delve into the objective of the advertisement. The main objective of the advertisement must be to attract more customers. How can the objective get fulfilled? It must be assumed that the feature mentioned in the advertisement may attract customers. Hence, I and II are implicit. III is not implicit because of the word 'best'.
46. 5; None is implicit. The step taken by municipal corporation of the city must have kept the positive aspects under consideration. But I goes into details. Hence, I is not implicit. II and III can't be correlated with the statement. Hence, II and III are not implicit.
47. 2; What is the real objective of the advertisement? The objective must be to enrol more school children through attracting a large number of parents. And in order to obtain this objective, the advertisement has been adorned with many features with an assumption that the features may attract parents because parents want maximum facilities. Hence, II is implicit. But I is not implicit because I may or may not be an assumption. III can't be correlated with the statement; hence III is not implicit.
48. 2; I is not implicit because of the word 'only'. II is obvious; that is why graduates with first class only are being considered eligible for the course.

III is beyond the scope of the statement; hence III is not implicit.
50. 1; All these assumptions are in directions contrary to what the statement says.
51. 3; Whenever such a decision is taken, the assumptions are that it would be welcome and allowed to implement.
52. 3; The urging of the govt makes sense only when (A) and (B) are implicit.
53. 2; The decision to auction assumes response to it. Hence (A) is not implicit. Unless the private entities are capable, the decision would make no sense. Hence (B) is implicit. (C) is implicit as without financial benefit, private entities would not turn up for the auction.
54. 2; (A) must be implicit to make the request meaningful. The govt is out of picture here. Hence (B) is not implicit. (C) is not implicit as the case may be only of delay, not of cancellation of flight.


# Chapter Six <br> Cause and Effect 

## Introduction

Usually, in such questions the candidates are asked to determine whether a given event is the cause or the effect of some other event. The idea behind putting these questions is to ascertain the analytical and logical reasoning ability of the aspirants.

## What is a Cause?

For our purposes, cause means the logical or scientific reason of an event. Sometimes grandmothers may say that Ram met with an accident because a black cat crossed his path. So, she is effectively saying that the "cause" of Ram's accident was the black cat who crossed his path. But our rational scientific view of cause does not agree with this.

For our purposes a cause is (a) either a scientifically proven (b) or a logically explicable reason that explains an event. For example, the water-logging and contamination maybe a scientifically proven cause for an outbreak of cholera. On the other hand, if Ram reaches college late because he could not get the bus in time, it is a case of a logical reason. Although no scientist ever proved that if Ram missed a bus he would be late, it is logically consistent and simple explanation for his being late.

## Cause and Effect It is a fundamental property of nature that events do

 not just happen; they happen because there was a cause behind them. These causes are the conditions under which these events (or results or effects) happen. Something can be said a cause of another event only if it is a necessary, as well as sufficient condition for that effect to take place.(i) A necessary condition for the occurrence of a specified event is a circumstance in whose absence the event cannot occur.
For example, the presence of oxygen is a necessary condition for any fire. No fire take place without oxygen being present. But, although it is a necessary condition, the presence of oxygen is not a sufficient condition for fire to occur.
(ii) A sufficient condition for the occurrence of an event is a circumstance in whose presence the event must occur.
In the above example, fire takes place only if the substance is (a) cumbstible (b) the substance reaches a minimum temperature and (c) there is oxygen present.

Thus, here (a), (b) and (c) make a sufficient condition and together they make the cause for the effect of fire. Note that each of the three makes a necessary condition for fire to take place and when they are combined they make a sufficient condition. Thus, there may be several necessary conditions for the occurrrence of an event and that they must all be included in the sufficient condition.

## Immediate Cause

An immediate cause is the one that is close to its result, in time. In other words, an immediate cause means a cause that immediately precedes the effect. Sometimes changes take place in the world in a continuous flux. For example, if a becomes angry then $B$ laughs, if $B$ laughs then $C$ cries, if $C$ cries then $D$ shouts and if $D$ shouts then E explodes. Now, if A becomes angry; E will explode. Here, each of the events (A's anger, B's laughter, C's cries, D's shouting) are cause for the event that $E$ exploded. However, the immediate cause behind the event was the shouting of $\mathbf{D}$.

## Principal Cause

A principal cause is the most important factor behind the occurrence of the effect. Sometimes an event is caused by a variety of factors but one among them can be said to be the most dominant factor without which the event may not have occurred at all.

For example, if a student gets very good marks in Mathematics the principal cause must be that he is good in Mathematics. If somebody says that this year Mathematics paper was easy, this may only be a secondary

## Rule of Antecedence

Naturally the cause will always occur before the effect. Hence if two events are given then the effect that is chronologically antecedent to the other can only be regarded as a possible cause. In other words, we can look for possible causes by checking which of the two events occurred first. For checking this we can check the tense etc. of the sentences. We have the following rule regarding this:

Past Tense (antecedent to) Present Perfect
(antecedent to) Present Continuous (antecedent to) Future Tense.
For example,
Past Tense: I eat mango/I was eating mango etc.
Present Perfect: I have eaten mango.
Perfect Continuous: I am eating mango.
Future Tense: I will eat mango.

## Point to Remember

In exams, generally you are asked to identify whether the given statement is the possible or probable cause or the possible or probable effect. But, in some of the examinations, we are generally asked to find out if a cause is immediate as well as principal. Roughly it means that the said cause must not only be the main reason behind the event, it should also be sufficiently close to the event, in time.

## Practice Exercise-1

Directions: Given below are pairs of events ' $A$ ' and ' $B$ '. You have to read both the events ' $A$ ' and ' $B$ ' and decide their nature of relationship. You have to assume that the information given in ' $A$ ' and ' $B$ ' is true and you will not assume anything beyond the given information in deciding the answer. Mark answer

1) If ' $A$ ' is the effect and ' $B$ ' is its immediate and principal cause.
2) If ' $A$ ' is the immediate and principal cause and ' $B$ ' is its effect.
3) If ' $A$ ' is an effect but ' $B$ ' is not its immediate and principal cause.
4) If ' $B$ ' is an effect but ' $A$ ' is not its immediate and principal cause.
5) None of these
1. Event (A): The CBI has arrested the deputy directorgeneral.
Event (B): He was alleged to have amassed a huge amount of assets through illegal and corrupt means.
2. Event (A): India is lodging a strong protest with Pakistan for firing missiles at IAF helicopters.
Event (B): Pakistani troops were now targeting even IAF aircraft flying well within the Indian side of the international border.
3. Event (A): In one of the worst train disasters 400 people were killed.
Event (B): People were going from Delhi to Assam.
4. Event (A): A village in Delhi has reported over 52 jaundice cases this season.
Event (B): At a number of places in the village, leakages in pipelines have resulted in accumulation of water around the pipes.
5. Event (A): Doordarshan warned cable operators of stern action if they failed to show its channels on prime band for clearer reception.
Event (B): Doordarshan announced 24-hour telecast for programmes from August 15.
6. Event (A): The Delhi high court issued show cause notices to 86 public schools in the capital.
Event (B): The educational institutions had violated court directives of not hiking fee beyond 40 per cent.
7. Event (A): Manisha Mishra was preparing food in the kitchen.
Event (B): Anand, her husband, after coming from his office ran into the kitchen.
8. Event (A): Mrs 'A' called Mr 'B' a traitor.

Event (B): Mrs 'A' made an apology.
9. Event (A): If you are a habitual traffic rule breaker this won't come as good news to you.
Event (B): The traffic department has enhanced the number of red lights manned by the police.
10. Event (A): It seems power problems are to stay.

Event (B): Many units of power plants are shut down for annual maintenance.
11. Event (A): The good news is that Elizabeth's coming. Event (B): Censor board has lifted up the objections from Shekhar Kapoor's film.
12. Event (A): The government announced an increase in diesel prices by $40 \%$.
Event (B): The Delhi Transport Corporation has revised the fares of the buses to double what it was.
13. Event (A): Transporters have threatened to go on strike in protest against the hike in diesel prices.

Event (B): The talks between the government and agitating transporters have failed.
14. Event (A): Mr A will fight the election from Amethi parliamentary constituency.
Event (B): Mrs S has decided to retain Bellary parliamentary constituency.
15. Event (A): Pakistan banks began a push against defaulters.
Event (B): Pakistan's new military ruler is encouraged by international reaction and understanding of what he was trying to do.
16. Event (A): A gay 14 -year-old youth is expelled from a prestigious private school.
Event (B): The youth has announced he is in love with a schoolmate.
17. Event (A): The Duchess hinted in a newspaper that she would like to marry Andrew again.
Event (B): Britain's prince Andrew has ruled out remarrying his ex-wife, the Duchess of York.
18. Event (A): A handful of women have managed to transform the living conditions near their homes.
Event (B): The project, 'Better Environment Campaign" was started by a group of retired defence officers' wives in 1995.
19. Event (A): The national selectors have decided to retain the same 14 for the third and final test of the series against New Zealand.
Event (B): India has won the second test against New Zealand.
20. Event (A): Since Rani's own child had died at birth, she was desperate for another.
Event (B): Rani had quietly kidnapped the child, less than two days old, and shipped out of the hospital.
21. Event (A): The number of rape cases is highest in Delhi in the country.
Event (B): Delhi has the highest degree of social isolation in the country.
22. Event (A): The new government has ordered a major reshuffle in the top echelons of bureaucracy.
Event (B): Only two days before, the new coalition government took over.
23. Event (A): The finance ministry has imposed additional taxation.
Event (B): The fiscal deficit of the country has been reduced.
24. Event (A): The ministerial talks between India and Pakistan failed.
Event (B): Led by a strong believer in people-to-people contact, the Gandhian Nirmala Deshpande, a busload of Indian women spent a week in Pakistan.
25. Event (A): The high-profile criminal was arrested and put behind bars.
Event (B): The cops made more than adequate security arrangements in jail.
26. Event (A): A new TV channel has been launched with much fanfare.
Event (B): The govt has come up with a policy to put a check on the proliferation of TV channels.
27. Event (A): Actress $X$ decided to play more serious roles in films.
Event (B): The last film of actress X, in which she played a glamous girl, turned out to be a flop.
28. Event (A): The migratory route of elephants in Area X has been blocked by construction of dams and other structures.
Event (B): Elephants of Area X have turned into violent creatures - destroying crops and trampling people to death.
29. Event (A): Three-wheelers went on strike in protest against the hike in petrol prices.
Event (B): The talks between the government and the leaders of the three-wheelers' union have failed.
30. Event (A): Party A was unhappy with the results of UP assembly by-elections where it lost all the seats.
Event (B): Party A has changed the chief Minister of UP.
31. Event (A): High Court has ordered to clean city $X$. Event (B): More than 20 people died of cholera in city X.
32. Event (A): CBI has called Kapil Dev and Sidhu for interrogation.
Event (B): Kapil Dev and Sidhu have been charged in match-fixing.
33. Event (A): CBSE has declared the results of class XII. $\square$

Event (B): A boy committed suicide after seeing his bad results in class XII.
34. Event (A): There was a heavy rain for two days after a month of scorching heat in the capital.
Event (B): There will be a pleasant weather over the next 2-3 days.
35. Event (A): One MLA has been found to have assets more than his income.
Event (B): The Chief Minister has ordered all the MLA to disclose their assets.
36. Event (A): AIIMS doctors are on strike from today. Event (B): One patient died in AIIMS because no doctor was available for check-up.
37. Event (A): Two IPS officers have resigned in Maharashtra.
Event (B): IPS officers are not being given proper facilities in Maharashtra.
38. Event (A): Curfew has been imposed in Kashmir for indefinite period.
Event (B): 45 people have been shot dead by the mililants in Kashmir.
39. Event (A): Fiji is facing political uncertainty.

Event (B): Fiji's economy has been hit hard.
40. Event (A): Used syringes, glucose and blood transfusion pipes were being reused.
Event (B): Supreme Court made it mandatory for hospitals to dispose of their medical waste.
41. Event (A): Modern Food Industries Ltd. employees have moved the Delhi High Court to quash the sale of their company.
Event (B): The govt. has sold 74 per cent of Modern Food Industries Ltd. shares to Hindustan Lever for Rs. 106 crore.
42. Event (A): In a committee it has been decided that unauthorised constructions will be demolished.
Event (B): The Court has questioned the Urban Development Minister for his order to demolish the unauthorise constructions.
43. Event (A): The National Human Rights Commission has ordered Rs. 1 lakh interim compensation to be paid to the legal heirs of the deceased in Meerut.
Event (B): A few hawkers in Meerut were driven to commit suicide due to humiliation by the police.
44. Event (A): The opposition are protesting against the government over the decision of withdrawal of subsidy on food and fertilisers.
Event (B): Govt has decided to withdraw subsidy on several items to reform the economy.
45. Event (A): Indian's infant mortality rate (IMR) is rising.
Event (B): The economy of India is strengthening.
46. Event (A): The Bar Council of India (BCI) has ordered all evening law colleges in the country to close down from the coming academic session.
Event (B): The standard of education in evening law colleges was found in the state of deterioration.
47. Event (A): The government has framed rules to regulate the level of noise pollution in urban areas from various sources.
Event (B): Loudspeakers can be used only after obtaining permission from a competent authority.
48. Event (A): No traffic shall be allowed on Jail Road. Event (B): Due to the ongoing flyover construction, the Traffic Police have made several diversions.
49. Event (A): Country $X$ has signed CTBT.

Event (B): Country $X$ has already tested all her nuclear weapons.
50. Event (A): Tom Cruise has once again done a great job in MI- II.
Event (B): $M I-I$ was full of action, thrill and excitement.
51. Event (A): Many Indian companies are patching up with multinational insurance companies.
Event (B): Govt of India has allowed MNCs in insurance sector.
52. Event (A): J\&K govt demanded state autonomy. Event (B): Parliament has disapproved the autonomy proposal by a considerable margin.
53. Event (A): Mr X resigned from the post of coach of Indian cricket team.
Event (B): BCCI is looking for a foreign coach for Indian cricket team.
54. Event (A): Mr X received the highest-ever advance for a work of non-fiction.
Event (B): The work sold millions of copies.
55. Event (A): The 1,000 -rupee note is being printed once again.
Event (B): The 1,000-rupee note went out of circulation in 1978.
56. Event (A): The country's fiscal deficit has widened over the years.
Event (B): The govt has desided to abolish posts meant for carrying out obsolete functions.
57. Event (A): Two pistols disappeared from a police training institute.
Event (B): An old woman was shot dead with a pistol in the vicinity of the institute.
58. Event (A): University ' $X$ ' and its affiliated colleges have hiked the fees.
Event (B): The govt has reduced the subsidy on higher education.
59. Event (A): Pradeep, father of a Class XII student, logged on to the website $w w w . c b s e . n i c . i n$ at 11 am on May 31.
Event (B): The CBSE results for class XII were announced on May 31.
60. Event (A): An inmate died within the jail under mysterious circumstances.

Event (B): An inquiry by a sub-divisional magistrate has been ordered into the incident.
61. Event (A): The Met department predicted that there would be a normal south-west monsoon.
Event (B): The south-west monsoon arrived over the Andaman Sea as per schedule and is advancing at a steady rate.
62. Event (A): The US House of Representatives voted in favour of "permanent normal trade relations" with China.
Event (B): There was European Union agreement with China on WTO membership.
63. Event (A): 32 Indian Army men were taken hostage by the rebels in Sierra Leone.
Event (B): India is dithering in its approach to the Sri Lankan crisis.
64. Event (A): Miss world contestants flew out of Nigeria. Event (B): A riot broke out in the capital of Nigeria when some people of a particular community became rampant against the dissemination of western culture in the capital.
65. Event (A): An appropriate amending legislation will be brought before the parliament in its next session. Event (B): A parliamentary committee has asked the government to expedite the process of bringing in appropriate legislation to safeguard investors' interest and strengthen Investor Education and Protection Fund for proper compensation to those whose money has been locked up in fraudulent companies.
66. Event (A): Demand of Chinese bikes in India has witnessed a terrific growth in India since last month. Event (B): A large number of people visited the trade fair organised in New Delhi three months ago where various ranges of bikes of different countries were displayed.
67. Event (A): All India Confederation of Scheduled Castes and Tribes Organisation chairman Udit Raj today resigned from the Government and floated the 'Justice Party’.
Event (B): Next month assembly elections will be held in Gujarat.
68. Event (A): Tension triggered in Manoharpur prompted the authorities to deploy additional forces to maintain law and order in the locality.
Event (B): Unidentified miscreants allegedly desecrated an idol in a temple in Manoharpur.
69. Event (A): After long years of wait, the capital got its metro last year.
Event (B): Pollution levels in the capital have come down.
70. Event (A): Last week MTNL changed its telephone numbers from seven to eight digits.
Event (B): MTNL has again made changes in its billing cycle by extending payment dates for bills.
71. Event (A): Saving capacity per person in India has decreased enormously.
Event (B): There is a slight decrease witnessed in the per capita income of India.
72. Event (A): The cold wave sweeping state ' $X$ ' further aggravated today as tribal areas experienced moderate snowfall while other hilly areas had a glimpse of snow.
Event (B): Thousands of tourists who have come to state ' X ' to celebrate Christmas are keeping their fingers crossed and praying for snowfall, hoping for a white Christmas.
73. Event (A): The Centre advised the Indian Hockey Federation (IHF) against participation in the Sultan Azlan Shah tournament to be held in Ipoh, Malaysia. Event (B): Indian IT professionals in Malaysia faced harassment and were meted out ill-treatment by the Malaysian police.
74. Event (A): Next week India will play in the semifinal match of World Cup cricket in Johannesburg.
Event (B): Air India will operate a special flight to Johannesburg in the coming week.
75. Event (A): A special campaign to check drunken driving would be launched next week on National Highways.
Event (B): Ten persons were killed and twenty-three injured on the National Highways last year.
76. Event (A): The women's self-help groups established in large numbers in the rural areas across State X have infused dynamism into the village families and supported the drive for empowerment of women.
Event (B): Positive changes have been witnessed in State X, especially in the tribal areas in the southern parts.
77. Event (A): In a significant move, cabinet of State $X$ has approved a proposal by the State commercial tax department to issue tax payer identification number to all businessmen registered under the value-added tax system.
Event (B): The Railway Ministry has enhanced the allocation from Rs 3119 crores to Rs 3995 crores in the current budget for rolling stock procurement to meet the next year's passenger and freight traffic targets.
78. Event (A): Reserve Bank of India (RBI) cut the bank rate recently.
Event (B): Today, State Bank of India further reduced the lending rates.
79. Event (A): Over the years, the breed of independent film-makers has been growing steadily and while they have managed to give voice to the voiceless, their films do not reach the discerning audiences. Event (B): The MLF Co, an NGO, has decided to step in by setting up a national distribution centre for socially relevant films.
80. Event (A): Women have achieved parity with men in obtaining four-year college degrees and are more likely to work in managerial and professional careers today than 20 years ago.
Event (B): The new high-tech economy is leaving women behind men.
81. Event (A): India is today gearing to become a leading producer and exporter of a range of minerals.
Event (B): India is endowed with rich mineral resources.
82. Event (A): Parliament gave nod to Tobacco Control Bill last week.
Event (B): Non-smokers no longer have to be victims of passive smoking.
83. Event (A): The people of state $X$ have claimed that vegetables like parwal and kakora are treated with malachite green to make them look fresh.
Event (B): The officials of Food Adulteration Department has started collecting samples of vegetables from suspicious places in state X.
84. Event (A): According to an NGO report, there are high levels of pesticides in Coca Cola, Pepsi, and other aerated drinks.

Event (B): Members of Parliament have demanded for a ban on the supply of aerated drinks in the Parliament.
85. Event (A): The attack by militants on Parliament in Dec 2001 haunts our parliamentarians whenever militants attack any target in the country.
Event (B): New parking labels have been introduced for the members of Parliament, aiming at strengthening the security of the Indian Parliament and the parliamentarians.
86. Event (A): Growth of GDP forecasts of India have been lowered by NCAER, IMF and RBI recently.
Event (B): In India, drought has ravaged several crops and the government finances are under stress.
87. Event (A): A rich smell of recovery is spreading across several sectors of the economy, raising hopes of a boom in employment and incomes in India.
Event (B): India never slid into a recession in the past ten years.
88. Event (A): The Centre categorically rejected the Liberation Tiger of Tamil Eelam's plea for using either Chennai or any other part of the southern states as venue for peace talks with the Sri Lankan Government.
Event (B): The LTTE was banned by the Centre in the aftermath of the assassination of the former prime minister, Rajiv Gandhi, at Sriperumbudur in 1991.
89. Event (A): In an effort to further reduce its manpower, public sector Steel Authority of India (SAIL) has announced a new voluntary retirement scheme for its employees from January 15.
Event (B): SAIL has a plan to reduce its manpower to around one lakh in the next 3-4 years.
90. Event (A): Recently the government has established a bamboo innovation studio and allied workshops in Agartala. Event (B): There has been witnessed a radical change in the choices of people using bamboo as an alternative to timber and steel.
91. Event (A): The Congress government in Uttaranchal marked the completion of its first 100 days on the first day of the ongoing week.
Event (B): The Congress party organised a fete in Uttaranchal's capital recently.
92. Event (A): Government has emphasised on the programmes aimed at eliminating poverty and illiteracy with new zeal and strong willpower.
Event (B): Minister of state Mr X told the plenary session of the International Labour Organisation in Geneva on a day last week that India is following a proactive policy to eliminate child labour, which is closely linked to poverty and illiteracy.
93. Event (A): There have been repeated complaints about malfunctioning electronic meters in the past months. Event (B): Weights and measures department has asked all meter-manufacturers to get their sample meters tested again from Electronic Regional Test Laboratory.
94. Event (A): Science has made the world a global village.
Event (B): Today a man can contact any person in the world within seconds.
95. Event (A): Because of the proper distribution of gas ovens the life of the women of rural areas has become more comfortable.

Event (B): Life of women is becoming insecure in rural areas.
96. Event (A): The government has finalised the contours of a massive debt swap operation.
Event (B): Central government's current year's gross fiscal deficit touched $5.3 \%$ of GDP.
97. Event (A): Subscribers of Hutch and Airtel cellular services companies are increasing day by day despite facing tough competition from other cellular services companies.
Event (B): Recently, Hutch and Airtel have announced another joint scheme, according to which subscribers of these giants will not have to pay for incoming calls.
98. Event (A): In the world's biggest conference on AIDS in Barcelona, officials in their declaration called for $\$ 10$ billion a year to be donated to the global AIDS fund and for at least two million people with HIV in developing countries to receive antiretroviral treatment by 2004.
Event (B): According to recent UN report, about 70 million people will die of AIDS over the next two decades in the 45 worst affected countries.
99. Event (A): Star (TV channel) has decided to start a new news channel of Hindi.
Event (B): Aaj Tak (TV channel) has decided to start a news channel of English.
100.Event (A): Major player of chocolate industry, Cadbury's, is reportedly planning to reduce the cocoa even further and add more wafer - presumably to offset an increase in raw material cost.
Event (B): Ivory Coast, the world's largest producer of cocoa, has been in the grip of a bitter civil war.
101. Event (A): The government has decided to reduce its stake in nationalised banks to 33 per cent.
Event (B): The bank employees have gone for one-day strike against the privatisation of public sector banks.
102. Event (A): The government has decided to roll back the hike in the prices of cooking gas and kerosene. Event (B): Some ministers had resigned in protest against the hike in prices of cooking gas and other petroleum products.
103. Event (A): The Supreme Court has ordered to close all industrial units in the residential areas in Delhi. Event (B): A mob of about 1,500 people went on the rampage and the police had to use teargas to disperse them and restore normalcy.
104. Event (A): The brigand Veerappan has released Rajkumar after 108 days of abduction.
Event (B): The state government ' $A$ ' has activated the Special Task Force (STF) to arrest Veerappan.
105. Event (A): Cricketer ' $A$ ' has denied to talk with media persons.
Event (B): BCCI special commissioner K Madhavan has quizzed cricketer ' $A$ ' for nearly six hours for his role in betting and match-fixing scam.
106. Event (A): A traveller found cockroaches in the crevices of his seat and also in the toilets of India's most prestigious train, the Rajdhani Express.
Event (B): He drew the attention of catering manager, Western Railway, to the insects.
107. Event (A): The police has arrested an ISI agent who had been spying in India for the past six years.
Event (B): The police received an information about an ISI agent having set up base at Delhi from Military Intelligence.
108. Event (A): The Indian Board for Wildlife headed by the PM has not met since 1998.
Event (B): A London-based environmental investigation agency has brought to light the massive killing of a hundred tigers during this year in India.
109. Event (A): The CM offered prayers daily for the safe return of the abducted actor Rajkumar during the 107-day period.
Event (B): The abductor and brigand Veerappan has released the actor Rajkumar after the 107-day period.
110. Event (A): The BCCI has decided to ban and suspend some players who were accused of match-fixing.
Event (B): Delhi Police had tapped the conversation between a bookie and some players.
111. Event (A): Many fashionable commercial centres have mushroomed in Delhi in the last few years.
Event (B): Connaught Place, in the heart of Delhi, has steadily lost its glory as the capital's business and entertainment hub.
112. Event (A): 13 Royal Bengal tigers were found dead in Nandan Kanan Zoo near Bhubaneshwar last month. -
Event (B): A tiger gave birth to a baby in its cage in Nandan Kanan Zoo near Bhubaneshwar yesterday.
113. Event (A): The state ' $A$ ' government has announced the commencement of the second phase of action against polluting industries.
Event (B): The state 'A' government took action against 27 polluting industries falling in the $F$ category of the Master Plan in the first phase.
114. Event (A): The CNG-run vehicle owners are paying a heavy penalty for their eco-friendly and costeffective decisions.
Event (B): The drivers wait in long queues at CNG filling stations because of fuel shortage and low pressure.
115. Event (A): The court has ordered to pay a compensation of Rs 25000 to 10-year-old boy Inder. Event (B): The court has found Inder's employer guilty of subjecting him to cruelty and harassment.
116. Event (A): There were riots in city ' $X$ '. Event (B): Curfew was imposed on city ' X '.
117. Event (A): The police control room received a tip-off about a bomb in the Red Fort.
Event (B): Laskhkar-e-Taiba militants went on a shooting spree.
118. Event (A): ITC, a tobacco company, has decided to withdraw from all sponsorship of sporting activities. Event (B): The Centre has decided to bring in legislation for banning sponsoring of sports and cultural events by tobacco companies.
119. Event A: Sri Lanka has allocated Rs 63.39 b for defence.
Event (B): India has allocated Rs 130 b for its defence.
120.Event (A): The Indian cricket captain warned his Australian counterpart not to speculate on his involvement in preparing pitches for the three-Test series.
Event (B): Australian cricket team is coming to India to play a Test series.
121. Event (A): Many girls started taking part in beauty contests in several towns in India.
Event (B): Indian girls succeeded in capturing all the titles of beauty contests, i.e. Miss World, Miss Universe and Miss Asia.
122.Event (A): State A faced an earthquake and suffered heavy damage due to fall of skyscrapers.
Event (B): State A has decided to take stern action against the builders who have illegally made apartments using sordid technique and low-grade construction material.
123. Event (A): The sale of cars has dropped in the state $X$ since last Monday.
Event (B): The state ' X ' has suspended registration of cars which do not conform to the emission norms stipulated recently.
124. Event (A): Indian government declared the postal strike illegal and invoked the Essential Services Maintenance Act to deal with the strike.
Event (B): Employees of postal department started a strike for their demands.
125. Event (A): Garment Industry has decided to protest against excise duty levied on readymade garments.
Event (B): Govt decided to levy 16 per cent excise duty on readymade garments in the new budget.
126. Event (A): Prices of gold have gone up in the local market.
Event (B): India has won several prizes in design of gold ornaments.
127. Event (A): Today, the Prime Ministers of country ' $P$ ' and ' $G$ ' have decided to take steps to improve the bilateral relations.
Event (B): Next week a Committee of Foreign Ministers and Senior Officers of country ' P ' and ' Q ' will work out further steps to improve the relationship.
128. Event (A): Recently the prices of the personal computers (PCs) have come down
Event (B): Some school children are showing keen interest in learning computers.
129. Event (A): This year Bank ' $M$ ' has celebrated its silver jubilee.
Event (B): More customers are getting attracted to the market branch of Bank M.
130. Event (A): Recently the traffic jams on MG Road of city ' $Z$ ' are not only reduced but the traffic has also become manageable.

Event (B): The flyover on MG Road of city ' $Z$ ' has recently been made operational and the number of traffic police personnel has been increased.
131. Event (A): The interview panel has recommended 5 candidates for 3 vacancies which are to be filled in immediately in Company $Z$.
Event (B): The 5 candidates have been asked to contact Company $Z$ next week to know their result and accordingly to collect appointment letters.
132. Event (A): The sensex crosses 4000-point mark in the stock exchange, the highest mark in last 12 weeks.
Event (B): The government announces its credit policy for agriculture.
133. Event (A): At last, yesterday night Shirin could get the medicines prescribed by the doctor for her ailing father.
Event (B): The doctor has conducted some tests on Shirin's father who has been suffering from high fever.
134. Event (A): The sales of cars has dropped in the state ' X ' since last Monday.
Event (B): The state ' $X$ ' has suspended registration
of cars which do not confirm to the emission norms stipulated recently.
135. Event (A): The revised entry fee for internationally known Taj Mahal monument has been increased to Rs 50 and Rs 500 for Indians and foreigners respectively.
Event (B): There has been adequate increase in the number of foreign tourists visiting India in view of the improved infrastructure facilities.
136. Event (A): The financial position of the Electricity Division of state XYZ has weakened and it has made demand to the government for more subsidies.
Event (B): While the Electricity Division of state XYZ has revised the pay and perks of its employees, several subscribers and farmers have refused to pay long pending dues.
137. Event (A): Rickshaw, taxi, tempo and other means of general communication of city $X$ are on an indefinite strike since last week.
Event (B): The prices of vegetables and other food articles in city X have increased.
139. Event (A): The state government $A B C$ has proposed to start a project "alert citizen" to curb possible crimes and nab the criminals.
Event (B): Public cooperation is imperative in controlling crime.
140. Event (A): The public transport company of city $M$ has recently changed the routes of some roads to facilitate travellers.
Event (B): The public transport company of city M has recently cancelled some routes because there were few commuters.
141. Event (A): We can get anything with money.

Event (B): Today money is the most important.
142. Event (A): Due to mechanisation the life of human beings is becoming more comfortable in urban areas. Event (B): Life is becoming insecure in urban areas.
143. Event (A): The government has decided recently to provide additional dearness allowance to its employees.
Event (B): Consumer Price Index is increasing for the last five months.
144. Event (A): The children of younger generation do better in their studies.
Event (B): The parents of children now realise the importance of education very well.
145. Event (A): There is considerable increase in the number of people having computers.
Event (B): Computer education is being made compulsory in schools.

## Practice Exercise-2

Directions (g. 1-66): Below in each question are given two statements (A) and (B). These statements may be either independent causes or may be effects of independent causes. One of these statements may be the effect of the other statement. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements. Mark answer

1) if statement (A) is the cause and statement (B) is its effect.
2) it statement $(B)$ is the cause and statement $(A)$ is the effect.
3 ) if both the statements (A) and (B) are independent causes.
3) if both the statements (A) and (B) are effects of independent causes.
4) if both the statements (A) and (B) are effects of some common cause.
1. A. Major part of the sugarcane crop was affected by pests, resulting into huge loss incurred by the farmers in the state.
B. The farmers in the state who were cultivating sugarcane earlier have now switched over to grapes' cultivation this year.
2. A. There has been a high increase in the incidents of atrocities against women in the city during the past few months.
B. The police authority has been unable to nab the culprits who are committing crime against women.
3. A. The government has recently fixed the fees for professional courses offered by the unaided institutions which are much lower than the fees charged last year.
B. The parents of the aspiring students launched a severe agitation last year protesting against the high fees charged by the unaided institutions.
4. A. The Prime Minister has visited the droughtaffected areas and promised government assistance to help the farmers.
B. A large number of farmers in the drought-affected areas have been suffering due to drought situation and are unable to feed their family.
5. A. All the lakes supplying water to the city started overflowing at the end of the second month of
B. The normal life in the city has been disrupted quite a few times in the first two months of the monsoon due to water-logging in various parts.
6. A. A large number of primary schools in the rural areas are run by only one teacher.
B. There have been huge dropouts from the primary schools in rural areas.
7. A. The police resorted to lathi charge to disperse the unruly mob from the civic headquarters.
B. The civic administration has recently hiked the property tax of the residential buildings by about 30 per cent.
8. A. The government has decided to allow private airline companies in India to operate to overseas destinations.
B. The national air carrier has increased its flights to overseas destinations.
9. A. The prices of foodgrains and other essential commodities in the open market have risen sharply during the past three months.
B. The political party in opposition has given a call for general strike to protest against the government's economic policy.
10. A. A large number of people have fallen sick after consuming sweets from a particular shop in the locality.
B. Major part of the locality is flooded and has become inaccessible to outsiders.
11. A. The traffic police removed the signal post at the intersection of two roads in a quiet locality.
B. There have been many accidents at the intersection involving vehicles moving at high speed.
12. A. The local steel company has taken over the task of development and maintenance of the civic roads in the town.
B. The local civic body requested the corporate bodies to help them maintain the civic facilities.
13. A. The Govt has suspended several police officers in the city.
B. Five persons carrying huge quantity of illicit liquor were apprehended by the police.
14. A. Majority of the students in the college expressed their opinion against the college authority's decision to break away from the university and become autonomous.
B. The university authority has expressed its inability to provide grants to its constituent colleges.
15. A. Huge tidal waves wrecked the vast coastline early in the morning, killing thousands of people.
B. Large number of people gathered along the coastline to enjoy that spectacular view of sunrise.
16. A. Majority of the employees of the organisation signed the statement protesting against the management's personnel policy.
B. The management of the organisation has decided that all those employees who are above 58 years of age may opt for voluntary retirement scheme.
17. A. The public sector telecom service provider reduced the monthly rental substantially with immediate effect. All the private sector telecom service have reduced their charges last week.
18. A. The largest oil company in the private sector decided to raise its supply of crude oil to the government-controlled refineries with immediate effect.
B. The government has recently notified all the refineries under its control to reduce the refining capacity in future months.
19. A. The government has decided to make all the information related to primary education available to the general public.
B. In the past, the general public did not have access to all these information related to primary education available with the government.
20. A. The local traders' association urged all its members to close down their shops for a day to protest against the government's new tax policy.
B. Many shopkeepers decided to close down their shops for the day and gave a day off to their employees.
21. A. The state govt has now decided to increase the stamp duty on house purchases with immediate effect.
B. The real estate prices have decreased considerably during the last few months.
22. A. Most of the steel-manufacturing companies in the country made considerable profit during the last financial year.
B. Many Asian countries have been importing huge quantities of steel from India.
23. A. Many seats in the private engineering colleges in the state have remained vacant this year.
B. The government engineering colleges in the state could not accommodate all the students who sought admission this year.
24. A. The banks have decided to give advances to the priority sector at the rate of interest at par with the corporate sector.
B. The percentage of bad loans given by the banks to the priority sector is very low compared to corporate sector.
25. A. The government of India has allowed the private airline companies to operate on specified international routes.
B. There has been a considerable increase in the flow of foreign tourists to India.
26. A. Govt-owned oil companies have reduced the prices of petroleum products with immediate effect.
B. Govt has made an appeal to the public to reduce consumption of petroleum products.
27. A. The police authority has recently caught a group of housebreakers.
B. The citizens' groups in the locality have started night vigil in the area.
28. A. The Govt has decided to allow private universities to run their own courses after obtaining necessary approvals.
B. There has been a continuous decrease in the number of students enrolled for various courses offered by the Govt-run universities.
29. A. The wholesale grain market is flooded with fresh stock.
30. A. The school authority has asked the X Std students to attend special classes to be conducted on Sundays.
B. The parents of the X Std students have withdrawn their wards from attending private tuitions conducted on Sundays.
31. A. The villagers have decided to boycott the forthcoming assembly elections.
B. The state government has recently revised the electoral roll.
32. A. The school authority has decided to increase tuition fees by 30 per cent from the next academic year.
B. The Govt has urged the local public to enrol all their children to schools in the area.
33. A. A recent tiger census in the tiger reserve in the state has reported significant reduction over the last census.
B. The Govt has initiated an enquiry to ascertain the facts relating to tiger population in the state.
34. A. Many shops in the locality remained closed throughout the day.
B. Many offices in the locality closed during the day.
35. A. Majority of the residents of the housing society
participated in the dinner hosted by one of the members of the society.
B. Most of the people living in the housing society invite other members for the functions at their house.
36. A. The train services in the suburban areas of the city were disrupted for four hours.
B. The overhead electrical wire snapped between two stations in suburban area of the city.
37. A. State Government has ordered immediate ban on airing of certain movie channels on television.
B. A few social activists have come together and demanded ban on telecasting 'Adult' movies on television.
38. A. Employment scenario in the country has remarkably improved recently.
B. The number of prospective job-seekers going abroad has increased recently.
39. A. Government has tightened security checks at all important places and also at various public places.
B. Incidences of terrorist attacks are increasing day by day.
40. A. The High Court has fixed a time limit for repairing all the roads in the city.
B. Road Deyelopment Authorities in the city are carrying out road repair work on urgent basis.
41. A. There is an outbreak of several epidemics in the country.
B. It was a worst flood situation ever experienced in the past in most parts of the country.
42. A. The prices of petroleum products dropped marginally last week.
B. The State Govt reduced the tax on petroleum products last week.
43. A. Majority of the citizens in the locality belong to
B. The sales in the local supermarket are comparatively much higher than in other localities.
44. A. A major fire destroyed part of the oil refinery owned by a private company.
B. Govt has decided to increase the supply to retailers from the public sector refineries.
45. A. The Govt medical college has decided to increase the number of seats in undergraduate course from the next academic session.
B. The Govt has decided to withdraw its grant from all the Govt medical colleges from the next academic session.
46. A. Every year a large number of people spend their vacation in various tourist destinations within the country.
B. Every year large number of people spend their vacation in various tourist destinations outside the country.
47. A. Party ' X ' won clear majority in the recently held state assembly elections.
B. Of late, there was unrest in public and also among the members of the ruling party of the state.
48. A. Staff members of the university decided to go on strike in protest during the examinations.
B. The university administration made all the arrangements for smooth conduct of examination with the help of outsiders.
49. A. In the university examination, overall
performance of students from college ' X ' was better than that of students from college ' Y '.
B. Majority of the students depend upon coaching classes for university examinations.
50. A. The Government of state ' $X$ ' decided to ban working of women in night shifts and also in late evening hours.
B. The percentage of working women has a significant rise in the last one decade.
51. A. Frequent robberies in jewellery shops were recorded in distant suburbs of the city.
B. Shop owners in the city and suburbs demanded improvement in security situation from the police authorities.
52. A. Party ' $X$ ' won clear majority in the recently held state assembly elections.
B. Of late, there was unrest in public and also among the members of the ruling party of the state.
53. A. Staff members of the university decided to go on strike in protest during the examinations.
B. The university administration made all the arrangements for smooth conduct of examination with the help of outsiders.
54. A. In the university examination, overall performance of students from college ' X ' was better than that of students from college ' Y '.
B. Majority of the students depend upon coaching classes for university examinations.
55. A. The Government of state ' $X$ ' decided to ban working of women in night shifts and also in late evening hours.
B. The percentage of working women has a significant rise in the last one decade.
56. A. Frequent robberies in jewellery shops were recorded in distant suburbs of the city.
B. Shop owners in the city and suburbs demanded
improvement in security situation from the police
authorities.
57. A. The State Education Board has decided to do away
with preparing merit lists for SSC and HSC
examinations.
B. A large number of students scored very high marks
in the recently held SSC examination.
58. A. The State Government decided to grant permission for opening more junior colleges in the state.
B. Percentage of qualified students in SSC examination was higher this year compared to the past few years.
59. A. Increase in rainfall and rising flood situations are regular phenomena for past few years.
B. People avoid going out in heavy rains.
60. A. The health department has advised people to drink boiled and filtered water and maintain hygiene during the monsoon.
B. The health department has instructed the civic hospitals to equip themselves with adequate stock of medicines during monsoon.
61. A. The Government has made it compulsory to wear a helmet for the riders of two-wheelers.
B. The number of cases of road accident involving two-wheelers has been increasing every year.
62. A. Parents in the locality decided to stop sending their children to school by private vehicles.
B. A major accident of a private van carrying school children led to deaths of a few and injuries for many children.
63. A. The city observed the lowest temperature of the last decade accompanied by heavy fog during the week.
B. Most of the flights from the city were indefinitely delayed causing panic among the passengers.
64. A. In the past few years the job market has improved for the professionally qualified youth.
B. Many youth are not able to get jobs up to their expectations.
65. A. During peak hours roads are overcrowded with vehicles causing traffic jams in most parts of the city.
B. Many companies are planning to launch lowpriced vehicles.
66. A. During evening hours roads are overcrowded with vehicles causing very slow movement of vehicles.
B. Pollution level in the air has substantially increased in the recent past.
67. A. This year the cut-off percentages for admission to junior colleges have increased over the last year.
B. This year performance of students in Xth final exam was considerably higher than the previous year.
68. A. The conditions of most of the national highways are very bad.
B. Govt has now sanctioned a huge amount of money to maintain the national highways.
69. A. Many students of the local school have failed in English Language paper in the annual examination.
B. Many students of the local school have failed in Mathematics paper in the annual examination.
70. A. Rain and thunder showers bashed the city during the past three days.
B. Many people stayed indoor during the past three days.
71. A. There has been a considerable increase in the sale of fat-free food articles.
B. Now people have become more conscious about their health condition and food habits.
72. A. There have been heavy rains in the catchment area of the lakes supplying drinking water to the city.
B. The municipal authority has suspended the proposed cut in water supply to the city.
73. A. Many pilgrims used Govt transport to travel to the holy shrine.
B. The cost of travel by private transport is very high.
74. A. The prices of vegetables have increased substantially during the past few weeks.
B. Consumer price index at the end of the previous week increased by 2 per cent.
75. A. Many anti-social elements have been caught by the police from the locality.
B. Many people in the locality have been detained by the police for questioning.
76. A. Many employees of the company proceeded on a day's leave on Friday.
B. Both Thursday and Saturday were declared holiday by the company.
77. A. Many schools have banned the sale of fast food in their premises.
B. Obesity in youngsters has been linked to their poor eating habits.
78. A. The share prices are touching an all-time low.
B. Most of the organizations have been grounding or terminating employees and undergoing costcutting exercises wherever possible.
79. A. A substantial increase in unhealthy competition has been observed among the students.
B. A rise of $23 \%$ is reported every year in the cases of suicide after declaration of grade 10th and 12th examination results.
80. A. The glaciers at the poles of the earth are melting at a fast rate.
B. In recent times there has been a substantial increase in the incidents of earthquakes and volcanic eruptions.
81. A. Though mobile phones find a good number of users in rural India, computers and Internet still remain a distant dream.
B. In the recent past there has been a large-scale migration from the rural parts of India to the urban sectors.
82. A. There has been a continuous increase in average temperature during winter in many parts of the country over the past few years.
B. There has been significant changes in the wind pattern across the country over the last few years.
83. A. The conditions of all the major roads in the city have deteriorated causing hardship to motorists.
B. The municipal authority has sanctioned significant amount to repair all the major roads in the city.
84. A. The BPO sector has laid off a large number of employees in the recent months.
B. Very few projects are now being outsourced to BPO sector.
85. A. There has been sharp decline in sales of passenger cars during the last few months.
B. Many finance companies have announced attractive schemes of car loans with moderate interest rate.
86. A. All the airlines companies in India have increased the air fares in all routes with immediate effect.
B. There has been substantial reduction in aviation fuel prices in India during the past few weeks.
87. A. Computer education has been made compulsory for all the classes by many schools.
B. The current job market prefers computer-literate workforce.
88. A. The standard of education in evening colleges of the State has been deteriorating.
B. The standard of school education has been fast deteriorating in the State.
89. A. All domestic airlines increased the fares in all sectors with immediate effect.
B. Railways increased the fare of all its classes with immediate effect.
90. A. The prices of fruits and vegetables fell substantially over the last few days.
B. The quality of fruits and vegetables improved considerably over the last few days.
91. A. Recent floods in the area changed the nutritional contents of the soil.
B. Farmers in the area switched over to cultivating rice instead of wheat.
92. A. The residents reported of increased criminal activities in the area to the local police station.
B. Many criminals were arrested by searching the residence of the suspected individuals.
93. A. Govt has awarded a high-stake reward scheme for such persons as may provide any information about the suspect.
B. Four members of a family were brutally murdered by unidentified gunmen.
94. A. There have been sporadic events of stone-pelting throughout the day in the affected areas of the city.
B. Many wounded people were brought to the nearby hospitals from the affected areas of the city.
95. A. Many people left from the city for their native places during the summer months.
B. Many tourists gathered in the city during summer months.
96. A. All the schools declared holiday on the next day of the major festival.
B. All the colleges declared holiday on the next day of the major festival.
97. A. Many elderly people are continuously harassed by the youngsters in the locality.
B. Many children living in the locality play till late in the evening.
98. A. The state govt has decided to change the syllabus of mathematics for Std IX from the next academic year.
B. Many students from the state could not secure admission to the colleges of their choice.
99. A. Majority of the employees of the manufacturing company received a hefty bonus at the end of the current financial year.
B. The manufacturing company has made considerable profit in the current financial year.
100.A. The municipal authority decided to carry out repair work of the pipeline under the main arterial road of the city.
B. Vehicular movement has been diverted through alternate roads for a period of fifteen days.
101.A. There is a significant drop in the number of people travelling by air during the last quarter.
B. There is a significant drop in the number of people travelling by long-distance trains during the last quarter.
102.A. Govt has deeided to distribute part of the foodgrain stock through Public Distribution System to people below poverty line.
B. There has been bumper kharif crop for the last two seasons.
100. A. Most of the students enrolled themselves for the educational tour scheduled for next month.
B. The school authority cancelled the educational tour scheduled for next month.
101. A. The prices of fruits have dropped substantially during the last few days.
B. The prices of foodgrains have increased substantially during the last few days.
102. A. The road traffic between the two towns in the state has been disrupted since last week.
B. The rail traffic between the two towns in the state has been disrupted since last week.
103. A. Heavy showers are expected in the city area during the next forty-eight hours.
B. The inter-club cricket tournament scheduled for the week was called off.
104. A. The bank has provided a link on its website to obtain feedback from customers.
B. Customers have been complaining about poor services in the bank's branches.
105. A. The production of pulses has dropped for the third consecutive year.
B. India has decided to import pulses this year.
106. A. Budgetary allocation for building a better railway network, eg constructing new railway lines, has increased.
B. There has been a substantial drop in the number of passengers opting for air travel.
110.A. Indian citizens are willing to incur the cost of using environment-friendly technology.
B. Many countries are taking steps to cut their carbon emissions.
107. A. The government has amended tax laws to boost exports.
B. The export sector has been passing through difficult times due to heavy tax burdens.
112.A. The Govt has marginally increased the procurement price of wheat for the current crop.
B. The current wheat crop is expected to be twenty per cent more than the previous wheat crop.
108. A. The braking system of the tourist bus carrying 40 passengers failed while negotiating a stiff climb on a hilly road.
B. The tourist bus fell into the gorge killing at least ten passengers and seriously injuring all the remaining.
109. A. The state govt has decided to boost English language education in all the schools from the next academic year.
B. The level of English language of the school students of the State is comparatively lower than that of the neighbouring states.
110. A. The municipal authority demolished the tea stall loeated on the footpath on the busy road.
B. A large number of people have been taking their evening tea at the tea stall located on the footpath on the main road, blocking pedestrian movement.
111. A. Majority of the students left the local school as the school building was in a dilapidated condition.
B. The school authority decided to close down the school immediately and shift the remaining students to a make-shift school.
112. A. State Govt has ordered immediate ban on airing of certain movie channels on television.
B. A few social activists have come together and demanded ban on telecasting 'Adult' movies on television.
113. A. Employment scenario in the country has remarkably improved recently.
B. The number of prospective job-seekers going abroad has increased recently.
114. A. Government has tightened security checks at all important places and also at various public places.
B. Incidences of terrorist attacks are increasing day by day.
120.A. The high court has fixed a time limit for repairing all the roads in the city.
B. Road development authorities in the city are carrying out road repair work on an urgent basis.
121.A. There is an outbreak of several epidemics in the country.
B. There was a worst flood situation ever experienced in the past in most parts of the country.
122.A. The government of India has allowed the private airline companies to operate on specified international routes.
B. There has been a considerable increase in the flow of foreign tourists to India.
123.A. Many seats in the private engineering colleges in the state have remained vacant this year.
B. The government engineering colleges in the state could not accommodate all the students who sought admission this year.
115. A. The banks have decided to give advances to the priority sector at the rate of interest at par with the corporate sector.
B. The percentage of bad loans given by the banks to the priority sector is very low as compared to the corporate sector.
116. A. The state government has now decided to increase the stamp duty on house purchases with immediate effect.
B. The real estate prices have decreased considerably during the last few months.
126.A. Most of the steel manufacturing companies in the country have made considerable profit during the last fiscal year.
B. Many Asian countries have been importing huge quantities of steel from India.
117. A. There is an unprecedented increase in the number of young unemployed in comparison to the previous year.
B. A large number of candidates submitted applications against an advertisement for the post of manager issued by a bank.
118. A. The prices of vegetables have increased considerably during this summer.
B. There is tremendous increase in the temperature during this summer, thereby damaging crops greatly.
119. A. Heavy downpour with high-velocity wind is probable in the coastal areas in next twenty four hours.
B. A soap manufacturing company increased its production by more than 100 in the last month.
130.A. There has been considerable reduction in the number of people affected by water-borne diseases in City A during this rainy season.
B. The government opened four new civil hospitals in City A at the beginning of the year.
120. A. There is increase in water level of all the water tanks supplying drinking water to the city during the last fortnight.
B. Most of the trains were cancelled last week due to waterlogging on the tracks.

## Practice Exercise-3

1. Cause: All the major rivers in the state have been flowing way over the danger level for the past few weeks. Which of the following is/are possible effect(s) of the above cause?
(A) Many villages situated near the riverbanks are submerged, forcing the residents to flee.
(B) Govt has decided to provide alternate shelter to all the affected villagers residing near the river banks.
(C) The entire state has been put on high flood alert.
1) Only (A)
2) Only (A) and (B)
3) Only (B) and (C) 4) All (A), (B) and (C)
4) None of these
2. Effect: This year majority of the final year students of the management institute have opted for finance speciali- sation.

Which of the following can be a probable cause of the above effect?

1) Last year most of the students with HR specialisation got better job offers than other specialisations.
2) The management institute offers only finance specialization to its final year students.
3) Last year the students with finance specialisation bagged most of the lucrative offers vis-a-vis students with other specialisations.
4) The management institute has recently started its finance specialisation in addition to Marketing and HR being offered earlier.
5) None of these
3. Effect: Govt has allowed all the airlines to charge additional amount as peak time congestion charges for the flights landing between $6.00 \mathrm{a} . \mathrm{m}$. and 10.00 a.m.

Which of the following is a probable cause of the above effect?

1) All the airline companies had threatened to suspend their services during peak hours.
2) The Govt has increased its tax for peak time flights.
3) The aircrafts are routinely put on hold over the airports while landing during peak time, eausing extra fuel consumption.
4) The airline companies can now charge unlimited additional charge for peak time flights.
5) None of these
4. Cause: The cement manufacturing companies have increased the price of cement by about fifteen per cent with immediate effect.
Which of the following is/are possible effect(s) of the above cause?
(A) Govt will direct the cement manufacturing companies to reduce the price increase to five per cent.
(B) The prices of residential flats and commercial companies will see an upward trend.
(C) The construction companies may stop all ongoing construction projects with immediate effect.
1) Only (B)
2) Only (A)
3) Only (C)
4) Only (B) and (C)
5) None of these
5. Effect: There has been unprecedented increase in the number of institutions training for spoken phonetic English in all the major cities of India during the last few years.

Which of the following can be a probable cause of the above effect?

1) Many parents want their children to speak fluent English.
2) Various activities are being outsourced to India by many European and North American countries.
3) English is no longer being taught in the schools and colleges in India
4) India has highest number of English-speaking educated youth compared to any other country.
5) None of these
6. Effect: At least 20 school children were seriously injured while going for a school picnic during the weekend.
Which of the following can be a probable cause of the above effect ?
1) The teacher accompanying the school children fell ill during the journey.
2) The bus in which the children were travelling met with an accident while taking turn on the main highway.
3) The driver of the bus in which the children were travelling did not report after the break at the halting place on their journey.
4) The school authority banned all school picnics for the next six months with immediate effect.
5) None of these
7. Cause: Govt has recently decided to hike the procurement price of paddy for the rabi crops.

Which of the following will be a possible effect of the above cause?

1) The farmers may be encouraged to cultivate paddy for the rabi season.
2) The farmers may switch over to other cash crops in their paddy fields.
3) There was a drop in production of paddy during Kharif season.
4) Govt may not increase the procurement price of paddy during the next Kharif season.
5) Govt will buy paddy from the open market during the next few months.
8. Cause: A severe cyclonic storm swept away most part of the state during the last two days. Which of the following cannot be a possible effect of the above cause ?
1) Heavy rainfall was reported in most part of the state during the last two days.
2) Many people were rendered homeless as their houses were flown away.
3) The communication system of the state was severely affected and continues to be out of gear.
4) Govt has ordered that all the offices and schools should be kept open.
5) All are possible effects.
9. Effect: The prices of petroleum products have increased by about twenty per cent in the past two months.
Which of the following can be a probable cause of the above effect ?
1) The prices of foodgrains and vegetables have shot up by more than thirty per cent.
2) The truck owners' association has decided to increase their rent by about 20 per cent with immediate effect.
3) The prices of crude oil in the international market have increased considerably during the past few weeks.
4) People have decided to demonstrate against the Govt's apathy towards rise in prices of essential commodities.
5) None of these
10. Effect: Majority of the employees of the ailing organisation opted for voluntary retirement scheme and left the organisation with all their retirement benefits within a fortnight of launching the scheme.

Which of the following can be a probable cause of the above effect ?

1) The company has been making huge losses for the past five years and is unable to pay salary to its employees in time.
2) The management of the company made huge personal gains through unlawful activities.
3) One of the competitors of the company went bankrupt last year.
4) The company owns large tracts of land in the state which will fetch huge sum to its owners.
5) None of these
11. Cause: The Govt has recently increased its taxes on petrol and diesel by about 10 per cent.

Which of the following can be a possible effect of the above cause?

1) The petroleum companies will reduce the prices of petrol and diesel by about 10 per cent.
2) The petroleum companies will increase the prices of petrol and diesel by about 10 per cent.
3) The petroleum companies will increase the prices of petrol and diesel by about 5 per cent.
4) The petrol pumps will stop selling petrol and diesel till the taxes are rolled back by the Govt.
5) None of these
12. Effect: The temple at the religious site wears a deserted look with the number of devotees trickling down.
Which of the following can be a possible cause of the above effect?
1) A structural engineer had visited the temple a month back and had declared the structure unsafe.
2) The temple is facing a drastic depletion of its funds which had accumulated over the years due to offerings made by devotees.
3) The local corporation decided to donate a huge amount of money to the temple for its renovation. The village housing the religious site has qualified priests to perform religious ceremonies.
4) A famous actor recently visited the temple and paid his respects to the deity.
13. Effect: As a step to regulate private hospitals, the state health department is framing rules to ensure all such hospitals are registered with it.

Which of the following can be a possible cause of the above statement?

1) The department realized that private hospitals charge much less for treatment as compared to government hospitals.
2) Government-run hospitals do not maintain the same standards as private hospitals.
3) The department realized that several hospitals were rejecting cases stating lack of infrastructure.
4) Apart from the number of doctors, nurses and beds, the kind of procedure a hospital can carry out based on its infrastructure will also be registered and detailed.
5) Private hospitals not registering with the department shall be forced to do so and will have to pay hefty penalties.

## Answers and explanations

## Practice Exercise-1

1. 1; The CBI has arrested him because of Event (B).
2. 1; Because of Event (B) India has lodged his protest. Hence A is the effect of the cause B.
3. 3; Death of 400 people is an effect. But the cause is not given. It may be accident, bomb blast, or foodpoisoning, murder in the process of robbery or anything
4. 3; In Event (B) it is not clearly mentioned whether this leaked water again enters the pipeline or not. Because drinking dirty or impure water may be the cause of jaundice. But only accumulation of water is not related with jaundice.
5. 1; The 24-hour telecast is the immediate cause of the warning. Because telecast in the wee hours will be available through satellite, not terrestrially.
6. 1; As educational institutions had violated the court directions so Delhi high court issued show cause notices to these schools.
7. 4; Running into the kitchen is an effect. Several causes are possible. But $A$ is not the immediate cause.
8. 2; Making an apology is an effect of event (A).
9. 4; Increasing the number of red lights is an effect. It may be because of heavy traffic, because of modernisation and computerisation.. . But A is not the cause.
10. 1; Power problems are definitely the effect. And here event (B) looks a reasonable cause behind it.
11. 5; It can't be derived from these two sentences that Elizabeth is Shekhar Kapoor's film. Both (A) and (B) are effects of some causes. Because of the phrase The good news is, (A) is an effect because from the phrase we can conclude that there were some hindrances in its coming. Several causes are possible.
12. 2; The revision in fare is definitely because of (A).
13. 3; Event (A) is an effect but (B) is not the principal cause. Hike in diesel prices is the cause behind it.
14. 5; No relation between Amethi and Bellary parliamentary constituencies is given.
15. 5; Again, the two sentences are independent.
16. 1; Because of his announcement he has been expelled.
17. 2; Andrew talked so after reading the newspaper.
18. 1; Because of the project they have managed to transform the living conditions near their homes.
19. 1; Because of the term second and third, we can establish the relation between the two sentences.
20.2; Because of the desperation for another child, Rani kidnapped the child.
21.3; ' $B$ ' may be cause, but several other causes may be possible. Hence ' $B$ ' is not the principal and immediate cause.
20. 1; It is osur common experience that such reshuffles often take place when a new govt come in.
21. 2; Additional taxation leads to greater revenues which in turn lead to reduction of fiscal deficit.
22. 4; Interaction between the two countries at the popular level is a fallout of failure of talks at the
political level. But it can't be considered a direct consequence of the failure of the ministerial talks. The environment for such talks has been built over the years.
23. 2; The security arrangements were made to check the high-profile criminal from escaping.
24. 4; The launching of the new TV channel can only be one of the causes of formulating the new policy.
25. 1; The flop film must have forced the actress to take a fresh look at the roles she played.
26. 5; Here A may be the cause of $B$ or vice versa.
27. 5; The events could take place either ways.
28. 4; Event A may be one of the reasons but not necessarily the principal one.
29. 1; Clearly, the High Court order has come as a consequence of the numerous deaths.
30. 1; The name of the players are there; so CBI has called them for interrogation.
31. 2; A boy committed suicide after the result was published; so ' $A$ ' is the cause.
32. 2; Rain after scorching heat is the cause of pleasant weather. Hence $A$ is the cause and B is its effect.
33. 4; As the assets of one MLA was found more than his income, so the CM has ordered all the MLAs to show their assets. But both may be independent incidents. It may be possible that it was in the election menefesto.
34. 2; Event $A$ is the cause and $B$ is its effect. Because doctors were on strike, there was no one to attend
the patient.
35. 3; A is definitely the effect of some cause but B may not be its immediate and principal cause. Why did only two of them resign?
36. 1; The imposition of the curfew is clearly as direct consequence of the macabre incident.
37. 4; Event $B$ is an effect but A may not be its principal cause.
38. 2; Event A is the principal cause. Due to this cause Supreme Court has directed the hospitals to dispose the medical waste.
39. 1; The govt. has sold $74 \%$ of Modern Food Ind. Ltd. shares to Hindustan Lever. Because of this the employees have moved the court. Event B is the cause and A the effect.
40. 4; Event B is an effect but it is not necessary that event $A$ is the cause behind it. It is not known who were in that committee.
41. 1; The hawkers was driven to commit suicide which is a violation of human rights and that is why NHRC has ordered for compensation So, event B is the cause and event $A$ is its effect.
42. 1 ; $B$ is the cause against which the opposition are protesting. Hence $A$ is its effect.
43. 5; Both $A$ and $B$ are effect of some unknown reason.
44. 1 ; To enhance the standard of education in evening law colleges the BCI has ordered to close down these colleges from the coming academic session. Hence (B) is the cause and (A) is its effect.
45. 2; The qualified use of loudspeakers is a consequence of the rules framed by the govt.
46. 1; The ban on traffic on Jail Road is a result of the diversions made.
47. 3; Having conducted N-tests could be the reason for signing CTBT. But the major cause would be something else: international opinion.
48. 5; Note that the two are different films.
49. 1; The govt discision has determined the conciliatory approach of the Indian companies.
50. 2; Only when the demand was made could the proposal have gone to the govt.
51. 5 ; We can't determine the cause-effect chain. "Looking for a foreign coach" could be independent of the resignation.
52. 4; The large sales may be a consequence of media hype which surrounded the work because of the high advance. But there is no direct connection. Moreover, after a certain extent, works sell purely on the basis of their intrinsic merit.
53. 3 ; It is true that if the notes had not gone out of circulation, there might have been no need of their re-print. But much time has elapsed and a direct causal relationship can't be established.
54. 2 ; B is an exercise in cutting expenditure, which has become imperative given the widening fiscal deficit.
55. 5; Even a remote connection can't be established with any bit of certainty.
56. 1; Since the subsidy has been reduced, the institutions will have to compensate for it by recovering a large portion from the students.
57. 1; When the results were declared, it was the father's curiosity that led him to the website.
58. 2 ; The inquiry is a logical consequence in case of a mysterious death.
59. 4; The arrival o the monsoon is certainly an effect but its-prediction can't be the eause ,
60. 1; Once China becomes a member of the WTO, the US won't be able to discriminate against it. So the EU agreement must have led the US to prepare in advance.
61. 5; The two crises are totally unrelated. While in Sierra Leone the Indian soldiers are working under the aegis of the UN, a military intervention in Sri Lanka would involve coming in direct touch.
62. 1; Event (A) is the effect and the immediate and principal cause behind it is the rampant situation in Nigeria explained in Event (B).
63. 1; The effect described in event (A) is the outcome of the request of the parliamentary committee.
64. 3; Event (A) is the effect of Event (B) but Event (B) is not the immediate and principal cause behind it.
65. 5; There is no cause-effect relationship.
66. 1; Event (A) is the effect and Event (B) is the factor responsible for it. Hence, your answer is either 1) or 3). Now, check if Event (B) is the immediate and principal cause behind it. Since your answer is yes, your answer is 1 ).
67. 4; Event (B) is the effect and Event (A) is one of the factors responsible for it. Hence, Event (A) is not the immediate and principal cause.
68. 2; Event $(\mathrm{B})$ is the effect and Event $(\mathrm{A})$ is the main factor responsible for the effect.
69. 3; Event (A) is the effect and Event (B) is one of the factors responsible for the effect.
70. 5; There is no cause-effect relationship.
71. 1; Here event (A) is the effect because the advice
given to IHF is due to the harassment Indian professionals were meted out by the Malaysian police.
72. 2; Special flight to Johannesburg is aimed at carrying cricket lovers especially. Hence event (A) is the immediate and principal cause and Event (B) is its effect.
73. 3; Event (B) is the cause behind the effect shown in the event (A) but not immediate and principal.
74. 4; Event $(\mathrm{A})$ is the cause behind the effect shown in event (B) but it is not the immediate and principal cause.
75. 5; The two statements have no correlation with each other.
76. 2; Event (A) is the immediate and principal cause and event (B) is its effect. Note that the bank rate is a reference rate also. If the bank rate is raised both the deposit and lending rates are raised. Similarly, when the bank rate is reduced both the deposit and lending rates are reduced.
77. 2; Event (A) is the immediate and principal cause and event (B) is its effect. Failure of independent filmmakers has compelled the NGO to step in by setting up a national distribution centre for their films.
78. 5; The two are independent events contradicting each other.
79. 3; Event (A) is the effect but event (B) is not its immediate and principal cause because to get the above outcome proper use of rich mineral resources is equally important.
80. 2; It is the parliament's nod to Tobacco Control Bill, which gave the non-smokers a new horizon.
81. 2; Event (B) is the effect and event (A) is the immediate and principal cause behind it. The
move taken by the Food and Adulteration Department is the result of the claim made by the people.
82. 2; Once again, event (A) is the immediate and principal cause of event (B). The demand sought by the parliamentarians is due to the report revealed by the NGO.
83. 4; The new security measures have been taken not only due to the attack on Parliament in Dec 2001 but also to ensure that the Parliament be more safe for Parliamentarians, aiming at the importance of this section of people.
84. 1; The estimated loss, owing to the drought, is the immediate and principal cause behind the change in the forecast of the different bodies.
85. 5; Note that Event (B) is a non-event. An event is when something happens, not when something does not happen.
86. 2
87. 3; Here (A) is the effect. Rejection came from the government because the government considers LTTE a terrorist organisation. (B) explains the nature of the organisation. But it is not the principal and immediate cause.
88. 1; (A) is the effect because VRS has been aimed at the plan to reduce man power and it is the principal cause behind it.
89. 1; By an intuitive look it is clear that ' A ' is the effect and ' $B$ ' is the cause. Hence, we reject options 2), 4) and 5). Now check: Is event (B) immediate and principal cause? You get 'yes' as your answer.

Hence the correct answer is 1 .
92. 2; Here ' $A$ ' is the immediate principal cause and ' $B$ ' is its effect.
93. 5; The two events have no causative link with each other
94. 2; Event (B) is in a form of course of action. And cause of its requirement is event (A). Hence event (A) is its immediate and principal cause.
95. 5; It is very difficult to determine which is the cause and which the effect. Science has made contact easy. And easy contact has made the world a global village.
96. 5; The two events can't be connected.
97. 1; Massive debt swap operation has been initiated due to the menace of the government's current year's gross fiscal deficit.
98. 3; Subscribers of Hutch and Airtel have increased and one of the factors of this increase may be the recent joint scheme.
99. 5; The two events have no apparent causative link with each other.
100.5; There is no cause-effect relationship.
101.1; Critical condition of Ivory coast has compelled Cadbury to take such an initiative.
102.2; Reduction of its stake in nationalised banks by the government is a steps towards privatisation of bank. And this is a reason of strike in bank by the bank employees.
103. 1; Because of event (B), government has decided to roll back the hike in the prices of cooking gas and kerosene.
104.4; The SC order is not the immediate cause for the mob frenzy. It is the implementation of the order.
105.5; Both events (A) and (B) are independent of each other. It is possible that because of the court's pressure or central government's pressure, the STF has been activated against him.
106.3; This may be the reason for his denial to talk with the media persons but not necessarily the principal and immediate cause.
107.2; As he found cockroaches in the crevices, he immediately drew the attention of the catering manager.
108. 1; The receiving of the information is the immediate cause of the arrest.
109.5; Here both events are effects of different causes.
110.4; The chief minister's prayers signify that he was taking interest in Rajkumar's release. But Verappan's concession can not be considered a direct effect of the prayers per se.
111.3; There may have been several steps before BCCI has decided to ban some players.
112.4; (B) may be because of the traffic congestion around CP, bad parking arrangements, etc .... (A) also
may be its cause but it is not the immediate and principal cause.
113. 5; Both events are independent of each other
114. 1; The second phase is possible only after the first phase.
115. 1; Because of the shortage of CNG filling stations the owners of CNG-run vehicles are suffering.
116. 1; Because of $(B)$ the court has ordered so.
117. 2; When such riots take place, curfew is a direct consequence.
118. 5; Both are independent events.
119. 1; Because of (B), ITC has decided so.
120.5; Both are independent events.
121.3; There whould be no such speculation on the part of the Australian caption if his team were not visiting India in the first place. So the latter is a cuase. But the immediate cause of the warning is the speculation.
122.5; $A$ can be the cause of $B$ and vice versa.
123.2; Because of the earthquake the weak buildings have collapsed and so the government has decided to take action against those corrupt builders.
124. 1; If less cars are allowed, the sale is bound to drop.
125. 1; Event A is clearly a reaction to event $B$.
126. 1; The protest (Event A) is in response to the levy imposed (event B).
127. 5 128. $2 \quad$ 129. $4 \quad$ 130. $5 \quad 131.2$
132. 2 132. 3 134. 3 135. 1
136. 3; There may be several causes for the increment in entry fee in the Taj Mahal. Event (B) may be one of the causes. It is also possible that the hike in maintenance cost is the other cause of this increment.
137. 1
138. 2; The prices of vegetables has increased because of the strike of rickshaw, taxi and other general communication. Hence $B$ is the effect and $A$ is the immediate cause.
139. 1; Because of $(B)$, government has started the project "alert citizen" to eurb crimes. Hence 'A' is the effect and (B) is the cause.
140. 5
141. 2
142.4; Insecurity is a long-run impact of this habit of too much comfort. Comfort leads to a distaning from follow-beings. And this loneliness later results in insecurity.
143. 1; Dearness allowance of the employee depends on the consumer price index.
144. 1
145. 3; One of the reasons for increase in no. of home computers in their being made compulsory in schools. Other reasons are a general interest in computers for various purposes.

## Practice Exercise-2

1. 1; Here ' A ' is the cause and ' B ' is its effect. Farmers do not want to incur any loss further. Hence the reason which led farmers to switch over to another crop is obvious.
2. 2; A crime has a direct relationship with the condition of law and order. Incidents of crime increase if the condition of law and order is not up to mark. Hence, ' $A$ ' is the effect of the cause ' $B$ '.
3. 2; The tense of both the statements implies that the event mentioned in ' $B$ ' happened before ' $A$ '. Through an intuitive look we come to know that ' $A$ ' is an initiative taken by the government with a view to the people's concern described in ' B '. Hence, ' $B$ ' is the cause and ' $A$ ' is its effect.
4. 2; See the words 'has' and 'have been' in the statements ' $A$ ' and ' $B$ ' respectively. From these
words we get that ' $B$ ' happened before ' $A$ '. Now, why did the PM give such an assurance? The answer lies in the event mentioned in the statement ' $B$ '. Hence, ' $A$ ' is the effect and ' $B$ ' is its cause.
5. 5; Both the events are the effects of a common cause, ie heavy rain in the city.
6. 1; Drop out from the primary schools from rural areas may be an effect of poor facility of education. Note that lack of interest in study because of poor infrastructure increases the number of dropouts from schools. Hence, A is the cause and B is its effect.
7. 2; The event mentioned in B caused resentment among the people, which made the people unruly, as a result of which the police resorted to lathi charge to bring the situation under control. Hence, B is the cause and A is its effect.
8. 5; Both A and B are the effects of a common cause: to facilitate travelling for overseas destinations through air route.
9. 5; Note that the real concern of the opposition is the government's economic policy. Also, a faulty economic policy results in sharp increase in prices of commodities. Hence, both A and B are the effects of a common cause - the economic policy of the government.
10. 4; Both $A$ and $B$ are effects of independent causes. The effect mentioned in $A$ is the result of 'adulteration' whereas the effect mentioned in B is the result of 'natural disaster'.
11. 4; Both A and B are effects of different causes. I is an initiative taken to ensure driving free of hindrances whereas the cause which led the event B is the lack of signal posts.
12. 2; Statement $A$ mention the initiative-taken by the local steel company because of the request made by the local civic body. Hence, B is the cause and A is the effect.
13. 4; Both $A$ and $B$ are effects. $A$ is the result of disciplinary action taken by the government against the carelessness of the police. Whereas $B$ is the result of alacrity and vigilance of the police.
14. 2; A is the result of resentment caused by B. Hence, $B$ is the cause and $A$ is its effect.
15. 4
16. 2; From the given two statements (A) and (B) it is obvious that the employees have taken the initiative because of the resentment caused by the policy announced by the management. Hence, (B) is the cause and (A) its effect.
17. 2; Here, it is clear that the event mentioned in (B) happened earlier than the event mentioned in (A). See the key words 'last week' and 'from immediate effect'. From the two statements it seems that the initiatives taken by the public sector telecom service provider may have been taken in order to compete with the private sector telecom service provider. Hence, (B) is the cause and (A) its effect.
18. 4; Here, both the statements (A) and (B) are effects of independent causes.
19. 2 ; The condition mentioned in ' $B$ ' compelled the government to take initiative as mentioned in ' A '. Hence, ' $B$ ' is the cause and ' $A$ ' is its effect.
20. 1; ' B ' is the result of the request made by the local traders' association to its member, as mentioned in ' $A$ '. Hence, ' $A$ ' is the cause and ' $B$ ' is its effect.
21. 4; It is difficult to link stamp duty and real estate prices with certainty.
22.2; It there are large exports, considerable profit is quite likely.
22. 4; Both (A) and (B) are contradictory statements (to each other). The students who did not get admission in the government engineering colleges must have gone to the private engineering colleges. But this has not happened. Hence, both the statements (A) and (B) are the effects of independent causes.
23. 4; This is a case of contradictions. Statement (B) says that the priority sector is the better sector for the banks to invest in. Despite this, the banks have decided to increase the rate of interest on the advances to be given to the priority sector. Hence, (B) is obviously not behind the decision of increasing the rate of interest. Rather, it should have gotten some favour. Hence, both (A) and (B) are effects of independent causes.
24. 2 ; Why is there a need for allowing the private airline companies to operate on specified international routes? Obviously, an increase in the flow of foreign tourists to India is behind the decision. Hence, (B) is the cause and (A) is its effect.
[Note: Here, we have to look for such a statement which may be the effect of the other statement.]
25. 5; Both are the efforts made by the government to keep the price of petroleum products low. Hence, both ' A ' and ' B ' are effects of a common cause.
26. 1; The event mentioned in the statement ' $A$ '
compelled the citizens to initiate security measures as mentioned in the statement ' $B$ '. Hence, ' $A$ ' is the cause and ' $B$ ' is its effect.
27. 2; Here the decision taken by the government (as mentioned in statement ' $A$ ') is aimed at equipping private universities so that these universities can facilitate more students to pursue their desired Now, from statement ' B ' we come to know that the government is compelled to do so because of the continuous decrease in the number of students enrolled for various courses. Hence, ' $B$ ' is the cause and ' A ' is its effect.
28. 1; Here the effort (mentioned in ' $B$ ') has been taken by the government to control the prices of the grain so that the interest of the farmers can be protected. Note that fresh stock of gains in the market can reduce the prices of grain sharply. Hence, ' $A$ ' is the cause and ' $B$ ' is its effect.
29. 1; Here the decision taken by the parents is the result of the decision taken by the school authority. Hence, ' A ' is the cause and ' B ' is its effect.
30. 4; Here ' $A$ ' is the effect of the resentment among the villagers. Whereas ' $B$ ' is the effect of the efforts aimed at electoral reforms. Hence, both ' $A$ ' and ' $B$ ' are effects of independent causes.
31. 4; ' A ' may be the effect of the increase in demand ' B ' is the effect of the aim to increase literacy rate. Hence, both 'A' and 'B' are effects of independent causes.
32. 1; The initiative mentioned in ' B ' has been aimed at because of the concern raised in ' $A$ '. Hence ' $A$ ' is the cause and ' B ' is its effect.
33. 5; Both the effects ' $A$ ' and ' $B$ ' may have a common cause like bandh called by a political party, etc.
34. 2; Here ' B ' is the cause of the event mentioned in 'A'.
35. 2; Here the impediment mentioned in ' $B$ ' is caused by ' A '. Hence, ' B ' is the cause and ' A ' is its effect.
36. 2; It is the effort of the social activists which forced the government to take the initiative. Hence, 'B' is the cause and ' A ' is its effect.
37. 5 ; Both ' A ' and ' B ' are the effects of the new economic scenario of the world. Hence, both 'A' and 'B' are effects of a common cause.
38. 2; The preventive measure taken by the government is to restrict unpleasant incidences caused by terrorists. Hence, ' B ' is the cause and ' A ' is its effect.
39. 1; It seems that activeness of Road Development Authorities is the result of the order issued by the High Court. Hence, ' A ' is the cause and ' B ' is its effect.
40. 2; The flood has led to the epidemics.
41. 2; Reduction in taxes affects the prices of the product. Hence, ' B ' is the cause and ' A ' is its effect.
42. 1; Paying capacity of a customer plays an important role in shopping. Hence, ' A ' is the cause and ' B ' is its effect.
43. 1; Destruction of an oil refinery can create problem in ensuring smooth availability of oils. Hence, 'A' is the cause and ' B ' is its effect.
44. 2; Withdrawal of grant will increase the financial burden of the government medical colleges, whereas the increase in the number of seats will increase the revenue of the government medical colleges. Hence, ' $B$ ' is the cause and ' $A$ ' is its effect.
45. 4
46. 5; It can be safely assumed that Party X was earlier in the opposition and has benefited from antiincumbency. But A and B are consequences of a common cause - bad governance by the ruling party.
47. 1 ; Since the staff members have gone on strike, the help of outsiders has been sought.
48. 4; (A) seems to have happened as $X$ is a better college. (B) seems to be the result of the falling standard of teaching in colleges.
49. 4; (A) might have happened because harassment of women is on the rise. While (B) seems to be the result of a change in gender role perception.
50. 1; The robberies have led to a demand of improvement in security situation.
51. 1; Since the prices of cement have increased, there are fewer customers now. An impact on profit has made businessmen less likely to venture in this industry. Hence the govt has decided to provide tax break.
52. 5; Both the events are the consequences of atrocities committed by corrupt police officials.
53. 4; There may have been different reasons for the opting of these subjects.
54. 4; There seems to be no connection between the two events.
55. 2; Clearly, heavy discounts led to the rush.
56. 2; High marks have become so commonplace that merit lists have lost their meaning.
57. 2; The large number of SSC qualifiers has necessitated the opening of more junior colleges.
58. 4; A is the effect of some climate change. But B is something that has been happening since time immemorial.
59. 5 ; Both the statements have been necessitated by a common cause: the fear of outbreak of diseases during monsoon.
60. 2 ; The increase in accidents again and again has led the govt to strike a cautionary note.
61. 2; Clearly, the accident in B led to the decision in A.
62. 1; The fog in A led to the flight delays in B.
63. 3; The two are contradictory and therefore can't be connected.
64. 5; Both are effects of a common cause - people's desire to drive cars.
65. 5; The overcrowding in A has led to pollution in B.
66. 2; Since Class $X$ results were higher, the cutoff percentages for junior colleges (Class XI) are bound to increase.
67. 1; The bad condition of the highways has prompted the govt to take the step.
68. 5; Both seem to be the effects of poor teaching in the local school.
69. 1; Clearly, rain and thunder showers forced the people to stay indoors.
70. 2; Health-consciousness has led to the sale of fatfree food articles.
71. 1; Since there have been heavy rains, there will now be ample water and this will obviate the need to cut the water supply.
72. 2; Obviously, the high cost of private travel has 74. 1: The rise in vegetable prices will be one of the factors in the increase in consumer price index.
73. 5 ; Both are the effects of some crime having been committed or a suspicion thereof.
74. 2: Clearly, employees have been prompted to go on leave on Friday because they would like to take advantage of (B).
75. 2; In order to check the menace of poor eating habits, schools have banned the sale of fast food.
76. 5; Both are effects of a common cause - the recession.
77. 1; The unhealthy competition leads to the negative mindset that is responsible for suicide.
78. 4; (A) is the result of global warming. (B) is the result of tectonic shifts.
79. 3; Both are independent causes.
80. 2; Changes in wind pattern have caused increase in temperature.
81. 1; The motorists' hardship has led to the municipal sanction.
82. 2; Lack of projects has led to the lay-off.
83. 1; The attractive schemes are attempts to boost sales.
84. 4
85. 2; Job market is an important consideration in determining the curriculum of schools.
86. 5; There seems to be some common cause that is leading to deterioration in both kinds of education.
87. 5; Hike in fuel prices seems to be the common cause.
88. 4; The two effects are unrelated.
89. 1; The farmers' decision is apparently an effect of change in the soil.
90. 1; The report to the police led to the criminal's arrests.
91. 2; The murders have led to the announcement of the award.
92. 1; The stone-pelting led to the wounded being brought to the hospitals.
93. 4; A is the effect of summer vacation while B is the effect of trying to get relief in summer.
94. 5; Both are the effects of the fact that festivals cause fatigue.
95. 4; (A) is the effect of the presence of some wicked youngsters living in the locality while (B) is the effect of a rather peaceful atmosphere.
96. 3; There seems to be no connection between the syllabus of Std IX and admission to colleges.
97. 2; The "considerable profit" has led to the "hefty bonus".
100.1; The repair work has led to the diversion.
101.5; Both are the effects of a recession in the economy.
102.2; The bumper crop has led to the largesse shown by the govt.
103.3; (A) happened so that students could see more of the world. (B) happened so that the school may attend to other important tasks.
104.4; (A) has happened because of increased supply of fruits. (B) has happened because of decreased supply of foodgrains.
105.5; Both the statements seem to have a common cause-agitation on a large scale.
98. 1; The fear of rain has led to the tournament being called off.
107.2; The surge in complaints has led the banks to receive them in an electronic mode.
99. 1; The shortage in production has led to the import
109.5; Both are the effects of a common cause. The
110.5; Both are the effects of gearing up on the environmental front.
111.2; The burden is sought to be reduced by the
112.1; The govt initiative has led to greater wheat cultivation.
100. 1; Brake failure led to the accident.
114.2; Since the level is lower, the govt has decided to boost English language education.
101. 2; Since pedestrian movement was getting blocked, the authority demolished the tea stall.
102. 1; The leaving of students led to the urgent action by the authority.
117.2; The pressure of the social activists has led to the banning.
103. 4; The two are contradictory and must be the effects of independent causes.
119.2; The large number of terrorist attacks has led to tightened security checks.
120.1; The court order has led to the urgent work.
121.2; The flood has led to epidemics.
104. $2 \quad$ 123. 4
105. $2 \quad$ 125. 2
106. 2
127.1; The effect mentioned in B has direct relationship with the number of unemployed persons. Hence, A is the cause which led to B.
128.2; Soaring of prices of vegetable has direct relationship with the availability of vegetables and also with the demand of vegetable. The event mentioned in B has a negative impact on the availability of vegetables. Hence, $B$ is the cause which led to $B$.
129.5; Both $B$ and $B$ are effects of independent causes. Manufacturing of soaps or increase in its production has no relationship (as mentioned) with the coastal environment. Hence, option 5).
130.5; Is B the cause which led to A? Answer is 'No'. Again, is B the cause which led to B? Answer is
 'No' Thus, Aboth A and B
are effects of independent causes. Hence, optoption 5).
131.3: Increase in water level of all water tanks and the problem of water-logging on the tracks are the result of increase of water availability or surplus of water (due to rain). Hence, both the events are amended tax laws.

## Practice Exercise-3

1. 4
2. 1
3. 3
4. 3
5. 2
6. 2; We often hear of accidents leading to such injuries.
7. 1; The very purpose of hiking the procurement price of a crop is encouraging the farmers to cultivate it.
8. 4; In such a cataclysmic scenario, the govt is likely to order the closure of offices and schools.
9. 3; Crude prices have a direct bearing on the prices of petroleum products.
10. 1; The effect is a win-win solution to this cause.
11. 3; Tax is only one component of the price. So, the increase in price will be there but the increase percentage will be lower.
12. 1; The engineer's caution may have led to people keeping away from the temple.
13. 3 ; Such rejections will cause difficulty to the people.

# Inequality 

## Introduction

Problems based on inequalities and coded inequalities involve essentially combination of two elementary problems (as very name of the chapter suggests) (i) Inequalities and (ii) coding

In such problems coding part is not a big challenge because coding scheme is told entirely in the question itself. Therefore, to decode the inequalities in a given problem would not mean any more headache than a couple of extra seconds.

Essentially it is a problem of inequalities and it is this aspect that should be mastered. Hence we first learn the basics of inequalities.

## What is an Inequality?

We know that the result of multiplication between 3 and 2 and the number 6 are equal. Since they are equal it is an equality. In the same way, $3 \times 3 \neq 6$. Here the product of 3 and 3 is not equal to the number 6. And since they are not equal, it is an inequality.

## Signs of Inequalities

There are, usually, four types of inequalities as given below:
(i) Greater than: To denote mathematically, we use ' $>$ ' to denote greater than. For example, $3 \times 3>6$.
(ii) Less than: To denote mathematically, we use '<' to denote less than. For example,
(iii) Greater than or equal to: Sometimes we are faced with two numbers where we don't know the exact state of inequality between them. For example, we may have two numbers $x$ and $y$ and all that we know is that ' $\boldsymbol{x}$ is not less than $\boldsymbol{y}$ '. In this case $\boldsymbol{x}$ can be either equal to or greater than $y$. Such situations can be represented as ' $\geq$ ' sign. Thus we have ' $\geq$ ' meaning 'greater than or equal to'.
So, $x \geq y$ means $x$ is either greater than or equal to $y$.
(iv) Less than or equal to: Similarly, as above, we may have two numbers $a$ and $b$ and all that we know is that ' $a$ is not greater than $b$ '. In this case $a$ can be either equal to or less than $b$. Such situations can be represented as ' $\leq$ ' sign. Thus we have ' $\leq$ ' meaning 'less than or equal to'.
So, $a \leq b$ means $a$ is either less than or equal to $b$.

## Combining Inequalities

We have two golden rules for combining two inequalities as given below:
(1) Two inequalities can be combined if and only if they have a common term. Look at the examples given below:

Ex. 1: Inequalities: $\mathrm{A}>\mathrm{B}, \mathrm{C}>\mathrm{D}$
Here, there are four terms A, B, C and D but they do not have a common term. Hence these two inequalities cannot be combined.
Ex. 2: Inequalities: $\mathrm{A} \leq \mathrm{B}, \mathrm{M} \geq \mathrm{N}$
Here, also there are four terms A, B, M and N but the common term is missing. Hence they cannot be combined.
(2) Two inequalities can be combined if and only if the common term is greater than (or 'greater than or equal to') one and less than (or 'less than or equal to') the other. (And the combined inequality will have the common term in the middle with the greater and the smaller terms on the two extremes.) Look at the examples given below:
Ex. 3: Inequalities: $\mathrm{A}>\mathrm{B}, \mathrm{B}>\mathrm{C}$.
Here, common term $B$ is greater than one term $C$ and less than the other, A. So a combination is possible.
Combined inequality:
$\mathrm{A}>\mathrm{B}>\mathrm{C}$ or $\mathrm{C}<\mathrm{B}<\mathrm{A}$
Ex. 4: Inequalities: $\mathrm{A} \geq \mathrm{B}, \mathrm{C}<\mathrm{B}$.
Here common term $B$ is less than (or equal to) one term, A , and greater than the other term, C :

## $\square=-$

 Hence, combination is possible.$\mathrm{A} \geq \mathrm{B}>\mathrm{C}$ or $\mathrm{C}<\mathrm{B} \leq \mathrm{A}$
Ex. 5: Inequalities: $B<A, B \geq C$.
Here, common term $B$ is less than one term, $A$;
and greater than (or equal to) the other term, C.
Hence, combination is possible.
Combined inequality:
$\mathrm{A}>\mathrm{B} \geq \mathrm{C}$ or $\mathrm{C} \leq \mathrm{B}<\mathrm{A}$
Ex. 6: Inequalities: $A>B, C>B$.
Here, common term is less than both the other terms, $A$ and $C$. So a combination is not possible.
Ex. 7: Inequalities: $\mathrm{A} \geq \mathrm{B}, \mathrm{B}<\mathrm{C}$.
Here, common term $B$ is less than (or equal to) both terms. No combination possible.
Ex. 8: Inequalities: $\mathrm{B} \geq \mathrm{A}, \mathrm{C} \geq \mathrm{B}$.
Here, common term $B$ is greater than (or equal to) one term, A, and less than (or equal to) another term, C. Hence, combination is possible.
Combined inequality:
$\mathrm{A} \leq \mathrm{B} \leq \mathrm{C}$ or $\mathrm{C} \geq \mathrm{B} \geq \mathrm{A}$.
Ex. 9: Inequalities: $\mathrm{A} \geq \mathrm{B}, \mathrm{B} \leq \mathrm{C}$. Here, common term B is less than (or equal to) both A and C combination is not possible.
Ex. 10: Inequalities: $B \leq A, B \geq C$.
Here, common term $B$ is less than (or equal to) one term A ; and greater than (or equal to other term, C. Combination is possible.
Combined inequality:
$\mathrm{A} \geq \mathrm{B} \geq \mathrm{C}$ or $\mathrm{C} \leq \mathrm{B} \leq \mathrm{A}$.

## Deriving a Conclusion from a Combined Inequality

We have another golden rule, we call it as third golden rule, for deriving a conclusion from a combined inequality as given below:

Combine the two inequalities and draw a conclusion by letting the middle term disappear. The conclusion-inequality will have an ' $\geq$ ', sign (or a $\leq$ ' sign) if and only if both the signs in the combined inequality were ' $\geq$ ' (or ' $\leq$; as the case may be).

Hence, the conclusion will normally have a '>' (or a '<' sign strictly, unless the ' $\geq$ ', sign or (' $\leq$ ') appears twice in the combined inequality. Look at the examples given below that will illustrate the concept:
Ex. 11: Derive a conclusion from the following combined inequalities:
(i) $x>y>z$
(ii) $x<y<z$

Soln.: (i) $x>z$
((ii) $x<z$.

Ex. 12: However, when we have ' $\geq$ ' signs in the combined inequalities, then the process is a bit more thought-provoking. For example, consider the following combined inequality: $x \geq y>z$.
Here, $x$ is either greater than $y$ or equal to $y$. Therefore the minimum value for $x$ is equal to $y$. But $y$ is always greater than $z$. Therefore, $x$ is always greater than $z$ (because even when $x$ attains its least value it is equal to $y$ and $y$ is always greater than $z$. Therefore $x$ will always be greater than $z$ ). Hence, the inequality as conclusion is:

$$
x>z .
$$

Ex. 13: Now consider the combined inequality
Here, $x$ is always greater than $y$ and $y$ is either greater than $z$ or equal to it. When $y$ is greater than z; $x$ will obviously be greater than $z$. Even when $y$ is equal to $z ; x$ will be greater than $z$ because $x$ is always greater than cases, our conclusion is

Ex. 14: Now consider the combined inequality

$$
x \geq y \geq z
$$

Here $x$ is either greater than $y$ or equal to $y$. When $x$ is greater than $y$; we have: $x \geq z$ which gives the conclusion $x>z \ldots$ (a) [see Ex. 13]
When $x$ is equal to $y$; we have:
$x=y \geq z$ which gives the conclusion
$x \geq z \quad$... (b)
Combining conclusions (a) and (b), we have $x \geq z$
Ex. 15: Derive a conclusion from the following combined inequalites:
(i) $\mathrm{L}=\mathrm{M} \leq \mathrm{K}$
(ii) $L=M>N$

Soln.: (i) $L \leq K$
(ii) $\mathrm{L}>\mathrm{N}$

## Strategy to Solve Problems on Inequality and Coded Inequality

There are various steps needed to solve the problem as given below:

## Step I:

Neatly and quickly decode the symbols.
The question itself tells you which code stands for which arithmetical operation. for example, we have been given that $\mathrm{P} \alpha \mathrm{Q}$ means $\mathrm{P}>\mathrm{Q}$. Therefore replace ' $\alpha$ ' by ' $>$ ' wherever you see them.

You should take one code at a time and replace it by its original mathematical symbol in all the given questions before going to the next code. And you should do it quickly.

## Step II:

Take one conclusion at a time and decide which statements are relevant for evaluating the conclusion.

Now, this needs some thinking. What do we mean by relevant statements? By a relevant statement we mean the statement that is not useless for deriving a conclusion. If there is a conclusion, say, $x>y$ then a statement like b $>\mathrm{c}$ is useless because this statement has neither $x$ nor $y$. Therefore any analysis of this statement can't tell us anything about the conclusion: $x>y$. For any conclusion, the relevant statements are those that can be combined to prove or disprove that conclusion. How do we find the relevant statements?

It is simple ....
To decide which statements are relevant for a conclusion; take the two terms of a given conclusion and see if each of them separately appears with a single common term in the given statements in the question. These statements will be our "relevant statements".

To understand the above look at the example given below:
Ex. 16: Suppose after performing Step I, we have the following given statements and conclusions.
Given Statements:
$\mathrm{M}>\mathrm{N}, \mathrm{L}=\mathrm{M}, \mathrm{O}>\mathrm{N}, \mathrm{L} \leq \mathrm{K}$


Step III:
Use the three golden rules to combine the relevant statements and derive a conclusion from it. Those three golden rules are:

Rule 1: There must be a common term.
Rule 2: The common term must be less than (or equal to) one term and greater than (or equal to) another.

Rule 3: The conclusion-inequality is obtained by letting the common-term disappear and it has a ' $\geq$ ' or a ' $\leq$ ' sign if and only if the both the inequalities in second step had a ' $\geq$ ' or a ' $\leq$ ' sign. In all other cases, there will be a ' $>$ ' or a '<' sign in the conclusion.

For illustration consider the previous example. We have found that
(i) for conclusion I ( $\mathrm{M}<\mathrm{K}$ ) the relevant statements are:

$$
\mathrm{M}=\mathrm{L}, \quad \mathrm{~L} \leq \mathrm{K}
$$

We combine them and get $\mathrm{M}=\mathrm{L}<\mathrm{K}$
$\Rightarrow \mathrm{M} \leq \mathrm{K}$. This is Step III.
Now, $\mathrm{M} \leq \mathrm{K}$ does not imply that $\mathrm{M}<\mathrm{K}$ because $\mathrm{M} \leq$ K allows for M to be even equal to K , which is not true in case of $\mathrm{M}<\mathrm{K}$ Hence this conclusion (Conclusion I) doesnot follow.
(ii) for Conclusion II ( $\mathrm{L}>\mathrm{N}$ ), the relevant statements are:

$$
\mathrm{M}>\mathrm{N}, \quad \mathrm{~L}=\mathrm{M}
$$

After combining, we get $\mathrm{L}=\mathrm{M}>\mathrm{N} \Rightarrow \mathrm{L}>\mathrm{N}$ Hence, Conclusion II follows.
After performing these three steps, if a conclusion is established and verified, well and good. If not, then perform the following four checks:

Check 1: Check if the conclusion directly follows from only single given statement.

Sometimes a statement may be in the form of $A \geq B$ and one conclusion may be in the form of $\mathrm{B} \leq \mathrm{A}$. Obviously both these are completely identical but sometimes we are prone to ignore such minor tricks of the examiner.
Ex. 17: For example consider the following:
(Let $\alpha$ mean $>, \beta$ mean $\geq, \gamma$ mean $=, \delta$ mean <, $\eta$ mean $\leq$ )
Let, given statement: $\mathrm{E} \gamma \mathrm{F}, \mathrm{C} \delta \mathrm{D}, \mathrm{F} \beta \mathrm{G}, \mathrm{D} \beta \mathrm{F}$ Conclusion: I. G $\eta$ F.
Here, conclusion I is $G \eta F$ or $G \leq F$ and it is identical to $F \beta G$ or $F \geq G$. Hence, it directly follows from one single statement.
Check 2: The conclusion you reach after the Third Step may be identical to the given conclusion although it may not look so in the first glance. Check.

For Example if you arrive at a conclusion- inequality: A $\leq \mathrm{B}$ then a given conclusion $\mathrm{B} \geq \mathrm{A}$ is obviously true.

Check 3: If after the third step you get a conclusion that has a ' $>$ ' (or a ' $\leq$ 'T sign and the two given conclusions have a '>' (or a '<') sign and a '=' sign between the same terms; the choice either I or II follows is correct. (Very Imp.)

For example, suppose you reach $\mathrm{A} \geq \mathrm{B}$ after performing the Third Step. Now suppose the given conclusions are: I. A > B and II. A = B. Then, the choice "either I or II follows" is correct "Similarly if you conclude that $M \leq N$ and the given conclusions are I. $\mathrm{M}<\mathrm{N}$ and II. $\mathrm{M}=\mathrm{N}$ then again the same answer follows.
Note: Check 3 merely tells you that if you have concluded that $[A \geq B]$ you can as well write it as $[A>B$ or $A$ $=B]$. Again, if you have concluded that $[A \leq B]$ you can as well write it as [either $\mathrm{A}<\mathrm{B}$ or $\mathrm{A}=\mathrm{B}$ ].
Check 4: If the two given conclusions have a
(i) ' $\leq$ ' and '>' signs, or
(ii) ' <' and ' $\geq$ ' signs, or
(iii) '>' and ' $\leq$ ' signs, or
(iv) ' $\geq$ ' and ' $<$ ' signs
between the same terms; and if neither of the conclusion has been accepted in any of the steps above; the choice "either of the two follows" is correct. (Important)

For example, suppose in a given question, the given conclusions are:

$$
\begin{array}{ll}
\text { I. } \mathrm{A} \geq \mathrm{B} & \text { II. } \mathrm{A}<\mathrm{B}
\end{array}
$$

And suppose that neither of them have been proved to be true by virtue of any of the preceding steps.

Then since they have the same pair (A and B) and the signs are ' $\geq$ ' and ' <'; the choice either follows is correct.

Note: Check 4 merely tells you that one number can only have three positions vis-a-vis another number. It can be either less than or equal to or greater than the other.
This is true universally of any two numbers. That is, $[\mathrm{A} \leq \mathrm{B}$ or $\mathrm{A}>\mathrm{B}]$ is a universally correct statement, because A can be either (less than or equal to) or (greater than) B.

Thus, for any two numbers A and B the following are always correct:
(i) $(\mathrm{A} \leq \mathrm{B})$ or $(\mathrm{A}>\mathrm{B})$
(ii) $(\mathrm{A}<\mathrm{B})$ or $(\mathrm{A} \geq \mathrm{B})$
(iii) $(\mathrm{A}>\mathrm{B})$ or $(\mathrm{A} \leq \mathrm{B})$
(iv) $(\mathrm{A} \geq \mathrm{B})$ or $(\mathrm{A}<\mathrm{B})$

We can call these four pairs of statements as our complementary pairs. Obviously since one out of the two statements will always be true in such cases, we choose "either follows" as our answer. But remember, we choose this as our answer only if neither of the two statements have been otherwise proved in any previous step. This is because if we have already proved that A $<B$ is definitely true it is ridiculous to still settle for the rather uncertain- looking answer that " either $\mathrm{A}<\mathrm{B}$ is true or A $\geq$ B is true". To understand this point better, consider Ex 18 and Ex 19 below.
Ex. 18: Statements: $A \geq B, B=D, D \leq C, C \leq B$
Conclusions:I. $A \geq C$
II. $\mathrm{A}<\mathrm{C}$

Soln.: Here, both conclusions are between A and C. We see that A and C appear with a common term B in

$$
\mathrm{A} \geq \mathrm{B} \text { and } \mathrm{C} \leq \mathrm{B} .
$$

So these are our relevant statements. They can be combined because they have a common term and because the common term B is less than ( or equal to) one term A and greater than (or equal to)
Sex

Ex So, conclusion I follows.
Ex. 19: Statements: $A<B, B=D, D \leq C, B \leq C$ Conclusions: I. $A \geq C$
Soln.: By the same analysis as in Ex 18; our relevant Now, these two can not be combined because the common term B is less than (or equal to) both A and C . Hence, no conclusion is possible.
But the two conclusions I and II form a complementary pair. And hence either of them must follow.
[Note that we had the same complementary pair as our answer-choices in both Ex 18 and Ex 19. Yet we did not choose "either follows" in Ex 18 because there conclusion I was definitely established. But in Ex 19 no conclusion was definitely established and therefore we choose "either follows" as our answer.]

## Illustrative Example

We will now demonstrate how to utilise the above discussed method to quickly solve problems of this type.

Directions ( $(\mathbf{1}, \mathbf{1 - 5 ) : ~ I n ~ t h e ~ f o l l o w i n g ~ q u e s t i o n s , ~ t h e ~}$ symbols $\alpha, \beta, \gamma, \delta$, and $\eta$ are used with following meaning:
' $\mathrm{P} \propto \mathrm{Q}$ ' means ' P is greater than Q '.
' $\mathrm{P} \beta \mathrm{O}$ ' means ' P is either greater than or equal to B '.
' $\mathrm{P} \gamma \mathrm{B}$ ' means ' P is equal to Q '.
' $\mathrm{P} \delta \mathrm{G}$ ' means ' P is smaller than Q '.
' $\mathrm{P} \eta \mathrm{Q}$ ' means ' P is either smaller than or equal to Q '.
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is / are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;

3 ) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.

1. Statements: $\quad \mathrm{M} \alpha \mathrm{N}, \mathrm{L} \gamma \mathrm{M}, \mathrm{O} \delta \mathrm{N}, \mathrm{L} \eta \mathrm{K}$

Conclusions: I. M $\delta \mathrm{K}$
II. $\mathrm{L} \alpha \mathrm{N}$
2. Statements: $\mathrm{E} \gamma \mathrm{F}, \mathrm{C} \delta \mathrm{D}, \mathrm{F} \beta \mathrm{G}, \mathrm{D} \alpha \mathrm{E}$

Conclusions: I. E $\alpha$ G
II. $\mathrm{C} \gamma \mathrm{E}$
3. Statements: $\mathrm{L} \beta \mathrm{M}, \mathrm{O} \gamma \mathrm{N}, \mathrm{L} \delta \mathrm{H}, \mathrm{M} \gamma \mathrm{O}$

Conclusions: I. $\quad \mathrm{L} \gamma \mathrm{N}$
II. L $\alpha$ N
4. Statements: $Z \eta Y, K \gamma L, Y \delta X, Z \propto K$

Conclusions: I. $\mathrm{Y} \alpha \mathrm{L}$
II. $\mathrm{Y} \gamma \mathrm{L}$
5. Statements: R $\delta$ I, S $\gamma \mathrm{C}, \mathrm{S} \beta \mathrm{I}, \mathrm{C} \alpha \mathrm{O}$

Conclusions: I. C $\delta$ I
Soln.: In First Step, we quickly decode the symbol. Thus we have:

1. Statements: $\mathrm{M}>\mathrm{N}, \mathrm{L}=\mathrm{M}, \mathrm{O}<\mathrm{N}, \mathrm{L} \leq \mathrm{K}$

Conclusions: I. $\mathrm{M}<\mathrm{K}$
2. Statements: $E=F, C<$

Conclusions: I. E $>\mathrm{G}$
II. $\mathrm{C}=\mathrm{E}$
3. Statements: $L \geq M, O=N, L<H, M=O$

Conclusions: I. $\mathrm{L}=\mathrm{N}$
II. $\mathrm{L}>\mathrm{N}$
4. Statements: $Z \leq Y, K=L, Y<X, Z>K$

Conclusions: I. Y > L
II. $\mathrm{Y}=\mathrm{L}$
5. Statements: $R<I, S=C, S \geq I, C>O$

Conclusions: I. C < I
II. $\mathrm{S}>\mathrm{R}$

Now we will take each of the questions separately and perform step II and III for each of the conclusions.

1. (i) Conclusion I: Relevant statements are:
$\mathrm{L}=\mathrm{M}, \mathrm{L} \leq \mathrm{K}$.
Combining, we get: $\mathrm{M} \leq \mathrm{K}$. This does not match with the given conclusion; M < K .
(ii) Conclusion II: Relevant statements are:
$\mathrm{M}>\mathrm{N}, \mathrm{L}=\mathrm{M}$.
Combining, we get $\mathrm{L}>\mathrm{N}$. Hence, only conclusion II follows. Correct answer: 2
2. (i) Conclusion I: Relevant statements are:
$\mathrm{E}=\mathrm{F}, \mathrm{F} \geq \mathrm{G}$.
Combining, we get $\mathrm{E} \geq \mathrm{G}$. This does not match with the conclusion given: $\mathrm{E}>\mathrm{G}$.
(ii) Conclusion II: Relevant statements are: $\mathrm{C}<\mathrm{D}, \mathrm{D}=\mathrm{E}$.
Combining we get, $\mathrm{C}<\mathrm{E}$. This does not match with $\mathrm{C}=\mathrm{E}$. Hence both conclusions are rejected. Check 1, 2, 3, 4 are also futile. Correct answer: 4
3. (i) Conclusion I: Relevant statements are:
$\mathrm{O}=\mathrm{N}, \mathrm{M}=\mathrm{O}, \mathrm{L} \geq \mathrm{M}$.
Combining the first two, we get $\mathrm{M}=\mathrm{N}$. Combining this with $L \geq \mathrm{M}$, we get: $\mathrm{L} \geq \mathrm{N}$. This means that conclusion I does not follow.
(ii) Conclusion II: We have already seen that $\mathrm{L} \geq \mathrm{N}$ follows. This is different from $\mathrm{L}>\mathrm{N}$. So conclusion II does not follow. But, by virtue of Check 3, choice 3 is correct.
4. (i) Conclusion I: Conclusion I is Y > L. Now, from the given statements, $Y$ and $L$ do not appear separately with a single common term. Y appears with $Z, Z$ with $K$ and $K$ with $L$. Hence we will have to take these three as our relevant statements. They are: Combining $Z \leq Y$ and $Z>K$, we get: $Y>K$. Now, combining it with $K=L$; we get $Y>L$. So conclusion I follows.
(ii) Conclusion II: Conclusion II is $\mathrm{Y}=\mathrm{L}$. Which is not true as Y > L has been proved. Correct answer: 1
5. (i) Conclusion I: Conclusion I is C < I. C and I appear separately with $S$ in $S=C$ and $S \geq I$. So these two are our relevant statements. Combining, we get: $\mathrm{C} \geq \mathrm{I}$. This means conclusion I is not true.
(ii) Conclusion II: Conclusion II is $\mathrm{S}>\mathrm{R}$. Now, S and R appear separately with a common term I; in $\mathrm{R}<\mathrm{I}$ and $\mathrm{S} \geq \mathrm{I}$. So these two are our relevant statements and combining them we get: $\mathrm{R}<\mathrm{S}$. By Check 2, it is the same as $S>R$. Hence conclusion II follows.
Correct answer: 2

# Coded Inequality 

## Exercise

Directions (Q. 1-5): In the following questions, certain symbols are used with the following meaning:
$\mathrm{P} \oplus \mathrm{Q}$ means P is greater than Q .
$P \subseteq Q$ means $P$ is either greater than or equal to $Q$.
$\mathrm{P}=\mathrm{Q}$ means P is equal to Q .
P@ Q means P is smafler than Q .
$P @ Q$ means $P$ is either smaller than or equal to $Q$.
Now in each of the following questions assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true? Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
1. Statements: I@V,R@D, E@V,R=I

Conclusions: I. $\oplus \oplus$ V
II. $E=I$
2. Statements: T=A, E@L,T@E,R $\oplus \mathrm{A}$

Conclusions: I. T $\oplus \mathrm{A} \quad$ II. T @ R
3. Statements: C @A, $O @ C, E=P, E \oplus A$ Conclusions: I. $\mathrm{P} \oplus \mathrm{A}$
H.O @-A
4. Statements: $M @ B, R @ B, M @ U, R=E$
Conclusions: I. $\mathrm{M} \oplus \mathrm{R}$
II. $M=R$
5. Statements: S © M, K $\oplus$ A, S @ U, A @ M

Conclusions: I. A = S II. $\mathrm{K} \oplus \mathrm{M}$
Directions (Q. 6-10): In the following questions, the symbols $\alpha, \beta, \delta, \gamma$ and $\eta$ are used with the following meaning.
$\mathrm{P} \propto \mathrm{Q}$ means P is greater than Q .
$P \beta Q$ means $P$ is either greater than or equal to $Q$.
$\mathrm{P} \delta \mathrm{Q}$ means P is equal to Q .
$\mathrm{P} \gamma \mathrm{Q}$ means P is smaller than Q .
$P \eta Q$ means $P$ is either smaller than or equal to $Q$.
Now in each of the following questions assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true? Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
6. $\quad$ Statements: $\mathrm{P} \alpha \mathrm{A}, \mathrm{I} \gamma \mathrm{D}, \mathrm{K} \eta \mathrm{A}, \mathrm{I} \beta \mathrm{P}$

Conclusions: I. I $\delta \mathrm{K}$ II. $\mathrm{D} \delta \mathrm{A}$
7. Statements: $U \beta S, N \gamma A, H \alpha U, A \eta S$

Conclusions: I. U $\delta$ A
II. A $\gamma \mathrm{U}$
8. Statements: $\mathrm{E} \eta \mathrm{D}, \mathrm{K} \beta \mathrm{A}, \mathrm{E} \alpha \mathrm{R}, \mathrm{A} \delta \mathrm{D}$

Conclusions: I. $\mathrm{K} \delta \mathrm{A}$
II. $\mathrm{K} \gamma \mathrm{R}$
9. Statements: $Y \beta L, A \eta R, M \alpha Y, M \eta R$

Conclusions: I. R $\alpha$ L
II. $\mathrm{A} \delta \mathrm{M}$
10. Statements: $\mathrm{E} \alpha \mathrm{L}, \mathrm{A} \eta \mathrm{N}, \mathrm{E} \gamma \mathrm{V}, \mathrm{A} \delta \mathrm{V}$ Conclusions: I. $\mathrm{N} \delta \mathrm{V}$
II. $\mathrm{A} \gamma \mathrm{E}$

Directions (Q. 11-15): In the following questions, the symbol $\$, \#, £, \bullet$ and $\mathscr{H}$ are used with the following meaning:

P\$ Q means $P$ is greater than $Q$.
$P$ \# Q means P is either greater than or equal to Q .
$\mathrm{P} £ \mathrm{Q}$ means P is equal to Q .
$\mathrm{P} \bullet \mathrm{Q}$ means P is smaller than Q .
$P \mathscr{A} Q$ means $P$ is either smaller than or equal to $Q$.
Now in each of the following questions assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true? Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
11. Statements: D \# H, I \& R, R © H Conclusions: I. D \$ I
II. $R \not \& D$
12. Statements: K © I, S \$ H, K \# H

Conclusions: I. S $£ \mathrm{~K}$
II. H • I
13. Statements: $\mathrm{A} £ \mathrm{M}, \mathrm{J} \$ \mathrm{~T}, \mathrm{~A} \bullet \mathrm{~T}$

Conclusions: I. T \$ M II. A J
14. Statements: R \$ A, H \& U, A £ U

Conclusions: I. A \$ H
II. H£ A
15. Statements: M © U, K \# A, M \$ K

Conclusions: I. U\# A
II. A \& M

Directions ( $Q .16$-20): In the following questions, the symbols @, @ $\alpha, *$ and $\underset{\text { \& }}{ }$ are used with the following meaning:
$\mathrm{P} @ \mathrm{Q}$ means P is greater than Q .
$P @ Q$ means $P$ is either greater than or equal to Q .
$P \propto Q$ means $P$ is equal to $Q$.
$P \& Q$ means $P$ is smaller than $Q$.
$P$ Q means $P$ is either smaller than or equal to $Q$.
Now in each of the following questions assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
16. Statements: $\mathrm{X} @ \mathrm{Y}, \mathrm{Z}$ \&, $\mathrm{Y} \propto \mathrm{Z}$

Conclusions: I. X @ R II.Y $\alpha$ R
17. Statements: B @ C, C \& D, D 立E

Conclusions: I. B @ E
II. $\mathrm{D} \propto \mathrm{E}$
18. Statements: $M \& L, N \notin O, L \alpha N$

Conclusions: I. O @ M
II. L \&
19. Statements: H@G,E\&F,F $\alpha G$


Directions (Q. 21-25): In the following questions, the symbols $\div, \times,+,-$ and $\approx$ are used with the following meanings:
$\mathrm{P} \div \mathrm{Q}$ means P is greater than Q .
$P \times Q$ means $P$ is either greater than or equal to $Q$.
$P+Q$ means $P$ is equal to $Q$.
$P-Q$ means $P$ is smaller than $Q$.
$P \approx Q$ means $P$ is either smaller than or equal to $Q$.
Now in each of the following questions assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true? Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both $I$ and II are true.
21. Statements: $Q \div B, J-E, L \approx B, J \times Q$

Conclusions: I. J + L II. $\mathrm{E}+\mathrm{B}$
22. Statements: $\mathrm{F} \div \mathrm{M}, \mathrm{B} \approx \mathrm{O}, \mathrm{F}-\mathrm{W}, \mathrm{B}+\mathrm{W}$

Conclusions: I. O + W II. B -F
23. Statements: $Z \times M, B \approx S, N \div Z, N \approx S$

Conclusions: I . $\mathrm{S} \div \mathrm{M} \quad$ II. $\mathrm{B}+\mathrm{N}$
24. Statements: $F \approx E, L \times B, F \div S, B+E$

Conclusions: I. $\mathrm{L}+\mathrm{B} \quad$ II. $\mathrm{L}-\mathrm{S}$
25. Statements: $\mathrm{V} \times \mathrm{T}, \mathrm{O}-\mathrm{B}, \mathrm{I} \div \mathrm{V}, \mathrm{B} \approx \mathrm{T}$

Conclusions: I. V + B II. B-V
Directions (Q. 26-30): In the following questions, the symbol $£, \$, @, \approx$ and $>$ are used with the following meanings:
$\mathrm{P} £ \mathrm{Q}$ means P is greater than Q.
$P \$ Q$ means $P$ is either greater than or equal to $Q$.
P @ Q means P is equal to Q .
$P \approx Q$ means $P$ is smaller than $Q$.
$P>Q$ means $P$ is either smaller than or equal to $Q$.
Now in each of the following questions assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
26. Statements: I > J, K @ J > L, H \$ J

Conclusions: I. J£L II. I > H
27. Statements: G \$ F, D > E, E @ F

Conclusions: I. E $\approx G$
II.E @ G
28. Statements: $L>K, M \approx N, K @ M$

Conclusions: I. N $£ \mathrm{~L}$
29. Statements: $\mathrm{A} £ \mathrm{~B}, \mathrm{~B}>\mathrm{C}, \mathrm{C}>\mathrm{D}$

Conclusions: I. A£ D
30. Statements: $W £ X, Y>Q, X @ Y$
II. $\mathrm{K}>\mathrm{N}$

Conclusions: I. W£ Q
Directions (Q. 31-35): In the following questions,
the symbol $\alpha, \beta, \gamma, \delta$ and $\Psi$ are used with the following meanings:
$P \propto Q$ means $P$ is greater than $Q$.
$P \beta$ means $P$ is either greater than or equal to Q .
$P \gamma Q$ means $P$ is equal to $Q$.
$\mathrm{P} \delta \mathrm{Q}$ means P is smaller than Q .
$\mathrm{P} \Psi \mathrm{Q}$ means P is either smaller than or equal to Q .
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
31. Statements: $R \beta S, O \Psi P, P \delta S$

Conclusions: I. $\mathrm{R} \alpha \mathrm{O}$
II. $P \Psi R$
32. Statements: $\mathrm{F} \delta \mathrm{Z}, \mathrm{H} \beta \mathrm{A}, \mathrm{F} \alpha \mathrm{H}$

Conclusions: I. $Z \beta$ A
II. $\mathrm{A} \Psi \mathrm{F}$
33. Statements: $O \delta R, U \alpha V, O \beta V$

Conclusions: I. U $\gamma$ O
II. $\mathrm{V} \delta \mathrm{R}$
34. Statements: $\mathrm{W} \gamma \mathrm{X}, \mathrm{Z} \alpha \mathrm{Y}, \mathrm{W} \delta \mathrm{Y}$

Conclusions: I. Y $\gamma$ X
II. W $\delta$ Z
35. Statements: I $\alpha$ J, L $\Psi$ M, J $\gamma$ M

Conclusions: I. J $\alpha$ L
II. $\mathrm{L} \gamma \mathrm{J}$

Directions ( $\mathbf{Q} .36-40$ ): In the following questions,
the symbols $\alpha, \alpha \rightarrow, \beta, \beta \rightarrow$, and $\leftrightarrow$ are used as follows:
$A \propto B$ means $A$ is greater than $B$.
$A \alpha \rightarrow B$ means $A$ is greater than or equal to $B$.
$A \beta$ B means $B$ ìs greater than $A$.
$A \beta \rightarrow B$ means $B$ is greater than or equal to $A$.
$A \leftrightarrow B$ means $A$ is equal to $B$.
Now, in the following questions, assuming the three given statements to be true, decide upon the validity of the given conctusions. Give answer

1) if only conclusion I follows
2) if only conclusion II follows
3) if either conclusion I or II follows
4) if neither conclusion I nor II follows
5) if both conclusions follow
36. Statements: $\mathrm{P} \alpha \rightarrow \mathrm{Q}, \mathrm{Q} \beta \rightarrow \mathrm{R}, \mathrm{R} \leftrightarrow T$

Conclusions: I. $\mathrm{P} \alpha \rightarrow \mathrm{R} \quad$ II. $\mathrm{P} \beta \mathrm{R}$
37. Statements: $N \leftrightarrow M, C \alpha N, M \leftrightarrow D$

Conclusions: I. $\mathrm{C} \alpha \mathrm{D}$
II. $\mathrm{N} \leftrightarrow \mathrm{D}$
38. Statements: $\mathrm{Q} \beta \mathrm{L}, \mathrm{Q} \alpha \rightarrow \mathrm{R}, \mathrm{T} \beta \mathrm{P}$

Conclusions: I. L $\alpha \rightarrow \mathrm{P}$
II. $\mathrm{R} \beta \mathrm{L}$
39. Statements: $\mathrm{X} \beta \rightarrow \mathrm{Y}, \mathrm{Y} \leftrightarrow \mathrm{Z}, \mathrm{A} \alpha \mathrm{Z}$

Conclusions: I. $\mathrm{X} \alpha \mathrm{Z} \quad$ II. $\mathrm{Y} \alpha \rightarrow \mathrm{A}$
40. Statements: $\mathrm{S} \beta \mathrm{T}, \mathrm{S} \alpha \mathrm{M}, \mathrm{M} \leftrightarrow \mathrm{P}$

Conclusions: I. $\mathrm{S} \alpha \mathrm{P}$
II. T $\beta$ M

Directions (Q.41-45): In a particular method of coding the symbols $\mathbf{a}, \mathbf{a} \infty, \mathbf{b}, \mathbf{b} \infty$ and $\infty \infty$ are used with the following meaning:
$A$ a $B$ means $A$ is greater than or equal to $B$
$A$ a $\propto B$ means $A$ is equal to $B$
$A b \infty B$ means $B$ is greater than or equal to $A$
$A b B$ means $B$ is greater than $A$
$A \infty \infty B$ means $A$ is greater than $B$.
On the basis of the above scheme and assuming each of the given statements to be true, decide which of the given
conclusions follow. Give answer

1) if only conclusion I follows
2) if only conclusion II follows
3) if either conclusion I or II follows
4) if neither conclusion I nor II follows
5) if both conclusions I and II follow.
41. Statements: $\mathrm{Sa} \infty \mathrm{T}, \mathrm{U} \infty \infty \mathrm{T}, \mathrm{SaV}$

Conclusions: I. TbV II. $\mathrm{U} \infty \infty$ V
42. Statements: $\mathrm{Lb} \infty \mathrm{M}, \mathrm{La} \propto \mathrm{N}, \mathrm{NbO}$

Conclusions: $\mathrm{I} . \mathrm{Nb} \infty \mathrm{O} \quad$ II. NaM
43. Statements: $\mathrm{Rb} \propto \mathrm{T}, \mathrm{Na} \propto \mathrm{T}, \mathrm{Sb} \mathrm{T}$

Conclusions: I. $\mathrm{Rb} \propto \mathrm{U} \quad$ II. $\mathrm{R} \infty \infty \mathrm{U}$
44. Statements: YbZ, S $\infty \infty$ Z, TbZ

Conclusions: I. $\mathrm{Yb} \infty \mathrm{T} \quad$ II. YbS
45. Statements: $\mathrm{Mb} \infty \mathrm{L}, \mathrm{MaN}, \mathrm{Oa} \propto \mathrm{N}$

Conclusions: I. $\mathrm{Lb} \infty \mathrm{O} \quad$ II. $\mathrm{N} \infty \infty \mathrm{M}$
Directions (Q. 46-50): In a particular method of coding the symbols $\mathbf{a}, \mathbf{a} \infty, \mathbf{b}, \mathrm{b} \infty$ and $\infty \infty$ are used with the following meaning:
$A$ a $B$ means $A$ is greater than or equal to $B$
$A a \infty B$ means $A$ is equal to $B$
$A b \infty B$ means $B$ is greater than or equal to $A$
$A b B$ means $B$ is greater than $A$
$A \infty \infty$ B means A is greater than $B$
On the basis of the above scheme and assuming each of the given statements to be true, decide which of the given conclusions follow. Give answer

1) if only conclusion I follows
2) if only conclusion II follows

48. Statements: $\mathrm{Kb} \infty \mathrm{L}, \mathrm{L} \infty \infty \mathrm{M}, \mathrm{La} \propto \mathrm{N}$

Conclusions: I. K a N II. $\mathrm{M}_{\infty} \infty \mathrm{N}$
49. Statements: $\mathrm{P} \infty \infty \mathrm{T}, \mathrm{SbT}, \mathrm{Rb} \propto \mathrm{S}$

Conclusions: I. $\mathrm{S} \infty \infty$ R II. $\mathrm{Sa} \propto \mathrm{R}$
50. Statements: $\mathrm{XbY}, \mathrm{Y} \infty \infty \mathrm{T}, \mathrm{Tb} \infty \mathrm{X}$

Conclusions: I. $\mathrm{Y} \infty \infty$ X II. Ta $\infty$ X
Directions (Q. 51-55): In the following questions, the symbols $\odot, \$, \#, @$ and $\neq$ are used with the following meaning:
$\mathrm{P} \subset \mathrm{Q}$ means P is greater than Q .
$P \$ Q$ means $P$ is either greater than or equal to $Q$.
$\mathrm{P} \# \mathrm{Q}$ means P is equal to Q .
$\mathrm{P} @ \mathrm{Q}$ means P is smaller than Q .
$\mathrm{P} \neq \mathrm{Q}$ means P is either smaller than or equal to Q .
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give
answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
51. Statements: $A \$ K, M \# N, K \neq N, Q \subset A$

Conclusions: I. A \# M II. K @ Q
52. Statements: $K$ \# $, L \neq X, D \$ K, S \neq X$

Conclusions: $I . S \neq L \quad$ II. D $\$$ S
53. Statements: F \# T, H $\neq \mathrm{M}, \mathrm{T}$ © R, F @ M

Conclusions: I. $\mathrm{R} \neq \mathrm{H}$
II. $M \neq T$
54. Statements: G \$ I, D © E, E @ I, I $\neq \mathrm{D}$

Conclusions: I. G \$ E
II. G \# D
55. Statements: V © W, L @ W, V \$ P

Conclusions: I. V © L
II. P \# L

Directions (Q. 56-60): In the following questions, the symbols $\#, *, @, \$$ and $\neq$ are used with the following meaning:

P \# Q means P is greater than Q .
$\mathrm{P} * \mathrm{Q}$ means P is either greater than or equal to Q .
$P @ Q$ means $P$ is equal to $Q$.
$P \$ Q$ means $P$ is smaller than $Q$.
$P \neq Q$ means $P$ is either smaller than or equal to $Q$.
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only-conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
56. Statements: P@S,A*P,S*Z Conclusions: I. S \# A

II. V @ N

Conclusions: I. T \$ V
II. I \$ K

Conclusions: $\mathrm{I} . \mathrm{K} \neq \mathrm{S}$
II. $\mathrm{J} * \mathrm{~V}$
60. Statements: W \# O, D \$ E, O \# E

Conclusions: I. W \$ E
II. D \$ O

Directions (Q. 61-65): In the questions given below, certain symbols are used with the following meanings:
$A=B$ means $A$ is greater than $B$.
$A * B$ means $A$ is either greater than or equal to $B$.
$A$ \# $B$ means $A$ is equal to $B$.
$\mathrm{A} £ \mathrm{~B}$ means A is not greater than B .
$A @ B$ means $A$ is neither greater than nor equal to $B$.
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give
answer

1) if only conclusion I is true.
2) if only conclusion II is true.

3 ) if either conclusion I or II is true.
4) if neither conclusion I nor II is true.
5) if both conclusions I and II are true.
61. Statements : $A £ N, B=M, A * 5, B \# 5$ Conclusions: I. N \# B II. M @ N
62. Statements: T* C, U @ Y, T = Y, U£ T

Conclusions: I. C \# U II. U @ T
63. Statements: D \# E, F£G, D @ H, F \# E

Conclusions: I. H=G
II. G \#E
64. Statements: I @ K, R=U, O @ I, R * O

Conclusions: I. O @ U
II. O \# U
65. Statements: A @ B, N*M, M£A, B \#N

Conclusions : I. M \# N
II. $\mathrm{M}=\mathrm{N}$

Directions (Q. 66-70): In the questions given below, certain symbols are used with the following meanings:
$\mathrm{P} * \mathrm{Q}$ means P is neither equal to nor smaller than Q .
$P \oplus Q$ means $P$ is not smaller than $Q$.
$P \$ Q$ means $P$ is neither greater nor smaller than $Q$.
$P £ Q$ means $P$ is neither greater than nor equal to $Q$.
P @ Q means P is not greater than Q .
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true.
2) if only conclusion II is true.
3) if either conclusion I or II is true.
4) if neither conclusion I nor $I I$ is true.
5) if both conclusions I and II are true.
66. Statements: $\mathrm{M} £ \mathrm{~N}, \mathrm{O} \oplus \mathrm{N}, \mathrm{P} @ \mathrm{M}$

Conclusions: I. $\mathrm{N}^{*} \mathrm{P}$
Statements: A B B @ D, A \$ E II.P£N
Conclusions: I. E£D
II. B *E
68. Statements: $\mathrm{X} \oplus \mathrm{Y}, \mathrm{Y} * \mathrm{Z}, \mathrm{M} \oplus \mathrm{Y}$

Conclusions: I. Z£ M
II. $X^{*}$ M
69. Statements: $M * U, V \oplus U, R \$ M$

Conclusions: I. V £ M
II. V \$ M
70. Statements: H @ T, R \$ N, T£N

Conclusions: I. H£ N
II. H \$ R

Directions (Q.71-75): Study the following informa-
tions carefully and answer the questions given below:
$A \div B$ means $A$ is greater than $B$.
$A \times B$ means $A$ is either greater than or equal to $B$.
$A=B$ means $A$ is either smaller than or equal to $B$.
$A+B$ means $A$ is equal to $B$.
A - B means A is smaller than $B$.
Now assuming the statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true.
2) if only conclusion II is true.
3) if either conclusion I or conclusion II is true.
4) if neither conclusion I nor conclusion II is true.
5) if both conclusion $I$ and conclusion II are true.
71. Statements: $B \div D, H-I, M=N, Q \times R$

Conclusions: I. $\mathrm{H}+\mathrm{M}$
II. $\mathrm{I}+\mathrm{N}$
72. Statements: $M \times N, E-F, K \div L, C=L$

Conclusions: I. $\mathrm{M}+\mathrm{F}$
II. C-K
73. Statements: $\mathrm{Y}+\mathrm{B}, \mathrm{X}-\mathrm{Y}, \mathrm{A} \div \mathrm{B}$

Conclusions: I. A $\div \mathrm{X}$
II. $B \times X$
74. Statements: C-F, P-T, C $\times$ T, F-R

Conclusions: I . $\mathrm{C} \div \mathrm{P}$
II. $\mathrm{F} \div \mathrm{T}$
75. Statements: $\mathrm{Q}+\mathrm{S}, \mathrm{S} \div \mathrm{Z}, \mathrm{Z}-\mathrm{W}, \mathrm{S}=\mathrm{T}$

Conclusions: I. T $\times$ W
II. $\mathrm{W} \div \mathrm{T}$

Directions (Q. 76-80): In the following questions, the symbols $\mathbb{C},=, \underline{@}, \oplus$, and $@$ used with the following meanings:
$\mathrm{P} \subset \mathrm{Q}$ means P is not smaller than Q .
$\mathrm{P}=\mathrm{Q}$ means P is neither greater than nor smaller than Q .
$\mathrm{P} @ \mathrm{Q}$ means P is not greater than Q .
$\mathrm{P} \oplus \mathrm{Q}$ means P is neither smaller than nor equal to Q .
$\mathrm{P} @ \mathrm{Q}$ means P is neither greater than nor equal to Q .
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both $I$ and II are true.
76. Statements: $\mathrm{A}=\mathrm{B}, \mathrm{B} \subset \mathrm{D}, \mathrm{B}$ @ H

Conclusions: I. $\mathrm{H}=\mathrm{D}$
77. Statements: $X \oplus Y, Y=Z, Z \odot T$

Conclusions: $I . X \oplus T$
II. $Y=T$
78. Statements: $\mathrm{E} @ \mathrm{~F}, \mathrm{G}=\mathrm{F} \odot \mathrm{H}, \mathrm{I} @ \mathrm{~F}$

Conclusions: I. F = H
II. E © I
79. Statements: $\mathrm{P} @ \mathrm{Q}, \mathrm{R} \odot \mathrm{S}, \mathrm{Q}=\mathrm{R}$

Conclusions: I. P @ R II. Q = S
80. Statements: A @ B, B © C, C © D

Conclusions: I. A @ D II. C=D
Directions (Q. 81-85): In the following questions, the symbols *, \#, \$, @ and + are used with the following meanings:
$\mathrm{P} * \mathrm{Q}$ means P is not smaller than Q .
P\# Q means $P$ is neither greater than nor smaller than Q .
$\mathrm{P} \$ \mathrm{Q}$ means P is not greater than Q .
$P @ Q$ means $P$ is neither smaller than nor equal to $Q$.
$P+Q$ means $P$ is neither greater than nor equal to $Q$.
Now in each of the following questions, assuming the given statements to be true, find which of the two con-
clusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
81. Statements: $C+E, F \$ U, U^{*} Q, Q @ C$

Conclusions: I. Q \$ E II. Q @ E
82. Statements: U*V,V\$X, W @ M, X + W

Conclusions: I. W @ U II. M \# X
83. Statements: $\mathrm{E}+\mathrm{Q}, \mathrm{F} \$ \mathrm{~V}, \mathrm{G} * \mathrm{Q}, \mathrm{F} @ \mathrm{E}$

Conclusions: I. E \$ V
II. $\mathrm{E}+\mathrm{G}$
84. Statements: F*G, H \$ I, I \# F, H @ L

Conclusions: I. I @ L
II. I $*$ G
85. Statements: $\mathrm{Q} \$ \mathrm{R}, \mathrm{O} \# \mathrm{~N}, \mathrm{~N} @ \mathrm{~S}, \mathrm{~S}$ * Q

Conclusions: I. Q + O
II. R \$ N

Directions (Q. 86-90): In the following questions the symbols $\oplus$, ©, \#, @ and @ used with the following meanings:
$A \oplus B$ means $A$ is neither smaller than nor equal to $B$.
$A$ © $B$ means $A$ is not smaller than $B$.
A \# B means $A$ is neither smaller than nor greater than $B$.
A @ B means A is neither greater than nor equal to $B$.
$A @ B$ means $A$ is not greater than $B$.
Now in each of the following questions, assuming the three statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true.
2) if only conclusion II is true.
3) if either conclusion I or conclusion II is true.
4) if neither conclusion I nor conclusion II is true.
5) if both conclusions I and II are true.
86. Statements: E \# T, S @ L, L@E

Conclusions: I. S \# T
II. S @ T
87. Statements: P© Z, R@ K, Z @ R

Conclusions: I. $\mathrm{P} \oplus \mathrm{R} \quad$ II. $\mathrm{K} \oplus \mathrm{Z}$
88. Statements: M © S, Q@D, M \# D

Conclusions: I. $\mathrm{Q} \oplus \mathrm{M} \quad$ II. $\mathrm{D} \oplus \mathrm{S}$
89. Statements: B \# G, R @ B, Y $\oplus R$

Conclusions: I. $\mathrm{Y} \oplus \mathrm{G} \quad$ II. $\mathrm{Y} @ \mathrm{G}$
90. Statements: $D \subset V, X \oplus D, V \oplus E$

Conclusions: I. $\mathrm{X} \oplus$ V II.E @ D
Directions (Q. 91-95): In the following questions, the symbols $\oplus, \bigcirc, @$, @ and $\delta$ are used with the following meanings:
$\mathrm{P} \oplus \mathrm{Q}$ means P is not smaller than Q .
P © Q means P is neither greater than nor smaller than Q .
P @ Q means P is not greater than Q .
$P @$ @ means $P$ is neither smaller than nor equal to Q .
$\mathrm{P} \delta \mathrm{Q}$ means P is neither greater than nor equal to Q .
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
91. Statements: $\mathrm{Q} \oplus T, \mathrm{~B} \oplus \mathrm{Q}, \mathrm{T} \oplus \mathrm{A}$

Conclusions: I. T @ B
II. A @ Q
92. Statements: U@ $\mathrm{S}_{\mathrm{C}} \mathrm{W} \delta \mathrm{S}, \mathrm{S} @ \mathrm{O}$

Conclusions: I. U $\delta$ W II.W $\delta$ O
93. Statements: $\mathrm{H} @ \mathrm{~K}, \mathrm{~J} @ \mathrm{~K}, \mathrm{R} @ \mathrm{H}$

Conclusions: I. J @ H
II. $\mathrm{R} \oplus \mathrm{J}$
94. Statements: W © Z, M @ L, Z $\oplus \mathrm{L}$

Conclusions: I. M $\delta$ Z
II. L @ W
95. Statements: V $\delta$ P,C®D, P@D

Conclusions: I.V@ D
II. $\mathrm{C} \delta \mathrm{P}$

Directions (Q.96-100): In the following questions the symbols \#, *, @, \$ and = are used with the following meanings:

A \# B means $A$ is neither smaller than nor equal to $B$.
A*B means A is not smaller than B.
$A @ B$ means A is neither smaller than nor greater than $B$.
$A \$ B$ means $A$ is neither greater than nor equal to $B$.
$A=B$ means $A$ is not greater than $B$.
Now in each of the following questions, assuming the three statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true.
2) if onlyeonctusion II is true.
3) if either conclusion I or conclusion II is true.
4) if neither conclusion I nor conclusion II is true.
5) if both conclusions I and II are true.
96. Statements: K \# L, K @ E, L \$ F Conclusions: I. L\#E
II. $F * L$
97. Statements: P@ H, P @ J, P=K

Conclusions: I. J = K
II. J @ H
98. Statements: $3 * 4,5 \$ 6,5=4$

Conclusions: I. 3 * 5
II. 6 \$ 5
99. Statements: Q @ R, S \# R, S * T

Conclusions: I. R \$ S
II. Q \# S
100. Statements: U @ W, W \$ Z, W = Y

Conclusions: I. Z \$ Y
II. Z* Y

Directions ( $\mathrm{Q} .101-106$ ): In the following questions, the symbols $\oplus, \bigcirc \bigcirc, @$, @and $\delta$ are used with the following meanings:
$\mathrm{P} \oplus \mathrm{Q}$ means P is not smaller than Q .
$\mathrm{P} \subseteq \mathrm{Q}$ means P is neither greater than nor smaller than Q . P@ Q means P is not greater than Q .
$P \underline{@} Q$ means $P$ is neither smaller than nor equal to $Q$.
$P \delta Q$ means $P$ is neither greater than nor equal to $Q$.
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both $I$ and II are true.
101. Statements: A@L, L $\delta K, K @ Z$

Conclusions: I. Z@L
II. $\mathrm{A} @ \mathrm{~K}$
102. Statements: O@A, U@O, A@E

Conclusions: I. U@A
II. $E$ @U
103. Statements: $\mathrm{P@} \underset{\mathrm{~T}}{\mathrm{C}}, \mathrm{G} \oplus \mathrm{P}, \mathrm{F} \odot \mathrm{G}$

Conclusions: I. F@P
II.F@T
104. Statements: W@E, P@E, V@W

Conclusions: I. E®V
II.E@V
105. Statements: $M \oplus$ L, O@L, J $\delta L$

Conclusions: I. M@J
II. $\mathrm{O} \delta \mathrm{J}$
106. Statements: H@I, K@L, I@L

Conclusions: I. I@K
II. K@I

Directions (Q. 107-111): In the following questions, the symbols $\alpha, \beta, \gamma, \delta$ and $\eta$ are used with the following meanings:
$P a$ Q means $P$ is not smaller than $Q$.
$P \beta$ Qmeans $P$ is neither greater than nor smaller than $Q$.
$P \gamma$ Q means $P$ is not greater than $Q$.
$P \delta$ Q means $P$ is neither smaller than nor equal to $Q$.
$P \quad \eta$ Q means $P$ is neither greater than nor equal to $Q$.
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
107. Statements: $\mathrm{X} \delta \mathrm{F}, \mathrm{T} \alpha \mathrm{C}, \mathrm{F} \gamma \mathrm{C}$

Conclusions: I. $\mathrm{X} \delta \mathrm{T}$
108. Statements: $2 \delta 8,6 \propto 8,5 \eta 6$

Conclusions: I. $5 \alpha 8$
II. $5 \beta 2$
109. Statements: $S \eta \mathrm{~N}, \mathrm{O} \alpha \mathrm{R}, \mathrm{S} \beta \mathrm{R}$
Conclusions: I. $\mathrm{N} \delta \mathrm{O}$
II. $\mathrm{O} \propto \mathrm{S}$
110. Statements: J $\eta$ Y, J $\alpha$ O, Y $\beta$ K

Conclusions: I. O $\gamma$ K II. O $\eta \mathrm{K}$
111. Statements: $D \beta B, R \eta L, L \delta D$

Conclusions: I. R $\delta$ D
II. L $\delta$ B

Directions ( $\mathrm{Q} .112-116$ ): In the following questions, the symbols $*, \$, \uparrow, \Delta$ and are used with the following meanings:

P* Q means P is greater than Q .
$P \$ Q$ means $P$ is either greater than or equal to $Q$.
$P \not \subset Q$ means $P$ is equal to $Q$.
$\mathrm{P} \Delta \mathrm{Q}$ means P is smaller than Q .
$P \& Q$ means $P$ is either smaller than or equal to $Q$.
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither Inor II is true; and
5) if both $I$ and $I I$ are true.
112. Statements: $I \$ R, Q \Delta C, D \Delta R, Q+I$

Conclusions: I. C*R
II. $D+$ I
113. Statements: $P+L, D \notin K, P \Delta D, Q * L$

Conclusions: I. $\mathrm{P} * \mathrm{~K}$
II. $P_{\Delta} \mathrm{Q}$
114. Statements: $X * Y, N_{\Delta} X, D \not \subset O, D * Y$

Conclusions: I. O*Y
II. $N_{\Delta} \mathrm{Y}$
115. Statements: $L \$ J, Q * J, L \Delta M, Q+D$

Conclusions: I. L*Q
116. Statements: $\mathrm{K} \$ \mathrm{~L}, \mathrm{~J} * \mathrm{O}, \mathrm{K}_{\Delta} \mathrm{T}, \mathrm{O}_{\Delta} \mathrm{L}$ Conclusions: I. $\mathrm{O}+\mathrm{K}$
II. $\mathrm{L}+\mathrm{Q}$

Directions (Q. 117-121): In the following questions, the symbols @ , @, •, $\Delta$ and = are used with the following meanings:
$\mathrm{P} @ \mathrm{Q}$ means P is greater than Q .
$P @ Q$ means $P$ is either greater than or equal to Q .
$P \bullet Q$ means $P$ is equal to $Q$.
$\mathrm{P} \Delta \mathrm{Q}$ means P is smaller than Q .
$\mathrm{P}=\mathrm{Q}$ means P is either smaller than or equal to Q .
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
117. Statements: A@M, D=H, MヤD

Conclusions: I. A@H
II. $\mathrm{M} \bullet \mathrm{H}$
118. Statements: K=L, M@L=N, J@L

Conclusions: I. L@N II.K=J
119. Statements: $\mathrm{I} @ \mathrm{H}, \mathrm{F}=\mathrm{G}, \mathrm{G} \oplus H$

Conclusions: I. G $\Delta$ I
II. G•I
120. Statements: $N=M, O \Delta P, M \bullet O$

Conclusions: I. P@N II.M=P
121. Statements: D@E, E=F, F=G

Conclusions: I. D@G
II. FeG

Directions (Q. 122-126): In the following questions, the symbols $£, \$, @, \approx$ and > are used with the following meanings:
$\mathrm{P} £ \mathrm{Q}$ means P is greater than Q .
$P \$ Q$ means $P$ is either greater than or equal to $Q$.
$\mathrm{P} @ \mathrm{Q}$ means P is equal to Q .
$\mathrm{P} \approx \mathrm{Q}$ means P is smaller than Q .
$\mathrm{P}>\mathrm{Q}$ means P is either smaller than or equal to Q .
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
122. Statements: J > R, P @ R > L, H \$ R

Conclusions: I. R£L
II. $\mathrm{J}>\mathrm{H}$
123. Statements: G \$ F, D > S, S @ F

Conclusions: I. $\mathrm{S} \approx \mathrm{G}$
II. S @ G
124. Statements: $Y>H, P \approx N, H$ @ $P$ Conclusions: I. N $£ \mathrm{Y}$
125. Statements: $M £ N, N>Q, Q>D$

Conclusions: I. M£ D
II. Q @ D
126. Statements: $V £ X, U>Z, X$ @ $U$

Conclusions: I. V£Z
Directions ( $Q .127-131$ ): In the following questions, the symbols @, @, $\alpha, \neq$ and $\underset{\text { 玉 }}{ }$ are used with the following meanings:
$P * Q$ means $P$ is greater than $Q$.
$P @ Q$ means $P$ is either greater than or equal to $Q$.
$P \propto Q$ means $P$ is equal to $Q$.
$P @ Q$ means $P$ is neither greater than nor equal to $Q$.
$P$ Q means $P$ is either smaller than or equal to $Q$.
Now in each of the following questions assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
127. Statements: D $\%$ F $\mathrm{E} \underset{\mathrm{B}}{\mathrm{B}}, \mathrm{F} \propto \mathrm{E}$

Conclusions: I. D \& B
II. F $\alpha$ B
128. Statements: K B, B $\underset{\mathrm{F}}{\mathrm{C}}, \mathrm{C} \underset{\mathrm{*}}{\mathrm{q}} \mathrm{M}$

Conclusions: I. K \& M
II. $\mathrm{C} \propto \mathrm{M}$
129. Statements: R $\mathrm{S}, \mathrm{N}$ @ $\mathrm{O}, \mathrm{S} \alpha \mathrm{N}$

Conclusions: I. O $\neq \mathrm{R}$ II. $\mathrm{S} \underset{\mathrm{O}}{\mathrm{O}}$
130. Statements: H@P, R \& F, F $\alpha$ P

Conclusions: I. F @ H II.F $\alpha$ H
131. Statements: T $\underset{-}{ } \mathrm{V}, \mathrm{U} \alpha \mathrm{V} \underset{\sim}{\mathrm{M}} \mathrm{M}, \mathrm{I} \psi \mathrm{V}$

Conclusions: I. V $\alpha$ M II. T @ I
Directions (Q. 132-136): In the following questions, the symbols @, \#, $\in, \bigcirc$ and $\Psi$ are used with the following meanings:
$\mathrm{P} @ \mathrm{Q}$ means P is not smaller than Q .
P \# Q means P is neither greater than nor smaller than Q .
$\mathrm{P} \in \mathrm{Q}$ means P is not greater than Q .
$P$ © $Q$ means $P$ is neither smaller than nor equal to $Q$.
$\mathrm{P} \Psi \mathrm{Q}$ means P is neither greater than nor equal to Q .
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either $I$ or $¥$ is true;
4) if neither I nor II is true; and
5) if both I and II are true.
132. Statements: R@K, P@S, P\#K

133. Statements: H@Y, E@C,K Y Y, K@C

Conclusions: I. $H \in E$
II. $\mathrm{E} \Psi \mathrm{H}$

Directions (Q. 137-141): In the questions given below, certain symbols are used with the following meanings:
$\mathrm{P}^{*} \mathrm{Q}$ means P is neither equal to nor smaller than Q .
$\mathrm{P} \oplus \mathrm{Q}$ means P is not smaller than Q .
$\mathrm{P} \$ \mathrm{Q}$ means P is neither greater nor smaller than Q .
$P £ Q$ means $P$ is neither greater than nor equal to $Q$.
$\mathrm{P} @ \mathrm{Q}$ means P is not greater than Q .
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true.
2) if only conclusion II is true.
3) if either conclusion I or II is true.
4) if neither conclusion I nor II is true.
5) if both conclusions I and II are true.
137. Statements: E£ F, O $\oplus$ F, P @ E

Conclusions: I. F * P
II. $\mathrm{P} £ \mathrm{~F}$
138. Statements: C*P, P @ D, C \$ G

Conclusions: I. G£D
139. Statements: S @ T, Q \$ N, T£ N

Conclusions: I. S£N
II. S \$ Q
140. Statements: L*K, V $\oplus$ K, R \$ L

Conclusions: I. V £L
141. Statements: $\mathrm{H} \oplus \mathrm{J}, \mathrm{J} * \mathrm{Z}, \mathrm{M} \oplus \mathrm{J}$

Conclusions: I. H* M
Directions (Q. 142-146): In the following questions, the symbols $=,>,+,<$ and $\times$ are used with the following meanings:
$P=Q$ means $P$ is not smaller than $Q$.
$P>Q$ means $P$ is neither greater than nor smaller than $Q$.
$\mathrm{P}+\mathrm{Q}$ means P is not greater than Q .
$\mathrm{P}<\mathrm{Q}$ means P is neither smaller than nor equal to Q .
$\mathrm{P} \times \mathrm{Q}$ means P is neither greater than nor equal to Q .
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.

145. Statements: $R=U, B<R, K+U$

Conclusions: I. $\mathrm{U} \times \mathrm{B}$
II. B < K
146. Statements: $M>H, 2 \times H, 2+N$

Conclusions: I. $\mathrm{M} \times 2$
II. $\mathrm{M}<\mathrm{N}$

Directions (Q. 147-151): In the following questions, the symbols $+, \Leftrightarrow,=, *$ and @ are used with the following meanings:
$\mathrm{P}+\mathrm{Q}$ means P is not smaller than Q .
$P \Leftrightarrow Q$ means $P$ is neither greater than nor smaller than $Q$.
$\mathrm{P}=\mathrm{Q}$ means P is not greater than Q .
$P * Q$ means $P$ is neither smaller than nor equal to $Q$.
$P$ @ Q means P is neither greater than nor equal to Q .
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
147. Statements: $B+F, P @ R, M \Leftrightarrow F, M=P$

Conclusions: I. B + M
II. M @ R
148. Statements: $E=H, 6 * P, R @ E, 6 \Leftrightarrow R$

Conclusions: I. E * P
II. $\mathrm{H} * \mathrm{P}$
149. Statements: $M @ N, R \Leftrightarrow Q, A * Q, M * R$

Conclusions: I. A*R
II. $N=Q$
150. Statements: B @ D, E $=$ T, T + P, P * B

Conclusions: I. P=D
II. $P$ * D
151. Statements: $P=Q, N \Leftrightarrow M, M * R, R+P$

Conclusions: I. $P * N$
II. $Q=M$

Directions ( $Q .152-156$ ): In the following questions, the symbols, *, \# \$, @ and + are used with the following meanings:
$\mathrm{P} * \mathrm{Q}$ means P is not smaller than Q .
$P$ \# $Q$ means $P$ is neither greater than nor smaller than $Q$.
$\mathrm{P} \$ \mathrm{Q}$ means P is not greater than Q .
$P @ Q$ means $P$ is neither smaller than nor equal to $Q$.
$P+Q$ means $P$ is neither greater than nor equal to $Q$.
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
Statements: P @ Q, Q *R, R \# S, T + S

153. Statements: $S$ \$ A, A + K, R $* K, L * R$

Conclusions: I. S \$ L
154. Statements: G @ H,F+H, K*P, M \$ P

Conclusions: I. K @ M
155. Statements: A + P, Z + A, N\$Z, L\$N

Conclusions: I. P@L
II. P\#L
156. Statements: A@P, Z@A, N*Z, L*N

Conclusions: I. P\#L
II. $\mathrm{P}+\mathrm{L}$

Directions (Q. 157-161): In the following questions the symbols $@, \$, £, \otimes$ and $\bullet$ are used with the following meanings:
$P @ Q$ means $P$ is either equal to or smaller than Q .
$\mathrm{P} \$ \mathrm{Q}$ means P is neither greater than nor smaller than Q .
$P £ Q$ means $P$ is neither greater than nor equal to $Q$.
$P \otimes Q$ means $P$ is either greater than or equal to $Q$.
$P \bullet Q$ means $P$ is not equal to $Q$.
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true.

2 ) if only conclusion II is true.
3) if either conclusion I or II is true.
4) if neither conclusion I nor II is true.
5) if both conclusions I and II are true.
157. Statements: $N \$ P, \quad Q \bullet P, \quad M \otimes N$ Conclusions: I. M@P
II. N\$Q
158. Statements: $N \otimes U, \quad O \bullet E, \quad E @ N$

Conclusions: I.E@U
II. U£O
159. Statements: $M £ P, \quad Z \$ H, \quad M \otimes Z$

Conclusions: I. P@Z
II. $\mathrm{M} @ \mathrm{H}$
160. Statements: $U \otimes V, \quad V @ X, \quad W \$ U$

Conclusions: I. W\$V
II. W@X
161. Statements: D£E, E@F, F $\otimes G$

Conclusions: I. D\$G
II.E@G

Directions ( $Q$ 162-166): In the questions given below, certain symbols are used with the following meanings:
$P \bullet Q$ means $P$ is neither equal to nor smaller than $Q$.
$P \oplus Q$ means $P$ is not smaller than $Q$.
$P \$ Q$ means $P$ is neither greater nor smaller than $Q$.
$P £ Q$ means $P$ is neither greater than nor equal to $Q$.
P @ Q means P is not greater than Q .
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true.
2) if only conclusion II is true.
3) if either conclusion I or II is true.
4) if neither conclusion I nor II is true.
5) if both conclusions I and II are true.
162. Statements: $T \oplus U, Q @ R, R £ U$

163. Statements: K@L, N@O, L\$O

Conclusions: I. L@N II.N\$L
Directions (Q. 167-171): In the following questions, the symbols $\boldsymbol{*}$ and \# are used with the following meanings: * PQ means P is not smaller than Q .
$P * Q$ means $P$ is neither greater than nor smaller than $Q$. $\mathrm{P} \# \mathrm{Q}$ means Q is neither greater than nor smaller than Q .
$\mathrm{PQ} *$ means P is not greater than Q .
\#PQ means $P$ is neither smaller than nor equal to $Q$.
$P Q \#$ means $P$ is neither greater than nor equal to Q .
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true.
2) if only conclusion II is true.
3) if either conclusion I or II is true.
4) if neither conclusion I nor II is true.
5) if both conclusions I and II are true.
167. Statements: \#XF, *TC, FC*

Conclusions: I. \#XT II. *CX
168. Statements: \#28, *68, 56\#

Conclusions: I. *58 II.5\#2
169. Statements: SN\# *OR, S*R

Conlusions: I. \#NO
II. *OS
170. Statements: JY\#, * JO, Y\#K

Conlusions: I. OK*
II. OK\#
171. Statements: D*B, RL\#, \#LD

Conclusions: I. \#RD
II. \#LB

Directions (Q. 172-176): In the questions given below, certain symbols are used with the following meanings: A @ B means A is greater than B.
$A * B$ means $A$ is either greater than or equal to $B$.
A \# B means $A$ is equal to $B$.
$A \$ B$ means $A$ is either smaller than or equal to $B$.
$A+B$ means $A$ is smaller than $B$.
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion Iis true.
2) if only conclusion II is true.
3) if either conclusion I or II is true.
4) if neither conclusion I nor II is true.
5) if both conclusions I and II are true.
172. Statements: $\mathrm{B}^{*} \mathrm{I}, \mathrm{Y}+\mathrm{A}, \mathrm{N} \$ \mathrm{I}, \mathrm{Y} @ \mathrm{~N}$

Conclusions: I. B @ A
II. $\mathrm{Y}+\mathrm{I}$
173. Statements: $M^{*} A, P \$ O, A * N, N \$ P$

Conclusions: I. M \# N
II. O \# N
174. Statements: Q\$P, T\#Q, T*N, N@J

Conclusions: I. P @ N
175. Statements: L\#K, S\#K, L*B, R\$B

Conclusions: I. R + K
176. Statements: H@T, T@D, G\$F, G*P

Conclusions: I. P\$F
II. P \# N

Directions (Q. 177-181): In the questions given below,
certain symbols are used with the following meanings:
$P @ Q$ means $P$ is neither equal to nor smaller than $Q$.
$P \times Q$ means $P$ is not smaller than $Q$.
$\mathrm{P}-\mathrm{Q}$ means P is neither greater nor smaller than Q .
$P \div Q$ means $P$ is neither greater than nor equal to $Q$.
$\mathrm{P}+\mathrm{Q}$ means P is not greater than Q .
$\mathrm{P} \subset \mathrm{Q} P$ is not equal to Q .
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true.
2) if only conclusion II is true.
3) if either conclusion I or II is true.
4) if neither conclusion I nor II is true.
5) if both conclusions I and II are true.
177. Statements: J-O, T + O, T © Y, E $\times J$

Conclusions: I. E © T
II.E @ T
178. Statements: $T \div R, P$ @ $A, R+A, L-T$

Conclusions: I . $\div \mathrm{P}$
II. A @ L
179. Statements: T © O, O © P, P-A, A×Z

Conclusions: I. P© T
II. O © A
180. Statements: D $\times$ E, S $\div$ E, S - X, M @ S

Conclusions: I. D @ M
181. Statements: A + P, A @ T, T $-N, N \times S$

Conclusions: I. $\mathrm{P} \times \mathrm{S}$
II. $\mathrm{P}+\mathrm{S}$

Directions ( Q .182 -186): In the questions given below,
certain symbols are used with the following meanings:
$\mathrm{P} @ \mathrm{Q}$ means P is neither equal to nor smaller than Q .
$\mathrm{P} \times \mathrm{Q}$ means P is not smaller than Q .
$P-Q$ means $P$ is neither greater nor smaller than $Q$.
$P \div Q$ means $P$ is neither greater than nor equal $Q$.
$\mathrm{P}+\mathrm{Q}$ means P is not greater than Q .
P © $\mathrm{Q} P$ is not equal to Q .
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give Answer

1) if only conclusion I is true.
2) if only conclusion II is true.
3) if either conclusion I or II is true.
4) if neither conclusion I nor II is true.
5) if both conclusions I and II are true.
182. Statements: G@H, T+H, T-K, K@Z

Conclusions: I. G $\times Z \quad$ II. G+Z
183. Statements: $N \bigcirc U, U+M, N \times B, M-R$

Conclusions: I. $\mathrm{R} \times \mathrm{U}$
II. $\mathrm{M} \times \mathrm{B}$
184. Statements: $P \div$ M, $R \times M, S-R, S @ Y$

Conclusions: I. R@Y II. $\mathrm{P} \div \mathrm{Y}$
185. Statements: $L \odot M, M @ N, R \div N, R \times F$

Conclusions: I. M@F II. $\div \div \mathrm{N}$
186. Statements: G@H, I $\div \mathrm{H}, \mathrm{P} \times \mathrm{Q}, \mathrm{Q} @ \mathrm{R}$
II. P@R
Conclusions: $I . G \div I \quad$ (192): In the following questions,
the symbols !, @, \#, \$ and * are used with the following meanings:
$P!Q$ means $P$ is neither smaller than nor equal to $Q$.
$\mathrm{P} @ \mathrm{Q}$ means P is not smaller than Q .
$P \# Q$ means $P$ is neither greater than nor smaller than $Q$.
$P \$ Q$ means $P$ is neither greater than nor equal to $Q$.
$\mathrm{P}^{*} \mathrm{Q}$ means P is not greater than Q .
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true.
2) if only conclusion II is true.
3) if either conclusion I or II is true.
4) if neither conclusion I nor II is true.
5) if both I and II are true.
187. Statements: N!O, O\#Q, R\$Q, O*S

Conclusions: I. N!R II. Q\#S
188. Statements: T@U, U!Q, Q\$S, S\$U

Conclusions: I. T!S
II. T! Q
189. Statements: C\$D, D\#E, E!F, F!G

Conclusions: I. D!G
II. C! $G$
190. Statements: K@L, L!I, I\$M, I!N

Conclusions: I. L\$M
II. K ! N
191. Statements: $V^{*}$ X, X\$Y, Y\#Z, Y!A

Conclusions: I. Y!V II. X!A
192. Statements: L!M, M!N, L@O, P*O

Conclusions: I. N\$L II.P*L
Directions (Q. 193-197): In the questions given below, certain symbols are used with the following meanings:
$P @ Q$ means $P$ is neither equal to nor smaller than Q . $\mathrm{P} \times \mathrm{Q}$ means P is not smaller than Q .
$P-Q$ means $P$ is neither greater nor smaller than $Q$.
$P \div Q$ means $P$ is neither greater than nor equal to $Q$.
$\mathrm{P}+\mathrm{Q}$ means P is not greater than Q .
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true.
2) if only conclusion II is true.
3) if either conclusion I or II true.
4) if neither conclusion I nor II is true.
5) if both conclusions I and II are true.
193. Statements: B@C, A @ B, C $\times$ D

Conclusions: I. $\mathrm{A} \times \mathrm{D} \quad$ II. B @ D
194. Statements: $M-N, N+P, P \times R$

Conclusions: I. $\mathrm{P} \times \mathrm{M}$
II. $R+P$
195. Statements: $X @ R, R \div S, X-T$

Conclusions: I. $\mathrm{T} \times \mathrm{S}$
II. $T \div S$
196. Statements: R @ M, M - Y, Y $\times$ Z

Conclusions: $\mathrm{I} . \mathrm{Z} \div \mathrm{R}$
II. Z @ R
197. Statements: $T-Y, P \times X, P+Y$

Conclusions: I. P-X II.P-Y
Directions (Q. 198-202): In the following questions, the symbols \#, @, ©, \$, £ are used with the following meanings:

P \# Q means P is greater than Q .
$P @ Q$ means $P$ is either greater than or equal to $Q$.
$P \subset Q$ means $P$ is equal to $Q$.
$\mathrm{P} \$ \mathrm{Q}$ means P is smaller than Q .
$P £ Q$ means $P$ is either smaller than or equal to $Q$.
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
198. Statements: K © Y, N © I, I @ K, N £ P

Conclusions: I. P \# I
II. Y \$ I
199. Statements: V \# I, C \$ I, C © Y, K @ C Conclusions: I. Y $£ \mathrm{~K}$
II. I \# K
200. Statements: K @ N, S \# T, I \$ N, T£ I

Conclusions: I. T£K II. T \$ K
201. Statements: L@E, E \# P, P © R, R @ D

Conclusions: I. D \$ L
II. $\mathrm{D} \subset \mathrm{L}$
202. Statements: T @ I, R \# T, N £ I, S @ I

Conclusions: I. N \$ S
II. N © S

Directions (Q. 203-207): In the following questions, the symbols !, @, \#, \$ and * are used with the following meanings:
$P!Q$ means $P$ is neither smaller than nor equal to $Q$.
$\mathrm{P} @ \mathrm{Q}$ means P is not smaller than Q .
$\mathrm{P} \# \mathrm{Q}$ means P is neither greater than nor smaller than Q .
$P \$ Q$ means $P$ is neither greater than nor equal to $Q$.
$P * Q$ means $P$ is not greater than Q .
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true.
2) if only conclusion II is true.
3) if either conclusion I or II is true.
4) if neither conclusion I nor II is true.
5) if both I and II are true.
203. Statements: G@H, T*S, H\#O, O!S

Conclusions: I. S * G II.H@T
204. Statements: M@E, A\#P, L*P, A\$M

Conclusions: I. E!A II.E*P
205. Statements: Z!E, R*Z, E@B, A\$R

Conclusions: I. E!R
II. B \$A
206. Statements: K*T, S@G, G\#H\#T

Conclusions: I. S!K II. K\#S
207. Statements: P@S, A*D, A!I, I\#S

Conclusions: I. P@I
II. S\$D

Directions (Q. 208-212): In the following questions, the symbols !, @, \#, \$ and * are used with the following meanings:
$\mathrm{P}!\mathrm{Q}$ means P is neither smaller than nor equal to Q . $\mathrm{P} @ \mathrm{Q}$ means P is not smaller than Q .
$P \# Q$ means $P$ is neither greater than nor smaller than $Q$.
$P \$ Q$ means $P$ is neither greater than nor equal to $Q$.
$P * Q$ means $P$ is not greater than $Q$.
Now in each of the following questions, assuming the
given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true.
2) if only conclusion II is true.
3) if either conclusion I or II is true.
4) if neither conclusion I nor II is true.
5) if both I and II are true.
208. Statements: $P!Q, M * K, T * K$

Conclusions: I. T! M II. T \# M
209. Statements: S \$ M, M ! L, L @ Z

Conclusions: I. S \# Z
II. $S$ ! Z
210. Statements: D ! F, F \# S, S * M

Conclusions: I. F! M
II. F @ M
211. Statements: J \# V, V \$ N, R* J

Conclusions: I. N! R
II. J @ N
212. Statements: L @ U, C \$ L, C ! B

Conclusions: I. C @ U
II. $C * U$

Directions (Q. 213-217): In the following questions the symbols $+, \times, ?, @$ and $\$$ are used with the following mean-
ing：
$A+B$ means $A$ is neither smaller nor greater than $B$ ．
$A \times B$ means $A$ is neither equal to nor smaller than $B$ ．
A ？ B means A is neither greater nor equal to B ．
A＠B means A is either greater or equal to B．
$A \$ B$ means $A$ is not equal to $B$ ．
Now，in each of the following questions，assuming the given statements to be true，find which of the two conclu－ sions I and II given below them is／are definitely true．Give answer

1）if only conclusion I is true．
2）if only conclusion II is true．
3）if either conclusion I or II is true．
4）if neither conclusion I nor II is true．
5）if both conclusions I and II are true．
213．Statements：R＠P，B？P，E＋B，F×B
Conclusions：I．P？F II． $\mathrm{R} \times \mathrm{F}$
214．Statements：G\＄H，L＋K，H＋E，M\＄K
Conclusions：I．G＠E II．L＠M
215．Statements：B＠K，T？B，T＠K，K×S
Conclusions：I．T＠S II．T×S
216．Statements：F×K，P＋K，P＠H，T？P
Conclusions：I．T？F II．H？F
217．Statements：D\＄L，L＋P，P\＄T，T＠Z
Conclusions：I．D\＄T
II．$T+D$
Directions（Q．218－222）：In the questions given below， certain symbols are used with the following meanings：
$\mathrm{P}+\mathrm{Q}$ means P is neither smaller nor equal to Q ．
$\mathrm{P} \Delta \mathrm{D}$ means P is not smaller than Q ．
$P \$ Q$ means $P$ is neither greater nor smaller than $Q$ ．
$P$ 准 Q means P is neither greater nor equal to Q ．
$P \square Q$ means $P$ is not greater than $Q$ ．
Now in each of the following questions，assuming the given statements to be true，find which of the two conclu－ sions I and II given below them is／are definitely true．Give answer

1）if only conclusion I is true．
2）if only conclusion II is true．
3）if either conclusion $I$ or $H$ is true．
4）if neither conclusion I nor II is true．
5）if both conclusions I and II are true．
218．Statements：F＋A，I 製 R，I $\square$ A，I＋L
Conclusions：I．L 准 R｀II．F +L
219．Statements：$P$ 率 $M, K \Delta P, S \square P, S \Delta G$
Conclusions：I．M＋G II．G $\square \mathrm{K}$
220．Statements：N $\Delta T$ ，G\＄L\＄T，S 资 L
Conclusions：I．N＋L II．N \＄L
221．Statements：M\＄P，$S \square M, S \Delta Z, T \square P$
Conclusions：I．P $\Delta Z \quad$ II．P■Z
222．Statements： $\mathrm{H} \Delta \mathrm{K}, \mathrm{T} \square \mathrm{H}, \mathrm{K} \$ \mathrm{~F}, \mathrm{~S} \$ \mathrm{~T}$
Conclusions：I．K $\Delta$ T II．F $\square S$
Directions（Q．223－227）：In the questions given below， certain symbols are used with the following meanings：
$\mathrm{P}+\mathrm{Q}$ means P is neither smaller nor equal to Q ．
$\mathrm{P} \Delta \mathrm{D}$ means P is not smaller than Q ．
$\mathrm{P} \$ \mathrm{Q}$ means P is neither greater nor smaller than Q ．
$P$ 米 Q means P is neither greater nor equal to Q ．
$P \square Q$ means $P$ is not greater than $Q$ ．

P \＃Q means P is not equal to Q ．
Now in each of the following questions，assuming the given statements to be true，find which of the two conclu－ sions I and II given below them is／are definitely true．Give answer

1）if only conclusion I is true．
2）if only conclusion II is true．
3）if either conclusion I or II is true．
4）if neither conclusion I nor II is true．
5）if both conclusions I and II are true．
223．Statements： $\mathrm{S}+\mathrm{P}, \mathrm{L} \square \mathrm{Q}, \mathrm{P} \# \mathrm{R}, \mathrm{R} \$ \mathrm{Q}$
Conclusions：I．L类S
II．$Q^{\text {数 } P}$
224．Statements：$M \Delta T$ ，G $\square T, G \Delta H$ ，T率K
Conclusions：I．H滐K
225．Statements：T资F，T $\square \mathrm{P}, \mathrm{G} \# \mathrm{~T}, \mathrm{~T} \# \mathrm{P}$
Conclusions：I．G\＃P
II．$H \square M$

226．Statements：K\＄R，R\＃T，T\＃Z，Z\＄S
Conclusions：I．K＋T
II． K 楼 T
227．Statements：Q\＄M，M＋N，N\＄P，L $\square$ P
Conclusions：I．Q＋L
II． $\mathrm{P}^{*} \mathrm{M}$
Directions（Q．228－232）：In the questions given below certain symbols are used with the following meaning：

In the following questions，the symbols $\delta, \gamma, \alpha, \beta$ and $\eta$ are used with the following meanings：

A $\beta$ B means $A$ is neither greater than nor equal to $B$ ．
A $\gamma \mathrm{B}$ means A is neither greater than nor smaller than B ．
$\mathrm{A} \alpha \mathrm{B}$ means A is not greater than B ．
$\mathrm{A} \delta \mathrm{B}$ means A is not smaller than B ．
$A \eta B$ means $A$ is neither smaller than nor equal to $B$ ．
Now in each of the following questions，assuming the given statements to be true，find which of the two conclu－ sions L and II given below them is／are definitely true．Give answer

1）if only conclusion I is true．
2）if only conclusion II is true．
3）if either conclusion I or H is true．
4）if neither conclusion I nor II is true．
5）if both conclusions I and II are true．
228．Statements：$M \delta N, L \gamma M, L \eta O$
Conclusions：I．O $\delta \mathrm{N}$
II． $\mathrm{O} \beta \mathrm{N}$
229．Statements：A $\beta$ C，P $\gamma \mathrm{Q}, \mathrm{Q} \alpha \mathrm{R}$
Conclusions：I．A $\alpha \mathrm{R} \quad$ II． $\mathrm{P} \beta \mathrm{R}$
230．Statements：W $\gamma \mathrm{X} \eta \mathrm{V}, \mathrm{X} \eta \mathrm{Y}, \mathrm{Y} \beta \mathrm{Z}$
Conclusions：I．Z $\eta$ V
II．$W \eta$ V
231．Statements： $\mathrm{M} \alpha \mathrm{N}, \mathrm{N} \beta \mathrm{O}, \mathrm{O} \beta \mathrm{P}$
Conclusions：I．M $\beta$ P II．O $\eta \mathrm{M}$
232．Statements：$R \eta A, S \beta B, A \eta B$
Conclusions：I．S $\beta$ R
II．B $\alpha$ R
Directions（Q．233－237）：In the following questions
the symbols＠，＠，＝，$\alpha$ and $\underline{\alpha}$ are used with the following meanings：

A @ B means A is greater than B,
$A @ B$ means $A$ is either greater than or equal to $B$,
$A=B$ means $A$ is equal to $B$,
$A \propto B$ means $A$ is smaller than $B$, and
A $\underline{\alpha} B$ means $A$ is either smaller than or equal to $B$.
Now in each of the following questions, assuming the three statements to be true, state which of the two conclusions I and II given below them is definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
233. Statements: $P=Q, R @ P, Q \underline{\alpha} S$

Conclusions: I. S @ P II. S = P
234. Statements: $X @ Y, Y=R, Y \propto S$

Conclusions: I. X@R
II. $\mathrm{R} \alpha \mathrm{Y}$
235. Statements: $P \propto Q, Q \propto R, R=S$.

Conclusions: I. $\mathrm{P} \propto \mathrm{S} \quad$ II. S @ Q
236. Statements: A @ B, B $\underline{\alpha} \mathrm{C}, \mathrm{C} @ \mathrm{D}$

Conclusions: I. $A=D$.
II. A $\alpha$ D.
237. Statements: $P \propto Q, R @ S, Q=R$

Conclusions: I. P $\alpha$ R II. P @ R
Directions (Q. 238-242): In the following question the symbols \#, *, @, \$ and = are used with the following meanings:

A \# B means $A$ is greater than $B$.
$A * B$ means $A$ is greater than or equal to $B$.
$A @ B$ means $A$ is equal to $B$.
$A \$ B$ means $A$ is lesser than $B$.
$A=B$ means $A$ is lesser than or equal to $B$.
Now in each of the following questions, assuming the three statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true.
2) if only conclusion II is true.
3) if either conclusion I or conclusion II is true.
4) if neither conclusion I nor conclusion II is true.
5) if both conclusions I and II are true.
238. Statements: E F F, F @ G, H * G

Conclusions: I. G \$ F
II. G \$E
239. Statements: A @ B, A*C, C \# D

Conclusions: I. B = C
II. A @ D
240. Statements: O * P, O \# Q , O = R

Conclusions: I. P \$ R
II. R @ P
241. Statements: N = O, P \$ O, P \# R

Conclusions: I. N \$ O
II. $\mathrm{O}=\mathrm{R}$
242. Statements: L\$ M, N * M, M * O

Conclusions: I. L \$ N
II. $\mathrm{N}^{*} \mathrm{O}$

Directions (Q. 243-247) : In the following questions; the symbols $\mathbf{m}, \mathrm{m} \rightarrow, \mathbf{n}, \mathrm{n} \rightarrow$ and $\leftrightarrow$ are used as follows:

A m B means A is greater than B
$A m \rightarrow B$ means $A$ is greater than or equal to $B$
$A \leftrightarrow B$ means $A$ is equal to $B$
$A n B$ means $A$ is less than $B$
$A n \rightarrow B$ means $A$ is less than or equal to $B$.
Now, assume the three given statements to be definitely true in each of the given questions. Then decide which of the given conclusions are definitely true. Give answer

1) if only conclusion I follows
2) if only conclusion II follows
3) if either conclusion I or II follows
4) if neither I nor II follows
5) if both I and II follow
243. Statements: B m C, A m B , C m $\rightarrow$ D

Conclusions I. A m $\rightarrow$ D
II. BmD
244. Statements: $\mathrm{M} \leftrightarrow \mathrm{N}, \mathrm{Nn} \rightarrow \mathrm{P}, \mathrm{Pm} \rightarrow \mathrm{R}$

Conclusions I. $\mathrm{Pm} \rightarrow \mathrm{M} \quad$ II. $\mathrm{Rn} \rightarrow \mathrm{P}$
245. Statements: $X m R, R n S, X \leftrightarrow T$

Conclusions I. Tm $\rightarrow$ II.TnS
246. Statements: RmM M M $\leftrightarrow \mathrm{Y}, \mathrm{Ym} \rightarrow \mathrm{Z}$

Conclusions I. Zn R II. Zm A
247. Statements: $\mathrm{X} \leftrightarrow \mathrm{Y}, \mathrm{Pm} \rightarrow \mathrm{X}, \mathrm{Pn} \rightarrow \mathrm{Y}$

Conclusions I. $\mathrm{P} \leftrightarrow \mathrm{X} \quad$ II. $\mathrm{P} \leftrightarrow \mathrm{Y}$
Directions (Q. 248-252): In the following question the symbols \#, *, @, \$ and = are used with the following meanings:

A \# B means A is greater than B.
the three statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true.
2) if only conclusion II is true.
3) if either conclusion I or conclusion II is true.
4) if neither conclusion I nor conclusion II is true.
5) if both conclusions I and II are true.
248. Statements: S \$ M, M \# L, L*Z

Conclusions: I. S @ Z
II. $S=L$
249. Statements: J @ L, V \$ N, R=J Conclusions: I. R \$ N
II. J * N
250. Statements: L* U, C \$ L, C \# B

Conclusions: I. U @ C
II. L\#B
251. Statements: D \# F , F @ S, S = M

Conclusions: I. D \# M
II. F * M
252. Statements: P\# T, M = K, T @ K

Conclusions: I. T \# M
II. T @ M

Directions（Q．253－257）：In the following question the symbols \＃，＊，＠，\＄and＝are used with the following meanings：

A \＃B means A is greater than B．
$A * B$ means $A$ is greater than or equal to $B$ ．
$A @ B$ means $A$ is equal to $B$ ．
A \＄B means A is lesser than B．，
$A=B$ means $A$ is lesser than or equal to $B$ ．
Now in each of the following questions，assuming the three statements to be true，find which of the two conclu－ sions I and II given below them is／are definitely true．Give answer

1）if only conclusion I is true．
2）if only conclusion II is true．
3）if either conclusion I or conclusion II is true．
4）if neither conclusion I nor conclusion II is true．
5）if both conclusions I and II are true．
253．Statements：$S=T, T * U, T \$ V$
Conclusions：I．T \＄S II． $\mathrm{U}=\mathrm{V}$
254．Statements：K\＃L，K＊M，M \＄N
Conclusions：I．L＠M
II．M＠K
255．Statements：$F=G, F * H, F=K$
Conclusions：I． $\mathrm{G}=\mathrm{K}$
II．K \＄H
256．Statements：T＠S，R \＄Q，Q＠T
Conclusions：I． Q ＊S
II．S \＃R
257．Statements：B \＃C，C \＄D，E \＄C
Conclusions：I．D \＃B
II． $\mathrm{D}=\mathrm{C}$
Directions（Q．258－262）：In the following questions， the symbols＊，$\bullet, \bigcirc,+$ and $\bullet$ areusedwiththefollowing meanings：
$P * Q$ means $P$ is not smaller than $Q$ ．
$P \bullet Q$ means $P$ is neither greater than nor smaller than $Q$ ．
$\mathrm{P} \bullet \mathrm{Q}$ means P is not greater than Q ．
$P \bigcirc Q$ means $P$ is neither smaller than nor equal to $Q$ ．
$P+Q$ means $P$ is neither greater than nor equal to $Q$ ．
Now in each of the following questions，assuming
the given statements to be true，find which of the two con－ clusions I and II given below them is／are definitely true．Give answer

1）if only conclusion I is true；
2）if only conclusion II is true；
3）if either I or II is true；
4）if neither I nor II is true；and
5）if both I and II are true．
258．Statements：P＊L，N $\odot Q, M * N, M * L$
Conclusions：I．P®N II．NӨP
259．Statements： $\mathrm{R}+\mathrm{L}, \mathrm{M}+\mathrm{L}, \mathrm{L} \cdot \mathrm{C}, \mathrm{M} * \mathrm{P}$
Conclusions：I．L®P II．R $\bigcirc \mathrm{P}$
260．Statements：R－L，G•P，L•Q，P＊Q
Conclusions：I．G甲L II．R－G
261．Statements：$T+S, M \odot H, T \odot Q, G-H$
Conclusions：I．S®G
II．$S+G$

262．Statements： $\mathrm{Q} \bullet \mathrm{R}, \mathrm{P} * \mathrm{Q}, \mathrm{B} \cdot \mathrm{R}, \mathrm{G} * \mathrm{P}$
Conclusions：I．G○B II．POR
Directions（Q．263－267）：In the following questions， the symbols $■, \square, \mathscr{A}, \bullet$ and $\bullet$ are used with the following meanings．
$\mathrm{P} \square \mathrm{Q}$ means P is not smaller than Q ．
P\＆Q means $P$ is neither greater than nor smaller than $Q$ ．
$\mathrm{P} \bigcirc \mathrm{Q}$ means P is not greater than Q ．
$P ■ Q$ means $P$ is neither smaller than nor equal to $Q$ ．
$P \bullet Q$ means $P$ is neither greater than nor equal to $Q$ ．
Now in each of the following questions，assuming the given statements to be true，find which of the two con－ clusions I and II given below them is／are definitely true．Give answer

1）if only conclusion I is true；
2）if only conclusion II is true；
3）if either I or II is true；
4）if neither I nor II is true；and
5）if both I and II are true．
263．Statements：L\＆M，SOM，M■N，QロL
Conclusions：I．N＠Q II．Q\＆N
264．Statements：S•G，RロJ，K■R，KOS
Conclusions：I．R•G
II．JOS
265．Statements：MロG，T•K，S\＆G，KOS
Conclusions：I．MロT II．TOS
266．Statements：NOS，GロS，Q\＆THG，LロN
Conclusions：I．GロL II．GOL
267．Statements：P■S，T•S，KON，KロM
Conclusions：I．PロT II．NロM
Directions（ $\mathbf{Q} .268-272$ ）：In the question given below certain symbols are used with the following meanings：
$A \not B$ mean $A$ is neither smaller than nor equal to $B$ ．
$A$ \＆B mean $A$ is not smaller than $B$ ．
$A \circ B$ mean $A$ is neither greater than nor equal to $B$ ．
$A$ © $B$ means $A$ is not greater than $B$ ．
$A-B$ means $A$ is equal to $B$ ．
$A-B$ means $A$ is not equal to $B$ ．
Now in each of the following questions，assuming
the given statements to be true，find which of the two con－ clusions I and II given below them is／are definitely true．Give answer

1）if only conclusion I is true．
2）if only conclusion II is true．
3）if both I and II are true．
4）if neither I nor II is true．
5）if either I or II is true．
268．Statements：$L \nleftarrow M, P \oplus N, S \odot P, M \square N$
Conclusions：I．P■M II．M\＆S
269．Statements：G\＆PP，Q■M，ZOM，Q®P
Conclusions：I．GӨP II．G $\& \mathrm{Q}$
270．Statements：R®L，Y T，Y＠S，R\＆S
Conclusions：I．SOL II．Y＠L
271．Statements：$P \notin G, R ® S, T ■ R, L \odot G$
Conclusions：I．P®T
II．P\＆T
272．Statements：EOD，F G，G•H，F®E
Conclusions：I．D＊G II．HOE
Directions（Q．273－277）：In the following questions，
the symbols @, \#, \$, $£$ and © are used with the following meanings:

P\# Q means P is not smaller than Q .
P\$ Q means $P$ is neither greater than nor smaller than $Q$.
$P$ © $Q$ means $P$ is not greater than $Q$.
$P @ Q$ means $P$ is neither smaller than nor equal to $Q$.
$P £ \mathrm{Q}$ means P is neither greater than nor equal to Q .
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
273. Statements: G@U, L©U, T\$L, T\#M

Conclusions: I. G @ M II. M © U
274. Statements: L\#G, S@Q, P@Q, K£G

Conclusions: I. P @ K II.P£K
275. Statements: F@N, M\#Z, Y\$Z, Y\$N

Conclusions: I.F£M
II. M \$ F
276. Statements: T£Z, P@Z, P@M, Q£M

Conclusions: I. P \# R
II. P © R
277. Statements: G\$M, P\$L, M\#P, S®P

Conclusions: I. S \#G
II. P©G

Directions (Q.278-283): In the following questions, the symbols $\oplus, @, @, @$ and $\delta$ are used with the following meanings:
$\mathrm{P} \oplus \mathrm{Q}$ means P is not smaller than Q .
$P \subseteq Q$ means $P$ is neither greater than nor smaller than $Q$.
$\mathrm{P} @ \mathrm{Q}$ means P is not greater than Q .
$P @ Q$ means $P$ is neither smaller than nor equal to $Q$.
$P \delta Q$ means $P$ is neither greater than nor equal to $Q$.
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
278. Statement: T @ $S, N \delta G, L \oplus S, G @ L$

Conclusions: I. T $\delta \mathrm{L}$
II. T © L
279. Statement: $\mathrm{Z} \delta \mathrm{H}, \mathrm{Z} \oplus \mathrm{M}, \mathrm{G} \oplus \mathrm{H}, \mathrm{M} @ \mathrm{~N}$

Conclusions: I. G @ M II. N $\delta \mathrm{H}$
280. Statement: $K \oplus \bar{W}, S @ W, L @ S, D \delta K$

Conclusions: I. $\mathrm{S} \oplus \mathrm{K}$ II. W @ L
281. Statement: $\mathrm{L} @ \mathrm{~K}, \mathrm{~N} @ \mathrm{~K}, \mathrm{~S} \delta \mathrm{P}, \mathrm{Q} \oplus \mathrm{P}$

Conclusions: I. L @ N
II. $\mathrm{S} \delta \mathrm{Q}$
282. Statement: C@ M, T@ M, U $\oplus$ M, P $\delta \mathrm{M}$

Conclusions: I. T @ U II.P @ U
283. Statement: $\mathrm{C} \oplus \mathrm{H}, \mathrm{L} \delta \mathrm{C}, \mathrm{H} @ \mathrm{X}, \mathrm{M} @ \mathrm{~L}$

Conclusions: I. L@ H II.L $\delta \mathrm{H}$
Directions (Q. 284-288): In the following questions,
the symbols $\oplus, \bigcirc,=$, @ and @ are used with the following
meaning:
$P \oplus Q$ means $P$ is greater than $Q$.
$P \cong Q$ means $P$ is either greater than or equal to $Q$.
$P=Q$ means $P$ is equal to $Q$.
$\mathrm{P} @ \mathrm{Q}$ means P is smaller than Q .
$P @ Q$ means $P$ is either smaller than or equal to $Q$.
Now in each of the following questions assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
284. Statements: I@V, R @ D, E @ V, R=I

Conclusions: I. $\mathrm{D} \oplus \mathrm{V} \quad$ II. $\mathrm{E}=\mathrm{I}$
285. Statements: $T=A, E @ L, T @ E, R \oplus A$
Conclusions: I. T $\oplus \mathrm{L}$
II. T @ R
286. Statements: $\mathrm{C} @ \mathrm{~A}, \mathrm{O} @ \mathrm{C}, \mathrm{E}=\mathrm{P}, \mathrm{E} \oplus \mathrm{A}$
Conclusions: I. $\bar{P} \oplus A$,
II. O @ A
287. Statements: $M @ B, R @ B, M @ U, R=E$

Conclusions: $\bar{I} \bar{M} \oplus \overline{\mathrm{R}} \quad$ II. $\mathrm{M}=\mathrm{R}$
288. Statements: $S @ M, K \oplus A, S @ U, K @ M$

Conclusions: I. A = S II. $\mathrm{K} \oplus \mathrm{M}$
Directions ( $Q .289-294$ ): In the following questions, the symbols,,$+- \times, \div, @$ and $\bigodot$ are used with the following meanings:
$\mathrm{P}+\mathrm{Q}$ means Q is not smaller than P .
$P-Q$ means $Q$ is neither greater than nor smaller than $P$.
$\mathrm{P} \times \mathrm{Q}$ means Q is not greater than P .
$P \div Q$ means $Q$ is neither smaller than nor equal to $P$.
$P @ Q$ means $Q$ is neither greater than nor equal to $P$.
$P$ © $Q$ means $Q$ is not equal to $P$.
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
289. Statements: $A \times B, R+G, L \odot G, B @ L$

Conclusions: I. A@R

$$
\text { II. } \mathrm{A} \div \mathrm{R}
$$

290. Statements: $M \div T, T \subset L, B \times L, R @ B$ Conclusions: I.L@T II.L $\div$ T
291. Statements: R©P, P©T, S+T, S@K

Conclusions: I. R-T II. R®T
292. Statements: M©N, N-K, K@S, G $\div \mathrm{N}$ Conclusions: I. M@K
II. M@S
293. Statements: $T+U, W \times U, G \odot S, P \odot S$

Conclusions: I. W $\times$ T II. G-P
294. Statements: N@T, T-M, M-Z, K+Z

Conclusions: I. $\mathrm{N} \times \mathrm{K}$
II. $\mathrm{K}+\mathrm{T}$

Directions (Q. 295-299): In the following questions the symbols @, ©, ®, \# and $\mu$ are used with the following

## meanings:

$\mathrm{P} \subset \mathrm{Q}$ means P is neither smaller than nor equal to Q .
$\mathrm{P} \mu \mathrm{Q}$ means P is neither greater than nor equal to Q .
$\mathrm{P} \circledR^{\circledR} \mathrm{Q}$ means P is not smaller than Q .
$P$ \# Q means $P$ is not greater than Q .
P @ Q means P is neither greater than nor less than Q .
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
295. Statement: $G \mu \mathrm{Q}, \mathrm{R} ® \mathrm{Q}, \mathrm{T} \# \mathrm{R}, \mathrm{S} @ \mathrm{~T}$

Conclusions: I. R®G II.S\#R
296. Statement: K@M, V\#T, S@T, M®S

Conclusions: I. K $\mu \mathrm{S}$
II. $\mathrm{K} \mu \mathrm{V}$
297. Statement: G@K, Z\#Y, Y $\mu \mathrm{X}, \mathrm{K} ® X$

Conclusions: I. Z\#G II.K@Z
298. Statement: $\mathrm{P} ® \mathrm{R}, \mathrm{R} ® \mathrm{Q}, \mathrm{R} \mu \mathrm{S}, \mathrm{R} ® \mathrm{~L}$

Conclusions: I. S\#P
II. S@P
299. Statement: $\frac{A}{B} ® \frac{C}{D}, \frac{M}{N} \mu \frac{G}{H}$, G.B@H.AB@D
Conclusions: I. A $\mu \mathrm{G}$
II. $\frac{\mathrm{C}}{\mathrm{D}} \mu \frac{\mathrm{G}}{\mathrm{H}}$

Directions (Q. 300-304): In these questions, certain symbols have been used to indicate relationships between elements as follows:
'A * B' means 'A is either equal to or greater than B'
'A \$ B' means 'A is equal to B'
' $A £ B$ ' means ' $A$ is either equal to or smaller than $B$ '
'A \& B' means ' $A$ is smaller than $B$ ' and
'A @ B' means 'A is greater than B'.
In each question, four statements showing relationships have been given, which are followed by two conclusions I \& II. Assuming that the given statements are true, find out which conclusion(s) is/are definitely true. Mark answer

1) if only conclusion I is true.
2) if only conclusion II is true.
3) if either conclusion I or II is true.
4) if neither I nor II is true and;
5) if both conclusions I and II are true.
300. Statements: H\& G, K\$S, $S^{*} J$ K\$H

Conclusions: I. J \& G II. J\&K
301. Statements: L\$M, N£M, N@ J, R\$J

Conclusions: I. L*R II. N£L
302. Statements: G\$P, P*Q, Q*S, P@T

Conclusions: I. G@T II. S£G
303. Statements: N@L, M\$N, R\&L, L*D

Conclusions: I. M\$D II. M*D
304. Statements: T\$S, U\&T, $S^{*} \mathrm{~W}, \mathrm{~V} \$ \mathrm{~S}$

Conclusions: I. W\&T II. T\$W
Directions (Q. 305-309): In the following questions, the symbols \#, ©, ®, @ and $\mu$ are used with the following
meanings:
P \# Q means P is not equal to Q .
$\mathrm{P} \subset \mathrm{Q}$ means P is either greater than or equal to Q .
$P ® Q$ means $P$ is equal to $Q$.
$P @ Q$ means $P$ is smaller than $Q$.
$\mathrm{P} \mu \mathrm{Q}$ means P is either smaller than or equal to Q .
Now in each of the following questions assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true? Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
305. Statements: J®K, M\#N, L $\mu \mathrm{N}, \mathrm{K} ® \mathrm{M}$

Conclusions: I.K@L II.L@K
306. Statements: L@G, B@K, L®S, B\#L Conclusions: I.G@S II.S@K
307. Statements: W $\mu$ J, W@ S, J@M, E\#W

Conclusions: I. MOS II.M@S
308. Statements: P®N, N\#M, M®G, K $\mu \mathrm{G}$ Conclusions: I. P@K II.P@K
309. Statements: $\mathrm{D} \odot G, \mathrm{G} ® \mathrm{~S}, \mathrm{~K} \mu \mathrm{~S}, \mathrm{P} ® \mathrm{~K}$

Conclusions: I. P $\mu \mathrm{D}$ II.G©K
Directions (Q. 310-315): In the following questions the symbols $\bullet, \bullet, \uparrow$, and $\star$ are used with the following meanings:
$\mathrm{P} \bullet \mathrm{Q}$ means Q is not smaller than P .
$\mathrm{P} \vee \mathrm{Q}$ means Q is neither greater than nor smaller than P .
$P \wedge Q$ means $Q$ is not greater than $P$.
$P \diamond Q$ means $Q$ is neither smaller than nor equal to $P$.
$P \% Q$ means $Q$ is neither greater than nor equal to $P$.
Now in each of the following questions, assuming
the given statements to be true, find which of the two con-
clusions I and II given below them is/are definitely true. Give
answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
310. Statements: $S \bullet A, P \bullet A, P \wedge L, G \bullet L$

Conclusions: I. $\mathrm{S} \& \mathrm{~L} \quad$ II. $L \vee S$
311. Statements: $\mathrm{M} \wedge \mathrm{N}, \mathrm{N} \bullet \mathrm{P}, \mathrm{P} \& \mathrm{Q}, \mathrm{R} \bullet \mathrm{Q}$

Conclusions: I. $\mathrm{N} \leftrightarrow \mathrm{Q} \quad$ II. $\mathrm{N} \bullet \mathrm{Q}$
312. Statements: $H \& A, H \bullet G, G \vee S, A \uparrow T$

Conclusions: I. $\mathrm{T} \bullet \mathrm{G} \quad$ II. $\mathrm{T} \bullet \mathrm{G}$
312. Statements: $R \bullet Z, R \vee H, R \vee G, G \notin X$

Conclusions: I. Z \& G
II. $\mathrm{H} \vee \mathrm{Z}$
314. Statements: P L, L $\bullet \mathrm{S}$ S $\mathrm{K}, \mathrm{L} \downarrow \mathrm{M}$

Conclusions: I. $\mathrm{K} \bullet \mathrm{M} \quad$ II. $\mathrm{M} \bullet \mathrm{S}$
315. Statements: $\mathrm{A} \oplus \mathrm{B}, \mathrm{Y} \bullet \mathrm{X}, \mathrm{C} \bullet \mathrm{B}, \mathrm{Y} \wedge \mathrm{Z}$

Conclusions: I. $\mathrm{X} \wedge \mathrm{Z}$
II. C A

Directions (Q. 316-320): In the following questions, the symbols \#, ©, ®, @ and $\mu$ are used with the following

## meanings:

P \# Q means P is not equal to Q .
$\mathrm{P} \subset \mathrm{Q}$ means P is either greater than or equal to Q .
$P ® Q$ means $P$ is equal to $Q$.
P @ Q means P is smaller than Q .
$\mathrm{P} \mu \mathrm{Q}$ means P is either smaller than or equal to Q .
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
316. Statements: P @ K, P © M, G ® T, M @ T

Conclusions: I. M @ K II. M @ G
317. Statements: $R ® N, A ® B, S \mu B, Z @ B$

Conclusions: I. N @ B II. A \#R
318. Statements: $G \mu \mathrm{~L}, \mathrm{G}{ }^{\circledR} \mathrm{T}, \mathrm{T} \# \mathrm{P}, \mathrm{P} \odot \mathrm{K}$

Conclusions: I.L@K II.L@ K
319. Statements: T\#K, K\#L, L© G, S $\mu \mathrm{G}$ Conclusions: 1. T @ L II.L@ T
320. Statements: A @ T, Z®A, Z © K, P $\mu \mathrm{K}$ Conclusions: I.P @ Z II.P @ A
Directions (Q. 321-325): In the following questions, the symbols $\$$, ©,$\times$, @ and \# are used with the following meanings:

P \$ Q means $P$ is not equal to $Q$.
$P © Q$ means $P$ is neither greater than nor smaller than $Q$.
$P @ Q$ means $P$ is not greater than $Q$.
$P \times Q$ means $P$ is neither smaller than nor equal to $Q$.
$P \# Q$ means $P$ is neither greater than nor equal to $Q$.
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
321. Statements: L\$T, S\#T, W®S, W $\times$ K

Conclusions: I. $\mathrm{L} \times \mathrm{S}$ II. W\#L
322. Statements: D\$E, F\$E, F©G, H®G

Conclusions: I. H\#E II.E\#H
323. Statements: T@K, G@H, T®H, LOK

Conclusions: I. L×G II.LOG
324. Statements: J×G, G®M, M\$N, N®S

Conclusions: I. S\#J II.S\$G
325. Statements: $\mathrm{P} \times \mathrm{Q}, \mathrm{M} \# \mathrm{Q}, \mathrm{T} \$ \mathrm{Q}, \mathrm{T} \subset \mathrm{D}$

Conclusions: I. M\#P II.D@P
Directions (Q. 326-330): In the following questions,
the symbols $\alpha, \beta, \delta, \gamma$ and $\eta$ are used with the following. $\mathrm{P} \propto \mathrm{Q}$ means P is greater than Q .
$P \beta Q$ means $P$ is either greater than or equal to $Q$.
$\mathrm{P} \delta \mathrm{Q}$ means P is equal to Q .
P $\gamma$ Q means P is smaller than Q .
$P \eta$ Q means $P$ is either smaller than or equal to $Q$.
Now in each of the following questions assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true.

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
326. Statements: $Q \alpha B, J \gamma E, L \eta B, J \beta Q$

Conclusions: I. J $\delta \mathrm{L}$
II. $\mathrm{E} \delta \mathrm{B}$
327. Statements: $V \beta T$, $O \gamma B, I \alpha V, B \eta T$

Conclusions: I. V $\delta$ B
II. B $\gamma$ V
328. Statements: $F \eta E, L \beta B, F \alpha S, B \delta E$

Conclusions: I. L $\delta$ B
II. L $\gamma$ S
329. Statements: $Z \beta$ M, B $\eta S, N \alpha Z, N \eta S$

Conclusions: I. $\mathrm{S} \propto \mathrm{M}$
II. B $\delta \mathrm{N}$
330. Statements: $\mathrm{F} \alpha \mathrm{M}, \mathrm{B} \eta \mathrm{O}, \mathrm{F} \gamma \mathrm{W}, \mathrm{B} \delta \mathrm{W}$

Conclusions: I. O $\alpha$ W
II. B $\gamma$ F

Directions (Q. 331-335): In the following questions the symbols @, @, =, © and @ are used with the following meanings:
$P @ Q$ means $Q$ is neither greater than nor equal to $P$.
$P @ Q$ means $Q$ is not greater than $P$.
$P=Q$ means $Q$ is equal to $P$.
$P © Q$ means $Q$ is neither less than nor equal to $P$.
$\mathrm{P} @ \mathrm{Q}$ means Q is not less than P .
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true.
2) if only conclusion II is true.
3) if either conclusion I or II is true.
4) if neither conclusion I nor II is true.
5) if both conclusions I and II are true.
331. Statements: C@W, L@D, D@C

Conclusions: I. W@D
II. C @L
332. Statements: $M @ V, U=M, V \oplus T$

Conclusions: I.U@V
II. $V=T$
333. Statements: $U=M, P @ U, M @ B$

Conclusions: I. P = B
II. P@B
334. Statements: L@ N, J@P, P@L

Conclusions: $\overline{\text { I. J }}=\mathrm{L}$
II. $P=N$
335. Statements: H@G, D@E, H=E

Conclusions: I. D@H

## II. GOD

Directions (Q. 336-340): In the following questions, the symbols $@,+, \mathbb{C}, \otimes$ and $\$$ are used with following meanings:
$A @ B$ means $B$ is neither greater nor equal to $A$.
$A+B$ means $B$ is not greater than $A$.
$A \$ B$ means $B$ is equal to $A$.
$A \subset B$ means $B$ is neither smaller nor equal to $A$.
$A \otimes B$ means $B$ is not less than $A$.
Now in each of the following questions, assuming
the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
336. Statements: $\mathrm{X}+\mathrm{Z}, \mathrm{T} \otimes \mathrm{Z}, \mathrm{T} @ M, N \odot M$ Conclusions: I. X + T II. N © T
337. Statements: X @ Z, Z \$ T, T + M, N © M

Conclusions: I. X © N
II. X \$ N
338. Statements: $T @ M, N \otimes M, X \$ N, Z \odot X$

Conclusions: I. T@Z
II. $M+X$
339. Statements: $\mathrm{Z}+\mathrm{X}, \mathrm{T} \subset \mathrm{X}, \mathrm{M} \otimes \mathrm{N}, \mathrm{P} @ \mathrm{~N}$

Conclusions: I. T@P
II. $\mathrm{T} \otimes \mathrm{P}$
340. Statements: A@B, B + C, C $\otimes$ D, D © E

Conclusions: I. A @ E
II. A © E

Directions (Q. 341-345): In the following questions, the symbols @, ©, \&, \$ and \# are used with the following meanings:
$P \& Q$ means $P$ is either equal to or smaller than $Q$.
$P \$ Q$ means $P$ is neither greater than nor smaller than $Q$.
$P$ \# $Q$ means $P$ is neither greater than nor equal to $Q$.
$\mathrm{P} @ \mathrm{Q}$ means P is greater than Q .
$\mathrm{P} \subset \mathrm{Q}$ means P is not less than Q .
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusion I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.

II. T\$J

Conclusions: I. T@J
345. Statements: V\&F, F@R, R®G

Conclusions: I. G\#V
II.G@V

Directions (Q.346-350): In the following questions, the symbols @, @, ©, $\Delta$ and = are used with the following meanings:
$P @ Q$ means $P$ is neither smaller than nor equal to Q .
$P @ Q$ means $P$ is either greater than or equal to Q .
$P \bullet Q$ means $P$ is equal to $Q$.
$\mathrm{P} \Delta \mathrm{Q}$ means P is smaller than Q .
$\mathrm{P}=\mathrm{Q}$ means P is not greater than Q .
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
346. Statements: B@K, E=H, K@E

Conclusions: I. B@H
II. K •H
347. Statements: $R=S, M \bullet S=N$, J@S

Conclusions: I. S•N
II. $\mathrm{R}=\mathrm{J}$
348. Statements: J@H,F=X, X•H

Conclusions: $\mathrm{I} . \mathrm{X}_{\Delta} \mathrm{J}$
II. $\mathrm{X} \bullet$ J
349. Statements: $\mathrm{G}=\mathrm{Q}, \mathrm{O} \Delta \mathrm{P}, \mathrm{Q} \bullet \mathrm{O}$

Conclusions: I. P @ G
II. $\mathrm{Q}=\mathrm{P}$
350. Statements: L@U, U=F, F=C

Conclusions: I.L@C
II. FeC

Directions (Q. 351-355): In the following questions,
the symbols $\beta, \gamma, \Psi, \alpha$ and $\delta$ are used with the following meanings:
$P \beta Q$ means $P$ is not smaller than $Q$.
$\mathrm{P} \gamma \mathrm{Q}$ means P is neither greater than nor smaller than Q .
$\mathrm{P} \Psi \mathrm{Q}$ means P is not greater than Q .
$P \propto Q$ means $P$ is neither smaller than nor equal to $Q$.
$\mathrm{P} \delta \mathrm{Q}$ means P is neither greater than nor equal to Q .
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither Inor II is true; and
5) if both I and II are true.
351. Statements: $\mathrm{M} \beta \mathrm{N}, \mathrm{H} \Psi Q, \mathrm{Q} \beta \mathrm{M}$
Conclusions: I. $\mathrm{H} \gamma \mathrm{M}$
352. Statements: $\mathrm{C} \alpha \mathrm{B}, \mathrm{L} \delta \mathrm{S}, \mathrm{S} \Psi \mathrm{C}$
Conclusions: $\mathrm{I} . \mathrm{B} \alpha \mathrm{S}$
353. Statements: I $\beta$ H, E $\alpha$ F, I $\gamma$ F

Conclusions: I. E $\alpha$ I
II. $\mathrm{H}_{\delta} \mathrm{E}$
354. Statements: $V \gamma O, R \beta V, O \beta B$

Conclusions: I. R $\gamma$ B
II. $\mathrm{R} \alpha \mathrm{B}$
355. Statements: $L \alpha \mathrm{U}, \mathrm{T} \gamma \mathrm{L}, \mathrm{U} \Psi \mathrm{W}$

Conclusions: I. T $\alpha$ W
II. $\mathrm{U} \gamma \mathrm{W}$

Directions (Q.356-360): In the following questions,
the symbols $\beta, \delta, \eta, \alpha$, and $\gamma$ are used with the following meanings:
$\mathrm{P} \beta \mathrm{Q}$ means P is not smaller than Q .
$\mathrm{P} \delta \mathrm{Q}$ means P is neither greater than nor smaller than Q .
$P \eta \mathrm{Q}$ means P is not greater than Q .
$P \propto Q$ means $P$ is neither smaller than nor equal to $Q$.
$P \gamma \quad \mathrm{Q}$ means P is neither greater than nor equal to Q .
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
356. Statements: $\mathrm{K} \beta \mathrm{L}, \mathrm{M} \gamma \mathrm{P}, \mathrm{J} \alpha \mathrm{K}, \mathrm{P} \eta \mathrm{L}$

Conclusions: I. $\mathrm{K} \delta \mathrm{P} \quad$ II. $\mathrm{P} \gamma \mathrm{K}$
357. Statements: $\mathrm{F} \alpha \mathrm{M}, \mathrm{A} \eta \mathrm{L}, \mathrm{F} \gamma \mathrm{G}, \mathrm{A} \delta \mathrm{U}$

Conclusions: I. L $\delta$ U II. A $\gamma$ F
358. Statements: $\mathrm{P} \alpha \mathrm{B}, \mathrm{J} \gamma \mathrm{H}, \mathrm{S} \eta \mathrm{B}, \mathrm{J} \beta \mathrm{P}$

Conclusions: I. J $\delta$ S II. $\mathrm{H} \alpha$ B
359. Statements: $M \alpha$ Z, B $\eta \mathrm{R}, \mathrm{Z} \beta \mathrm{C}, \mathrm{M} \eta \mathrm{R}$

Conclusions: I. R $\alpha$ Z
II. B $\delta \mathrm{M}$
360. Statements: $X \eta Y, U \beta V, X \alpha S, V \delta Y$

Conclusions: I. U $\delta$ V
II. U $\gamma$ S

Directions ( $\mathbf{Q} .361-365$ ): In the following questions, the symbols $\odot,=, @, \oplus$ and $@$ are used with the following meanings:

P © Q means P is not smaller than Q .
$\mathrm{P}=\mathrm{Q}$ means P is neither greater than nor smaller than Q .
$P @ Q$ means $P$ is not greater than Q .
$P \oplus Q$ means $P$ is neither smaller than nor equal to $Q$.
$P @ Q$ means $P$ is neither greater than nor equal to $Q$.
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
361. Statements: X@Y,Z®V,Y@Z

Conclusions: I. X@V
362. Statements: $\mathrm{Q} @ P, S \odot R, P=S$

Conclusions: I. Q@S
II. $Y=V$
363. Statements: F®E, G=E®H, I@E

Conclusions: I.E=H
364. Statements: $A \oplus B, J @ L, B=J$

Conclusions: I. A $\oplus \mathrm{L}$
365. Statements: $M=N, N @ Q, N \subset R$

Conclusions: I. Q=R
II. $M=R$

Directions (Q. 366-370): In the questions given below, certain symbols are used with the following meanings:
$\mathrm{P}=\mathrm{Q}$ means P is not greater than Q .
$\mathrm{P} \Delta \mathrm{Q}$ means P is neither equal to nor smaller than Q .
$\mathrm{P} \$ \mathrm{Q}$ means P is not smaller than Q .
$\mathrm{P} \otimes \mathrm{Q}$ means P is neither greater nor smaller than Q .
$\mathrm{P} £ \mathrm{Q}$ means P is neither greater than nor equal to Q .
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true.
2) if only conclusion II is true.
3) if either conclusion I or II is true.
4) if neither conclusion I nor II is true.
5) if both conclusions I and II are true.
366. Statement: C \$ D, F $\Delta \mathrm{E}, \mathrm{G}=\mathrm{E}$

Conclusions: I. F£G II.F $\Delta \mathrm{G}$
367. Statement: Y $\otimes Z, X \$ G, Y £ L, G \Delta L$

Conclusions: I. Y£X II. L $\otimes \mathrm{Z}$
368. Statement: A \$ D, B = C, A $\otimes R, B \Delta A$

Conclusions: I. $\mathrm{R} \otimes \mathrm{D} \quad$ II. $\mathrm{R} \Delta \mathrm{D}$
369. Statement: $\mathrm{Z}=\mathrm{Y}, \mathrm{U} \Delta \mathrm{V}, \mathrm{Y} £ \mathrm{~K}, \mathrm{R} £ \mathrm{~V}$

Conclusions: I. $\mathrm{K} \Delta \mathrm{Z}$
II. U£R
370. Statement: W=Q, R $\Delta \mathrm{X}, \mathrm{Q}$ \$ X
Conclusions: I. W $£ \mathrm{X}$
II. W $\otimes \mathrm{X}$

Directions (Q. 371-375): In the following questions,
the symbols $\eta, \gamma, \beta, \alpha$ and $\delta$ are used with the following meanings:

$\eta$ Q means $P$ is not greater than $Q$.
$Q$ means $P$ is neither greater than nor smaller than $Q$.
Q means P is not smaller than Q .
$Q$ means $P$ is neither smaller than nor equal to $Q$.
Q means $P$ is neither greater than nor equal to $Q$.
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
371. Statements: $\mathrm{M} \beta \mathrm{J}, \mathrm{K} \gamma \mathrm{B}, \mathrm{M} \delta \mathrm{A}, \mathrm{J} \alpha \mathrm{K}$

Conclusions: I. M $\gamma \mathrm{K}$
II. A $\alpha$ J
372. Statements: $\mathrm{E} \gamma \mathrm{A}, \mathrm{N} \delta \mathrm{A}, \mathrm{C} \alpha \mathrm{E}, \mathrm{N} \eta \mathrm{D}$

Conclusions: I. C $\alpha$ N
II. A $\gamma \mathrm{D}$
373. Statements: K $\beta$ I, J $\delta$ V, G $\eta \mathrm{I}, \mathrm{V} \gamma \mathrm{G}$

Conclusions: I. G $\delta$ K II. $\mathrm{K} \gamma \mathrm{G}$
374. Statements: $\mathrm{Y} \gamma \mathrm{Z}, \mathrm{R} \propto \mathrm{T}, \mathrm{S} \eta \mathrm{Y}, \mathrm{R} \delta \mathrm{Z}$

Conclusions: I. S $\gamma \mathrm{Z}$
II. $\mathrm{Y} \delta \mathrm{T}$
375. Statements: L $\alpha$ K, C $\beta$ H, C $\delta A, H \gamma L$

Conclusions: I. C $\alpha \mathrm{L}$
II. A $\alpha \mathrm{K}$

Directions (Q.376-380): In the following questions,
the symbols $\uparrow, \downarrow, \rightarrow, \leftarrow$ and $\Rightarrow$ are used with the following meanings:
$P \uparrow \quad \mathrm{Q}$ means P is not smaller than Q .
$\mathrm{P} \downarrow \mathrm{Q}$ means P is neither greater than nor smaller than Q .
$\mathrm{P} \rightarrow \mathrm{Q}$ means P is not greater than Q .
$\mathrm{P} \leftarrow \mathrm{Q}$ means P is neither smaller than nor equal to Q .
$\mathrm{P} \Rightarrow \mathrm{Q}$ means P is not equal to Q .
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true,
4) if neither I nor His true; and
5) if both I and II are true.
376. Statements: $X \leftarrow Y, X \Rightarrow Z, Z \rightarrow S$

Conclusions: I. $X \Rightarrow S$

$$
\text { II. } \mathrm{S} \uparrow \mathrm{Y}
$$

377. Statements: $A \uparrow B, C \leftarrow B, C \rightarrow D$

Conclusions: I. D $\rightarrow$ A
II. $\mathrm{D} \leftarrow \mathrm{B}$
378. Statements: T $\rightarrow \mathrm{U}, \mathrm{W} \uparrow \mathrm{V}, \mathrm{V} \leftarrow \mathrm{U}$


Directions (Q. 381-385): In the following questions, the symbols $?,!, £, \$$ and $\&$ are used with the following meanings:

P ? Q means P is not smaller than Q .
$P!Q$ means $P$ is neither greater than nor smaller than $Q$.
$\mathrm{P} £ \mathrm{Q}$ means P is not greater than Q .
$P \$ Q$ means $P$ is neither smaller than nor equal to $Q$.
$P \& Q$ means $P$ is neither greater than nor equal to $Q$.
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
381. Statements: G£H, H\$I, I?J

Conclusions: I. G\&I II. J\$H
382. Statements: X!Y, Z\&K, Z?Y

Conclusions: I. Y\&K, II. X!Z
383. Statements: N?L, M£L, P\$N

Conclusions: I. M\&P
II. N?M
384. Statements: Q?S, T!S, R£T

Conclusions: I. R!Q
II. Q\$R
385. Statements: C£D, E\$F, E\&C

Conclusions: I. C\&F
II. D\$F

Directions (Q. 386-390): In the questions given below, certain symbols are used with the following meanings:
$P^{*} \mathrm{Q}$ means P is neither equal to nor smaller than Q .
$\mathrm{P} \otimes \mathrm{Q}$ means P is not smaller than Q .
$\mathrm{P} \$ \mathrm{Q}$ means P is neither greater nor smaller than Q .
$P £ Q$ means $P$ is neither greater than nor equal to $Q$.
P @ Q means P is not greater than Q .
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true.
2) if only conclusion II is true.
3) if either conclusion I or II is true.
4) if neither conclusion I nor II is true.
5) if both conclusions I and II are true.
386. Statements: R*S, S\$O M@O

Conclusions: I. R*M
II. $\mathrm{S}^{*} \mathrm{M}$
387. Statements: $R \otimes G, G @ K, R \$ L$

Conclusions: I. L @ K


Directions (Q.391-395): In the following questions, the symbols $\#, \$, \otimes, *$ and $@$ are used with the following meanings.

A \# B means A is not greater than B .
$A \$ B$ means $A$ is neither smaller than nor equal to $B$.
$A \otimes B$ means $A$ is neither greater than nor smaller than $B$
$A * B$ means $A$ is neither greater than nor equal to $B$.
A @ B means A is not smaller than B.
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
391. Statements: L*S, P@R, S\#R

Conclusions: I. P\$L II. S\#P
392. Statements: I. G\$R, H\#R, G@M

Conclusions: I. M\$R
393. Statements: $\mathrm{Y} \# \mathrm{~T}, \mathrm{~J} \otimes \mathrm{~T}, \mathrm{O} \otimes \mathrm{T}, \mathrm{E} @ \mathrm{~J}$

Conclusions: I. Y*E
394. Statements: $\mathrm{H} @ \mathrm{P}, \mathrm{H} * \mathrm{D}, \mathrm{T} * \mathrm{P}, \mathrm{X} \otimes \mathrm{T}$

Conclusion: I. H@T
395. Statements: F\#O, C $\otimes I, L * I, L @ O$

Conclusions: I. F*I
Directions (Q. 396-400): In the following questions,
the symbols $\mathbb{\varrho}, @, \delta, \oplus$ and $@$ are used with the following meanings:
$\mathrm{P} @ \mathrm{Q}$ means P is not smaller than Q .
$P @ Q$ means $P$ is neither greater than nor smaller than $Q$.
$\mathrm{P} \delta \mathrm{Q}$ means P is not greater than Q .
$P \oplus Q$ means $P$ is neither smaller than nor equal to $Q$.
$P$ @ Q means P is neither greater than nor equal to Q .
Now in each of the following questions, assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1) if only conclusion I is true;
2) if only conclusion II is true;
3) if either I or II is true;
4) if neither I nor II is true; and
5) if both I and II are true.
396. Statements: U@ V, U@W, $M_{\delta} N, W_{\oplus} \oplus \mathrm{N}$

397. Statements: A @ B, C $\oplus$ D, D@ A, C $\delta$ E

Conclusions: I. $\mathrm{E} \oplus \mathrm{D} \quad$ II. $\mathrm{C} \oplus \mathrm{B}$
Direction ( $Q$ 401-405): In the following questions,
the symbols $\alpha, \alpha \rightarrow, \beta, \beta \rightarrow$ and $\leftrightarrow$ are used as follows:
$A \propto B$ means $A$ is greater than $B$.
$A \alpha \rightarrow B$ means $A$ is greater than or equal to $B$.
$A \beta B$ means $B$ is greater than $A$.
A $\beta \rightarrow$ B means $B$ is greater than or equal to $A$.
$A \leftrightarrow B$ means $A$ is equal to $B$.
Now, in the following questions, assuming the three given statements to be true, decide upon the validity of the given conclusions. Give answer

1) if only conclusion I follows
2) if only conclusion II follows
3) if either conclusion I or II follows
4) if neither conclusion I nor II follows
5) if both conclusions follow
401. Statements: $\mathrm{R} \beta \mathrm{M}, \mathrm{M} \alpha \mathrm{P}, \mathrm{R} \alpha \rightarrow \mathrm{L}$

Conclusions: I. $\mathrm{M} \leftrightarrow \mathrm{L}$
II. $\mathrm{P} \leftrightarrow \mathrm{L}$
402. Statements: $\mathrm{T} \alpha \rightarrow \mathrm{P}, \mathrm{P} \beta \mathrm{S}, \mathrm{P} \leftrightarrow \mathrm{M}$

Conclusions: I. $\mathrm{S} \alpha \mathrm{M}$
II. $\mathrm{T} \beta \mathrm{S}$
403. Statements: $\mathrm{M} \leftrightarrow \mathrm{T}, \mathrm{T} \beta \rightarrow \mathrm{Z}, \mathrm{S} \alpha \mathrm{M}$

Conclusions: I. Z $\alpha$ M
II. $Z \leftrightarrow M$
404. Statements: $Z \beta B, N \alpha \rightarrow S, B \beta N$

Conclusions: I. $\mathrm{B} \leftrightarrow \mathrm{Z}$
II. $S \beta \rightarrow B$
405. Statements: $L \beta C, C \alpha Z, Z \beta \rightarrow F$

Conclusions: I. C $\alpha$ F
II. $C \leftrightarrow F$

Directions (Q 406-410): In a particular method of coding the symbols $\mathbf{a}, \mathrm{a} \int, \mathrm{b}, \mathrm{b} \int$ and $\iint$ are used with the following meaning:

A a B means $A$ is greater than $B$
$A$ a $\int B$ means $A$ is greater than or equal to $B$
$A b B$ means $B$ is greater than $A$
$A b \rho B$ means $B$ is greater than or equal to $A$
$A \iint B$ means $A$ is equal to $B$.
On the basis of the above scheme and assuming each of the given statements to be true decide which of the given conclusions follow. Give answer

1) if only conclusion I follows
2) if only conclusion II follows
3) if either conclusion I or II follows
4) if neither I nor II follows
5) if both I and II follow
406. Statements: Maj O, Lb O, OaP

Conclusions I. LaO II. OaL
407. Statements: N b L, La S, S a Q

Conclusions I. QbL
II. QaN
408. Statements: A a B , B b C, C a D

Conclusions I. A $\iint \mathrm{D}$ II. A a $\int \mathrm{D}$
409. Statements: MbN, O a P, Ob U

Conclusions I. P I $\int \mathrm{U}$ II. Pa U
410. Statements: Q a S , UbS , U $\iint \mathrm{R}$

Conclusions I. Q a U
II. Q b U

## Answers and Explanations

$1.1 ; \mathrm{I} \geq \mathrm{V} \ldots$ (i), $\mathrm{R}<\mathrm{D} \ldots$...(ii), $\mathrm{E}<\mathrm{V} \ldots$...(iii), $\mathrm{R}=\mathrm{I} \ldots$... (iv)
From (i), (ii) and (iv) $\mathrm{D}>\mathrm{R}=\mathrm{I} \geq \mathrm{V}$
$\therefore \mathrm{D}>\mathrm{V}$ Hence I is true.
From (i) and (iii), $\mathrm{I} \geq \mathrm{V}>\mathrm{E} \Rightarrow \mathrm{II}$ is not true.
2.2 3.5
4. $3 ; \mathrm{M} \geq \mathrm{B} \ldots$ (i), $\mathrm{R} \leq \mathrm{B} \ldots$ (ii), $\mathrm{M}<\mathrm{U} \ldots$ (iii), $\mathrm{R}=\mathrm{E} \ldots$... (iv)

From (i) and (ii), $M \geq B \geq R \Rightarrow M \geq R$ Hence either
I or II is true.
5.4
6. 4; $\mathrm{P}>\mathrm{A} \ldots$... (i), $\mathrm{I}<\mathrm{D} \ldots$ (ii), $\mathrm{K} \leq \mathrm{A} \ldots$ (iii), $\mathrm{I} \geq \mathrm{P} \ldots$ (iv)

From (i), (iii) and (iv), $I \geq P>A \geq K \Rightarrow I>K$, Hence I is not true.
From (i), (ii) and (iv), $\mathrm{D}>\mathrm{I} \geq \mathrm{P}>\mathrm{A} \Rightarrow \mathrm{D}>\mathrm{A}$, Hence II is not true.
7. $\mathrm{U} \geq \mathrm{S}$.... (i), $\mathrm{N}<\mathrm{A} \ldots$... (ii), $\mathrm{H}>\mathrm{U} \ldots$... (iii), $\mathrm{A} \leq \mathrm{S}$... (iv)

From (i) and (iv), $U \geq S \geq A \Rightarrow U \geq A \Rightarrow$ Either $U$ $=A$ or $U>A$ or $A<U$. Hence either $I$ or II is true.
$8.4 \quad 9.1 \quad 10.4$
11.1; $\mathrm{D} \geq \mathrm{H} \ldots$... (i) $\mathrm{I} \leq \mathrm{R} \ldots$... (ii) $\mathrm{R}<\mathrm{H} \ldots$... (iii)

From(i), (ii) \& (ii), $D \geq H>R \geq I \Rightarrow D>I$. Hence $I$ is true.
From (i) and (iii) $\mathrm{D} \geq \mathrm{H}>\mathrm{R} \Rightarrow \mathrm{R}<\mathrm{D}$. Hence II may be true but not necessarily so.
12. 2; $\mathrm{K}<\mathrm{I}$.... (i), $\mathrm{S}>\mathrm{H}$... (ii), $\mathrm{K} \geq \mathrm{H}$... (iii)

From (ii) and (iii), $\mathrm{S}>\mathrm{H} \leq \mathrm{K} \Rightarrow \mathrm{I}$ is not true.
From (i) and (iii), $\mathrm{I}>\mathrm{K} \geq \mathrm{H} \Rightarrow \mathrm{I}>\mathrm{H}$ or $\mathrm{H}<I$. Hence II is true.
13.5; $\mathrm{A}=\mathrm{M} \ldots$... i ), $\mathrm{J}>\mathrm{T} \ldots$... (ii), $\mathrm{A}<\mathrm{T} \ldots$ (iii)

From (i) and (iii), $\mathrm{M}=\mathrm{A}<\mathrm{T} \Rightarrow \mathrm{M}<\mathrm{T}$ or $\mathrm{T}>\mathrm{M}$.
From (ii) and (iii), $\mathrm{J}>\mathrm{T}>\mathrm{A} \Rightarrow \mathrm{J}>\mathrm{A}$ or $\mathrm{A}<\mathrm{J}$.
14.3; $\mathrm{R}>\mathrm{A} . .$. (i), $\mathrm{H} \leq \mathrm{U} \ldots$... (ii), $\mathrm{A}=\mathrm{U}$.

From (ii) and (iii), $A=U \geq H \Rightarrow A>H$ or $A=H$.
15.4; $\mathrm{M} \leq \mathrm{U}$... (i), $\mathrm{K} \geq \mathrm{A}$... (ii), $\mathrm{M}>\mathrm{K}$... (iii)

From (i), (ii) and (iii), $\mathrm{U} \geq \mathrm{M}>\mathrm{K} \geq \mathrm{A} \Rightarrow \mathrm{U}>$ A. Hence
I may be true but not necessarily so.
From (ii) and (iii), $\mathrm{M}>\mathrm{K} \geq \mathrm{A} \Rightarrow \mathrm{M}>\mathrm{A}$ or $\mathrm{A}<\mathrm{M}$.
Hence II may be true but not necessarily so.
16.4; $\mathrm{X}>\mathrm{Y}$... (i), $\mathrm{Z} \leq \mathrm{R}$... (ii), $\mathrm{Y}=\mathrm{Z}$... (iii)

Combining all we get, $\mathrm{X}>\mathrm{Y}=\mathrm{Z} \leq \mathrm{R} \Rightarrow \mathrm{X}>\mathrm{R}$ may be true but not necessarily so.
From (ii) and (iii) $\mathrm{Y}=\mathrm{Z} \leq \mathrm{R} \Rightarrow \mathrm{Y}=\mathrm{R}$ may be true but not necessarily so.
$17.4 \quad 18.1 \quad 19.3 \quad 20.2$
21. 4; Q > B ... (i), $\mathrm{J}<\mathrm{E} \ldots$... (ii), $\mathrm{L} \leq \mathrm{B} \ldots$ (iii), $\mathrm{J} \geq \mathrm{Q} \ldots$ (iv)

From (i), (iii), and (iv), $\mathrm{J} \geq \mathrm{Q}>\mathrm{B} \geq \mathrm{L} \Rightarrow \mathrm{J}>\mathrm{L}$.
Hence I is not true.
From (i), (ii) and (iv), $\mathrm{E}>\mathrm{J} \geq \mathrm{Q}>\mathrm{B} \Rightarrow \mathrm{E}>\mathrm{B}$

Hence II is not true.
$22.4 \quad 23.1$
24.4
25.3
$26.2 ; \mathrm{I} \leq \mathrm{J}$... (i), $\mathrm{K}=\mathrm{J} \leq \mathrm{L}$... (ii), $\mathrm{H} \geq \mathrm{J}$... (iii)
I is false from (ii).
From (i) and (iii), $\mathrm{I} \leq \mathrm{J} \leq \mathrm{H} \Rightarrow \mathrm{I} \leq \mathrm{H}$. Hence II is true.
27.3
28.1
29.4
30.4
$31.1 ; \mathrm{R} \geq \mathrm{S} \ldots$ (i), $\mathrm{O} \leq \mathrm{P} \ldots$ (ii), $\mathrm{P}<\mathrm{S} \ldots$... (iii)
Combining all these, we get, $\mathrm{R} \geq \mathrm{S}>\mathrm{P} \geq \mathrm{O} \Rightarrow \mathrm{R}>\mathrm{O}$. Hence $I$ is true.
From (i) and (iii), $\mathrm{R} \geq \mathrm{S}>\mathrm{P} \Rightarrow \mathrm{R}>\mathrm{P}$ or $\mathrm{P}<\mathrm{R}$. Hence II is not true.
32. 4 ; $\mathrm{F}<\mathrm{Z} \ldots$.. (i), $\mathrm{H} \geq \mathrm{A} \ldots$... (ii), $\mathrm{F}>\mathrm{H} \ldots$... (iii)

From (ii) and (iii), $\mathrm{F}>\mathrm{H} \geq \mathrm{A} \ldots$ (iv) $\Rightarrow \mathrm{F}>\mathrm{A}$. Hence II is not true.
From (i) and (iv), $\mathrm{Z}>\mathrm{F}>\mathrm{H} \geq \mathrm{A} \Rightarrow \mathrm{Z}>\mathrm{A}$. Hence I is not true.
33.2; $\mathrm{O}<\mathrm{R}$... (i), $\mathrm{U}>\mathrm{V}$... (ii), $\mathrm{O} \geq \mathrm{V} \ldots$ (iii)

From (ii) and (iii), $\mathrm{U}>\mathrm{V} \geq \mathrm{O}$. Hence no relation between U and O can be established. Hence I is not true. From (i) and (iii), $\mathrm{V} \leq \mathrm{O}<\mathrm{R} \Rightarrow \mathrm{V}<\mathrm{R}$. Hence II is true.
34. 2; $\mathrm{W}=\mathrm{X}$... (i), $\mathrm{Z}>\mathrm{Y} \ldots$ (ii), $\mathrm{W}<\mathrm{Y}$... (iii)

From (i) and (iii), $\mathrm{Y}>\mathrm{W}=\mathrm{X} \Rightarrow \mathrm{Y}>\mathrm{X}$. Hence I is not true.
From (ii) and (iii), $\mathrm{Z}>\mathrm{Y}>\mathrm{W} \Rightarrow \mathrm{Z}>\mathrm{W}$ or $\mathrm{W}<\mathrm{Z}$. Hence II is true.
35.3: $\mathrm{L}>\mathrm{J} \ldots$ (i), $\mathrm{L} \leq \mathrm{M} \ldots$... (ii), $\mathrm{J}=\mathrm{M} \ldots$... (iii)

From (ii) and (iii), $\mathrm{L} \leq \mathrm{M}=\mathrm{J} \Rightarrow \mathrm{L} \leq \mathrm{J}$. Hence either I or II is true.
36. 3; $\mathrm{P} \geq \mathrm{Q} \ldots$... (i); $\mathrm{Q} \leq \mathrm{R} \ldots$.. (ii) $; \mathrm{R}=\mathrm{T} \ldots$. (iii)

Now, we cannot establish a relationship between P and R from the given equations. But note the conclusions : I. $\mathrm{P} \geq \mathrm{R}$; II. $\mathrm{P}<\mathrm{R}$. At least one of the two must be true for any two numbers P and R .
37.5; $\mathrm{N}=\mathrm{M}$... (i); $\mathrm{C}>\mathrm{N} . .$. (ii); $\mathrm{M}=\mathrm{D}$... (iii)

From (i), (ii) and (iii), $\mathrm{C}>\mathrm{D}$; thus I is true
From (i) and (iii), $\mathrm{N}=\mathrm{D}$; thus II is true.
38. 2; $\mathrm{Q}<\mathrm{L}$.... (i); $\mathrm{Q} \geq \mathrm{R}$... (ii); $\mathrm{T}<\mathrm{P}$... (iii)

No relationship can be established between L and P from the above equations. So $I$ is not true.
From (i) and (ii), we get $L>Q \geq R \Rightarrow R<L$. Thus II is true.
39.4; $\mathrm{X} \leq \mathrm{Y} \ldots$... (i) ; $\mathrm{Y}=\mathrm{Z} \ldots$... (ii) $; \mathrm{A}>\mathrm{Z} \ldots$ (iii)

From (i) and (ii), $\mathrm{X} \leq \mathrm{Z}$. Thus I is false.
From (ii) and (iii), Y < A. Thus II is false.
40.1; S < T ... (i) ; S > M ... (ii) ; $\mathrm{M}=\mathrm{P}$... (iii)

From (ii) and (iii), $S>P$. Thus I is true.
From (i) and (ii), $\mathrm{T}>\mathrm{M}$. Thus II is false.
41. $2 ; \mathrm{S}=\mathrm{T}$.... (i); $\mathrm{U}>\mathrm{T}$.... (ii) $; \mathrm{S} \geq \mathrm{V}$.... (iii)

From (i) and (iii), $\mathrm{T} \geq \mathrm{V}$.... (iv). So I is false.
From (ii) and (iv), U $>$ V. So II is true.
42. 4 ; L $\leq$ M.... (i) $; \mathrm{L}=\mathrm{N} . .$. (ii); $\mathrm{N}<\mathrm{O}$.... (iii)

From (iii) I, can't be established.
From (i) and (ii), $\mathrm{N} \leq \mathrm{M}$. So II is false.
43. 3; $U$ is not mentioned anywhere in the statements. So we cannot establish a relationship with U. However, R is either lesser than or equal to or greater than U . So either I or II is correct.
44. 2; $\mathrm{Y}<\mathrm{Z}$.... (i); $\mathrm{S}>\mathrm{Z}$.... (ii); $\mathrm{T}<\mathrm{Z}$.... (iii)

I does not follow because no relationship can be established between Y and T .
From (i) and (ii), Y < S. Hence, II is true.
45. $4 ; \mathrm{M} \leq \mathrm{L} \ldots$... (i); $\mathrm{M} \geq \mathrm{N} \ldots$... (ii); $\mathrm{O}=\mathrm{N}$.... (iii)

From (i), (ii) and (iii), $\mathrm{L} \geq \mathrm{M} \geq \mathrm{N}=\mathrm{O}$. So neither I nor II follows.
46. 4; $\mathrm{P}>\mathrm{Q}$.... (i); $\mathrm{P} \geq \mathrm{R}$.... (ii); $\mathrm{R} \leq \mathrm{S}$.... (iii)
$\mathrm{P}=\mathrm{R}$ is one of the possibilities from (iii), but we can't
be certain
47.4; $\mathrm{T}=\mathrm{N} . .$. (i); $\mathrm{D} \leq \mathrm{E} \ldots$...(ii); $\mathrm{E} \geq \mathrm{N} \ldots$... (iii)

From (ii) and (iii), $\mathrm{D}=\mathrm{N}$ is one of the possibilities. So $\mathrm{D} \leq \mathrm{N}$ may follow but not necessarily so. From (i) and (iii), $\mathrm{E} \geq \mathrm{T}$. Thus II does not follow.
48.4; $\mathrm{K} \leq \mathrm{L} \ldots$...(i); $\mathrm{L}>\mathrm{M}$.... (ii); $\mathrm{L}=\mathrm{N}$.... (iii)

From (i)and (iii), I does not follow.
From (ii) and (iii), II does not follow.
49. 3; $\mathrm{P}>\mathrm{T}$.... (i); $\mathrm{S}<\mathrm{T}$.... (ii); $\mathrm{R} \leq \mathrm{S} \ldots$... (iii)

From (iii), either $S>R$ or $S=R$.
50.1; $\mathrm{X}<\mathrm{Y} \ldots$... (i); $\mathrm{Y}>\mathrm{T} \ldots$ (ii); $\mathrm{T} \leq \mathrm{X} \ldots$. (iii) I follows from (i). II does not follow from (iii).
51.2; $\mathrm{A} \geq \mathrm{K} \ldots$.. (i), $\mathrm{M}=\mathrm{N} \ldots$.. (ii), $\mathrm{K} \leq \mathrm{N} \ldots$ (iii), $\mathrm{Q}>\mathrm{A} \ldots$... (iv) From (i), (iii) and (ii), we get, $A \geq K \leq N=M \Rightarrow A=$ M may be true but not necessarily so
From (i) and (iv), we get, $\mathrm{Q}>\mathrm{A} \geq \mathrm{K} \Rightarrow \mathrm{Q}>\mathrm{K}$ or $\mathrm{K}<$
Q. Hence II is true.
$\begin{array}{lllllll}52.2 & 53.4 & 54.4 & 55.1 & 56.4 & 57.4 & 58.2\end{array}$
$59.4 \quad 60.2$
61. $2 ; \mathrm{A} \leq \mathrm{N} . . .(\mathrm{i}) ; \mathrm{B}>\mathrm{M} . .(\mathrm{ii}) ; \mathrm{A} \geq 5$...(iii); $\mathrm{B}=5$...(iv)

Combining these, we get $N \geq A \geq 5=B>M$
Hence, $\mathrm{N} \geq \mathrm{B}$ and $\mathrm{M}<\mathrm{N}$. Hence I does not necessarily follow and II follows.
$62.4 \quad 63.4 \quad 64.4 \quad 65.4$
66. 5; $\mathrm{M}<\mathrm{N} \ldots$..(i); $\mathrm{O} \geq \mathrm{N} \ldots$...(ii); $\mathrm{P} \leq \mathrm{M} \ldots$...(iii)

Combining these, we get $\mathrm{P} \leq \mathrm{M}<\mathrm{N} \leq \mathrm{O}$.
Hence $\mathrm{N}>\mathrm{P}$ and P < N .
$67.4 \quad 68.1 \quad 69.4 \quad 70.1$
71. 4; B > D... (i), $\mathrm{H}<\mathrm{I}$... (ii), $\mathrm{M} \leq \mathrm{N} \ldots$ (iii), $\mathrm{Q} \geq \mathrm{R}$...(iv)

As there is no common letter between (ii) and (iii), hence neither I nor II can be established.
72. 2; $\mathrm{M} \geq \mathrm{N} \ldots$.. (i), $\mathrm{E}<\mathrm{F} \ldots$ (ii), $\mathrm{K}>\mathrm{L} \ldots$ (iii), $\mathrm{C} \leq \mathrm{L} \ldots$ (iv)

From (iii) and (iv), we get $\mathrm{K}>\mathrm{L} \geq \mathrm{C} \Rightarrow \mathrm{K}>\mathrm{C}$ or $\mathrm{C}<\mathrm{K}$. Hence II is true.
I cannot be established because there is no link betwen (i) and (ii).
73. 1; $\mathrm{Y}=\mathrm{B} \ldots$.. (i), $\mathrm{X}<\mathrm{Y} \ldots$... (ii), $\mathrm{A}>\mathrm{B} \ldots$... (iii)

Combining all, we get $\mathrm{X}<\mathrm{Y}=\mathrm{B}<\mathrm{A} \Rightarrow \mathrm{X}<\mathrm{A}$ or $\mathrm{A}>\mathrm{X}$. Hence $I$ is true. It also implies that $B>X$. Hence II may be true but not necessarily so.
74. 5; $\mathrm{C}<\mathrm{F}$... (i), $\mathrm{P}<\mathrm{T}$... (ii), $\mathrm{C} \geq \mathrm{T} \ldots$...iii), $\mathrm{F}<\mathrm{R} \ldots$.. (iv)

From (ii) and (iii), we get $\mathrm{C} \geq \mathrm{T}>\mathrm{P} \Rightarrow \mathrm{C}>\mathrm{P}$. Hence I is true.
From (i) and (iii), $\mathrm{F}>\mathrm{C} \geq \mathrm{T} \Rightarrow \mathrm{F}>\mathrm{T}$. Hence II is true.
75.3; $\mathrm{Q}=\mathrm{S} \ldots$ (i), $\mathrm{S}>\mathrm{Z} \ldots$ (ii), $\mathrm{Z}<\mathrm{W} \ldots$ (iii), $\mathrm{S} \leq \mathrm{T} \ldots$ (iv)

From (ii) and (iv), we get $\mathrm{Z}<\mathrm{S} \leq \mathrm{T} \Rightarrow \mathrm{Z}<\mathrm{T} \ldots$ (A)
Now, from (A) and (iii), we get $\mathrm{T}>\mathrm{Z}<\mathrm{W} \Rightarrow$ no conclusion i.e. either $\mathrm{T}>\mathrm{W}$, or $\mathrm{T}=\mathrm{W}$ or $\mathrm{T}<\mathrm{W}$. Hence either conclusion I or conclusion II is true.
76. 4; $\mathrm{A}=\mathrm{B}$... (i), $\mathrm{B} \geq \mathrm{D} \ldots$... (ii), $\mathrm{B}<\mathrm{H} \ldots$... (iii)

From (ii) and (iii), we get $H>B \geq D \Rightarrow H>D$. Hence I is not true.
From (i) and (ii), we get $\mathrm{A}=\mathrm{B} \geq \mathrm{D} \Rightarrow \mathrm{A} \geq \mathrm{D}$. Hence II may be true but not necessarily so.
77. 1; $\mathrm{X}>\mathrm{Y}$... (i), $\mathrm{Y}=\mathrm{Z} \ldots$..(ii), $\mathrm{Z} \geq \mathrm{T} \ldots$ (iii)

Combining all, we get $X>Y=Z \geq T \Rightarrow X>T$. Hence I is true. II may be true but not necessarily so.
78. $2 ; \mathrm{E} \geq \mathrm{F} \ldots$... (i), $\mathrm{G}=\mathrm{F} \geq \mathrm{H} \ldots$...ii), $\mathrm{I} \leq \mathrm{F} \ldots$... (iii)

From (i) and (iii), we get $\mathrm{E} \geq \mathrm{F} \geq \mathrm{I} \Rightarrow \mathrm{E} \geq \mathrm{I}$. Hence II
79. 1; $\mathrm{P}<\mathrm{Q} \ldots$... (i), $\mathrm{R} \geq \mathrm{S} \ldots$.. (ii), $\mathrm{Q}=\mathrm{R} \ldots$... (iii)

From (i) and (iii), we get $P<Q=R \Rightarrow P<R$. Hence $I$ is true. From (ii) and (iii), we get $Q=R \geq S \Rightarrow$ $\mathrm{Q} \geq \mathrm{S}$. Hence I may be true but not necessarily so.

Combining all, we get $\mathrm{A}<\mathrm{B} \geq \mathrm{C} \geq \mathrm{D} \Rightarrow$ No relationship between $A$ and $D$ can be established. Hence $I$ is not true.
II is not necessarily true from (iii).
81.3; $\mathrm{C}<\mathrm{E} \ldots$ (i), $\mathrm{F} \leq \mathrm{U} \ldots$ (ii), $\mathrm{U} \geq \mathrm{Q} \ldots$ (iii), $\mathrm{Q}>\mathrm{C} \ldots$ (iv)

From (i) and (iv), we get $\mathrm{Q}>\mathrm{C}<\mathrm{E} \Rightarrow$ Either $\mathrm{Q}>\mathrm{E}$ or Q $=E$ or $Q<E$. Hence either $I$ or $I I$ is true.
$82.4 ; \mathrm{U} \geq \mathrm{V}$... (i), $\mathrm{V} \leq \mathrm{X}$... (ii), $\mathrm{W}>\mathrm{M} \ldots$... (iii) $\mathrm{X}<\mathrm{W} \ldots$... (iv)
Combining (iv), (ii) and (i), we get, $\mathrm{W}>\mathrm{X} \geq \mathrm{V} \leq \mathrm{U} \Rightarrow$ no relationship can be established between W and U . Hence I is not true.
Aligning (iv) and (iii), we get $\mathrm{X}<\mathrm{W}>\mathrm{M} \Rightarrow$ no relationship can be established between M and X .
83. 2; $\mathrm{E}<\mathrm{Q} \ldots$ (i), $\mathrm{F} \leq \mathrm{V} \ldots$ (ii), $\mathrm{G} \geq \mathrm{Q} \ldots$ (iii), $\mathrm{F}>\mathrm{E} \ldots$... (iv)

Combining (iv) and (ii), we get,
$\mathrm{E}<\mathrm{F} \leq \mathrm{V} \Rightarrow \mathrm{E}<\mathrm{V}$. Hence I may be true but not
necessarily so.
From (i) and (iii), we get, $\mathrm{E}<\mathrm{Q} \leq \mathrm{G}$
$\Rightarrow \mathrm{E}<\mathrm{G}$. Hence II is true.
84. 5; $\mathrm{F} \geq \mathrm{G} \ldots$... (i), $\mathrm{H} \leq \mathrm{I}$... (ii), $\mathrm{I}=\mathrm{F} \ldots$... (iii), $\mathrm{H}>\mathrm{L} \ldots$... (iv)

From converted (ii) and (iv), we get $\mathrm{I} \geq \mathrm{H}>\mathrm{L}$
$\Rightarrow \mathrm{I}>\mathrm{L}$. Hence I is true.
From (iii) and (i), we get, $\mathrm{I}=\mathrm{F} \geq \mathrm{G} \Rightarrow \mathrm{I} \geq \mathrm{G}$. Hence II is true.
85. 1; $\mathrm{Q} \leq \mathrm{R} \ldots$ (i), $\mathrm{O}=\mathrm{N} \ldots$... (ii), $\mathrm{N}>\mathrm{S} \ldots$.... (iii), $\mathrm{S} \geq \mathrm{Q} \ldots$ (iv)

From (ii), (iii) and (iv), we get $\mathrm{O}=\mathrm{N}>\mathrm{S} \geq \mathrm{Q}$
$\Rightarrow \mathrm{O}>\mathrm{Q}$ or $\mathrm{Q}<\mathrm{O}$. Hence I is true.
From converted (i), converted (iv) and converted (iii), we get, $\mathrm{R} \geq \mathrm{Q} \leq \mathrm{S}<\mathrm{N} \Rightarrow$ no definite relationship between R and N can be established. Hence II is not true.
86.3; $\mathrm{E}=\mathrm{T}$...(i), $\mathrm{S} \leq \mathrm{L} . .$. (ii), $\mathrm{L} \leq \mathrm{E} . .$. (iii)

Combining all, we get, $\mathrm{T}=\mathrm{E} \geq \mathrm{L} \geq \mathrm{S} \Rightarrow \mathrm{T} \geq \mathrm{S}$ or $\mathrm{S} \leq \mathrm{T}$ Hence either for Histrue.
87. $2 ; \mathrm{P} \geq \mathrm{Z} \ldots$...(i), $\mathrm{R} \leq \mathrm{K}$....(ii), $\mathrm{Z}<\mathrm{R} \ldots$... (iii)

From (i) and (iii), we get, $P \geq Z<R \Rightarrow I$ can't be established.
From (ii) and (iii), we get, $Z<R \leq K \Rightarrow Z<K$ or $K>Z$. Hence 以 is true.
88.4; $\mathrm{M} \geq \mathrm{S}$....(i), $\mathrm{Q} \leq \mathrm{D} . .($ (ii), $\mathrm{M}=\mathrm{D}$

From (ii) and (iii), we get, $\mathrm{Q} \leq \mathrm{D}=\mathrm{M} \Rightarrow \mathrm{Q} \leq \mathrm{M}$. Hence I is not true.
From (i) and (iii), we get, $\mathrm{S} \leq \mathrm{M}=\mathrm{D} \Rightarrow \mathrm{S} \leq \mathrm{D}$. Hence II may be true but not necessarily.
89. 4; $B=G \ldots$..(i), $R<B$....(ii), $Y>R . .$. (iii) Combining all, we get, $\mathrm{Y}>\mathrm{R}<\mathrm{B}=\mathrm{G} \Rightarrow$ no conclusion. Since $Y=G$ is not given in conclusion, hence neither $I$ nor II is true.
90.5; $\mathrm{D} \geq \mathrm{V}$...(ii), $\mathrm{X}>\mathrm{D} \ldots$ (ii), $\mathrm{V}>\mathrm{E} \ldots$....(iii)

From (i) and (ii), we get, $\mathrm{X}>\mathrm{D} \geq \mathrm{V} \Rightarrow \mathrm{X}>\mathrm{V}$. Hence I is true.
From (i) and (iii), we get, $\mathrm{D} \geq \mathrm{V}>\mathrm{E} \Rightarrow \mathrm{D}>\mathrm{E}$ or $\mathrm{E}<\mathrm{D}$. Hence II is true.
(91-95): Symbols can be easily transformed as:
$(\oplus \rightarrow \geq, \odot \rightarrow=, @ \rightarrow \leq, @ \rightarrow>$ and $\delta \rightarrow<)$
91. $4 ; \mathrm{Q}=\mathrm{T} \ldots$... (i), $\mathrm{B} \geq \mathrm{Q} \ldots$ (ii), $\mathrm{T} \geq \mathrm{A} \ldots$... (iii)

From (i) and (ii), we get $\mathrm{B} \geq \mathrm{Q}=\mathrm{T} \Rightarrow \mathrm{B} \geq \mathrm{T}$
or, $T \leq B$. Hence $I$ is not true.
From (i) and (iii), we get $\mathrm{Q}=\mathrm{T} \geq \mathrm{A} \Rightarrow \mathrm{Q} \geq \mathrm{A}$
or, $\mathrm{A} \leq \mathrm{Q}$. Hence II is not true.
92. $4 ; \mathrm{U}>\mathrm{S} \ldots$.. (i), $\mathrm{W}<\mathrm{S} \ldots$... (ii), $\mathrm{S}>\mathrm{O} \ldots$ (iii)

From (i) and (ii), we get $\mathrm{U}>\mathrm{S}>\mathrm{W} \Rightarrow \mathrm{U}>\mathrm{W}$.
Hence I is not true.
From (ii) and (iii), we get $\mathrm{W}<\mathrm{S}>\mathrm{O}$. Hence no relationship between W and O can be determined.
$93.1 \quad 94.2 \quad 95.2$
96.4; K > L... (i), K = E ... (ii), L<F ... (iii)

From (i) and (ii), we get, $\mathrm{E}=\mathrm{K}>\mathrm{L} \Rightarrow \mathrm{E}>\mathrm{L}$
or, $\mathrm{L}<\mathrm{E}$. Hence I is not true.
II is not true because of (iii).
97. 5; $\mathrm{P}=\mathrm{H}$.... (i), $\mathrm{P}=\mathrm{J} . .$. (ii), $\mathrm{P} \leq \mathrm{K} \ldots$... (iii)

From (ii) \& (iii), we get, $\mathrm{J}=\mathrm{P} \leq \mathrm{K} \Rightarrow \mathrm{J} \leq \mathrm{K}$. Hence I is true. From (i) and (ii) it can be proved that II is true.
98.1 99.1 100.3
101.4; A>L... (i), L < K ... (ii), K > Z ... (iii)

From (ii) and (iii), we get, $\mathrm{L}<\mathrm{K}>\mathrm{Z}$. Hence no relation-
ship between $L$ and $Z$ can be determined. Hence $I$ is not true.
From (i) and (ii), we get, $\mathrm{A}>\mathrm{L}<\mathrm{K}$. Again, nothing can be concluded about the relationship of A and K. Hence II is not true.
102. $4 ; \mathrm{O} \leq \mathrm{A} \ldots$ (i), $\mathrm{U}=\mathrm{O} \ldots$ (ii), $\mathrm{A}=\mathrm{E} \ldots$ (iii)

From (ii) and (i), we get, $\mathrm{U}=\mathrm{O} \leq \mathrm{A} \Rightarrow \mathrm{I}$ is wrong.
Since I is wrong, hence II also can't be established.
103. 2; $\mathrm{P}>\mathrm{T} \ldots$... (i), $\mathrm{G} \geq \mathrm{P} \ldots$ (ii), $\mathrm{F}=\mathrm{G} \ldots$... (iii)

From (iii) and (ii), we get, $\mathrm{F}=\mathrm{G} \geq \mathrm{P} \Rightarrow \mathrm{F} \geq \mathrm{P}$... (iv). Hence I may be true but not necessarily so.
Now, from (iv) and (i), we get, $\mathrm{F} \geq \mathrm{P}>\mathrm{T} \Rightarrow \mathrm{F}>\mathrm{T}$. Hence II is true.
104. 3 ; $\mathrm{W} \leq \mathrm{E}$... (i), $\mathrm{P}>\mathrm{E} \ldots$... (ii), $\mathrm{V} \leq \mathrm{W} \ldots$ (iii)

Combining all, we get, $\mathrm{P}>\mathrm{E} \geq \mathrm{W} \leq \mathrm{V}$ or, $\mathrm{E} \geq \mathrm{V}$
$\Rightarrow \mathrm{E}$ is either greater than or equal to V .
105. 1; $\mathrm{M} \geq \mathrm{L} \ldots$ (i), $\mathrm{O}=\mathrm{L} \ldots$ (ii), $\mathrm{J}<\mathrm{L} \ldots$ (iii)

From (i) and (iii), we get $M \geq L>J \Rightarrow M>J$. Hence $I$ is true.
From (ii) and (iii), we get, $\mathrm{O}=\mathrm{L}>\mathrm{J} \Rightarrow \mathrm{O}>\mathrm{J}$. Hence II is not true.
106. 3; H $>$ I.... (i), $K \leq L \ldots$ (ii), $I=L \ldots$ (iii)

From (ii) and (iii), we get, $\mathrm{K} \leq \mathrm{L}=\mathrm{I} \Rightarrow \mathrm{K} \leq \mathrm{I} \Rightarrow$ either
$\mathrm{I}>\mathrm{K}$ or $\mathrm{K}=\mathrm{I}$.
107.4; $\mathrm{X}>\mathrm{F} \ldots$... (i), $\mathrm{T} \geq \mathrm{C} \ldots$ (ii), $\mathrm{F} \leq \mathrm{C} \ldots$ (iii)

Combining all, we get,
$\mathrm{X}>\mathrm{F} \leq \mathrm{C} \leq \mathrm{T} \Rightarrow \mathrm{X}>\mathrm{F}=\mathrm{C}=\mathrm{T} \Rightarrow \mathrm{X}>\mathrm{T}$ may be true
but not necessarily so because it is only one possibility. Hence I can't be established. Nor can II be established.
108. $4 ; 2>8 \ldots$ (i), $6 \geq 8 \ldots$ (ii), $5<6 \ldots$ (iii)

From (ii) and (iii), we get, $5<6 \geq 8 \Rightarrow$ I can't be proved. II also can't be established.
109. 2; $\mathrm{S}<\mathrm{N} \ldots$ (i), $\mathrm{O} \geq \mathrm{R} \ldots$ (ii), $\mathrm{S}=\mathrm{R} \ldots$ (iii)

From (ii) and (iii), we get, $\mathrm{S}=\mathrm{R} \leq \mathrm{O} \Rightarrow \mathrm{S} \leq \mathrm{O}$ or $\mathrm{O} \geq \mathrm{S}$. Hence II is true.
From II and (i), we get, $\mathrm{O} \geq \mathrm{S}<\mathrm{N} \Rightarrow$ No relationship between N and O can be established. Hence I is not true.
110.2; $\mathrm{J}<\mathrm{Y} \ldots$... (i), $\mathrm{J} \geq \mathrm{O} \ldots$... (ii), $\mathrm{Y}=\mathrm{K}$... (iii)

Combining all, we get $\mathrm{K}=\mathrm{Y}>\mathrm{J} \geq \mathrm{O} \Rightarrow \mathrm{K}>\mathrm{O}$ or $\mathrm{O}<\mathrm{K}$. Hence II is true.
111.2; $\mathrm{D}=\mathrm{B}$... (i), $\mathrm{R}<\mathrm{L} \ldots$ (ii), $\mathrm{L}>\mathrm{D} \ldots$... (iii)

From (ii) and (iii), no relationship between R and D can be established. Hence I can't be proved.
From (i) and (iii), $\mathrm{L}>\mathrm{D}=\mathrm{B} \Rightarrow \mathrm{L}>\mathrm{B}$. Hence II is true.
$112.1 ; \mathrm{I} \geq \mathrm{R} \ldots$ (i), $\mathrm{Q}<\mathrm{C} \ldots$ (ii), $\mathrm{D}<\mathrm{R} \ldots$ (iii), $\mathrm{Q}=\mathrm{I} \ldots$ (iv)
From (ii), (iv) and (i), we get $C>Q=I \geq R$
$\Rightarrow C>R$. Hence $I$ is true.
From (iii) and (i), we get $\mathrm{D}<\mathrm{R} \leq \mathrm{I} \Rightarrow \mathrm{D}<\mathrm{I}$. Hence II is not true.
$113.2 \quad 114.5 \quad 115.3 \quad 116.4$
117.4; $\mathrm{A}>\mathrm{M} \ldots$... i , $\mathrm{D} \leq \mathrm{H} \ldots$... (ii), $\mathrm{M}=\mathrm{D} \ldots$... (iii)

Combining all, we get, $\mathrm{A}>\mathrm{M}=\mathrm{D} \leq \mathrm{H} \Rightarrow$ No relationship between A and H can be determined. Hence I is not true. We also get, $\mathrm{M} \leq \mathrm{H} \Rightarrow$ II may be true but not necessarily so.
$\begin{array}{lllllll}118.2 & 119.3 & 120.1 & 121.4 & 122.2 & 123.3 & 124.1\end{array}$
$\begin{array}{lllllll}125.4 & 126.4 & 127.4 & 128.4 & 129.1 & 130.3 & 131.2\end{array}$
132.2; $\mathrm{R}>\mathrm{K}$...(i), $\mathrm{P} \geq \mathrm{S}$...(ii), $\mathrm{P}=\mathrm{K}$...(iii)

From (ii) and (iii), we get $K=P \geq S \Rightarrow K \geq S$...(a). Hence I may be true but not necessarily so. Now, from (i) and (a), we get $R>K \geq S \Rightarrow R>S$ or $S<R$. Hence II is true.
133. 4; $\mathrm{A}=\mathrm{E}$...(i) $\mathrm{I}>\mathrm{O}$...(ii), $\mathrm{U}<\mathrm{A} . .$. (iii), $\mathrm{I} \geq \mathrm{U} . .$. (iv)

From (iii) and (iv), we get $\mathrm{I} \geq \mathrm{U}<\mathrm{A} \ldots$ (a) $\Rightarrow$ no conclusion. Hence I is not necessarily true. No relationship between E and O can be established.
134.5; $\mathrm{Q}=\mathrm{R} \ldots$ (i), $\mathrm{T}<\mathrm{L} \ldots$ (ii), $\mathrm{R}<\mathrm{M} \ldots$..(iii), $\mathrm{L} \leq \mathrm{Q}$

From (ii), (iv) and (i), we get $\mathrm{T}<\mathrm{L} \leq \mathrm{Q}=\mathrm{R}$
$\Rightarrow \mathrm{T}<\mathrm{R}$. Hence II is true.
Now, From II and (iii), we get $\mathrm{T}<\mathrm{R}<\mathrm{M} \Rightarrow \mathrm{T}<\mathrm{M}$ or $\mathrm{M}>\mathrm{T}$. Hence I is true.
135.1; $\mathrm{Z}<\mathrm{N} \ldots$..(i), $\mathrm{D} \leq \mathrm{G} \ldots$..(ii), $\mathrm{B}<\mathrm{Z} \ldots$..(iii), $\mathrm{D}=\mathrm{N} \ldots$..(iv)

From (i), (ii) and (iv), we get $\mathrm{Z}<\mathrm{N}=\mathrm{D} \leq \mathrm{G} \Rightarrow \mathrm{Z}<\mathrm{G}$ or $G>Z$. Hence $I$ is true. From (i) and (iii), we get $\mathrm{B}<\mathrm{Z}<\mathrm{N} \Rightarrow \mathrm{B}<\mathrm{N}$ or $\mathrm{N}>\mathrm{B}$.
Hence II is not true.
136.3; $\mathrm{H} \geq \mathrm{Y} \ldots$...(i), $\mathrm{E} \geq \mathrm{C} \ldots$..(ii), $\mathrm{K}<\mathrm{Y} \ldots$..(iii), $\mathrm{K}>\mathrm{C} \ldots$..(iv)

Combining all, we get $\mathrm{H} \geq \mathrm{Y}>\mathrm{K}>\mathrm{C} \leq \mathrm{E} \Rightarrow$ no relationship between H and E can be established. But I and II together are exhaustive. Hence either I or II is true.
137. $5 ; \mathrm{E}<\mathrm{F} . .$. (i); $\mathrm{O} \geq \mathrm{F} . . .(\mathrm{ii}) ; \mathrm{P} \leq \mathrm{E} . .$. (iii)

Combining these, we get $\mathrm{P} \leq \mathrm{E}<\mathrm{F} \leq \mathrm{O}$.
Hence $\mathrm{F}>\mathrm{P}$ and $\mathrm{P}<\mathrm{F}$.
138.4; $\mathrm{C}>\mathrm{P}$...(i), $\mathrm{P} \leq \mathrm{D}$...(ii), $\mathrm{C}=\mathrm{G} .$. (iii)

From (i) and (iii), we get $\mathrm{G}=\mathrm{C}>\mathrm{P} \Rightarrow \mathrm{G}>\mathrm{P} \ldots$...(a)
or $\mathrm{P}<\mathrm{G}$. Hence II is false. Now, from (a) and (ii), we get $\mathrm{G}>\mathrm{P} \leq \mathrm{D} \Rightarrow$ no conclusion.
139.1; $\mathrm{S} \leq \mathrm{T} \ldots$..(i), $\mathrm{Q}=\mathrm{N} \ldots$..(ii), $\mathrm{T}<\mathrm{N} \ldots$ (iii)

From (i) and (iii), we get $S \leq T<N \Rightarrow S<N$. Hence I is true. From I and (ii), we get $\mathrm{S}<\mathrm{N}=\mathrm{Q} \Rightarrow \mathrm{S}<\mathrm{Q}$. Hence II is not true.
140. $4 ; \mathrm{L}>\mathrm{K}$...(i), $\mathrm{V} \geq \mathrm{K} \ldots$..(ii), $\mathrm{R}=\mathrm{L} \ldots$...(iii)

From (i) and (ii), we get $\mathrm{V} \geq \mathrm{K}<\mathrm{L} \Rightarrow$ no relationship between V and L can be established. Hence I or II may be true but not necessarily so.
141. 2; $\mathrm{H} \geq \mathrm{J}$...(i), $\mathrm{J}>\mathrm{Z}$...(ii), $\mathrm{M} \geq \mathrm{J}$...(iii)

From (ii) and (iii), we get $\mathrm{Z}<\mathrm{J} \leq \mathrm{M} \Rightarrow \mathrm{Z}<\mathrm{M}$. Hence II is true.
From (i) and (iii), we get $\mathrm{H} \geq \mathrm{J} \leq \mathrm{M} \Rightarrow$ no conclusion. Hence I may be true but not necessarily so.

## (142-146):

Here, $=$ means $\geq,>$ means $=,+$ means $\leq,<$ means $>$, and $\times$ means $<$.
142. $4 ; \mathrm{A} \geq \mathrm{B} \ldots$..(i), $\mathrm{P} \leq \mathrm{R} \ldots$..(ii), $\mathrm{A}<\mathrm{P} .$. (iii)

From (i) and (iii), we get $\mathrm{P}>\mathrm{A} \geq \mathrm{B} \Rightarrow \mathrm{P}>\mathrm{B}$ or $\mathrm{B}<\mathrm{P}$ ...(A). Hence I is false.
From (A) and (ii), we get $\mathrm{B}<\mathrm{P} \leq \mathrm{R} \Rightarrow \mathrm{B}<\mathrm{R}$ or $\mathrm{R}>\mathrm{B}$. Hence II may be true but not necessarily so.
143.4; $\mathrm{N}>\mathrm{O}$...(i), $\mathrm{E}=\mathrm{F}$...(ii), $\mathrm{M}<\mathrm{O}$...(iii)

From (i) and (iii), we get $\mathrm{N}>\mathrm{O}>\mathrm{M} \Rightarrow \mathrm{N}>\mathrm{M}$ or $\mathrm{M}<\mathrm{N}$. Hence $I$ is not true. No relationship between E and O can be established from the given statements.
144.3; $\mathrm{K}=\mathrm{L} \ldots$ (i), $\mathrm{G} \geq \mathrm{I} \ldots$..(ii), $\mathrm{Y} \leq \mathrm{Q} \ldots$ (iii)
No relationship between G and L can be established but both the conclusions together are exhaustive. Hence either I or II follows.
145. 5; R $\geq \mathrm{U} \ldots$..(i), $\mathrm{B}>\mathrm{R}$..(ii), $\mathrm{K} \leq \mathrm{U} \ldots$..(iii)

From(i) and (ii), we get $B>R \geq U \Rightarrow B>U$ or $U<B$. Hence $I$ is true From $I$ and (iii), we get $K \leq U<B \Rightarrow$ $K<B$ or $B>K$. Hence II is true.
146.4; $\mathrm{M}=\mathrm{H}$...(i), 2 < H ...(ii), $2 \leq \mathrm{N}$...(iii)

From (i) and (ii), we get $M=H>2 \Rightarrow M>2 \ldots$ (A). Hence $I$ is not true.
From (A) and (iii), we get $\mathrm{M}>2 \leq \mathrm{N} \Rightarrow$ no conclusion. Hence II is not true.
147.5
148. 5; $\mathrm{E} \leq \mathrm{H}$...(i), $6>\mathrm{P}$...(ii), $\mathrm{R}<\mathrm{E} . . .(\mathrm{iii}), 6=\mathrm{R} . .$. (iv).

From (ii), (iii) and (iv), we get $E>R=6>P \Rightarrow E>P$. Hence I is true.
From I and (i), we get $\mathrm{P}<\mathrm{E} \leq \mathrm{H} \Rightarrow \mathrm{P}<\mathrm{H}$ or $\mathrm{H}>\mathrm{P}$. Hence II is true.
149. $1 ; \mathrm{M}<\mathrm{N} \ldots$..(i), $\mathrm{R}=\mathrm{Q} \ldots$...(ii), $\mathrm{A}>\mathrm{Q} \ldots$..(iii), $\mathrm{M}>\mathrm{R} \ldots$..(iv)

From (iii) and (ii), we get $A>Q=R \Rightarrow A>R$. Hence $I$ is true.

From (i), (iv) and (ii), we get $\mathrm{Q}=\mathrm{R}<\mathrm{M}<\mathrm{N} \Rightarrow \mathrm{Q}<\mathrm{N}$ or $\mathrm{N}>\mathrm{Q}$. Hence II is not true.
150.3; B < D ...(i), $\mathrm{E} \leq \mathrm{T} . . .(\mathrm{ii}), \mathrm{T} \geq \mathrm{P} . . .($ (iii), $\mathrm{P}>\mathrm{B} . . .(\mathrm{iv})$

From (i) and (ii), we get $\mathrm{P}>\mathrm{B}<\mathrm{D} \Rightarrow$ no definite conclusions; means $\mathrm{P}>\mathrm{D}$ or $\mathrm{P}=\mathrm{D}$ or $\mathrm{P}<\mathrm{D}$. Hence either I or II follows.
151.4
152. 5; P > Q .... (i); $\mathrm{Q} \geq \mathrm{R}$.... (ii); $\mathrm{R}=\mathrm{S}$.... (iii); $\mathrm{T}<\mathrm{S}$.

Combining all the equations, we get
$\mathrm{P}>\mathrm{Q} \geq \mathrm{R}=\mathrm{S}>\mathrm{T} \Rightarrow \mathrm{T}<\mathrm{P}$ (conclusion I ) and $\mathrm{S} \leq \mathrm{Q}$ (conclusion II)
153.4; S $\leq$ A.... (i); $\mathrm{A}<\mathrm{K}$.... (ii); $\mathrm{R} \geq \mathrm{K} \ldots$... (iii); $\mathrm{L} \geq \mathrm{R}$

Combining all the equations, we get
$\mathrm{S} \leq \mathrm{A}<\mathrm{K} \leq \mathrm{R} \leq \mathrm{L} \Rightarrow \mathrm{S}<\mathrm{L}$ and $\mathrm{L}>\mathrm{A}$. Hence, conclusions I and II do not follow.
154.3; $\mathrm{G}>\mathrm{H}$.... (i); $\mathrm{F}<\mathrm{H} . .$. (ii); $\mathrm{K} \geq \mathrm{P}$...... (iii); $\mathrm{M} \leq \mathrm{P}$...... (iv)

Combining (iii) and (iv), we get
$\mathrm{K} \geq \mathrm{P} \geq \mathrm{M} \Rightarrow \mathrm{K} \geq \mathrm{M}$
$\Rightarrow \mathrm{K}>\mathrm{M}$ (conclusion I) or $\mathrm{K}=\mathrm{M}$ (conclusion II)
155. 1; A < P ... (i); $\mathrm{Z}<\mathrm{A} \ldots$...(ii); $\mathrm{N} \leq \mathrm{Z} \ldots$.... (iii); $\mathrm{L} \leq \mathrm{N} \ldots$... (iv)

Combining all the equations, we get
$\mathrm{L} \leq \mathrm{N} \leq \mathrm{Z}<\mathrm{A}<\mathrm{P} \Rightarrow \mathrm{P}>\mathrm{L}$ (conclusion I )
156.2
157.4; $\mathrm{N}=\mathrm{P} . .$. (i); $\mathrm{Q} \neq \mathrm{P} .$. (ii); $\mathrm{M} \geq \mathrm{N}$.

Combining all, we get
$\mathrm{M} \geq \mathrm{N}=\mathrm{P} \neq \mathrm{Q} \Rightarrow \mathrm{M} \geq \mathrm{P}$ and $\mathrm{N} \neq \mathrm{Q}$
Hence neither conclusion I nor II is true.
$158.4 ; \mathrm{N} \geq \mathrm{U} \ldots$.. (i) $; \mathrm{O}_{\neq} \mathrm{E} \ldots$...ii); $\mathrm{E} \leq \mathrm{N} \ldots$... (iii)
No statement gives any clue to establish relation between $E$ and $U$, or $U$ and $O$.
Hence, neither conclusion I nor II is true.
159. 4; $\mathrm{M}<\mathrm{P}$... (i); $\mathrm{Z}=\mathrm{H} \ldots$.. (ii); $\mathrm{M} \geq \mathrm{Z} \ldots$ (iii)


Hence neither conclusion $\mathrm{I}(\mathrm{P} \leq \mathrm{Z})$ nor conclusion II ( $\mathrm{M} \leq \mathrm{H}$ ) is true.
$160.4 ; \mathrm{U} \geq \mathrm{V} \ldots$ (i); $\mathrm{V} \leq \mathrm{X} \ldots$... (ii); $\mathrm{W}=\mathrm{U} \ldots$... (iii)
Combining (i) and (iii), we get
$\mathrm{W}=\mathrm{U} \geq \mathrm{V} \Rightarrow \mathrm{W} \geq \mathrm{V}$. Hence conclusion I is not necessarily true. Also, the given statements are not sufficient to establish a relation between W and X .
161.4
162.1; T $\geq \mathrm{U} . .$. (i); $\mathrm{Q} \leq \mathrm{R} \ldots$..(ii); $\mathrm{R}<\mathrm{U} .$. (iii)

Combining all these, we get
$\mathrm{T} \geq \mathrm{U}>\mathrm{R} \geq \mathrm{Q} \Rightarrow \mathrm{T}>\mathrm{Q}$ and $\mathrm{T}>\mathrm{R}$. Hence, Conclusion $\mathrm{I}(\mathrm{T}>\mathrm{Q})$ follows. But conclusion II $(\mathrm{R} \leq \mathrm{T})$ is false.
163. 4; H < B ... (i); J $\geq$ C ... (ii); H $>\mathrm{J} \ldots$... (iii)

Combining all these, we get
$\mathrm{B}>\mathrm{H}>\mathrm{J} \geq \mathrm{C} \Rightarrow \mathrm{B}>\mathrm{C}$ and $\mathrm{H}>\mathrm{C}$. Hence, Conclusion $\mathrm{I}(\mathrm{B} \geq \mathrm{C})$ and Conclusion II $(\mathrm{C} \leq \mathrm{H})$ do not follow.
164. 2; $\mathrm{Q}<\mathrm{T} . .$. (i); $\mathrm{W}>\mathrm{X} . . .($ (ii); $\mathrm{Q} \geq \mathrm{X}$...(iii)

From (ii) and (iii), we can't ascertain the relationship between W and Q. Hence, I does not follow. From (i) and (iii), we get
$\mathrm{T}>\mathrm{Q} \geq \mathrm{X} \Rightarrow \mathrm{T}>\mathrm{X}$.
Hence, Conclusion II $(\mathrm{X}<\mathrm{T})$ is true.
165. 5; Y = Z ... (i); B > A ... (ii); Y < A ... (iii)

Combining all these, we get
$\mathrm{B}>\mathrm{A}>\mathrm{Y}=\mathrm{Z} \Rightarrow \mathrm{A}>\mathrm{Z}$ and $\mathrm{B}>\mathrm{Y}$.
Hence Conclusion I $(\mathrm{A}>\mathrm{Z})$ and Conclusion II $(\mathrm{Y}<\mathrm{B})$ are true.
166.3; K > L ... (i); $\mathrm{N} \leq \mathrm{O}$... (ii); L=O...(iii)

Combining (ii) and (iii), we get
$\mathrm{L}=\mathrm{O} \geq \mathrm{N} \Rightarrow \mathrm{L} \geq \mathrm{N}$, ie $\mathrm{L}>\mathrm{N}$ or $\mathrm{L}=\mathrm{N}$
Hence, either Conclusion $\mathrm{I}(\mathrm{L}>\mathrm{N})$ or
Conclusion II $(\mathrm{N}=\mathrm{L})$ is true.
167.4; $\mathrm{X}>\mathrm{F} \ldots$.. (i); $\mathrm{T} \geq \mathrm{C} \ldots$ (ii); $\mathrm{F} \leq \mathrm{C} \ldots$ (iii)

Combining (ii) and (iii), we get
$\mathrm{T} \geq \mathrm{C} \geq \mathrm{F}$... (iv)
From (i) and (iv), no relation can be established between $T$ and $X$ nor between $C$ and $X$.
168. $4 ; 2>8 \ldots$ (i); $6 \geq 8 \ldots$ (ii); $5<6 \ldots$ (iii)

From (ii) and (iii), no relation can be established between 5 and 8. Similarly, the given equations are not sufficient to establish relation between 2 and 5 .
169.2; $\mathrm{S}<\mathrm{N} \ldots$... (i); $\mathrm{O} \geq \mathrm{R}$... (ii); $\mathrm{S}=\mathrm{R} . .$. (iii)

Combining (i) and (iii), we get $\mathrm{N}>\mathrm{S}=\mathrm{R} \ldots$ (iv)
From (ii) and (iv), no relation can be established between N and O . From (ii) and (iii), we get $\mathrm{O} \geq \mathrm{R}=\mathrm{S}$ $\Rightarrow \mathrm{O} \geq \mathrm{S}$.
Hence, conclusion II ( $\mathrm{O} \geq S$ ) is true.
$170.2 ; \mathrm{J}<\mathrm{Y} \ldots$.. (i); $\mathrm{J} \geq \mathrm{O} \ldots$... (ii); $\mathrm{Y}=\mathrm{K} \ldots$... (iii)
Combining (i), (ii) and (iii), we get
$\mathrm{K}=\mathrm{Y}>\mathrm{J} \geq \mathrm{O} \Rightarrow \mathrm{K}>\mathrm{O}$. Hence, only conclusion II follows.
171. 2; $\mathrm{D}=\mathrm{B} \ldots$... ) $; \mathrm{R}<\mathrm{L} \ldots$ (ii) $; \mathrm{L}>\mathrm{D} \ldots$ (iii)


From (ii) and (iii), no relation can be established between R and D. Hence, I does not follow. But conclusion II follows from (i) and (iii).
172.4; B $\geq$ I ... (i); $\mathrm{Y}<\mathrm{A} \ldots$... (ii); $\mathrm{N} \leq \mathrm{I} \ldots$ (iii); $\mathrm{Y}>\mathrm{N}$.... (iv) From (i) and (iii), we get $\mathrm{B} \geq \mathrm{I} \geq \mathrm{N}$...... (v) From (ii) and (iv), we get $\mathrm{A}>\mathrm{Y}>\mathrm{N}$..... (vi). From (v) and (vi), we do not get any specific conclusion between B and A or Y and I. Hence, neither I nor II follows.
173. 4; There is no sign of \# in the given statements. Hence, neither I nor II follows.
174. 3; $\mathrm{Q} \leq \mathrm{P} \ldots$... (i); $\mathrm{T}=\mathrm{Q} \ldots$... (ii); $\mathrm{T} \geq \mathrm{N} \ldots$ (iii); $\mathrm{N}>\mathrm{J} \ldots$... (iv)

Combining all statements, we get
$\mathrm{P} \geq \mathrm{Q}=\mathrm{T} \geq \mathrm{N}>\mathrm{J} \Rightarrow \mathrm{P} \geq \mathrm{N}$. Hence, either conclusion $\mathrm{I}(\mathrm{P}>\mathrm{N})$ or conclusion II $(\mathrm{P}=\mathrm{N})$ is true.
175.3; L = K ... (i); $\mathrm{S}=\mathrm{K} \ldots$.. (ii); $\mathrm{L} \geq \mathrm{B} \ldots$ (iii); $\mathrm{R} \leq \mathrm{B} \ldots$ (iv) Combining (iii) and (iv), we get $\mathrm{L} \geq \mathrm{B} \geq \mathrm{R} \Rightarrow \mathrm{R} \leq \mathrm{L}$, ie $\mathrm{R}<\mathrm{L}$ or $\mathrm{R}=\mathrm{L}$.
Again from (i) and (ii), since $\mathrm{L}=\mathrm{K}=\mathrm{S}$, hence either
conclusion I $(\mathrm{R}<\mathrm{K})$ or conclusion II $(\mathrm{R}=\mathrm{S})$ is true.
176.1
177.4; $\mathrm{J}=\mathrm{O}$.... (i); $\mathrm{T} \leq \mathrm{O} \ldots$.... (ii); $\mathrm{T} \neq \mathrm{Y} \ldots$...(iii); $\mathrm{E} \geq \mathrm{J} . .$. (iv) By combining (i), (ii), (iii) and (iv), we get $\mathrm{E} \geq \mathrm{J}=\mathrm{O}$ $\geq \mathrm{T} \neq \mathrm{Y} \Rightarrow \mathrm{E} \geq \mathrm{T}$. Hence, both the conclusions do not necessarily follow.
178. 5; $\mathrm{T}<\mathrm{R}$.... (i); $\mathrm{P}>\mathrm{A} \ldots$. (ii); $\mathrm{R} \leq \mathrm{A} \ldots$... (iii); $\mathrm{L}=\mathrm{T}$.... (iv) Combining all, we get
$\mathrm{P}>\mathrm{A} \geq \mathrm{R}>\mathrm{T}=\mathrm{L} \Rightarrow \mathrm{P}>\mathrm{L}$ and $\mathrm{A}>\mathrm{L}$. Hence, both the conclusions are true.
179. $2 ; \mathrm{T}_{\neq} \mathrm{O} \ldots$... (i); $\mathrm{O}_{\neq} \mathrm{P} \ldots$.. (ii); $\mathrm{P}=\mathrm{A} \ldots$... (iii); $\mathrm{A} \geq \mathrm{Z} \ldots$... (iv) Hence, conclusion I does not follow from equations (i) and (ii). But conclusion II follows from equations (ii) and (iii).
180. 3; D $\geq \mathrm{E}$... (i); $\mathrm{S}<\mathrm{E} . .$. (ii); $\mathrm{S}=\mathrm{X} \ldots$... (iii); $\mathrm{M}>\mathrm{S} . .$. (iv) By combining (i), (ii) and (iii), we get
D $\geq \mathrm{E}>\mathrm{S}=\mathrm{X} . \ldots$. . (v)
Comparing (iv) and (v) we do not get any specific relation between D and M . But the given two conclusions are complementary to each other. Hence, either of the two must follow.
181.4; $\mathrm{A} \leq \mathrm{P} \ldots$ (i), $\mathrm{A}>\mathrm{T} \ldots$.... (ii); $\mathrm{T}=\mathrm{N} \ldots$... (iii); $\mathrm{N} \geq \mathrm{S} \ldots$... (iv) Combining all the equations, we get $\mathrm{P} \geq \mathrm{A}>\mathrm{T}=\mathrm{N} \geq \mathrm{S} \Rightarrow \mathrm{P}>\mathrm{S}$. Hence, both the conclusions do net follow.
182. 3; G > H ...(i), $\mathrm{T} \leq \mathrm{H} \ldots$...(ii), $\mathrm{T}=\mathrm{K} \ldots$..(iii), $\mathrm{K} \neq \mathrm{Z} \ldots$...(iv)

Combining all, we get $G>H \geq T=K \neq Z$
Hence, we do not get any specific relation between $G$ and Z. But the given conclusions form a complementary pair. Hence, eitherTor II follows.
; $\mathrm{N} \neq \mathrm{U} \ldots$ (i), $\mathrm{U} \leq \mathrm{M} \ldots$ (ii), $\mathrm{N} \geq \mathrm{B} \ldots$ (iii), $\mathrm{M}=\mathrm{R}$...(iv) Combining (i), (ii), (iii) and (iv), we get $R=M \geq U \neq N \geq B \Rightarrow R \geq U$ Hence, conclusion $I(R \geq U)$ is true. But we can't get any specific relation between $M$ and $B$. Hence, conclusion II $(M \geq B)$ is not necessarily true.
184. 1; P<M ...(i); R $\geq$ M ...(ii); $S=R \ldots$ (iii); $S>Y \ldots$ (iv)

From (iii) and (iv), R > Y. Hence I follows. But no relation can be obtain between P and Y. Hence II does not follow.
185. 5; L $\neq \mathrm{M}$...(i); $\mathrm{M}>\mathrm{N}$...(ii); $\mathrm{R}<\mathrm{N} . . .(i i i) ; \mathrm{R} \geq \mathrm{F} \ldots$...iv)

Combining all, we get
$\mathrm{L} \neq \mathrm{M}>\mathrm{N}>\mathrm{R} \geq \mathrm{F} \Rightarrow \mathrm{M}>\mathrm{F}$ and $\mathrm{N}>\mathrm{F}$
Hence, both the conclusions are true.
186. 2; G > H ...(i); $\mathrm{I}<\mathrm{H} . . .($ (iii); $\mathrm{P} \geq \mathrm{Q} . . .($ (iii); $\mathrm{Q}>\mathrm{R} . . .(\mathrm{iv})$

From conclusions (i) and (ii), we get
$\mathrm{G}>\mathrm{H}>\mathrm{I}$. Hence, conclusion $\mathrm{I}(\mathrm{G}<\mathrm{I})$ is not true.
Again, from conclusions (iii) and (iv), we get $\mathrm{P} \geq \mathrm{Q}>\mathrm{R}$ $\Rightarrow P>R$. Hence, conclusion II $P \neq R$ is true.
187. 1; $\mathrm{N}>\mathrm{O} \ldots$.... (i); $\mathrm{O}=\mathrm{Q} \ldots$... (ii); $\mathrm{R}<\mathrm{Q} \ldots$. (iii) $; \mathrm{O} \leq \mathrm{S} \ldots$. (iv)

Combining (i), (ii) and (iii), we get $\mathrm{N}>\mathrm{O}=\mathrm{Q}>\mathrm{R} \ldots \ldots$. (v)

From (v), we get $\mathrm{N}>\mathrm{R}$ (conclusion I). From (ii) and (iv), we get
$\mathrm{S} \geq \mathrm{O}=\mathrm{Q} \Rightarrow \mathrm{S} \geq \mathrm{Q}$
Hence, conclusion II is not necessarily true.
188. 5; T $\geq \mathrm{U}$.... (i); $\mathrm{U}>\mathrm{Q} \ldots$... (ii); $\mathrm{Q}<\mathrm{S}$..... (iii); $\mathrm{S}<\mathrm{U}$..... (iv)

From (i) and (iv), we get
$\mathrm{T} \geq \mathrm{U}>\mathrm{S} \Rightarrow \mathrm{T}>\mathrm{S}$ (conclusion I)
Again, from (i) and (ii), we get
$\mathrm{T} \geq \mathrm{U}>\mathrm{Q} \Rightarrow \mathrm{T}>\mathrm{Q}$ (conclusion II)
189. 1; C < D .... (i); $\mathrm{D}=\mathrm{E}$.... (ii); $\mathrm{E}>\mathrm{F}$..... (iii); $\mathrm{F}>\mathrm{G}$..... (iv)

From (ii), (iii) and (iv), we get
$\mathrm{D}=\mathrm{E}>\mathrm{F}>\mathrm{G} \Rightarrow \mathrm{D}>\mathrm{G}$ (conclusion I )
But conclusion II is not necessarily true because C and $G$ can't be related.
190. 2; K $\geq$ L ..... (i); L > I ..... (ii); I < M ...... (iii); I > N ...... (iv)

From (i), (ii) and (iv), we get
$\mathrm{K} \geq \mathrm{L}>\mathrm{I}>\mathrm{N} \Rightarrow \mathrm{K}>\mathrm{N}$ (conclusion II)
But no relation can be obtained between L and M . Hence, conclusion I is not necessarily true.
191.1; V $\leq \mathrm{X}$..... (i); $\mathrm{X}<\mathrm{Y}$... (ii); $\mathrm{Y}=\mathrm{Z}$. (iii); $\mathrm{Y}>\mathrm{A}$.

From (i) and (ii), we get
$\mathrm{Y}>\mathrm{X} \geq \mathrm{V} \Rightarrow \mathrm{Y}>\mathrm{V}$ (conclusion I )
But no relation can be obtained between X and A . Hence, conclusion II is not necessarily true.
192.5; L>M ..... (i); $\mathrm{M}>\mathrm{N} \ldots$... (ii); $\mathrm{L} \geq \mathrm{O}$..... (iii); $\mathrm{P} \leq \mathrm{O}$.... (iv)

From (i) and (ii), we get
$\mathrm{L}>\mathrm{M}>\mathrm{N} \Rightarrow \mathrm{L}>\mathrm{N} \Rightarrow \mathrm{N}<\mathrm{L}$ (conclusion I )
Now, from (ii) and (iii), we get $\mathrm{L} \geq \mathrm{O} \geq \mathrm{P} \Rightarrow \mathrm{L} \geq \mathrm{P} \Rightarrow$
P $\leq \mathrm{L}$ (conclusion II)
193. 2; B > C ... (i); A > B ... (iii); C $\geq$ D ... (iii)

Combining all these we get
$\mathrm{A}>\mathrm{B}>\mathrm{C} \geq \mathrm{D} \Rightarrow \mathrm{A}>\mathrm{D}$ and $\mathrm{B}>\mathrm{D}$
Hence, conclusion I does not follow but conclusion II follows.
194. 5; $\mathrm{M}=\mathrm{N} \ldots$... (i); $\mathrm{N} \leq \mathrm{P} \ldots$... (ii); $\mathrm{P} \geq \mathrm{R} \ldots$ (iii)

Combining (i) and (ii), we get $\mathrm{P} \geq \mathrm{N}=\mathrm{M} \ldots$ (iv)
Hence from (iv), we get $\mathrm{P} \geq \mathrm{M}$ (conclusion I)
Now, $P \geq R \Rightarrow R \leq P$ (conclusion II).
195. 3; X > R ... (i); R < S ... (ii); X = T ... (iii)

From (i) and (iii), we get $\mathrm{X}=\mathrm{T}>\mathrm{R} \ldots$ (iv)
From (iv), $\mathrm{T}>\mathrm{R} \quad$ From (ii), $\mathrm{S}>\mathrm{R}$
Thus from (ii) and (iv) we can't ascertain the relation-
ship between T and S . But the given two conclusions
make a complementary pair. Hence, either conclusion I
$(\mathrm{T} \geq \mathrm{S})$ or conclusion II $(\mathrm{T}<\mathrm{S})$ is true.
196. 1; R > M... (i); $\mathrm{M}=\mathrm{Y} . .$. (ii); $\mathrm{Y} \geq \mathrm{Z} \ldots$... (iii)

Combining all these, we get
$\mathrm{R}>\mathrm{M}=\mathrm{Y} \geq \mathrm{Z} \Rightarrow \mathrm{Z}<\mathrm{R}$ (conclusion I)
197.4; $\mathrm{T}=\mathrm{Y}$... (i); $\mathrm{P} \geq \mathrm{X}$...(ii); $\mathrm{P} \leq \mathrm{Y}$... (iii)

Now, $\mathrm{P}=\mathrm{X}$ (conclusion I ) does not follow from (ii).

Similarly, P = Y (conclusion II) does not follow from (iii).
198.4; $\mathrm{K}=\mathrm{Y} \ldots$... (i); $\mathrm{N}=\mathrm{I} \ldots$... (ii) $; \mathrm{I} \geq \mathrm{K} \ldots$ (iii); $\mathrm{N} \leq \mathrm{P} . .$. (iv)

Combining all, we get
$\mathrm{P} \geq \mathrm{N}=\mathrm{I} \geq \mathrm{K}=\mathrm{Y} \Rightarrow \mathrm{P} \geq \mathrm{I}$ and $\mathrm{Y} \leq \mathrm{I}$.
Hence, neither I nor II is necessarily true.
199. 1; V > I ... (i); C < I ... (ii); $\mathrm{C}=\mathrm{Y} \ldots$ (iii); $\mathrm{K} \geq \mathrm{C} \ldots$ (iv)

Combining (i), (ii) and (iii), we get $\mathrm{V}>\mathrm{I}>\mathrm{C}=\mathrm{Y} \ldots$... (v) From (iv) and (v), we do not get any specific relation between I and K. Hence, II is not necessarily true.
From (iii) and (iv), we get
$\mathrm{K} \geq \mathrm{C}=\mathrm{Y} \Rightarrow \mathrm{K} \geq \mathrm{Y} \Rightarrow \mathrm{Y} \leq \mathrm{K}$
Hence, conclusion I is true.
200. 2; $\mathrm{K} \geq \mathrm{N} \ldots$.. (i); $\mathrm{S}>\mathrm{T} .$. (ii); $\mathrm{I}<\mathrm{N} \ldots$ (iii); $\mathrm{T} \leq \mathrm{I} \ldots$ (iv)

Combining (i), (iii) and (iv), we get
$\mathrm{K} \geq \mathrm{N}>\mathrm{I} \geq \mathrm{T} \Rightarrow \mathrm{K}>\mathrm{T} \Rightarrow \mathrm{T}<\mathrm{K}$
Hence, conclusion II is true but conclusion I is not true.
201. 1; L = E ... (i); $\mathrm{E}>\mathrm{P} \ldots$... (ii); $\mathrm{P}=\mathrm{R} \ldots$ (iii); $\mathrm{R} \geq \mathrm{D} \mathrm{..}. \mathrm{(iv)}$ Combining all, we get
$\mathrm{L}=\mathrm{E}>\mathrm{P}=\mathrm{R} \geq \mathrm{D} \Rightarrow \mathrm{L}>\mathrm{D} \Rightarrow \mathrm{D}<\mathrm{L}$.
Hence, conclusion I is true but conclusion II is not true.
202. 3; $\mathrm{T} \geq \mathrm{I}$... (i); $\mathrm{R}>\mathrm{T} \ldots$ (ii); $\mathrm{N} \leq \mathrm{I}$... (iii); $\mathrm{S} \geq \mathrm{I}$... (iv)

Combining (iii) and (iv), we get $\mathrm{S} \geq \mathrm{I} \geq \mathrm{N}$
$\Rightarrow \mathrm{S} \geq \mathrm{N} \Rightarrow \mathrm{N} \leq \mathrm{S}$
Hence, $\mathrm{N}<\mathrm{S}$ or $\mathrm{N}=\mathrm{S}$.
203. 4; $\mathrm{G} \geq \mathrm{H}$... (i); $\mathrm{T} \leq \mathrm{S} \ldots$ (ii); $\mathrm{H}=\mathrm{O} \ldots$... (iii); $\mathrm{O}>\mathrm{S}$

Combining all equations, we get
$\mathrm{G} \geq \mathrm{H}=\mathrm{O}>\mathrm{S} \geq \mathrm{T} \Rightarrow \mathrm{S}<\mathrm{G}$ and $\mathrm{H}>\mathrm{T}$
Hence, neither conclusion $\mathrm{I}(\mathrm{S} \leq \mathrm{G})$ nor conclusion II
$(\mathrm{H} \geq \mathrm{T})$ is true
204. $3 ; M \geq E \ldots$ (i); $A=P \ldots$ (ii) $; L \leq P \ldots$ (iii); $A<M \ldots$... (iv)

Combining (ii), (iii) and (iv), we get $\mathrm{M}>\mathrm{A}=\mathrm{P} \geq \mathrm{L} \ldots$ (v) We can't obtain any specific relation between E and A or between $E$ and P. But these two conclusions make a complementary pair.
205.4; $\mathrm{Z}>\mathrm{E}$... (i); $\mathrm{R} \leq \mathrm{Z}$... (ii); $\mathrm{E} \geq \mathrm{B} \ldots$ (iii); $\mathrm{A}<\mathrm{R} \ldots$ (iv)

Combining (i) and (iii), we get $Z>E \geq B \ldots$ (v)
Combining (ii) and (iv), we get $Z \geq \mathrm{R}>\mathrm{A} . .$. (vi)
From (v) and (vi), no specific relation can be obtained between E and R, or B and A. Hence, neither conclusion I nor conclusion II is true.
206.3; $\mathrm{K} \leq \mathrm{T} \ldots$ (i); $\mathrm{S} \geq \mathrm{G} \ldots$... (ii); $\mathrm{G}=\mathrm{H}=\mathrm{T} \ldots$... (iii)

Combining all, we get $\mathrm{S} \geq \mathrm{G}=\mathrm{H}=\mathrm{T} \geq \mathrm{K} \Rightarrow \mathrm{S} \geq \mathrm{K}$
ie $S>K$ or $S=K$
207. 5; $\mathrm{P} \geq \mathrm{S} \ldots$ (i); $\mathrm{A} \leq \mathrm{D} \ldots$ (ii); $\mathrm{A}>\mathrm{I} \ldots$ (iii); $\mathrm{I}=\mathrm{S} \ldots$ (iv)

From (i) and (iv), we get
$\mathrm{P} \geq \mathrm{S}=\mathrm{I} \Rightarrow \mathrm{P} \geq \mathrm{I}$ (conclusion I)
From (ii), (iii) and (iv), we get
$\mathrm{D} \geq \mathrm{A}>\mathrm{I}=\mathrm{S} \Rightarrow \mathrm{S}<\mathrm{D}$ (conclusion II)
208.4; $\mathrm{P}>\mathrm{Q} \ldots$... i ) $\mathrm{M} \leq \mathrm{K} \ldots$... (ii); $\mathrm{T} \leq \mathrm{K} \ldots$... (iii)

From (ii) and (iii), no specific relation can be obtained
between M and T. Hence, neither conclusion I nor conclusion II is necessarily true.
209.4; $\mathrm{S}<\mathrm{M}$... (i); $\mathrm{M}>\mathrm{L} \ldots$... (ii); $\mathrm{L} \geq \mathrm{Z} \ldots$... (iii)

Combining (ii) and (iii), we get $\mathrm{M}>\mathrm{L} \geq \mathrm{Z}$... (iv)
Now from (i) and (iv), no specific relation can be obtained between S and Z. Hence, neither conclusion I nor conclusion II is necessarily true.
210. $4 ; \mathrm{D}>\mathrm{F} \ldots$.. (i); $\mathrm{F}=\mathrm{S} \ldots$... (ii); $\mathrm{S} \leq \mathrm{M} \ldots$ (iii)

From (ii) and (iii), we get $\mathrm{F} \leq \mathrm{M}$. Therefore, conclusion I and conclusion II are not true.
211. 1; $\mathrm{J}=\mathrm{V} \ldots$... (i); $\mathrm{V}<\mathrm{N} \ldots$... (ii); $\mathrm{R} \leq \mathrm{J} \ldots$... (iii)

Combining all, we get
$\mathrm{N}>\mathrm{V}=\mathrm{J} \geq \mathrm{R} \Rightarrow \mathrm{N}>\mathrm{R}$ (conclusion I ) and $\mathrm{N}>\mathrm{J}$.
Hence, conclusion I is true but conclusion II is not true.
212.3; L $\geq$ U ... (i); C < L ... (ii); C > B ... (iii)

From (i) and (ii) no specific relation can be obtained between C and U. But conclusion I and conclusion II make a complementary pair. Hence, either conclusion I or conclusion II is true.
213.4; $\mathrm{R} \geq \mathrm{P} .$. (i); $\mathrm{B}<\mathrm{P} . .$. (ii); $\mathrm{E}=\mathrm{B} .$. (iii); $\mathrm{F}>\mathrm{B} . .$. (iv) From (i) and (ii), we get $\mathrm{R} \geq \mathrm{P}>\mathrm{B}$ and from (iii) and (iv) we get $\mathrm{F}>\mathrm{E}=\mathrm{B}$.
Hence, no specific relation can be obtained between $P$ and F , and R and F . Therefore neither conclusion $\mathrm{I}(\mathrm{P}<$ F) nor conclusion II $(R>F)$ is necessarily true.
214.4; $G \neq H \ldots$ (i); $L=K \ldots$ (ii); $H=E \ldots$.... (iii); $M_{\neq} K \ldots$ (iv) From (i) and (iii), we get


Hence, conclusion I $(T \geq S)$ is not true. But conclusion $\mathrm{II}(\mathrm{T}>\mathrm{S})$ is true.
216. 5; F > K ... (i); $\mathrm{P}=\mathrm{K} \ldots$ (ii); $\mathrm{P} \geq \mathrm{H} \ldots$ (iii); $\mathrm{T}<\mathrm{P} \ldots$ (iv)

From (i), (ii) and (iv), we get
$\mathrm{F}>\mathrm{K}=\mathrm{P}>\mathrm{T} \Rightarrow \mathrm{F}>\mathrm{T} \Rightarrow \mathrm{T}<\mathrm{F}$ (conclusion I )
From (i), (ii) and (iii), we get $\mathrm{F}>\mathrm{K}=\mathrm{P} \geq \mathrm{H} \Rightarrow \mathrm{F}>\mathrm{H}$
$\Rightarrow \mathrm{H}<\mathrm{F}$ (conclusion II)
217.3; $\mathrm{D}_{\neq \mathrm{L}} \mathrm{L}$. (i); $\mathrm{L}=\mathrm{P} \ldots$ (ii) $; \mathrm{P}_{\neq \mathrm{T}} \ldots$ (iii); $\mathrm{T} \geq \mathrm{Z} \ldots$ (iv)

From (i), (ii) and (iii), we get $\mathrm{D} \neq \mathrm{L}=\mathrm{P} \neq \mathrm{T}$
Hence, no specific relation can be obtained between D and T. But one of the following three relations must be there between D and T :
a. $\mathrm{D}>\mathrm{T}$, ie $\mathrm{D}_{\neq} \mathrm{T}$ b. $\mathrm{D}<\mathrm{T}$, ie $\mathrm{D}_{\neq} \mathrm{T}$ c. $\mathrm{D}=\mathrm{T}$

Hence, either conclusion $I(D \neq T)$ or conclusion II (T $=\mathrm{D})$ is true.
218. 5; F > A ... (i); I < R ... (ii); $\mathrm{I} \leq \mathrm{A} \ldots$ (iii); $\mathrm{I}>\mathrm{L} \ldots$... (iv)

From (ii) and (iv), we get
$\mathrm{R}>\mathrm{I}>\mathrm{L} \Rightarrow \mathrm{R}>\mathrm{L} \Rightarrow \mathrm{L}<\mathrm{R}$ (Conclusion I )
From (i), (iii) and (iv), we get
$\mathrm{F}>\mathrm{A} \geq \mathrm{I}>\mathrm{L} \Rightarrow \mathrm{F}>\mathrm{L}$ (Conclusion II)
Hence, both the conclusions I and II are true.
219.5; $\mathrm{P}<\mathrm{M} \ldots$... (i); $\mathrm{K} \geq \mathrm{P} \ldots$ (ii); $\mathrm{S} \leq \mathrm{P} \ldots$ (iii); $\mathrm{S} \geq \mathrm{G} \ldots$ (iv) From (i), (iii) and (iv), we get
$\mathrm{M}>\mathrm{P} \geq \mathrm{S} \geq \mathrm{G} \Rightarrow \mathrm{M}>\mathrm{G}($ Conclusion I$)$
From (ii), (iii) and (iv), we get
$\mathrm{K} \geq \mathrm{P} \geq \mathrm{S} \geq \mathrm{G} \Rightarrow \mathrm{K} \geq \mathrm{G} \Rightarrow \mathrm{G} \leq \mathrm{K}$ (Conclusion II)
Hence, both the conclusions I and II are true.
220.3; $\mathrm{N} \geq \mathrm{T}$... (i) $\mathrm{G}=\mathrm{L}=\mathrm{T} \ldots$... (ii); $\mathrm{S}<\mathrm{L} \ldots$... (iii)

From (i) and (ii), we get
$\mathrm{N} \geq \mathrm{T}=\mathrm{L}=\mathrm{G} \Rightarrow \mathrm{N} \geq \mathrm{L} \Rightarrow \mathrm{N}>\mathrm{L}$ (Conclusion I) or $\mathrm{N}=\mathrm{L}$ (Conclusion II)
Hence, either conclusion I or conclusion II is true.
221. 1; $\mathrm{M}=\mathrm{P} \ldots$... (i); $\mathrm{S} \leq \mathrm{M} \ldots$ (ii); $\mathrm{S} \geq \mathrm{Z} \ldots$ (iii); $\mathrm{T} \leq \mathrm{P} \ldots$ (iv)

From (i), (ii) and (iii), we get
$\mathrm{P}=\mathrm{M} \geq \mathrm{S} \geq \mathrm{Z} \Rightarrow \mathrm{P} \geq \mathrm{Z}$ (Conclusion I )
But, conclusion II ( $\mathrm{P} \leq \mathrm{Z}$ ) is not true.
222.3; $\mathrm{H} \geq \mathrm{K} \ldots$... (i); $\mathrm{T} \leq \mathrm{H} \ldots$... (ii); $\mathrm{K}=\mathrm{F} \ldots$... (iii); $\mathrm{S}=\mathrm{T} \ldots$... iv)

From (i) and (iii), we get $\mathrm{H} \geq \mathrm{K}=\mathrm{F}$... (v)
From (ii) and (iv), we get $\mathrm{H} \geq \mathrm{T}=\mathrm{S} \ldots$.. (vi)
From (v) and (vi), we do not get any specific relation between K and T .
Now, look carefully at conclusion II. F $\leq \mathrm{S}$ can be written as $\mathrm{K} \leq \mathrm{T}$ because $\mathrm{F}=\mathrm{K}$ and $\mathrm{S}=\mathrm{T}$.

Hence, either conclusion I $(K \geq T)$ or conclusion II ( $\mathrm{K} \leq \mathrm{T}$ ) is true.
223. 4; $\mathrm{S}>\mathrm{P}_{\ldots}$. (i); $\mathrm{L} \leq \mathrm{Q} \ldots$ (ii) $; \mathrm{P}_{\neq \mathrm{R}} \ldots$.. (iii) $; \mathrm{R}=\mathrm{Q} \ldots$. (iv) Combining all, we get $S>P \neq R=Q \geq L$
From the above equation we can't get any specific relation between $L$ and $S$. Hence, conclusion $I(L<S)$ is not true necessarily. Again the above equation gives us the conclusion $\mathrm{P}_{\neq \mathrm{Q}} \mathrm{Q}$. This does not imply necessarily that $\mathrm{Q}<\mathrm{P}$. Hence, conclusion II $(\mathrm{Q}<\mathrm{P})$ is not necessarily true.
224.5; $\mathrm{M} \geq \mathrm{T} .$. (i); $\mathrm{G} \leq \mathrm{T} . .$. (ii); $\mathrm{G} \geq \mathrm{H} .$. (iii); $\mathrm{T}<\mathrm{K} .$. (iv)

From the equations (ii), (iii) and (iv), we get
$\mathrm{K}>\mathrm{T} \geq \mathrm{G} \geq \mathrm{H} \Rightarrow \mathrm{K}>\mathrm{H} \Rightarrow \mathrm{H}<\mathrm{K}$ (Conclusion I)
Again, from the equations (i), (ii) and (iii), we get
$\mathrm{M} \geq \mathrm{T} \geq \mathrm{G} \geq \mathrm{H} \Rightarrow \mathrm{M} \geq \mathrm{H} \Rightarrow \mathrm{H} \leq \mathrm{M}$ (Conclusion II)
225. 3; Note that the given conclusions are about the relation between $G$ and $P$. The last two equations. G \# T and T \# $P$ will help decide the answer.
$\mathrm{G}_{\neq} \mathrm{T} \ldots$.. i ); $\mathrm{T}_{\neq} \mathrm{P} \ldots$... (ii)
From (i) and (ii) $\mathrm{G}_{\neq \mathrm{T}}^{\neq \mathrm{P}}$
The above equation gives no specific relation between $G$ and $P$.
But the given conclusions are
I. $\mathrm{G} \neq \mathrm{P} \quad$ II. $\mathrm{G}=\mathrm{P}$

Hence, no doubt, one of the above equations must be true.
226.3; $\mathrm{K}=\mathrm{R}$... (i); $\mathrm{R}_{\neq \mathrm{T}} \ldots$.. (ii); $\mathrm{T}_{\neq} \mathrm{Z} \ldots$... (iii); $\mathrm{Z}=\mathrm{S} \ldots$.. (iv) Combining (i) and (ii) only, we get $K=R_{\neq} T \Rightarrow K_{\neq} T$. Therefore, one of the given conclusions $\mathrm{K}>\mathrm{T}$ (conclusion I) and $\mathrm{K}<\mathrm{T}$ (conclusion II) must be true.
227. 5; $\mathrm{Q}=\mathrm{M} \ldots$... i ; $\mathrm{M}>\mathrm{N} \ldots$ (ii); $\mathrm{N}=\mathrm{P} \ldots$ (iii); $\mathrm{L} \leq \mathrm{P} \ldots$... (iv) Combining all, we get $\mathrm{Q}=\mathrm{M}>\mathrm{N}=\mathrm{P} \geq \mathrm{L} \Rightarrow \mathrm{Q}>\mathrm{L}$ (Conclusion I ) and $\mathrm{M}>\mathrm{P} \Rightarrow \mathrm{P}<\mathrm{M}$ (Conclusion II)
228.3; M $\geq$ N ....(i); L $=\mathrm{M}$....(ii); $\mathrm{L}>\mathrm{O}$....(iii)

Combining (i) and (ii),
$\mathrm{L}=\mathrm{M} \geq \mathrm{N}$. The above equations give no specific relation between O and N . Hence, neither conclusion I nor II follows. But the options when combined give a complementary pair.
229.4; $\mathrm{A}<\mathrm{C}$....(i); $\mathrm{P}=\mathrm{Q} . .$. (ii); $\mathrm{Q} \leq \mathrm{R}$....(iii)

There is no information regarding the relation between A and R. Hence I cannot be proved. Combining (ii) and (iii), we get $R \geq Q=P$
$\Rightarrow \mathrm{P} \leq \mathrm{R}$. Hence conclusion II is also not true.
230.2; W = X > V ....(i); X > Y ....(ii); $\mathrm{Y}<\mathrm{Z}$....(iii)

From (i), we get $\mathrm{W}>\mathrm{V}$, hence conclusion II is true. From (i), (ii) and (iii) no specific relation can be obtained between Z and V. Hence, conclusion I is not necessarily true.
231.5; $\mathrm{M} \leq \mathrm{N}$....(i); $\mathrm{N}<\mathrm{O}$....(ii); $\mathrm{O}<\mathrm{P}$....(iii)

Combining all we get
$\mathrm{M} \leq \mathrm{N}<\mathrm{O}<\mathrm{P} \Rightarrow \mathrm{M}<\mathrm{P}$ (conclusion I ) and $\mathrm{O}>\mathrm{M}$ (conclusion II)
232. 1; R > A ....(i); S < B ....(ii); A > B ....(iii)

Combining all, we get, $\mathrm{R}>\mathrm{A}>\mathrm{B}>\mathrm{S} \Rightarrow \mathrm{S}<\mathrm{R}$. Hence
conclusion I is true. But conclusion II $(\mathrm{B} \leq \mathrm{R})$ is not
true.
233. 3; $\mathrm{P}=\mathrm{Q} \ldots$ (i); $\mathrm{R}>\mathrm{P}$... (ii); $\mathrm{Q} \leq \mathrm{S} \ldots$ (iii)
From (i) and (iii), $\mathrm{S} \geq \mathrm{P} \Rightarrow$ either $\mathrm{S}>\mathrm{P}$ or $\mathrm{S}=\mathrm{P}$
234.1; $\mathrm{X} \geq \mathrm{Y} \ldots$... (i); $\mathrm{Y}=\mathrm{R} \ldots$ (ii); $\mathrm{Y}<\mathrm{S} \ldots$ (iii)
From (i) and (ii), $X \geq R$. Hence $I$ is true. From (ii), II is false.
235. 5; $\mathrm{P}<\mathrm{Q} . .$. (i); $\mathrm{Q}<\mathrm{R}$... (ii); $\mathrm{R}=\mathrm{S}$.... (iii)

Combining these, we get $\mathrm{P}<\mathrm{Q}<\mathrm{R}=\mathrm{S}$
236.4; $\mathrm{A} \geq \mathrm{B} \ldots$.. (i); $\mathrm{B} \geq \mathrm{C} \ldots$ (ii); $\mathrm{C}>\mathrm{D} \ldots$... (iii)

No relationship can be established between A and D from the given statements.
237. 1; $\mathrm{P}<\mathrm{Q} \ldots$ (ii); $\mathrm{R}>\mathrm{S}$... (ii); $\mathrm{Q}=\mathrm{R}$... (iii)

From (i) and (iii), $\mathrm{P}<\mathrm{R}$. Hence I is true while II is false.
238.2; $\mathrm{E}>\mathrm{F}$... (i), $\mathrm{F}=\mathrm{G} \ldots$... (ii); $\mathrm{H} \geq \mathrm{G} \ldots$ (iii)

I is false because of (ii).
From (i) and (ii), G < E. Hence, II is true.
239.4; $\mathrm{A}=\mathrm{B} \ldots$ (i), $\mathrm{A} \geq \mathrm{C} \ldots$ (ii); $\mathrm{C}>\mathrm{D} \ldots$ (iii)

From (i) and (ii), $\mathrm{B} \geq \mathrm{C}$. Which means B is certainly not lesser than C. So I does not follow.
Again, combining (i), (ii) and (iii), we get
$\mathrm{A}=\mathrm{B} \geq \mathrm{C}>\mathrm{D}$
Thus A is certainly not equal to D. Hence, II does not follow.
240.3; $\mathrm{O} \geq \mathrm{P} \ldots$.. (i); $\mathrm{O}>\mathrm{Q} \ldots$ (ii); $\mathrm{O} \leq \mathrm{R} \ldots$ (iii)

Combining (i) and (iii), we get $\mathrm{P} \leq \mathrm{O} \leq \mathrm{R}$, which implies $\mathrm{P} \leq \mathrm{R}$. Now, $\mathrm{P} \leq \mathrm{R}$ means P is either lesser than R or P is equal to R . In other words, either conclusion I or II.
241.4; $\mathrm{N} \leq \mathrm{O} \ldots$. (i); $\mathrm{P}<\mathrm{O} \ldots$... (ii); $\mathrm{P}>\mathrm{R} \ldots$... (iii)

Note: $\mathrm{N} \leq \mathrm{O}$ means N is lesser than or equal to O , that is,
$\mathrm{N}<\mathrm{O}$ or $\mathrm{N}=\mathrm{O}$. It could be either of the two. So neither of them is definitely true. Thus I does not follow.
Again, from (ii) and (iii), $\mathrm{O}>\mathrm{R}$. Hence II does not follow.
242. 5; L $<\mathrm{M} \ldots$ (i); $\mathrm{N} \geq \mathrm{M} \ldots$... (ii); $\mathrm{M} \geq \mathrm{O} \ldots$... (iii)

From (i) and (ii), $\mathrm{L}<\mathrm{N}$. Hence I follows.
From (ii) and (iii), $\mathrm{N} \geq \mathrm{O}$. Hence II follows.
243. 1; The statements can be decoded as (1) B $>\mathrm{C}$,
(2) $\mathrm{A}>\mathrm{B}$, (3) $\mathrm{C} \geq \mathrm{D}$. From (1) and (3) we have $\mathrm{B} \geq \mathrm{D}$. But conclusion II says $\mathrm{B}>\mathrm{D}$ which is not the same as $\mathrm{B} \geq \mathrm{D}$. Hence II is not definitely true. Further, from (2), (1), (3) we have $\mathrm{A}>\mathrm{B}>\mathrm{C} \geq \mathrm{D} \Rightarrow \mathrm{A} \geq \mathrm{D}$. Hence I is definitely true.
244. 5; The three statements can be decoded as (1) $\mathrm{M}=\mathrm{N}$, (2) $\mathrm{N} \leq \mathrm{P}$, (3) $\mathrm{P} \geq$ R. Now, (1) and (2) give: $\mathrm{M} \leq \mathrm{P}$ which is conclusion I while (3) gives conclusion II.
245.3; The three statements give:
(1) $X>\overline{\mathrm{R},(2) \mathrm{R}}<\overline{\mathrm{S}}$, (3)X$=\mathrm{T}$.

From (1) and (3) we have: $T>R$. From (3) we have $S>$ $R$. Hence, $T$ and $S$ are both greater than $R$ and so no relationship can be established between $T$ and $S$. But any two numbers are either equal or one is less than or greater than the other. Since I and II cover all these three possibilities, either of them must be true.
246. 1; The three statements give (1) $\mathrm{R}>\mathrm{M}$, (2) $\mathrm{M}=\mathrm{Y}$,
(3) $\mathrm{Y} \geq \mathrm{Z}$. This can be combined as $\mathrm{R}>\mathrm{M}=\mathrm{Y} \geq \mathrm{Z}$, i.e. $\mathrm{R}>\mathrm{Z}$. This is I. II can't be evaluated as variable A is not present in the statements.
247. 5; The three statements give (1) $\mathrm{X}=\mathrm{Y}$, (2) $\mathrm{P} \geq \mathrm{X}$,
(3) $\mathrm{P} \leq \mathrm{Y}$. From (1) and (2), we have $\mathrm{P} \geq \mathrm{Y}$ while from (3), $\mathrm{P} \leq \mathrm{Y}$. Now, $\mathrm{P} \geq \mathrm{Y}$ and $\mathrm{P} \leq \mathrm{Y}$ both can be true if and only if $\mathrm{P}=\mathrm{Y}$. Hence both conclusions are true.
248.4; S

I does not follow because no relationship can be established between S and Z. II also does not follow because no relationship can be established between $S$ and Leither.
249.4; $\mathrm{J}=\mathrm{L} \ldots$... i ; $\mathrm{V}<\mathrm{N} \ldots$ (ii); $\mathrm{R} \leq \mathrm{J} .$. iii)

The relationship of N is established only with V and
no other letter. Nor do we have any other relationship in terms of V .
250.2; L $\geq$ U... (i); C < L... (ii); C > B ... (iii)

I cannot be established even from (i) and (ii). II is established by (ii) and (iii).
251.4; D > F ... (i); $\mathrm{F}=\mathrm{S}$... (ii); $\mathrm{S} \leq \mathrm{M} \ldots$... (iii)

From (i) and (ii), D > S ... (iv)
No relationship can be established between D and M even from (iii) and (iv). Hence I does not follow. From (ii) and (iii), $\mathrm{F} \leq \mathrm{M}$. Hence II does not follow.
252.3; $\mathrm{P}>\mathrm{T} . .$. (i); $\mathrm{M} \leq \mathrm{K} . .$. (ii); $\mathrm{T}=\mathrm{K}$... (iii)

Combining (ii) and (iii), we get $\mathrm{T}=\mathrm{K} \geq \mathrm{M}$ or $\mathrm{T} \geq \mathrm{M}$
That is, either $\mathrm{T}>\mathrm{M}$ or $\mathrm{T}=\mathrm{M}$, In other words, either I or II follows.
253.4; $\mathrm{S} \leq \mathrm{T}$... (i); $\mathrm{T} \geq \mathrm{U} \ldots$... (ii); $\mathrm{T}<\mathrm{V} \ldots$... (iii)

From (i), $\mathrm{T} \geq \mathrm{S}$. Hence I is not true.
From (ii) and (iii), $\mathrm{U} \leq \mathrm{T}<\mathrm{V}$ or $\mathrm{U}<\mathrm{V}$. But II is
$\mathrm{U} \leq \mathrm{V}$. Hence II is also not true.
254.4; K $>\mathrm{L}$... (i) ; $\mathrm{K} \geq \mathrm{M}$... (ii); $\mathrm{M}<\mathrm{N}$... (iii)

From (i) and (ii), no relationship can be established between L and M. Hence I is not true.
From (ii), $\mathrm{M} \leq \mathrm{K}$. Hence II is also not true.
255.4; $\mathrm{F} \leq \mathrm{G} . .$. (i); $\mathrm{F} \geq \mathrm{H} \ldots$... (ii); $\mathrm{F} \leq \mathrm{K} \ldots$... (iii)

No relationship can be established between G and K .
Hence I cannot be established
From (ii) and (iii), $\mathrm{K} \geq \mathrm{F} \geq \mathrm{H}$ or $\mathrm{K} \geq \mathrm{H}$. Hence I is false.
256. 2; $\mathrm{T}=\mathrm{S}$... (i); $\mathrm{R}<\mathrm{Q} \ldots$... (ii); $\mathrm{Q}=\mathrm{T} .$. (iii)

From (i) and (iii), $\mathrm{Q}=\mathrm{S}$. Hence I is not true.
Combining (i), (ii) and (iii), $S=T=Q>R$ or $S>R$. Hence
II is true.
257.4; B > C ... (i) ; C < D ... (ii); $\mathrm{E}<\mathrm{C} \ldots$ (iii)

No relationship can be established between B and D.
Hence I can't be established. From (ii), $\mathrm{D}>\mathrm{C}$. Hence II is false.
258.3; $\mathrm{P} \geq \mathrm{L}$... (i); $\mathrm{N}>\mathrm{Q} \ldots$... (ii); $\mathrm{M} \geq \mathrm{N} \ldots$... (iii); $\mathrm{M} \leq \mathrm{L} \ldots$ (iv)

Combining all, we get,
$\mathrm{P} \geq \mathrm{L} \geq \mathrm{M} \geq \mathrm{N}>\mathrm{Q}$ Hence, $\mathrm{P}>\mathrm{N}$ or $\mathrm{P}=\mathrm{N}$
$259.1 \quad 260.2 \quad 261.4 \quad 262.4$
263.1; $L=M$... (i); $S \leq M \ldots$... (ii); $\mathrm{M}>\mathrm{N}$... (iii);
$\mathrm{Q} \geq \mathrm{L} \ldots$ (iv)
Combining (i), (iii) and (iv), we get
$\mathrm{Q} \geq \mathrm{L}=\mathrm{M}>\mathrm{N}$. Hence conclusion I is true. Conclusion II is not true.
264.5; $\mathrm{S}<\mathrm{G} \ldots$... (i); R $\geq \mathrm{J}$... (ii)
$K>R \ldots$ (iii); $K \leq S$.... (iv)
Combining all these relations, we get
$\mathrm{G}>\mathrm{S} \geq \mathrm{K}>\mathrm{R} \geq \mathrm{J}$.
Since $\mathrm{G}>\mathrm{R}$, therefore $\mathrm{R}<\mathrm{G}$ is true.

Similarly J < S. Hence II is also true.

Combining all these, we get $\mathrm{G}>\mathrm{U} \geq \mathrm{L}=\mathrm{T} \geq \mathrm{M}$. Hence $\mathrm{G}>\mathrm{M}$ and $\mathrm{M} \leq \mathrm{U}$.
$\begin{array}{lllllll}274.4 & 275.3 & 276.3 & 277.2 & 278.3 & 279.5 & 280.4\end{array}$
$\begin{array}{lllllll}281.2 & 282.1 & 283.4 & 284.1 & 285.2 & 286.5 & 287.3\end{array}$
288.4
(289-294): Here the direction proves a little troublesome. But think logically. You infer $\mathrm{P}+\mathrm{Q}$ means P is either less than or equal to $\mathrm{Q} . \mathrm{P} \times \mathrm{Q}$ means P is either greater than or equal to $\mathrm{Q} . \mathrm{P} @ \mathrm{Q}$ means P is greater than $\mathrm{Q} . \mathrm{P}$ $\div \mathrm{Q}$ means P is less than Q . Now, go through all the questions with this form of direction.
$\begin{array}{llllll}289.4 & 290.3 & 291.3 & 292.1 & 293.1 & 294.2\end{array}$
295.5; When we combine the first two equations, ie $G<Q$ and $\mathrm{R} \geq \mathrm{Q}$ we get $\mathrm{R} \geq \mathrm{Q}>\mathrm{G}$. Hence $\mathrm{R}>\mathrm{G}$ (conclusion I) is true. Combining the third and the fourth equations, we get
$\mathrm{R} \geq \mathrm{T}=\mathrm{S}$. Hence $\mathrm{S} \leq \mathrm{R}$ is also true.
296.4; Combining all the informations we get
$\mathrm{K}=\mathrm{M} \geq \mathrm{S}=\mathrm{T} \geq \mathrm{V}$. The valid relation between K and
$S$ is $K \geq S$ and between $K$ and $V$ is $K \geq V$. Hence both I and II are not true.
297.2; Combining all the informations we get
$\mathrm{G}=\mathrm{K} \geq \mathrm{X}>\mathrm{Y} \geq \mathrm{Z}$. From this, we get $\mathrm{G}>\mathrm{Z}$ and
$K>Z$. Hence conclusion $I$ is not true.
298.3
299.2; $\begin{aligned} \frac{A}{B} & > \\ \text { G.B } & =\text { H.A. (i) } \ldots \text { (iii); } \frac{G}{H}>\frac{M}{N} \ldots \text {.... (ii); }\end{aligned}$
G. $B=$ H.A... (iii); $B=$
From (iii) $\frac{A}{B}=\frac{G}{H}$
Hence $\frac{A}{B}=\frac{G}{H}>\frac{C}{D}$.

Hence conclusion II is true. If $\frac{A}{B}=\frac{G}{H}$ then value of A will depend on value of $B$. Hence $I$ is not true.
300. 1; Combining all the given statements, we get $G>H=K$
$=\mathrm{S} \geq \mathrm{J}$. Hence only conclusion I is true.
$\because \mathrm{K} \geq \mathrm{J}$, therefore conclusion II is not true.
301.2; Combining all the given statements, we get
$\mathrm{L}=\mathrm{M} \geq \mathrm{N}>\mathrm{J}=\mathrm{R}$. From this we get $\mathrm{L}>\mathrm{R}$. Hence conclusion I is not true. Conclusion II is obvious from the equation.
302.5; $\mathrm{G}=\mathrm{P}$.... (i); $\mathrm{P} \geq \mathrm{Q} \ldots$... (ii); $\mathrm{Q} \geq \mathrm{S}$..... (iii); $\mathrm{P}>\mathrm{T}$.... (iv)

Combining (i) and (iv), we get $\mathrm{G}=\mathrm{P}>\mathrm{T}$. Hence, $\mathrm{G}>\mathrm{T}$
(conclusion I) is true. Again combining (i), (ii) and (iii) we get $\mathrm{G}=\mathrm{P} \geq \mathrm{Q} \geq \mathrm{S}$. Hence $\mathrm{G} \geq \mathrm{S}$ (conclusion II) is true.
303.4
304.3; Since $S=T$ and $S \geq W$ therefore, $T \geq W$. Hence either conclusion I or conclusion II must be true.
305. 4; Here $\mathrm{J} \geq \mathrm{K}$....(i); $\mathrm{M}_{\neq \mathrm{N}}$....(ii);
$\mathrm{L} \leq \mathrm{N}$....(iii); K = M ..... (iv)
Combining (ii), (iii) and (iv) we get $K=M \neq N \geq L$.
Hence no relationship between $K$ and $L$ can be determined.
306. 4; Here L < G ....(i); B < K ....(ii); $\mathrm{L}=\mathrm{S}$....(iii); $\mathrm{B} \neq \mathrm{L}$...(iv). Combining (i) and (iii), we get $\mathrm{S}<\mathrm{G}$. Hence I is not true. No relationship between $S$ and $K$ can be determined.
307. 3; There is no such statement regarding the relationship between M and S . But conclusions I and II are complementary to each other.
308. 3; No relationship between P and K can be determined. But conclusions I and II make a complementary pair. Hence either I or II is true.
309. 5; Combining all the given information, we get $D \geq G=S \geq K=P \Rightarrow D \geq P$ and $G \geq K$. Hence conclusions I and II are true.
310. 3; Here $\mathrm{S}=\mathrm{A} . . .$. (i); $\mathrm{P} \leq \mathrm{A} . . .$. (ii);
$\mathrm{P} \geq \mathrm{L}$..... (iii); $\mathrm{L}>\mathrm{G}$..... (iv)
Combining all these we get
$\mathrm{S}=\mathrm{A} \geq \mathrm{P} \geq \mathrm{L}>\mathrm{G}$. Hence, $\mathrm{S} \geq \mathrm{L}$ ie $\mathrm{S}>\mathrm{L}$ or $\mathrm{S}=\mathrm{L}$.
311.4; Here, $\mathrm{M} \geq \mathrm{N}$... (i); $\mathrm{N} \leq \mathrm{P}$... (ii);

## 31

$\mathrm{P}>\mathrm{Q} \ldots .$. (iii); R < Q ..... (iv)
From the above equations no specific relation can be determined between N and Q .
312. 1; Here, $\mathrm{H}>\mathrm{A} . . .$. (i); $\mathrm{H}<\mathrm{G}$.... (ii);
$\mathrm{G}=\mathrm{S}$..... (iii); $\mathrm{A} \geq \mathrm{T} \ldots$. . (iv)
Combining all these we get $\mathrm{S}=\mathrm{G}>\mathrm{H}>\mathrm{A} \geq \mathrm{T}$.
Hence, $\mathrm{G}>\mathrm{T}$ (Conclusion I) is true. But conclusion II is not true.
313. 3; Here, $\mathrm{R} \leq \mathrm{Z}$..... (i); $\mathrm{R}=\mathrm{H}$.... (ii);
$\mathrm{R}=\mathrm{G} \ldots$... (iii); $\mathrm{G}>\mathrm{X} \ldots .$. (iv)
Combining all these we get
$Z \geq R=H=G>X$. Hence, we get $Z \geq G$, ie $Z>G$ or $Z$ $=G$. Therefore $Z>G$ (conclusion $I$ ) and $Z=H=G$ (conclusion II) make an exhaustive case. Hence, either of them must be true.
314. 2; Here, $\mathrm{P}<\mathrm{L}$.... (i); $\mathrm{L} \leq \mathrm{S}$.... (ii);
$\mathrm{S}<\mathrm{K} \ldots \ldots$ (iii); $\mathrm{L}=\mathrm{M} \ldots$.... (iv)
Combining all these we get $\mathrm{K}>\mathrm{S} \geq \mathrm{L}=\mathrm{M}>\mathrm{P}$.
Hence $K>M$, which makes conclusion I false. But $M$ $\leq \mathrm{S}$ (conclusion II) is true from the above equation.
315. 5; Here, $\mathrm{A}>\mathrm{B}$.... (i); $\mathrm{Y} \leq \mathrm{X}$.... (ii);
$\mathrm{C}<\mathrm{B} . .$. (iii); $\mathrm{Y} \geq \mathrm{Z}$..... (iv)

Combining equations (ii) and (iv) we get $\mathrm{X} \geq \mathrm{Y} \geq \mathrm{Z}$. Hence conclusion I is true. Again, combining equations (i) and (iii) we get $\mathrm{A}>\mathrm{B}>\mathrm{C}$. Hence, $\mathrm{C}<\mathrm{A}$ is also true. 316. 5; $\mathrm{P}<\mathrm{K}$.... (i); $\mathrm{P} \geq \mathrm{M}$.... (ii); $\mathrm{G}=\mathrm{T} . .$. (iii); $\mathrm{M}<\mathrm{T}$.... (iv) Combining (i) and (ii), we get
$\mathrm{K}>\mathrm{P} \geq \mathrm{M}$. Hence, we get $\mathrm{M}<\mathrm{K}$ ( conclusion I). Again, by combining (iii) and (iv) we get $\mathrm{G}=\mathrm{T}>\mathrm{M}$. Hence, we get $\mathrm{M}<\mathrm{G}$ (conclusion II).
317. 4; By an intelligent observation you come to know elements in the first equation have no direct or indirect relations with the elements in the other three equations. 318.3; $\mathrm{G} \leq \mathrm{L}$.... (i); $\mathrm{G}=\mathrm{T}$.... (ii); $\mathrm{T} \neq \mathrm{P}$.... (iii); $\mathrm{P} \geq \mathrm{K}$.... (iv) Combining all these, we get $\mathrm{L} \geq \mathrm{G}=\mathrm{T} \neq \mathrm{P} \geq \mathrm{K}$
319.4; $\mathrm{T} \neq \mathrm{K}$..... (i); $\mathrm{K} \neq \mathrm{L}$..... (ii)

From (i) and (ii) we do not get any relation between T and L. The given two conclusions are not exhaustive either. Hence neither I nor II are true.
320.4; $\mathrm{A}<\mathrm{T}$.... (i); $\mathrm{Z}=\mathrm{A} . .$. . (ii); $\mathrm{Z} \geq \mathrm{K}$.... (iii); $\mathrm{P} \leq \mathrm{K}$.... (iv) Combining all these, we get $\mathrm{T}>\mathrm{A}=\mathrm{Z} \geq \mathrm{K} \geq \mathrm{P}$ Hence we get $\mathrm{Z} \geq \mathrm{P}$ and $\mathrm{A} \geq \mathrm{P}$.
$321.4 ; \mathrm{L}_{\neq \mathrm{T}}$.... (i); $\mathrm{S}<\mathrm{T}$..... (ii); $\mathrm{W}=\mathrm{S}$.... (iii); $\mathrm{W}>\mathrm{K}$.... (iv) Combining all these, we get $\mathrm{L} \neq \mathrm{T}>\mathrm{S}=\mathrm{W}>\mathrm{K}$ Hence there is no specific relationship between L and S or W.
$322.3 ; \mathrm{D} \neq \mathrm{E} . .$. (i) $; \mathrm{F} \neq \mathrm{E} . .$. (ii) $; \mathrm{F}=\mathrm{G} \ldots$. (iii) $; \mathrm{H}=\mathrm{G} .$. (iv)
Combining all these, we get $\mathrm{D} \neq \mathrm{E} \neq \mathrm{F}=\mathrm{G}=\mathrm{H}$.
Hence, we get $E \neq G$.
Therefore E is either greater or less than G .
323.3; $\mathrm{T} \leq \mathrm{K} \ldots$ (i) $; \mathrm{G} \leq \mathrm{H} \ldots$..(ii); $\mathrm{T}=\mathrm{H} \ldots$... (iii); $\mathrm{L}=\mathrm{K} \ldots$...(iv) Combining all these, we get $\mathrm{L}=\mathrm{K} \geq \mathrm{T}=\mathrm{H} \geq \mathrm{G}$ Hence $\mathrm{L} \geq \mathrm{G}$ ie $\mathrm{L}>\mathrm{G}$ or $\mathrm{L}=\mathrm{G}$
324.2; $\mathrm{J}>\mathrm{G}$.... (i); $\mathrm{G}=\mathrm{M}$.... (ii); $\mathrm{M}_{\neq} \mathrm{N} \ldots$... (iii); $\mathrm{N}=\mathrm{S}$.... (iv) Combining all these, we get $J>G=M \neq N=S$
We can't find any specific relation between $J$ and $S$. Hence $S \neq \mathrm{J}$ (conclusion I) is not true. Again, since $\mathrm{M}_{\neq} \mathrm{N}$ and $\mathrm{G}=\mathrm{M}$ and $\mathrm{N}=\mathrm{S}$, therefore $\mathrm{G}_{\neq \mathrm{S}} \mathrm{S}$ (conclusion II) is true.
325.1
326. 4; Q > B .... (i); J < E .... (ii); L $\leq \mathrm{B}$.... (iii); J $\geq$ Q .... (iv)

By an intelligent observation we find there is no sign of $\delta$ in any equation given in the statements. Hence, we can conclude within a second that both I and II are not true.
$327.3 ; \mathrm{V} \geq \mathrm{T} \ldots$ (i), $\mathrm{O}<\mathrm{B} \ldots$ (ii), $\mathrm{I}>\mathrm{V} \ldots$ (iii), $\mathrm{B} \leq \mathrm{T} \ldots$. (iv)
From (i) and (iv), we get
$\mathrm{V} \geq \mathrm{T} \geq \mathrm{B} \Rightarrow \mathrm{V}>\mathrm{B}$ or $\mathrm{V}=\mathrm{B}$. Hence, either I or II is true.
328. 4; Again, by an intuitive look we come to know L is not equal to any element in the given equations in the statements. Hence, I is not true. Again, as you have in our Magical Book Series on Analytical Reasoning by MK Pandey, Tip 8 says "If a term was not less than (or, 'less
than or equal to') any other term in the given statements, then it can't be less than (or, "less than or equal to") any term in a conclusion. (Such a conclusion is definitely false.) Thus II is not true.
329. 1; $\mathrm{Z} \geq \mathrm{M} \ldots$... (i), $\mathrm{B} \leq \mathrm{S} \ldots$...(ii), $\mathrm{N}>\mathrm{Z} \ldots$... (iii), $\mathrm{N} \leq \mathrm{S} \ldots$...iv) Combining (i), (ii) and (iii), we get
$S \geq \mathrm{N}>\mathrm{Z} \geq \mathrm{M} \Rightarrow \mathrm{S}>\mathrm{M}$. Hence, I is true. Look the equations carefully. Is there any sign of $\delta$ ? Your answer is ' No '. Hence II is not true.
$330.4 ; \mathrm{F}>\mathrm{M} \ldots$... (i), $\mathrm{B} \leq \mathrm{O} \ldots$... (ii), $\mathrm{F}<\mathrm{W} \ldots$... (iii), $\mathrm{B}=\mathrm{W} \ldots$... (iv) Combining (i), (ii), (iii) and (iv), we get
$\mathrm{O} \geq \mathrm{B}=\mathrm{W}>\mathrm{F}>\mathrm{M} \Rightarrow \mathrm{O} \geq \mathrm{W}$. Hence I is not true. II is also not true because $\mathrm{B}>\mathrm{F}$.
331. 2; C > W ... (i); L < D ... (ii); $\mathrm{D} \leq \mathrm{C} \ldots$ (iii).

Combining (ii) and (iii), we get
$\mathrm{C} \geq \mathrm{D}>\mathrm{L}$. Hence, $\mathrm{C}>\mathrm{L}$ (conclusion II) is true. We can't get relation between W and D on the basis of the given statement. Hence, $I$ is not true.
332. 1; $\mathrm{M}>\mathrm{V}$.... (i); $\mathrm{U}=\mathrm{M} \ldots$... (ii); $\mathrm{V} \leq \mathrm{T} \ldots$... (iii)

Combining (i) and (ii), we get
$\mathrm{M}=\mathrm{U}>\mathrm{V}$. Hence $\mathrm{U}>\mathrm{V}$ (conclusion I) is true. We have information that V is either less than or equal to T . Hence, concentrating only on latter (conclusion II) is not true.
$333.3 \quad 334.4 \quad 335.5$
336-337: Here directions for these questions are in the simplest form as following:
$A$ @ $B$ means $A$ is greater than $B$.
$A+B$ means $A$ is either greater or equal to $B$.
$A \$ B$ means $A$ is equal to $B$.
A® B means $A$ is less than $B$.
$A \otimes B$ means $A$ is either less than or equal to $B$.
336.5; $X \geq Z \ldots$ (i); $T \leq Z \ldots$ (ii); $T>M \ldots$ (iii); $N<M \ldots$ (iv).
Combining (i) and (ii), we get $X \geq T$ (conclusion I).
Again, combining (iii) and (iv), we get $N<T$ (conclu-
sion II).
337.4; $\mathrm{X}>\mathrm{Z}$.... (i); $\mathrm{Z}=\mathrm{T}$.... (ii); $\mathrm{T} \geq \mathrm{M}$.... (iii); $\mathrm{N}<\mathrm{M}$.... (iv).

Combining (i), (ii), (iii) and (iv), we get $X>Z=T \geq M>$
N . This implies $\mathrm{X}>\mathrm{N}$. Hence, both the conclusions are not true.
Note: For a quick method you need to use Tip 8, one of the timesaving tips given in the book Magical Book Series: Analytical Reasoning by MK Pandey.
The first part of tip 8 says, "If a term is not less than (or "less than or equal to") any other term in the given statements, then it can't be less than (or "less than or equal to") any term in conclusion. (Such a conclusion is definitely false)."
338. 5; $\mathrm{T}>\mathrm{M} \ldots$... (i); $\mathrm{N} \leq \mathrm{M} \ldots$... (ii); $\mathrm{N}=\mathrm{X} \ldots$.. (iii); $\mathrm{Z}<\mathrm{X} \ldots$... (iv). Combining I, II, III and IV, we get
$\mathrm{T}>\mathrm{M} \geq \mathrm{N}=\mathrm{X}>\mathrm{Z}$. Hence, $\mathrm{T}>\mathrm{Z}$ (conclusion I ) and $\mathrm{M} \geq \mathrm{X}$ (conclusion II) are true.
339. $3 ; \mathrm{Z} \geq \mathrm{X}$.... (i); $\mathrm{T}<\mathrm{X}$.... (ii); $\mathrm{M} \leq \mathrm{N}$.... (iii); $\mathrm{P}>\mathrm{N} \ldots$... (iv)

Combining (i) and (ii), we get $Z \geq X>T$, and by combining (iii) and (iv), we get $\mathrm{P}>\mathrm{N} \geq \mathrm{M}$. Here, we can't get any clues by which the relation between P and T can be found out. But the given conclusions are exhaustive in nature. Hence, either I or II must be true.
340. 4; $\mathrm{A}>\mathrm{B} \ldots$... (i); $\mathrm{B} \geq \mathrm{C} \ldots$ (ii); $\mathrm{C} \leq \mathrm{D} \ldots$ (iii); $\mathrm{D}<\mathrm{E} \ldots$ (iv). Combining (i) and (ii), we get $\mathrm{A}>\mathrm{B} \geq \mathrm{C}$. Similarly, by combining (iii) and (iv), we get
$\mathrm{E}>\mathrm{D} \geq \mathrm{C}$. Hence, despite the combination we have no information of the relation between A and E . We reject both conclusions because A might be equal to E .
341.2; $\mathrm{Z}<\mathrm{N}$... (i); $\mathrm{F} \geq \mathrm{N}$...(ii); $\mathrm{F} \leq \mathrm{K}$... (iii) Combining (i), (ii) and (iii) we get
$\mathrm{K} \geq \mathrm{F} \geq \mathrm{N}>\mathrm{Z}$. Hence, we get $\mathrm{K} \geq \mathrm{N}$. On its basis conclusion I is not necessarily true. But II is obvious because the combination gives us $\mathrm{K}>\mathrm{Z}$.
342.3; $\mathrm{D}=\mathrm{T} . .$. (i); $\mathrm{T}_{\geq} \mathrm{M} . . .(\mathrm{ii}) ; \mathrm{M}<\mathrm{K} . .$. (iii) From(i) and (ii), we get $\mathrm{D}=\mathrm{T} \geq \mathrm{M} \Rightarrow \mathrm{D} \geq \mathrm{M}$. Hence, $\mathrm{D}>\mathrm{M}$ or $\mathrm{D}=\mathrm{M}$ (Conclusion II or I).
343.3; $\mathrm{W} \geq$ A... (i); $\mathrm{B} \leq \mathrm{A} \ldots$... (ii); $\mathrm{B}>\mathrm{M}$... (iii) From (i) and (ii), we get $\mathrm{W} \geq \mathrm{A} \geq \mathrm{B} \Rightarrow \mathrm{W} \geq \mathrm{B}$. Hence $\mathrm{B}<\mathrm{W}$ or $\mathrm{W}=\mathrm{B}$ (Conclusion Ior II).
344. 1; $\mathrm{J} \leq \mathrm{M} \ldots$... i ; $\mathrm{M}=\mathrm{N} \ldots$... (ii) $\mathrm{N}<\mathrm{T} \ldots$... (iii) Combining (i), (ii) and (iii), we get $T>M=N \geq J \Rightarrow T>J$. Hence $I$ is true but II is false.
345.4; $\mathrm{V} \leq \mathrm{F}$... (i); $\mathrm{F}>\mathrm{R}$... (ii); $\mathrm{R} \geq \mathrm{G}$... (iii) Combining (ii) and (iii), we get $\mathrm{F}>\mathrm{R} \geq \mathrm{G}$. But comparing $\mathrm{F}>\mathrm{R} \geq \mathrm{G}$ with equation (i) we get no relation between V and G . However, one of the following three cases must be true: 1. $\mathrm{G}\langle\mathrm{V} ; 2 . \mathrm{G}\rangle \mathrm{V} ; 3 . \mathrm{G}=\mathrm{V}$. But the given conclusions do not consist of case 3. Hence neither I nor II is true.
346. 4; $\mathrm{B}>\mathrm{K} \ldots$ (i), $\mathrm{E} \leq \mathrm{H} \ldots$... (ii), $\mathrm{K}=\mathrm{E} \ldots$... (iii) Combining all, we get, $\mathrm{B}>\mathrm{K}=\mathrm{E} \leq \mathrm{H} \Rightarrow$ No relationship between B and H can be determined. Hence I is not true. We also get, $\mathrm{K} \leq \mathrm{H} \Rightarrow \mathrm{II}$ may betrue but not necessarily so.
347. $2 ; \mathrm{R} \leq \mathrm{S}$...(i), $\mathrm{M}=\mathrm{S} \leq \mathrm{N} \ldots$..(ii), $\mathrm{J} \geq \mathrm{S}$...(iii)

From (ii), I may be true but not necessarily so.
From (i) and (iii), we get $\mathrm{R} \leq \mathrm{S} \leq \mathrm{J} \Rightarrow \mathrm{R} \leq \mathrm{J}$. Hence II is true.
348.3
349. 1; G $\leq \mathrm{Q} . . .(\mathrm{i}), \mathrm{O}<\mathrm{P} . .$. (ii), $\mathrm{Q}=\mathrm{O} . .$. (iii)

Combining all, we get $\mathrm{G} \leq \mathrm{Q}=\mathrm{O}<\mathrm{P} \Rightarrow \mathrm{G}<\mathrm{P}$
or, $\mathrm{P}>\mathrm{G}$. Hence I is true. We also get $\mathrm{Q}<\mathrm{P} \Rightarrow$ II may be true but not necessarily so.
350.4; L > U ...(i), $\mathrm{U} \leq \mathrm{F}$...(ii), $\mathrm{F} \leq \mathrm{C} . .$. (iii)

Combining all, we get $\mathrm{L}>\mathrm{U} \leq \mathrm{F} \leq \mathrm{C} \Rightarrow$ no relationship between $L$ and $C$ can be established. Hence $I$ is not true. II may be true but not necessarily so.
$351.4 ; \mathrm{M} \geq \mathrm{N} \ldots$ (i), $\mathrm{H} \leq \mathrm{Q} \ldots$..(ii), $\mathrm{Q} \geq \mathrm{M} \ldots$..(iii)
From (ii) and (iii), we get $\mathrm{H} \leq \mathrm{Q} \geq \mathrm{M} \Rightarrow$ no relation-
ship between H and M can be established. Hence I does not follow.
From (i) and (iii), we get $\mathrm{Q} \geq \mathrm{M} \geq \mathrm{N} \Rightarrow \mathrm{Q} \geq \mathrm{N}$. Hence II may be true but not necessarily so.
352. 2; C > B ...(i), L < S ...(ii), S $\leq \mathrm{C}$...(iii)

From (i) and (iii), we get $\mathrm{B}<\mathrm{C} \geq \mathrm{S} \Rightarrow$ no relationship between B and S can be established. Hence I is not true. From (ii) and (iii), we get $\mathrm{L}<\mathrm{S} \leq \mathrm{C} \Rightarrow \mathrm{L}<\mathrm{C}$ or $\mathrm{C}>\mathrm{L}$. Hence II is true.
353. 5; $\mathrm{I} \geq \mathrm{H}$....(i), $\mathrm{E}>\mathrm{F}$....(ii), $\mathrm{I}=\mathrm{F}$...(iii) From (ii) and (iii), we get $\mathrm{E}>\mathrm{F}=\mathrm{I} \Rightarrow \mathrm{E}>\mathrm{I}$. Hence I is true. From $I$ and (i), we get $E>I \geq H \Rightarrow E>H$ or, $\mathrm{H}<\mathrm{E}$. Hence II is true.
354. 3; $\mathrm{V}=\mathrm{O}$...(i), $\mathrm{R} \geq \mathrm{V}$...(ii), $\mathrm{O} \geq \mathrm{B}$...(iii)

Combining all, we get $\mathrm{R} \geq \mathrm{V}=\mathrm{O} \geq \mathrm{B} \Rightarrow \mathrm{R} \geq \mathrm{B}$.
Hence either I or II is true.
355. 4; L> U ...(i), $\mathrm{T}=\mathrm{L}$
.(ii), $\mathrm{U} \leq \mathrm{W}$...(iii)
Combining all, we get $\mathrm{T}=\mathrm{L}>\mathrm{U} \leq \mathrm{W} \Rightarrow$ no relationship between $T$ and $W$ can be established. Hence $I$ is not true. From (iii), II may be true but not necessarily so.
356. $3 ; \mathrm{K} \geq \mathrm{L}$...(i), $\mathrm{M}<\mathrm{P}$...(ii), $\mathrm{J}>\mathrm{K} \ldots$..(iii), $\mathrm{P} \leq \mathrm{L} \ldots$...(iv) From (i) and (iv), we get $K \geq L \geq P \Rightarrow K \geq P$ $\Rightarrow \mathrm{P} \leq \mathrm{K} \Rightarrow$ either $\mathrm{K}=\mathrm{P}$ or $\mathrm{P}<\mathrm{K}$
357.4; $\mathrm{F}>\mathrm{M}$...(i), $\mathrm{A} \leq \mathrm{L} \ldots$..(ii), $\mathrm{F}<\mathrm{G} \ldots$...(iii), $\mathrm{A}=\mathrm{U} . .$. (iv) From (ii) and (iv), we get $\mathrm{U}=\mathrm{A} \leq \mathrm{L} \Rightarrow \mathrm{U} \leq \mathrm{L}$ or $\mathrm{L} \geq \mathrm{U}$. Hence I may be true but not necessarily so. The relation between A and F can't be established.
358. 2; $\mathrm{P}>\mathrm{B}$...(i), $\mathrm{J}<\mathrm{H}$...(ii), $\mathrm{S} \leq \mathrm{B} \ldots$..(iii), $\mathrm{J} \geq \mathrm{P}$...(iv) From (iv), (i) and (iii), we get $\mathrm{J} \geq \mathrm{P}>\mathrm{B} \geq \mathrm{S} \Rightarrow \mathrm{J}>\mathrm{S}$. Hence I is not true. From (i), (ii) and (iv), we get $H>J \geq P>B \Rightarrow H>B$.
Hence $I$ is true.
359. 1; $M>Z \ldots$ (i), $B \leq R \ldots$ (ii), $Z \geq C \ldots$ (iii), $M \leq R \ldots$ (iv)

From (i) and (iv), we get $Z<M \leq R \Rightarrow Z<R$ or $R>Z$. Hence $I$ is true.
From (ii) and (iv), we get $\mathrm{B} \leq \mathrm{R} \geq \mathrm{M} \Rightarrow$ No definite relationship between B and M can be established.
360.4; $\mathrm{X} \leq \mathrm{Y}$...(i), $\mathrm{U} \geq \mathrm{V}$...(ii), $\mathrm{X}>\mathrm{S}$...(iii), $\mathrm{V}=\mathrm{Y}$...(iv)

I is not necessarily true from (ii).
Combining all, we get $U \geq V=Y \geq X>S \Rightarrow U>S$.
Hence II is not true.
361.4; $\mathrm{X}<\mathrm{Y}$...(i), $\mathrm{Z} \geq \mathrm{V}$...(ii), $\mathrm{Y} \geq \mathrm{Z}$...(iii)

Combining all, we get $\mathrm{X}<\mathrm{Y} \geq \mathrm{Z} \geq \mathrm{V} \Rightarrow$ No relationship between $X$ and $V$ can be established. Hence $I$ is not true.
From (ii) and (iii), we get $\mathrm{Y} \geq \mathrm{Z} \geq \mathrm{V} \Rightarrow \mathrm{Y} \geq \mathrm{V}$. Hence II may be true but not necessarily so.
362. 1; Q $<\mathrm{P} \ldots$..(i), $\mathrm{S} \geq \mathrm{R} \ldots$..(ii), $\mathrm{P}=\mathrm{S} \ldots$ (iii)

From (i) and (iii), we get $\mathrm{Q}<\mathrm{P}=\mathrm{S} \Rightarrow \mathrm{Q}<\mathrm{S}$. Hence I is true.
From (ii) and (iii), we get $\mathrm{P}=\mathrm{S} \geq \mathrm{R} \Rightarrow \mathrm{P} \geq \mathrm{R} \Rightarrow \mathrm{II}$ may be true but not necessarily so.
363.2; $\mathrm{F} \geq \mathrm{E}$...(i), $\mathrm{G}=\mathrm{E} \geq \mathrm{H}$...(ii), $\mathrm{I} \leq \mathrm{E}$...(iii)

From (ii), I may be true but not necessarily so.
From (i) and (iii), we get $F \geq E \geq I \Rightarrow F \geq I$. Hence II is true.
364. 4; A > B ...(i), J < L ...(ii), B = J ...(iii)

Combining all, we get $\mathrm{A}>\mathrm{B}=\mathrm{J}<\mathrm{L} \Rightarrow$ no relationship between A and L can be established. Hence I is not true.
From (ii) and (iii), we get $\mathrm{B}=\mathrm{J}<\mathrm{L} \Rightarrow \mathrm{B}<\mathrm{L}$. Hence II is false.
365.4; $\mathrm{M}=\mathrm{N}$...(i), $\mathrm{N}<\mathrm{Q} . .$. (ii), $\mathrm{N} \geq \mathrm{R}$...(iii)

From (ii) and (iii), we get $Q>N \geq R \Rightarrow Q>R \Rightarrow I$ is false.
From (i) and (iii), we get $M=N \geq R \Rightarrow M \geq R \Rightarrow I I$ may be true but not necessarily so.
366. 2; $\mathrm{C} \geq \mathrm{D}$.... (i); $\mathrm{F}>\mathrm{E} . . .$. (ii); $\mathrm{G} \leq \mathrm{E}$..... (iii)

From (ii) and(iii), $\mathrm{F}>\mathrm{E} \geq \mathrm{G} \Rightarrow \mathrm{F}>\mathrm{G}$
Hence II follows while I does not.
367. 1; $\mathrm{Y}=\mathrm{Z} \ldots$... (i); $\mathrm{X} \geq \mathrm{G} \ldots$ (ii); $\mathrm{Y}<\mathrm{L} \ldots$... (iii); $\mathrm{G}>\mathrm{L}$.... (iv)

Combining these, we get
$\mathrm{Z}=\mathrm{Y}<\mathrm{L}<\mathrm{G} \leq \mathrm{X}$ Hence $\mathrm{Y}<\mathrm{X}$ and $\mathrm{L}>\mathrm{Z}$
368.3; $\mathrm{A} \geq \mathrm{D} \ldots$ (i); $\mathrm{B} \leq \mathrm{C} \ldots$ (ii); $\mathrm{A}=\mathrm{R} \ldots$ (iii); $\mathrm{B}>\mathrm{A} \ldots$... (iv)

From (i) and (iii), $\mathrm{R} \geq \mathrm{D} \Rightarrow$ either $\mathrm{R}=\mathrm{D}$ or $\mathrm{R}>\mathrm{D}$.
369.1; $\mathrm{Z} \leq \mathrm{Y} \ldots$. (i); $\mathrm{U}>\mathrm{V} \ldots$...ii) $; \mathrm{Y}<\mathrm{K} \ldots$... (iii) $; \mathrm{R}<\mathrm{V} \ldots$ (iv)

From (i) and (iii), $K>Y \geq Z \Rightarrow K>Z$. Hence I follows.
From (ii) and (iv), $U>V>R \Rightarrow U>R$. Hence II does not follow.
370.4; W $\leq$ Q....
.. (ii); $Q \geq X$..... (iii)
From (i) and (iii), no conclusion can be drawn between W and X. Hence I and II don't follow.
$371.2 \quad 372.1 \quad 373.3$
374. 4; $\mathrm{Y}=\mathrm{Z}$... (i), $\mathrm{R}>\mathrm{T} . .$. (ii), $\mathrm{S} \leq \mathrm{Y}$... (iii), $\mathrm{R}<\mathrm{Z}$... (iv)

From (i) \& (iii), $\mathrm{S} \leq \mathrm{Y}=\mathrm{Z} \Rightarrow \mathrm{S}=\mathrm{Z}$ may be true but not necessarily so.
From (i), (ii) and (iv), $\mathrm{Y}=\mathrm{Z}>\mathrm{R}>\mathrm{T} \Rightarrow \mathrm{Y}>\mathrm{T}$. Hence II is not true.
375.2; $\mathrm{L}>\mathrm{K} \ldots$... (i), $\mathrm{C} \geq \mathrm{H} \ldots$.. (ii), $\mathrm{C}<\mathrm{A} \ldots$... (iii), $\mathrm{H}=\mathrm{L} \ldots$.. (iv) From (ii) and (iv), $\mathrm{C} \geq \mathrm{H}=\mathrm{L} \Rightarrow \mathrm{C} \geq \mathrm{L}$. Hence I may be true but not necessarily so.
Combining all the equations, we get
$A>C \geq H=L>K \Rightarrow A>K$. Hence $I$ is true.
376. 4; $\mathrm{X}>\mathrm{Y} \ldots$... (i), $\mathrm{X} \neq \mathrm{Z} \ldots$... (ii), $\mathrm{Z} \leq \mathrm{S}$... (iii)

From (ii) and (iii), we get $\mathrm{X} \neq \mathrm{Z} \leq \mathrm{S} \Rightarrow$ No relation Hence I is not true.
No definite relationship between $S$ and $Y$ can be estab-
lished. Hence II not true.
377.2; $\mathrm{A} \geq \mathrm{B}$... (i), $\mathrm{C}>\mathrm{B}$... (ii), $\mathrm{C} \leq \mathrm{D} \ldots$... (iii)

From (ii) and (iii), we get $\mathrm{D} \geq \mathrm{C}>\mathrm{B} \Rightarrow \mathrm{D}>\mathrm{B}$. Hence II is true.
From II and (i), we get $\mathrm{D}>\mathrm{B} \leq \mathrm{A} \Rightarrow$ no definite relationship between D and A can be established. Hence I is not true.
378.5; T $\leq \mathrm{U}$... (i), $\mathrm{W} \geq \mathrm{V}$... (ii), $\mathrm{V}>\mathrm{U} \ldots$... (iii)

From (i) and (iii), we get $\mathrm{T} \leq \mathrm{U}<\mathrm{V} \Rightarrow \mathrm{T}<\mathrm{V}$
or $\mathrm{V}>\mathrm{T}$. Hence II is true.
From (ii) and II, we get $\mathrm{W} \geq \mathrm{V}>\mathrm{T} \Rightarrow \mathrm{W}>\mathrm{T} \Rightarrow \mathrm{W} \neq$ T. Hence $I$ is true.
379.3; $\mathrm{L}=\mathrm{N} \ldots$.. (i), $\mathrm{K}>\mathrm{L} \ldots$... (ii), $\mathrm{M} \leq \mathrm{N} \ldots$... (iii)

From (i) and (iii), we get $L=N \geq M \Rightarrow L \geq M$. Hence either I or II is true.
$380.4 ; \mathrm{P} \geq \mathrm{Q} \ldots$.. (i), $\mathrm{R}>\mathrm{S}$... (ii), $\mathrm{P}>\mathrm{R} \ldots$ (iii)
Combining all, we get $\mathrm{Q} \leq \mathrm{P}>\mathrm{R}>\mathrm{S} \Rightarrow$ no definite relationship between Q and S can be established. Hence I is not true. From (ii) and (iii), we get $\mathrm{P}>\mathrm{R}>\mathrm{S} \Rightarrow \mathrm{P}>\mathrm{S}$. Hence II is not true.
381.4; $\mathrm{G} \leq \mathrm{H} \ldots$... (i), $\mathrm{H}>\mathrm{I} \ldots$.. (ii), $\mathrm{I} \geq \mathrm{J} \ldots$... (iii)

From (i) and (ii), we get $\mathrm{G} \leq \mathrm{H}>\mathrm{I}$. Hence no relationship between G and I can be established. Hence I is not true. From (ii) and (iii), we get $\mathrm{H}>\mathrm{I} \geq \mathrm{J} \Rightarrow \mathrm{H}>\mathrm{J}$ or $\mathrm{J}<\mathrm{H}$. Hence II is not true.
382. 1; $\mathrm{X}=\mathrm{Y}$.. ... (i), $\mathrm{Z}<\mathrm{K} \ldots$ .. (ii), $Z \geq Y$... (iii) From (ii) and (iii), we get $K>Z \geq Y \Rightarrow K>Y$ or $Y<K$. Hence $I$ is true.
From (i) and (iii), we get $X=Y \leq Z \Rightarrow X_{\leq Z}$. Hence II may be true but not necessarily so.
383.5; $\mathrm{N} \geq \mathrm{L} \ldots$... (i), $\mathrm{M} \leq \mathrm{L} \ldots$. (ii), $\mathrm{P}>\mathrm{N} \ldots$... (iii) From (i) and (ii), we get $N \geq L \geq M \Rightarrow N \geq M$. Hence
II is true.
From II and (iii), we get $\mathrm{P}>\mathrm{N} \geq \mathrm{M} \Rightarrow \mathrm{P}>\mathrm{M}$ or $\mathrm{M}<\mathrm{P}$. Hence I is true.
384.3; $\mathrm{Q} \geq \mathrm{S}$.... (i), $\mathrm{T}=\mathrm{S} \ldots$... (ii), $\mathrm{R} \leq \mathrm{T} \ldots$...iii)

Combining all, we get $\mathrm{R} \leq \mathrm{T}=\mathrm{S} \leq \mathrm{Q} \Rightarrow \mathrm{R} \leq \mathrm{Q} \Rightarrow$ either $\mathrm{R}=\mathrm{Q}$ or $\mathrm{Q}>\mathrm{R}$. Hence either I or II is true.
385. 2; C $\leq \mathrm{D} \ldots$.. (i), $\mathrm{E}>\mathrm{F}$.... (ii), $\mathrm{E}<\mathrm{C} \ldots$... (iii)

Combining all, we get $\mathrm{F}<\mathrm{E}<\mathrm{C} \leq \mathrm{D} \Rightarrow \mathrm{F}<\mathrm{D}$ or $\mathrm{D}>\mathrm{F}$. Hence II is true. I is not true.
386. 1; R > S ... (i), $\mathrm{S}=\mathrm{O}$... (ii), $\mathrm{M} \leq \mathrm{O}$... (iii)

From (ii) and (iii), we get $\mathrm{S}=\mathrm{O} \geq \mathrm{M} \Rightarrow \mathrm{S} \geq \mathrm{M} \ldots$ (A).
Hence II is not necessarily true.
From (i) and (A), we get $R>S \geq M \Rightarrow R>M$. Hence $I$ is true.
387.3; $\mathrm{R} \geq \mathrm{G} \ldots$... (i), $\mathrm{G} \leq \mathrm{K} \ldots$... (ii), $\mathrm{R}=\mathrm{L} \ldots$... (iii)

No relationship between L and K can be established. But I and II together are exhaustive. Hence either I or II
follows.
388.1; $\mathrm{Q} \geq \mathrm{X} \ldots$... (i), $\mathrm{Y} \leq \mathrm{X} \ldots$ (ii), $\mathrm{Z} \leq \mathrm{Y} \ldots$... (iii)

From (i) and (ii), we get $\mathrm{Q} \geq \mathrm{X} \geq \mathrm{Y} \Rightarrow \mathrm{Q} \geq \mathrm{Y}$
$\Rightarrow \mathrm{Y} \leq \mathrm{Q} \ldots$ (A). Hence II is not true.
From (A) and (iii), we get $\mathrm{Z} \leq \mathrm{Y} \leq \mathrm{Q} \Rightarrow \mathrm{Q} \geq \mathrm{Z}$. Hence I is true.
389.4; $\mathrm{A} \geq \mathrm{T} \ldots$ (i), $\mathrm{S}<\mathrm{T} \ldots$ (ii), $\mathrm{N} \leq \mathrm{S} \ldots$ (iii)

From (i) and (ii), we get $A \geq T>S \Rightarrow A>S . .$. (A).
Hence I may be true but not necessarily so.
From (A) and (iii), we get $A>S \geq N \Rightarrow A>N$. Hence
II may be true but not necessarily so.
390.3; $\mathrm{A}=\mathrm{T} .$. (i), $\mathrm{T} \leq \mathrm{M}$... (ii), $\mathrm{Q} \geq \mathrm{M}$... (iii)

From (ii) and (iii), we get $\mathrm{T} \leq \mathrm{M} \leq \mathrm{Q} \Rightarrow \mathrm{T} \leq \mathrm{Q}$
Hence either I or II is true.
(391-395): In these questions
$\$ \rightarrow>$ (greater than), @ $\rightarrow \geq$ (greater than or equal to), $\otimes \rightarrow=$ (equal to), ${ }^{*} \rightarrow<($ smaller than), and \# $\rightarrow \leq$ (smaller than or equal to).
391. 5; L < S ....(i), $\mathrm{P} \geq \mathrm{R} \ldots$...(ii), $\mathrm{S} \leq \mathrm{R} \ldots$ (iii)

From (i), (ii) and (iii), we get
$P \geq R \geq S>L . \Rightarrow P>L$. Hence $I$ is true.
From (ii) and (iii), II is true.
392. 4; $G>R \ldots$... (i), $H \leq R \ldots$ (ii), $G \geq M \ldots$.... (iii)

From (i) and (iii), no definite relationship between M and R can be established. Hence I and II are not true.
393.3; $\mathrm{Y} \leq \mathrm{T}$... (i), $\mathrm{J}=\mathrm{T}$.... (ii), $\mathrm{O}=\mathrm{T} . .$. (iii), $\mathrm{E} \geq \mathrm{J} .$. (iv)

From (i), (ii), (iii) and (iv), we get
$\mathrm{E} \geq \mathrm{O}=\mathrm{T}=\mathrm{J} \geq \mathrm{Y} \Rightarrow \mathrm{E} \geq \mathrm{Y}$
Hence, either conclusion I or II is true.
394. 2; $\mathrm{H} \geq \mathrm{P} \ldots$ (i), $\mathrm{H}<\mathrm{D} \ldots$ (ii), $\mathrm{T}<\mathrm{P} \ldots$ (iii), $\mathrm{X}=\mathrm{T} \ldots$... (iv)

From (i) and (iii), we get
$H \geq P>T \Rightarrow H>T$. Hence conclusion $I$ is not true.
From(i), (ii), (iii) and (iv)
$\mathrm{D}>\mathrm{H} \geq \mathrm{P}>\mathrm{T}=\mathrm{X} \Rightarrow \mathrm{D}>\mathrm{X}$.
Hence conclusion II is true.
395.1
396. 1; $\mathrm{U} \geq \mathrm{V}$.... (i), $\mathrm{U}<\mathrm{W}$.... (ii), $\mathrm{M} \leq \mathrm{N}$.... (iii), $\mathrm{W}>\mathrm{N}$.... (iv) From (i) and (ii), V < W. Hence I follows while II does not.
397.4; $\mathrm{S} \geq \mathrm{T} . .$. (i), $\mathrm{X}<\mathrm{Y}$... (ii), $\mathrm{S} \leq \mathrm{Y}$... (iii)

I can't be established.
From (i) and (iii), $\mathrm{Y} \geq \mathrm{T}$. Thus II may follow but not necessarily so.
398. 4; $\mathrm{Z}>\mathrm{R} \ldots$ (i), $\mathrm{S} \geq \mathrm{D} \ldots$ (ii), $\mathrm{R}<\mathrm{A} \ldots$... (iii), $\mathrm{A} \leq \mathrm{S}$.... (iv)

I can't be established.
From (iii) and (iv), R < S. Thus II is false.
399. $4 ; \mathrm{U} \geq \mathrm{V}$.... (i), $\mathrm{N} \leq \mathrm{K} \ldots$ (ii), $\mathrm{L}<\mathrm{V} \ldots$ (iii), $\mathrm{U} \leq \mathrm{N} \ldots$ (iv)

Combining these, we get $\mathrm{K} \geq \mathrm{N} \geq \mathrm{U} \geq \mathrm{V}>\mathrm{L}$.
So I does not follow. Nor does II follow.
400. 1; A < B , ... (i), C > D .... (ii), $\mathrm{D} \geq \mathrm{A} \ldots$... (iii), $\mathrm{C} \leq \mathrm{E} \ldots$...(iv) From (ii) and (iv), E>D. Hence I follows. From (i), (ii) and (iii), we get $\mathrm{C}>\mathrm{D} \geq \mathrm{A}<\mathrm{B}$. Hence II can't be established.
401. 4; The three statements are decoded as:
(i) $\mathrm{R}<\mathrm{M}$, (ii) $\mathrm{M}>\mathrm{P}$, (iii) $\mathrm{R} \geq \mathrm{L}$.

From (i) and (iii), we have $M>R \geq L$.
Which means $M \geq$ L. Hence, I does not necessarily follow. Again, $M \geq L$ and $M>P$.
So P = L may or may not be true. So II does not follow either.
402. 1; The three statements are decoded as:
(i) $\mathrm{T} \geq \mathrm{P}$, (ii) $\mathrm{P}<\mathrm{S}$, (iii) $\mathrm{P}=\mathrm{M}$.

From (ii) and (iii), we have $S>M$. So I follows. From (i) and (ii) we can't be sure whether T is greater than or less than S. So II may or may not follow.
403. 3; The statements are decoded as
(i) $\mathrm{M}=\mathrm{T}$ (ii) $\mathrm{T} \leq \mathrm{Z}$, (iii) $\mathrm{S}>\mathrm{M}$

From (i) and (ii), we have $Z \geq M$.
This means that either $\mathrm{Z}>\mathrm{M}$ or $\mathrm{Z}=\mathrm{M}$.
Hence either I or II follows.
404. 4; The statements are decoded as
(i) $Z<B$, (ii) $N \geq S$, (iii) $B<N$.

From (i) and (iii) we see that: $\mathrm{N}>\mathrm{B}>\mathrm{Z}$.
Obviously, I is wrong. Also, $\mathrm{N}>\mathrm{B}$ and $\mathrm{N} \geq \mathrm{S}$.
This is not sufficient to find a relation between B and S .
405. 4; The statements are : (i) $\mathrm{L}<\mathrm{C}$, (ii) $\mathrm{C}>\mathrm{Z}$, (iii) $\mathrm{Z} \leq \mathrm{F}$.

From (ii) and (iii), we can't find any relation between C

## 4

406. 2; Since conclusion II is nothing but the second statement, don't waste your time decoding the given statements. II is of course true.
407. 1; The statements can be decoded as
(i) $\mathrm{N}<\mathrm{L}$, (ii) $\mathrm{L}>\mathrm{S}$, (iii) $\mathrm{S}>\mathrm{Q}$. From (ii) and (iii) it is obvious that $\mathrm{Q}<\mathrm{S}<\mathrm{L} \Rightarrow \mathrm{Q}<\mathrm{L}$. Hence, I is true. Since both N and Q are smaller than the same quantity L , it is not possible to compare them. Hence II cannot be declared true or false.
408. 4; The three statements can be decoded as (1) A>B, (2) B < C, (3) C > D. Here, we can't establish any link between A and D. Therefore, neither I nor II can be declared true or false.
409. 4; The three statements can be decoded as: (1) $\mathrm{M}<\mathrm{N}$, (2) $\mathrm{O}>\mathrm{P}$, (3) $\mathrm{O}<\mathrm{U}$. From (2) and (3),
we have, $U>O>P \Rightarrow U>P$.
Thus both I and II are wrong.
410. 1; The three statements can be decoded as (1) $\mathrm{Q}>\mathrm{S}$, (2) $U<S,(3) U=R$.
From (1) and (2), we have:
$\mathrm{U}<\mathrm{S}<\mathrm{Q} \Rightarrow \mathrm{U}<\mathrm{Q}$. Hence, I is correct.

# Chapter 15 <br> Input-Output 

## Introduction

In input-output problems you are asked to imagine that there is some kind of computer or a word-processing machine and this machine performs some operations on a given input. These operations are performed repeatedly as per a pre-fixed pattern or rule and subsequently we have different output in different steps. Look at the examples given below:
Ex. 1: Input: sherry quart pint bar

| Step I: | quart | sherry | pint | bar |
| :--- | :--- | :--- | :--- | :--- |
| Step II: | quart | sherry | bar | pint |
| Step III: | sherry | quart | bar | pint |
| Step IV: | sherry | quart | pint | bar |
| Step V: | quart | sherry | pint | bar |
| Step VI: | quart | sherry | bar | pint | and so on.

Explanations:
Here, two operations are being performed.
Operation I:
In the first operation, machine operates on the input on a prefixed rule where the first two words are interchanged and the remaining two words are left untouched. Thus we get the first output (Step I).

## Operation II:

Suppose that the rule this time is to interchange the last two words and leaving the first two words interchanged. Then, according to this rule our input will be the first output and we get second output (Step II).

Now, suppose that the machine is programmed to perform operation I and operation II alternately. If the machine goes on then for the third output, the input will be the second output and the operation performed will be operation I, ie leaving the last two words unchanged and interchanging the first two. Thus, we get third output (Step III). Obviously the next step will be consisting of operation II and it will be performed on third output. In this, as already mentioned, we will leave the first two words unchanged and interchange the last two words. Thus, we get fourth output (Step IV).

If the machine went on, the sequence would be generated as given above.

Now, look at the example given below:
Ex. 2: Input: sherry quart pint bar
Step I: bar sherry quart pint
Step II: bar pint sherry quart
Step III: bar pint quart sherry
Step III is the last step and the machine stops
after this step.

## Explanation:

In this example, the machine does operation on this input as given below:

It scans the words given, it then looks for the word that comes first in the dictionary and puts that word in the first place.

Here, "bar" is alphabetically the first word, therefore, it is put in the first place. Remaining words are pushed to the right without changing their order. The machine went on with this logic and subsequently we have step I, step II and step III. Please note that here the third output is arranged in correct alphabetical order and therefore this is the last step and the machine stops after this step.

## Basic Types of Questions

On the basis of the above two examples, we are in a position to discuss at least two basic types of questions that are usually asked in the various competitive exams.
(1) Shifting: In this type of questions, we usually shift the given words (or numbers) of the given input as per a fixed pattern.

In Ex 1, we have seen it already. In Ex 1, we had the first two words shifting their places in operation I and then the last two words shifting their places in operation II. This was an example of shifting.
(2) Arranging: In this type of questions, the words or the numbers are arranged as per a fixed order. This order can be an alphabetical order in case of words; it can be an increasing or decreasing order in case of numbers. Note
that whereas shifting goes on endlessly; arranging ends as soon as the order intended is achieved.

An example of arranging is Ex 2. In this we saw that the given input was arranged alphabetically in subsequent steps.

## Identification of the Type of Problem

The moment you get a question on input-output you should first identify the basic type. This is an important step and you should not take more than five seconds for this.

## (i) Check for arrangement first:

First of all you should try to check if there is any arrangement. If arrangement is there, the words would be continuously arranged in an alphabetical order. If the input is consisting of number then the numbers would be continuously arranged in an increasing or decreasing order.

Tip to check of arrangement: If either the first or the last word (or number) of all the steps (excluding input) remains unchanged then it is (almost) certain that it is an arrangement problem.

See the Ex. 2 above. The first word "bar" of all the three steps remains unchanged.

## (ii) Check for shifting next:

If the chances of arrangement have been ruled out, then you should check if shifting is taking place. Just look at the first two-three steps. Do you see that words (or numbers) from a particular position are going to a fixed
particular position? Is this being repeated. If yes then it is a problem of shifting. Look at the Ex. 1 above.

Now, let us see how to solve problems based on 'shifting' and 'arrangement' one by one.

## Shifting

Shifting means an operation where the words (or numbers) of a given step are "shifted" from their place to a different place as per a pre-fixed pattern or rule. We can solve input problems based on 'shifting' with the help of 'Reference Charts'.

## Method of Reference Charts

This method consists of replacing the words (or number) given in the input by digits $1,2,3, \ldots$. etc and then drawing a chart on the basis of their shiftings. Here, I am giving a step-by-step approach for solving questions based on "Shifting" using method of reference charts.

## Step A: Determine whether it is 1 -step or 2 -step or 3-step case.

We know that one or more than one shifting operations are performed alternately by the same machine. For example, in Ex. 1 above two operations are performed alternately by the input-output machine.

When we have a single operation going on repeatedly it is called 1 -step shifting, when we have two operations it is called 2 -step shifting and when we have three operations going on, it is called 3 -step shifting.

For example, consider the following:
Ex.3(a): Input: Ram was here only
Step I: was Ram here only
Step II: Ram was here only
Step III: Was Ram here only

## Explanations:

This is a case of $\mathbf{1}$-step shifting. This is because in going from Input to Step I only the first two words are being interchanged.(Call it Operation One). And the same operation is being performed all the time.
Ex.3(b): Input: Ram was here only
Step II: was Ram here only
Step II: was Ram only here
Step III: Ram was only here
Step IV: Ram was here only

## Explanations:

This is a case of 2-Step shifting. This is because in going from Input to Step I only the first two words interchange (Call it Operation One) while, in going from Step I to Step II only the last two words interchange. (Call it Operation Two). These two operations are being performed alternately hence it is a 2 -step case.
Ex.3(c): Input: Ram was here only
Step II: was Ram here only
Step II: was Ram only here
Step III: Here Ram only was
Step IV: Ram here only was
Step V: Ram here was only
Step VI: only here was Ram

## Explanations:

This is a case of 3-Step shifting. This is because in going from Input to Step I only the first two letters interchange (Call it Operation One); in going from Step I to Step II the last two letters interchange (Call it Operation Two) and in going from Step II to Step III first and last words interchange (Call it Operation Three). Thus, three
operations are being performed one after another and hence it is a 3-type case.

When a problem is given to us it is extremely important that we identify if it is a 1 -step or 2 -step of 3 -step type of shifting.

If you look at Ex.3(a) you will notice that in a 1 -step type shifting the same operation takes place over and over again. Thus the change in going from Input to Step I is the same as the change in going from Step I to Step II and so on. But in case of a 2 -Step type shifting [See Ex.3(b)] two operations take place alternately. This means that the change in going from Input to Step I is different from the change in going from Step I to Step II. But the change from Input to Step I is the same as the change from Step II to Step III while the change from Step I to Step II is same as the change from Step III to Step IV. Similarly, in a 3Step type shifting the change in going from Input to Step I is different from the change from Step I to Step II and from Step II to Step III. There, change from Input to Step I is same as the change from Step III to Step IV; change from Step I to Step II is same as the change from Step IV to Step V and the change from Step II to Step III is same as the change from Step V to Step VI.

For our convenience, we use numerals for steps as given below:

0 in place of input
1 in place of Step I
2 in place of Step II
3 in place of Step III and so on.
Again, sometimes we shall write a long phrase like "the change in going from Input to Step $I$ "; in a shorter way as "0 to $\mathbf{1 "}$ ". For example, we can write " 2 to $\mathbf{3}$ " which will mean "the change in going from Step II to Step III". For quick determination of whether it is 1 -step or 2 -step or 3step case follow the quicker approach given below:

```
if 0 to 1=1 to 2; it is 1- step case
if 0 to 1\not=1 to 2 but 0 to 1=2 to 3; it is a
        2-step case
if 0 to 1\not=1 to 2 and 0 to 1\not=2 to 3 but 0 to 1
        = 3 to 4; it is a 3-step case.
```

Step B: Determine how many steps should be drawn in the reference chart.
For this we use golden rule of reduction.
Using our terminology, we can say that:
(i) In a 1-Step case
$\mathbf{0}$ to $\mathbf{1}=\mathbf{1}$ to $\mathbf{2}=\mathbf{2}$ to $\mathbf{3} \ldots$.
(ii) In a 2-Step case:
(a) $\mathbf{0}$ to $\mathbf{1}=\mathbf{2}$ to $\mathbf{3}=\mathbf{4}$ to $\mathbf{5} \ldots .$. and
(b) $\mathbf{1}$ to $\mathbf{2}=\mathbf{3}$ to $\mathbf{4}=\mathbf{5}$ to $\mathbf{6} \ldots$.
(iii) In a 3-Step case
(a) $\mathbf{0}$ to $\mathbf{1}=\mathbf{3}$ to $\mathbf{4}=\mathbf{6}$ to $\mathbf{7}=\ldots$. . and
(b) $\mathbf{1}$ to $\mathbf{2}=\mathbf{4}$ to $\mathbf{5}=\mathbf{7}$ to $\mathbf{8}=\ldots$. and
(c) $\mathbf{2}$ to $\mathbf{3}=\mathbf{5}$ to $\mathbf{6}=\mathbf{8}$ to $\mathbf{9}=\ldots \ldots$
all these can be rewritten as:
(i) In a 1 -step case
$\mathbf{O}$ to $\mathbf{1}=(0+1 \times 1)$ to $(1+1 \times 1)=(0+2 \times 1)$ to $(1$ $+2 \times 1$ )
(ii) In a 2 -step case
(a) $\mathbf{0}$ to $\mathbf{1}=(0+1 \times 2)$ to $(1+1 \times 2)=(0+2 \times 2)$ to $(1+2 \times 2)$
(b) $\mathbf{1}$ to $\mathbf{2}=(1+2 \times 1)$ to $(2+2 \times 1)=(1+2 \times 2)$ to $(2+2 \times 2)$
(iii) In a 3 -step case
(a) $\mathbf{0}$ to $\mathbf{1}=(0+1 \times 3)$ to $(1+1 \times 3)=(0+2 \times 3)$ to $(1+2 \times 3)$
(b) $\mathbf{1}$ to $\mathbf{2}=(1+1 \times 3)$ to $(2+1 \times 3)=(1+2 \times 3)$ to $(2+2 \times 3)$
(c) $\mathbf{2}$ to $\mathbf{3}=(2+1 \times 3)$ to $(3+1 \times 3)=(2+2 \times 3)$ to $(3+2 \times 3)$
If we analyse the above we find that:
(a) In case of a 1-Step; the same change can be rewritten by adding or subtracting any multiple of 1 . Thus; if it is a 1 -Step case; we can have;
Ex. 4: (a) $\mathbf{0}$ to $\mathbf{4}=(0+1 \times 1)$ to $(4+1 \times 1)=\mathbf{1}$ to $\mathbf{5}=(0$ $+2 \times 1$ ) to $(4+2 \times 1)=\mathbf{2}$ to $\mathbf{6}$ etc.
(b) $\mathbf{1 3}$ to $\mathbf{9}=(13-9 \times 1)$ to $(9-9 \times 1)=\mathbf{4}$ to $\mathbf{0}$ etc.
(b) In case of a 2-Step, the change can be rewritten by adding or subtracting any multiple of 2 . Thus, if it is a 2-Step case we can have
Ex. 5: (a) $\mathbf{0}$ to $\mathbf{4}=(0+1 \times 2)$ to $(4+1 \times 2)$

$$
\begin{aligned}
& =\mathbf{2} \text { to } \mathbf{6} \\
& =(0+2 \times 2) \text { to }(4+2 \times 2) \\
& =\mathbf{4} \text { to } \mathbf{8}
\end{aligned}
$$

(b) $\mathbf{1 3}$ to $\mathbf{9}=(13-4 \times 2)$ to $(9-4 \times 2)$
$=\mathbf{5}$ to $\mathbf{1}$ etc.
(c) In case of a 3-Step, the change can be rewritten by adding or subtracting any multiple of 3 . Thus, if it is a 3-Step case, we can have
Ex. 6: (a) $\mathbf{0}$ to $\mathbf{4}=(0+1 \times 3)$ to $(4+1 \times 3)$

$$
\begin{aligned}
& =\mathbf{3} \text { to } \mathbf{7} \\
& =(0+2 \times 3) \text { to }(4+2 \times 3) \\
& =\mathbf{6} \text { to } \mathbf{1 0} \ldots . .
\end{aligned}
$$

(b) $\mathbf{1 3}$ to $9=(13-3 \times 3)$ to $(9-3 \times 3)$

$$
=\mathbf{4} \text { to } \mathbf{0} \ldots . . \text { etc. }
$$

The above mentioned rules given in italics are called golden rule of reduction. We can put that in words more concisely:

## Golden Rule of Reduction <br> The change between any two steps in a 1-Step (or 2-Step or 3 -Step) case can be substituted by a change between two new steps that can be obtained by adding or subtracting any multiple of 1 (or 2 in a 2-Step case, or 3 in a 3-Step case) from the given steps.

## Use of Golden Rule of Reduction

Suppose that you are given a problem and in one of the questions you are given Step 20 and you have to find step-23. In our terminology you can write it as "find 20 to 23 ". Suppose that you have already analysed the given pattern and found out that it is a 2 -step type case. Now, by using our golden rule you can write 20 to $23=(20-10$ $\times 2$ ) to $(23-10 \times 2)=0$ to 3 . In words it means that 'step 20 to step 23 ' would involve the same changes as 'input to step 3'.
Step C: Replace words of given input by $1,2,3 \ldots \ldots .$. and draw a reference chart. Complete the chart by following the movement of the words. Draw the chart for as many steps as determined in step B.
Step D: After completing Step A to Step C, go on to respective questions.
In input-output problems on shifting there are essentially two types of problems. They are
(i) Given a Step Number and its content to find the content of another step number.
(ii) Given a step number and its content to find the step number for another given content.

For better understanding of Step D, see the illustrative example given below:
Ex. 1: A word arrangement machine, when given a particular input, rearranges it following a particular rule. The following is the illustration of the input and the steps of arrangement:
Input: I have long awaited for your reply
Step I: reply long have awaited for your I
Step II: long reply awaited have for I your
Step III: your awaited reply have for I long
Step IV: awaited your have reply for long I
and so on till step VII.

1. Given the following

Step IV: I know you will not reply back.
What step will be the following arrangement?
Arrangement: You back I reply not will know

1) $X$
2) XI
3) IX
4) VIII
5) None of these
2. If step VI of a given input be 'Have I done anything wrong with you', what would be the input?
1) you done with have wrong I anything
2) you done with have wrong anything I
3) done you have with wrong anything I
4) I have you with wrong anything done
5) None of these
3. If step XII of a given input be 'It is impossible to do everything right' what is the step XVII of that input?
1) is it everything right do impossible to
2) It is right everything do to impossible
3) It is everything right do impossible to
4) to everything is right do impossible it
5) None of these
4. Given the input, what would be step V of the input?

Input: Only you can do all thing right.

1) you only right thing all do can
2) only you thing right all can do
3) only thing you right all do can
4) thing only you right all do can
5) None of these
5. If step IV of a given input be 'It is last serious warning to you', what is step I of that input?
1) you last is to serious it warning
2) last you is to warning it serious
3) serious last to it warning is you
4) warning to serious it is you last
5) None of these

Soln.:
Step A: We see that 0 to $1 \neq 1$ to 2 and 0 to $1=2$ to 3 . Hence it is a 2 -step type shifting.
Step B: We need to draw upto 7 step.
In Q. 1, Step IV is given and we have to find which step is a given arrangement (In such cases take the answer choice giving the largest range, here it is XI.)
Q. 2, Q. 3, Q. 4 and Q. 5 can be written as $\mathbf{6}$ to $\mathbf{0}$, $\mathbf{1 2}$ to 17, $\mathbf{0}$ to 5 and $\mathbf{4}$ to $\mathbf{0}$, respectively. Out of these, golden rule of reduction can be applied in (Q. 1) and (Q. 3). The whole scheme can be written down as:

```
Q. 1: 4 to 11* = (4-2 x 2) to (11-2 x 2)
        =0 to 7
    Q. 2: 6 to 0
Q. 3: 12 to 17 = (12-6 x 2) - (17 - 6 x 2)
        =0 to 5
    Q. 4: 0 to 5
    Q. 5: }4\mathrm{ to 0
```

* We take 11 as (4 to 11 ) gives the largest range in the given answer choices.
Now, we see that in our reduced forms the largest step involved is $\mathbf{7}$ or step VII. Hence, we need to draw our reference chart upto Step 7.
Step C: For our problem, we replace the word of the input by $1,2,3,4 \ldots$. We have, $I=1$, have $=2$, long $=$ 3 , awaited $=4$, for $=5$, your $=6$, reply $=7$. Now, we draw a reference chart of upto 7 steps:

| Input: | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| :--- | :---: | :--- | :--- | :--- | :--- | :--- | :--- |
| Step I: | 7 | 3 | 2 | 4 | 5 | 6 | 1 |
| Step II: | 3 | 7 | 4 | 2 | 5 | 1 | 6 |
| Step III: | 6 | 4 | 7 | 2 | 5 | 1 | 3 |
| Step IV: | 4 | 6 | 2 | 7 | 5 | 3 | 1 |
| Step V: | 1 | 2 | 6 | 7 | 5 | 3 | 4 |
| Step VI: | 2 | 1 | 7 | 6 | 5 | 4 | 3 |
| Step VII: | 3 | 7 | 1 | 6 | 5 | 4 | 2 |

Explanation: The given problem itself gives us upto Step IV. Remaining steps are drawn by copying from appropriate changes. Since, it is a 2 -Step type case $\mathbf{4}$ to $\mathbf{5}=\mathbf{2}$ to 3. Hence, Step V is drawn from Step IV in same way as Step III is drawn from Step II. Similarly, Step VI is drawn from Step V in the same way as Step IV is drawn from Step III.
Step D: Once we complete Step A to Step C; in other words, once we complete our reference chart we will move on to the questions.
(i) and (ii): Now, there are two types of questions possible. In type one, you are given the content of a step and you have to find the content of another step. Q2, Q3, Q4 and Q5 are examples of this type of questions. In the second type of questions, you are given the content of one step and the content of another unknown step and you have to find this unknown step-number, Q 1 is an example of it.
(ii): Q2, 3, 4, 5: Now, we will follow the following strategy to solve these questions. In questions of the first type, we will first see if any reduction is possible by our golden rule. Then, we will take the given step and to its words we will assign the same digits as they appear for that step in the reference chart. Now, we will find out the sequence of these digits for the step of which we have to find the content. Finally, we resupply the words for the given digits.
Q. 2: For example, Q. 2 is:

6 to 0, (given $6=$ "Have I done anything wrong with you)" Now, Step 6 in our reference chart is, 2176543 . So, we assign: Have $=2$, $\mathrm{I}=1$, done
$=7$, anything $=6$, wrong $=5$, with $=4$, you $=3$.
Now, Input in our reference chart is $=12345$ 6 7. Resupplying the words, we get:
Input $=$ I have you with wrong anything done.

## Correct answer: 4

Q. 3: Q. 3 is:

12 to 17, (given, 12 = "It is impossible to do everything right") By, golden rule of reduction 12 to $\mathbf{1 7}=\mathbf{0}$ to 5.
Now, $\mathbf{0}=1,2,3,4,5,6,7$. So we assign: If $=1$, is $=2$, impossible $=3$, to $=4$, do $=5$, everything $=6$, right $=7$. Now, from our reference chart,Step $\mathrm{V}=1267534$. Resupplying the words, we get:

It is everything right do impossible to. Correct Answer: 1
Q. 4: Q. 4 is:
$\mathbf{0}$ to 5, (given $\mathbf{0}=$ Only you can do all thing right) From reference chart: $\mathbf{0}=1234567$. So, we assign: only $=1$, you $=2$, can $=3$, do $=4$, all $=5$, things $=6$, right $=7$. Now, from reference chart : 5 = 1267534 . Resupplying the words, we get. Only you thing right all can do. Correct answer: 2
Q. 5: Q. 5 asks:

4 to $\mathbf{1}$; (given, $4=$ It is last serious warning to you) From the reference chart, $4=4627531$. Hence we assign:
It $=4$, is $=6$, last $=2$, serious $=7$, warning $=5$, to $=3$, you $=1$. Now, from reference chart: $\mathbf{1}=7$ 324561 . Thus, the correct answer is 'serious to last it warning is you'. Correct answer : 5
Step $\mathbf{E}(\mathbf{i i}):$ The second type of questions could be where we are given the content of one step and the content of another unknown step would be given. We will have to find this unknown step. Q. 1 is an example of such type.
For solving questions of this type, we will take that step from the answer choices which, coupled with the given step gives you the biggest range. See the following illustration to understand this:
(Q. 1) Known step $=4$. Choices are: 10, 11, 9, 8. We take 11 as this given largest range. Now, 4 to $\mathbf{1 1}=\mathbf{0}$ to 7 by golden rule. So, we assume "I know you will not reply back" to be input rather than Step IV. Now, digit pattern for input is 12 34567 . So, we take $I=1$, know $=2$, you $=3$, will $=4$, not $=5$, reply $=6$, back $=7$. Now, the given arrangement 'you back I reply not will know becomes' 3716542 . We see in the reference chart that it corresponds to Step 7. This means that you back I reply not will know is step 7 if I know you will not reply back was input.
But, I known you will not reply back is step $4(0+4)$. Hence, you back .... not will know is $4+7=$ step 11 .

## Arrangement

In this type of questions, the words or the numbers are arranged as per a fixed order. This order can be an alphabetical order in case of words, it can be an increasing or decreasing order in case of numbers. Note that whereas shifting goes on endlessly; arranging ends as soon as the order intended is achieved.

## Possible Ways of Arrangements

Whenever you come across an arrangement problem please try to understand the logic on which the machine works. For this ask yourself the following questions:

## (i) Increasing order or decreasing order?

Arrangement can be of words or it can be of numbers. Words are arranged alphabetically while numbers are arranged in their increasing or decreasing order of magnitude. Since in a alphabetical arrangement of words, $a$ comes before $b$ which comes before $c$ in the dictionary, a word starting with a would come before a word starting with $b$ which would come before a word starting with $c$. Thus, if you have three words: cat, ass, and bat, cat is
alphabetically the third ass is first while bat is alphabetically the second word in the dictionary. Therefore, if we have (ass, bat, cat) this is an alphabetically increasing sequence while (cat, bat, ass) is alphabetically decreasing sequence. Similarly (5, 7, 9) is an increasing sequence while $(9,7,5)$ is a decreasing sequence. Now, we can have a machine that arranges in an increasing sequence or we can have one that arranges in a decreasing sequence.

Now, look at the examples given below:
Ex. 1: Input: Star players don't abandon
Step I: abandon star players don't
Step II: abandon don't star players
... and so on.
(The above is an example of arranging in an increasing sequence.)
Ex. 2: Input: don't players star abandon
Step I: star don't players abandon
Step II: Star players don't abandon
[This is an example of decreasing sequence because alphabetically last word has occupied first place while abandon (which is alphabetically first) occupied last place.]
Ex. 3: $\begin{array}{llllcc}\text { Input: } & 15 & 19 & 11 & 17 \\ & \text { Step I: } & 11 & 15 & 19 & 17 \\ & \text { Step II: } & 11 & 15 & 17 & 19\end{array}$
(Above is an example of arranging in an increasing order)
Ex. 4: Input: $\begin{array}{lllll}15 & 19 & 11 & 17\end{array}$

| Step I: | 19 | 15 | 11 | 17 |
| :--- | :--- | :--- | :--- | :--- |
| Step II: | 19 | 17 | 15 | 11 |

(Above is an example of arranging in a decreasing order.)
(ii) Fillings from left side only or right side only or left-right alternately?
(a) Left-side only: If we are arranging in increasing order, we can bring the first word of the dictionary in the first place. This would be step I. After that, in step II, we would bring second word of dictionary in the second place. And so on. In this way, in succeeding steps, the first, second, third places from left... are filled by alphabetically first, second, third words.
Ex. 5: Input: Star players don't abandon
Step I: abandon star players don't
Step II: abandon don't star players
... and so on
(b) Right-side only: Sometimes the same task of arranging (in say, increasing order) can be achieved by putting the last word of the dictionary in the last place. This would be step I. Then we can put the second-last word of the dictionary at the second place from the right. And so on. In this way, in succeeding steps, the first, second, third steps from right, are filled by alphabetically last, second last, third last word.
$\begin{array}{lll}\text { Ex. 6: } & \text { Input: } & \text { Star players don't abandon } \\ & \text { Step I: } & \text { players don't abandon star } \\ & \text { Step II: } & \text { don't abandon players star }\end{array}$
... and so on
(c) Left-right alternate: Sometimes, the same task of arranging (in say, increasing order) can be achieved by putting the first word at first place, then alphabetically last word at last place, then alphabetically second word at second place from left... and so on. In other words, words are positioned from the left and from the right alternately. See the following two examples:

Ex. 7: Input: Star players don't abandon Step I: abandon star players don't Step II: abandon players don't star Step III: abandon don't players star
Ex. 8: Input: star players don't abandon Step I: players don't abandon star Step II: abandon players don't star Step III: abandon don't players star

## (iii) Filling by interchange or by push?

In each successive step, the machine does same ordering. This is done by putting one word (or number) in its rightful place, at a time. When a word is put at its rightful place, what happens to the word that was previously occupying that place? There are two answers. The earlier word either quietly shifts (see Ex. 9, 10) or it interchanges position with its replacing word (Ex. 11). In the former case it looks as if the new word has simply jumped from its place, occupied its new and due place and given the remaining words a push, in the second case it is a case of interchange.
Ex. 9: Input: star plyers don't abandon
Step II: abandon star players don't
Step II: abandon don't star players
[abandon is alphabetically first word so it comes to the first place. Other words are pushed to the right. Then 'don't' comes to the second place and the remaining two players are pushed to the right.].
Ex. 10: Input: star players don't abandon
Step I: players don't abandon star
Step II: don't abandon players star
[Arrangement is in increasing order, fillings are "right-only". So, alphabetically last word star comes to last place other words are shifted to the left. Again, players comes to the second last place and remaining words are shifted to the left.]
Ex. 11: Input: star players don't abandon
Step III: abandon players don't star
Step III: abandon don't players star [abandon is brought to the first place, and the word that was previously at first place interchanges positions with abandon. In the next step, we bring don't at the second place. Earlier, players was at second place. So, don't and players interchange places.]
Once you have been able to answer these questions, you have understood the reasoning and that means you can solve the questions easily. Now, look at the illustrative examples given below:

## Interchange Type

Ex. 1: A word arrangement machine, when given an input line of words, rearranges them following a particular rule in each step. The following is the illustration of the input and the steps of arrangement:
Input: gone was the excitement of Friday polls
Step I: excitement was the gone of Friday polls
Step II: excitement Friday the gone of was polls
Step III: excitement Friday gone the of was polls
Step IV: excitement Friday gone of the was polls
Step V: excitement Friday gone of polls was the
Step VI: excitement Friday gone of polls the was
Since the words are already arranged, the machine stops after this step. Otherwise the machine may carry
on its logic until the words get fully arranged. Study the logic and answer the questions that follow.

1. What will be the Step III for the following input?

Input: It had swept the four seats last year

1) four had it last seats swept the year
2) four had it last swept seats the year
3) four had it the swept seats last year
4) four had swept the it seats last year
5) None of these
2. Input: For some this loss is a message For the above input which step will the following arrangement be?
Arrangement: a for is loss message some this
1) Step IV
2) Step $V$
3) Step VI
4) Can't say
5) None of these
3. Input: We were over with counting at noon. Which of the following will be the penultimate step for the above input?
1) Step IV
2) Step $V$
3) Step VI
4) Can't say
5) None of these
4. Input: How much can we check and prune

What will be the fifth step for the above input?

1) and much can we check how prune
2) and can check how much we prune
3) and can check how much prune we
4) and can much we check how prune
5) None of these
5. What will be the second step for the following input?

Input: He has been seen wearing a loose shirt

1) a has been seen wearing he loose shirt
2) a been has seen wearing he loose shirt
3) a been has he wearing seen loose shirt
4) a been has he loose seen wearing shirt
5) None of these

Soln: Looking at the problem, we understand that the logic of arrangement is following:

- increasing order
- left-side only
- interchange
(Increasing order because words are being arranged in alphabetically increasing order. Left-side only because fillings are done only from left. Interchange because replacements are done by interchanging positions. For example, in step I, excitement comes at first place by interchanging positions with gone. In second step, Friday comes at second place and interchanges places with was ....)
Now, let us come to the questions:

1. In step I: four interchanges places with it. In step II, had is alrady at 2nd place, so it replaces swept to come to third place. In 3rd step, last replaces the to come to 4th place. Correct choice: 2.
2. We have the following logic:

For some this loss is a message
Step I: a some this loss is for message
Step II: a for this loss is some message
Step III: a for is loss this some message
Step IV: a for is loss message some this
[Note: In step III, loss is alphabetically 4th and it has already occupied 4th place. Therefore, in step IV we put message (which is alphabetically the fifth) at fifth place].
3. For such type of questions, we have following rule;
"If there are $n$ words (or numbers) then the machine will take at most ( $n-1$ ) steps to arrange the words totally".

Here there are 7 words in we were over with counting at noon. So, it will take at most $(7-1=) 6$ steps to arrange it totally. Hence, penultimate (seconmd last) step would be either step V or less. This eliminates choices 3 and 4 . Now, we have the following logic.
we were over with counting at noon
Step I: at were over with counting we noon
Step II: at counting over with were we over
Step III: at counting noon with were we over
Step IV: at counting noon over were we with
Step V: at counting noon over we were with
Hence the correct choice is (2).
4. For such questions we have following rule:

> "In an arrangement scheme, in step numberx (say) at least $x$ words (or numbers) must have occupied their due positons".

Quicker Method: By the above rule, Step V should have at least first five words in place which are and, can, check, how and much.
This eliminates choices 1 and 4. Now, prune must be in the end because this place is not touched in any of the previous operations. Correct choice: 2.
5. Quicker Method: By the above rule, at least first two words should be alphabetically the first two, ie $a$ and been. This eliminates choice, 1. Now, a interchanges with he in step I and in second step this scheme is not disturbed. so, he should be where a was originally, ie at 6th place. Correct choice: 2.

## Push Type <br> Ex. 2: Study the following information to answer the given questions:

A word arrangement machine, when given an input line of words, rearranges them following a particular rule in each step. The following is an illustration of input and the steps of rearrangement:

Input: As if it on an Zoo figure of in at
Step I: an As if it on Zoo figure Of in at
Step II: an As at if it on Zoo figure Of in
Step III: an As at figure if it on Zoo Of in
Step IV: an As at figure if in it on Zoo Of
Step V: an As at figure if in it Of on Zoo
(and Step V is the last step for this Input).
As per the rules followed in the above steps, find out in the given questions the appropriate step for the given input.

1. Which of the following will be step II for the given input?
Input: am ace all if Is
1) ace all am Is if
2) all am ace if Is
3) Is if am ace all
4) ace all am if Is
5) None of these
2. Input: you are at fault on this

Which of the following steps would be - are at fault on you this?

1) I
2) II
3) III
4) IV
5) V
3. Input: Him and His either or her Which step will be the last step for this input?
1) I
2) II
3) III
4) IV
5) V
4. Step IV was like this - an apple at cot was red on one side
Which of the following will definitely be the input?
1) was cot red an on at one apple side
2) cot an at apple was red on one side
3) apple at an cot was red on one side
4) Cannot be determined
5) None of these

Soln: You can yourself analyse that the logic is:

- increasing order
- left only
- push
(Increasing order, because the words are being arranged in increasing order. Left only because fillings are only from left side. Push because a word fills its due position not by interchanging with any other word, but it flies to its new place and pushes the remaining sequence to the right. For example, in
step I, an takes the first place and the entire remaining sequence is pushed to the right, in step II, At takes the third place and entire remaining sequence is pushed to the right. In step II, as is already at second place so at is placed at third place here.).

1. For such question we have the following rule (for push type only):
"To find the content of step $x$ for a given input mentally lift the first $x$ alphabetical words and just put them before the remaining words. [In increasing order sequence. In case of decreasing order sequence, we will have to lift the last $x$ words]."

Here input is am ace all if Is. Since you have to find step II, lift first two words. Alphabetically, first two words are: ace and all. When we mentally lift them the remaining sequence is: am if Is. So, we put ace and all before am if Is and get ace all am if Is. Correct choice is 4.
2. Input is you are at fault on this. Now, in are at fault on you this, four words (are, at, fault and on) are taken off one by one and placed before you. Correct choice 4.
3. For such question we have the following rule: (For push-type only):
"To find the total number of steps needed to arrange a sequence attach digits 1,2,3......etc to words as per their alphabetical rank. Now, ask yourself this question: how many of these digits should I mentally remove so that the remaining digits will be in order? The answer to your question will be your required answer".

Alphabetically, and is 1 st , either is 2 nd , her is 3 rd , him is 4th, his is 5th, or is 6th. So, we replace him and his either or her

If we mentally remove, 1 we get 45263 . This is not in order.
If we mentally remove 1 and 2 . we get 4563 . This is not in order. If we mentally remove $1,2,3$; we get 456. This is in order. So, we need to mentally remove 3 words to get the remaining words in order. So, our correct answer is 3 steps. Choice: (3).
4. Always remember following rule:

> "In arrangement problems, the contents of an earlier step can never be determined with certainly".

Hence, correct choice is (4)
Note: Student must note that Ex. 1 is based on interchange while Ex. 2 is based on push.

## Some Rules for Quick Answers of Arrangement-Problems

Here, some rules have been given for reaching answers quickly or at least for eliminating the incorrect answer as seen in the above two illustrative examples.
Rule 1: In an arrangement scheme, in step numberx (say) at least $x$ words (or numbers) must have occupied thier due positions.
Rule 2: In arrangement problems, the contents of an earlier step can never be determined with certainty.
Rule 3: If there are $n$ words (or numbers) then the machine will take at most $(n-1)$ steps to arrange the words totally.
Rule 4: (For push type only) To find the content of step $x$ for a given input mentally lift the first $x$ alphabetical words and just put them before the remaining words. [In increasing order sequence. In case of decreasing order sequence, we will have to lift the last x words]
Rule 5: (For push type only): To find the total number of steps needed to arrange a sequene attach digits 1, 2, 3... etc to words as per their alphabetical rank. Now, ask yourself this question: how many of these digits should I mentally remove so that the remaining digits will be in order? The answer to your question will be your required answer.
Note: Note that rule (4) or (5) is not applicable for problems of arrangement based on interchange. It is applicable only when we have cases of push.

## Exercise-1

Directions (Q. 1-5): Study the following information carefully and answer the questions given below it:

An export processing unit has a computerised machine which generates six codes to distinguish products of each of the seven batches produced in a day. The machine is fed code for the first batch of each day. Based on that, the machine generates 6 codes by rearrangement of words for subsequent batches. Following is an illustration of generation of codes for some batches of a day.

Day's first batch - who nut cream page for table.
Day's second batch - who for cream page nut table.
Day's third batch - who for page cream nut table.
Day's fourth batch - table for page cream nut who.
Day's fifth batch - page table for nut who cream.
Day's sixth batch - page who for nut table cream.
and so on till seventh batch. Next day based on the same rule, new set of words will be introduced as given above:

1. If the seventh batch of the day is 'from door no leaf glass but', which of the following would be the first three words of the code of the third batch of that day?
1) door leaf from ..... 2) door leaf but .......
2) glass leaf but $\qquad$ 4) but door no $\qquad$
3) None of these
2. If the code of sixth batch of the day is 'very say could man on fire', which of the following batch codes would read as 'say could very fire man on'?
1) Second
2) Third
3) Fourth
4) Fifth
5) None of these
3. If the code of fourth batch is 'so when clean get lemon dust', which of the following would be the code for seventh batch?
1) get dust lemon when so clean
2) clean so when lemon dust get
3) when get dust so clean lemon
4) clean dust lemon when so get
5) None of these
4. If the first batch code of a day is 'five gave it close to mine', which of the following will be the code for fourth batch?
1) five to it close gave mine
2) mine to close it gave five
3) five to close it gave mine
4) close five to gave mine it
5) None of these
5. If the code of fifth batch of a day is 'same is tea at now then', which of the following would definitely be the first code of that day?
1) tea same is now then at
2) same now tea at is then
3) now at then same tea is
4) now tea is same then at
5) None of these

Directions (Q. 6-10): Study the following information carefully to answer the questions given below.

In a toy exhibition, a machine processes a given input by the following rule. Participants are shown one by one till it reaches its last step. Following is an illustration of the working of this machine.

Input: sui me ato fe zen $u$ no
Step I: fe sui me no ato zen $u$

Step II: no fe sui $u$ me ato zen
Step III: $u$ no fe zen sui me ato
Step IV: zen $u$ no ato fe sui me
Step V: ato zen u me no fe sui
and so on.
Now attempt the questions given below.
6. Which of the following steps would read as 'not you only say wise yet are' for the input 'say not you are only wise yet'?

1) III
2) V
3) VI
4) VII
5) None of these
7. If the Step $V$ of an input is 'so cd rom lay is nor it', which of the following would be its Step II?
1) is nor it rom lay so cd
2) nor it lay is so cd rom
3) lay so cd it rom is nor
4) Data inadequate
5) None of these
8. If the Step III of an input is 'lo men chi from yet as know', which of the following would be its input?
1) Data inadequate
2) from lo men know chi yet as
3) men chi yet lo as know from
4) chi as know men know from lo
5) None of these
9. Which of the following correctly describes the 'machine logic' in generating various steps based on the given input?
1) Each step is generated on random basis.
2) Words/letters are finally arranged in dictionary order.
3) The seventh letter interchanges with the fourth every time.
4) Data inadequate
5) None of these
10. What will be the step IV for the following input?

Input: may sen to cry if not hell

1) cry may sen to if not hell
2) if not hell to cry may sen
3) sen to if may not hell cry
4) not hell cry if may sen to
5) None of these

Directions (Q. 11-17): Read the following information carefully and answer the questions given below:

A famous museum issues entry passes to all its visitors for security reasons. Visitors are allowed in batches after every one hour. In a day there are six batches. A code is printed on entry pass which keeps on changing for every batch. Following is an illustration of pass-codes issued for each batch.

Batch I: clothes neat and clean liked are all by
Batch II: by clothes neat all are and clean liked
Batch III: liked by clothes clean and neat all are
and so on ...
11. If pass-code for the third batch is 'night succeed day and hard work to for', what will be the pass-code for the sixth batch?

1) work hard to for succeed night and day
2) hard work for and succeed night to day
3) work hard for to succeed night and day
4) hard work for to succeed night and day
5) None of these
12. If 'visit in zoo should the we time day' is the passcode for the fifth batch, 'zoo we the should visit day time in' will be the pass-code for which of the following batches?
1) II
2) IV
3) I
4) III
5) VI
13. Sanjay visited the museum in the fourth batch and was issued a pass-code to fast rush avoid not do very run'. What would have been the pass-code for him had he visited the museum in the second batch?
1) rush do not avoid to run very fast
2) rush not do avoid to run very fast
3) avoid rush not do to run very fast
4) Data inadequate
5) None of these
14. Subodh went to visit the museum in the second batch. He was issued a pass-code length the day equal of and night are'. However, he could not visit the museum in the second batch as he was little late. He then prefered to visit in the fifth batch. What will be the new pass-code issued to him?
1) and of are night the length equal day
2) and are of night the length equal day
3) and of are night the equal day length
4) and of are the night length day equal
5) None of these
15. If pass-code for the second batch is 'to confidence hard you leads work and success', what will be the pass-code for the fourth batch?
1) leads success to you hard confidence and work
2) leads success you to hard confidence and work
3) leads success to you hard confidence work and
4) leads to success you hard confidence and work
5) None of these
16. If the pass-code issued for the last (sixth) batch is 'and pencil by all boys used are pen', what will be the pass-code for the first batch?
1) pencil and pen are used by all boys
2) pen and pencil used are by all boys
3) pen and pencil are used by all boys
4) pencil and pen are used all by boys
5) None of these
17. If the pass-code for the sixth batch is 'not go the way to of out do', what will be the pass-code for the third batch?
1) of do to out go not way the
2) of to do out not go way the
3) of to go out do not way the
4) Data inadequate
5) None of these

Directions (Q. 18-24): Read the following information carefully and answer the questions given below:

The world famous Edward Museum in city ' $X$ ' has introduced the system of passcode for its visitors. The passcodes are generated by machine and automatically change after every one hour, during the visiting hours 11 am to 7 pm . The illustration of passcodes generated batchwise is given below:

Passcode for batch I starting at 11 am
things keep dust your all away from never.
Passcode for batch II starting at 12 noon.
all dust things your away from never keep.
Passcode for batch III starting at $1 \mathbf{~ p m}$.
away things all your from never keep dust.

Passcode for batch IV starting at $\mathbf{2} \mathbf{~ p m}$.
from all away your never keep dust things.
and so on upto the last batch starting at 6 pm .
18. If "he for went then to the shop in" is the passcode for seventh batch, "shop to the then in for went he" will be the passcode for which of the following batches?

1) First batch
2) Second batch
3) Third batch
4) Fourth batch
5) None of these
19. "wait not for her till go to garden" is the passcode for batch starting at 12 noon. When Sumitra visited, she was issued the passcode "garden go to her not for wait till". At what time did she visit?
1) 3 pm
2) 5 pm
3) 6 pm
4) 4 pm
5) 1 pm
20. Mr ' X ' visited the museum at 1 pm , but was wrongly issued the passcode for 4 pm batch which was "left is the hand right to his way". What is the correct passcode that should have been issued to Mr ' X '?
1) way to hand his is the left right
2) way to his hand is the left right
3) way to his hand the is left right
4) way to his hand is the right left
5) None of these
21. The passcode generated for the second batch on a particular day was "fat big nice girl for it was out". What will be the passcode for the sixth batch on that day?
1) out is was girl big fat nice for
2) out was it girl big nice fat for
3) out it was girl big nice fat for
4) out it girl was big nice fat for
5) None of these
22. The passcode for batch starting at 2 pm was "walk slow health for good physique for men". What would
be the passcode for the batch starting at 5 pm ?
1) for physique good for men slow health walk
2) for good physique for men health slow walk
3) good for physique for men health slow walk
4) good physique for men for slow health walk
5) None of these
23. Mr Ashok visited the museum at 3 pm . The passcode he received was "at the few words all in for race". What would have been his passcode had he visited the museum at 1 pm ?
1) the for words race few at all in
2) the for race words few at all in
3) for the words race few at all in
4) for the race words few at all in
5) None of these
24. If the passcode for fifth batch is "set all get ready for the race today", what will be the passcode for the first batch?
1) race for the ready today all get set
2) race for the today ready all get set
3) race the for ready today all get set
4) race for the ready today get all set
5) None of these

Directions (Q. 25-29): Study the following information carefully and answer the questions given below:

XYZ Limited Company organised an exhibition of machine tools. The exhibition was opened on all the weekdays for public. Certain passcodes were issued to the visitors as entry card. The passcode of entry card was changed every hour according to a certain rule as shown
below. The entry time of the first batch of the visitors was 9 AM and that for the last batch was 7 PM. Each batch was allowed only one hour. The lunch time was from 1 PM to 2 PM.

## Batch I (9 AM to 10 AM )

Passcode: course easy set for each year was
Batch II (10 AM to 11 AM)
Passcode: easy each course for was set year
Batch III (11 AM to 12 Noon)
Passcode: each was easy for year course set
and so on.
25. If the passcode for the batch entering at 12 Noon is "she the girl is clever very good", then what will be the passcode for the batch entering at 3 PM ?

1) clever good is the very she girl
2) clever good the is she very girl
3) clever good the very is she girl
4) clever good very is the she girl
5) None of these
26. The passcode of which of the following batches will be similar to the passcode for the batch III?
1) VI
2) VII
3) VIII
4) IX
5) None of these
27. If the passcode for the batch III is "pin to the point is sharp not", then what will be the passcode for the batch V?
1) is not to sharp point pin the
2) is not to point sharp pin the
3) not is to sharp point pin the
4) not is to point sharp pin the
5) None of these
28. If the passcode for the second batch is "for the life is good change got" then the passcode for which of the following batches is "got change good is life the for"?
1) IV
2) III
3) V
4) VI
5) None of these
29. If the passcode for batch IV is "do how will the you job now", then what will be the passcode for batch II?
1) job will now the do you how
2) job now will the do you how
3) job will how the do you now
4) job will the now do you how
5) None of these

Directions (Q. 30-33): Given an input, a coding machine generates pass codes for six batches every day as follows:

Input : 'you should know about type of questions'
Pass Code:
Batch I : you questions should of know type about
Batch II : about you type questions know should of
Batch III : about of you should type know questions And so on till the sixth batch.
The first batch begins work at 10.00 a.m. Each batch works for one hour. There is a rest period of one hour after the fourth batch's work is over.
30. If the input on a day is 'eight friends are sitting in the circle', then what will be the pass code for the batch at 3.00 p.m.?

1) the circle in friends are sitting eight
2) circle sitting are the in eight friends
3) sitting friends the are circle in eight
4) circle friends sitting eight are in the
5) None of these
31. Ajay was to attend the batch at 4.00 p.m. on a day with a pass code 'sentence awarded by high court
was executed'. However, he was compelled to work in the batch at 12 noon on that day. What was his pass code then?
1) awarded sentence executed high by court was
2) was executed by awarded court high sentence
3) by high was sentence court awarded executed
4) high sentence awarded executed court was by
5) None of these
32. What will be the input on a day on which pass code for the immediate pre-rest hour batch is 'answersheet information your the on fill up'?
1) fill up your information on the answer-sheet
2) fill answer-sheet up the your on information
3) information your up answer-sheet on fill the
4) information up on the fill answer-sheet your
5) None of these
33. The pass code for the 6th batch on a day was 'mark your answer against appropriate serial number'. What
was the input provided to the machine on that day?
1) number against appropriate serial answer mark your
2) number your against mark appropriate answer serial
3) number against serial appropriate answer mark your
4) your answer number mark serial appropriate against
5) None of these

Directions (Q. 34-38): Given an input, a coding machine generates Pass Codes for six batches every day, as follows:

Input: see the little squirrels jumping here and there Pass Codes:
Batch I: jumping see here the and little there squirrels
Batch II: the and here little see there jumping squirrels
Batch III : see the there and jumping here squirrels little
Batch IV: and jumping there here the squirrels see little and so on.
The first batch timing is 10.00 a.m. and each batch is of one hour's duration. There is a rest period of one hour after the work for the fourth batch is over.
34. On a particular day, Mr . X was to begin the work in the batch at 11.00 a.m. with a pass code 'he slowly recedes to his inner apartment intellect'. However, he came late on that day and hence joined the batch at 12 noon. What was his pass code then?

1) Cannot be determined
2) his he inner slowly apartment recedes intellect to
3) to his recedes inner slowly apartment he intellect
4) to intellect recedes apartment slowly inner he his
5) None of these
35. If the pass code on a day for the second batch is 'are of clouds transformed they bhakti the as', what will be the pass code for the batch at 3.00 p.m. on that day?
1) the they clouds are as bhakti transformed of
2) of the bhakti clouds are as they transformed
3) clouds are bhakti as the they of transformed
4) are of as the they bhakti transformed clouds
5) None of these
36. If the pass code on a day for the batch at 3.00 p.m. was 'it is only the mind that creates problems', what was the pass code for the batch at 1.00 p.m. on that day?
1) is the that problems it only mind creates
2) mind it the problems creates only is that
3) creates mind only it is the that problems
4) mind it that is the problems only creates
5) None of these
37. The pass code for the batch immediately before the rest hour was 'there is no permanent solution for mental problems'. What was the input for the pass code on that day?
1) mental solution problems is for permanent there no
2) mental solution permanent for is problems there no
$3)$ is mental permanent solution there problems no for
3) is mental permanent there solution problems no for
4) None of these
38. On a day, the pass code for the first batch was 'nobody can help us in solving our problems'. Write the input of the day in the reverse order of its words.
1) our in help nobody can us solving problems
2) can us solving problems nobody help in our
3) our in help nobody problems solving us can
4) problems solving us can nobody help in our
5) None of these

## Dxercise-2

Directions (Q. 1-7): Study the following information to answer the questions given below:

A number arrangement machine when given an input of numbers, rearranges them following a particular rule in each step. The following is an illustration of input and steps of rearrangement.

Input: 482451822699542378297
Step I: 542482451822699378297
Step II: 542264824518299378297
Step III: 542263784824518299297
Step IV: 542263784829724518299
Step V: 542263784829799245182
This is the final arrangement and step $V$ is the last step for this input.

1. What will the fourth step for an input whose second step is given below?
Step: 7654218328954265110350
1) $76542542 \quad 350 \quad 183 \quad 28965110$
2) 7654254265110183289350
3) 7654254265183289110350
4) Cannot be determined
5) None of these
2. What should be the third step of the following input?

Input: 2391235836149537

1) 4953736112323958
2) $4953758361 \quad 123239$
3) 4953758123361239
4) 4953736123912358
5) None of these
3. How many steps will be required to get the final output from the following input?
Input: 39881624503867229
1) Two
2) Three
3) Four
4) Six
5) None of these
4. What should be the last step of the following input? Input: 15827934828326236
1) 34828326158279236
2) 34828326236158279
3) 34828236158279326
4) 34828158326236279
5) None of these
5. If the first step of an input is " $785198 \quad 32426373$ 96 49",
then which of the following steps will be "785 3242649198373 96"?
1) Third
2) Fourth
3) Fifth
4) Second
5) None of these
6. Below is given the second step of an input. What will be its fourth step?
Step II: 2981212836212185
1) $29812212128 \quad 36185$
2) 2981221236128185
3) $298 \quad 12 \quad 36 \quad 212 \quad 128 \quad 185$
4) Cannot be determined
5) None of these
7. Below is given the third step of an input. What will be its second step?
Step III: 387422361859264
1) 387421852369264
2) 387429218523664
3) 387421859223664
4) Cannot be determined
5) None of these

Directions (Q. 8-14): Study the following information carefully and answer the given questions:

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement.

Input: joyfar 35271696 heightstar
Step I : 96 joy far 3527 16 height star
Step II : 96 far joy 352716 heightstar
Step III : 96 far 35 joy 27 16 heightstar
Step IV : 96 far 35 height joy 2716 star
Step V : 96 far 35 height 27 joy 16 star
And Step V is the last step of the rearrangement.
As per the rules followed in the above steps, find out
in each of the following questions the appropriate step
for the given input.
8. Input: organize 1912 stable room 3572 house

How many steps will be required to complete the arrangement?

1) Five
2) Six
3) Seven
4) Four
5) None of these
9. Input: bake never store 512633 age 49

Which of the following will be step V?

1) 51 age 49 bake 33 never 26 store
2) 51 age 49 bake never store 2633
3) 51 age bake never store 263349
4) 51 bake never store 2633 age 49
5) There will be no such step.
10. Input: always go there 396247 time 24

Which of the following steps will be the last but one?

1) VI
2) VII
3) VIII
4) IX
5) None of these
11. Step II of an input is: 67 ask 341246 for my date Which of the following is definitely the input?
1) 341246 for my date ask 67
2) 341246 for my date 67 ask
3) 123467 ask 46 for my date
4) Cannot be determined
5) None of these
12. Step III of an input is: 84 for 562917 won loss game Which of the 'following steps will be the last?
1) VIII
2) IX
3) VII
4) V
5) None of these
13. Step III of an input is : 86 box 6318 gear card 51 new
How many more steps will be required to complete the arrangement?
1) Three
2) Two
3) Four
4) Five
5) None of these
14. Step IV of an input is: 59 bend 46 card 1427 win now Which of the following will be step VII?
1) 59 bend 46 card now 27 win 14
2) 59 bend 46 card 27 now win 14
3) 59 bend 46 card 27 now 14 win
4) 59 bend 46 card 2714 win now
5) There will be no such step.

Directions (Q. 15-21): Study the following information to answer the given questions.

A number arrangement machine when given an input of numbers, rearranges them following a particular rule in each step. The following is an illustration of input and steps of rearrangement.

Input: 252803453693147550
Step I: 550280345369314725
Step II: 55345280369314725
Step III: 550345280147933625
This is the final arrangement and Step III is the last step for this input.
15. If ' 8424856835823612393 ' is the second step of an input, which of the following steps will be ' 842 4853582361236893 ? ?

1) Fourth
2) Fifth
3) Sixth
4) Can't be determined
5) None of these
16. How many steps will be required to get the final output from the following input?
Input: 782935857406413226
1) 4
2) 5
3) 3
4) 5
5) None of these
17. What will be the third step for the following input?

Input: 1131848225462175288

1) 4622884822511317518
2) 4622882251751134818
3) 4622252884811317518
4) 4622882254811317518
5) None of these
18. If following is the first step for an input, what will be the fourth step?
Step I: 4981752929679387158
1) 4983872921751587996
2) 4983872921759615879
3) 4983872921751589679
4) 4983872921757915896
5) None of these
19. Following is the step II for an input. What will be the first step for the input?

Step II: 595438281423865289

1) 595284381423865289
2) 595438142283865289
3) 595281424383865289
4) Can't be determined
5) None of these
20. What will be the second step for the following input?

Input: 1582942289142385463

1) 4633852942289142158
2) 4633858922142294158
3) 4633852289142158294
4) 4633852214289158294
5) None of these
21. Which of the following is the last step for the following input?
Input: 14522790049116243356
1) 90035624322749145116
2) 90035624322714511649
3) 90035622724314511649
4) 90035624322711614549
5) None of these

Directions (Q. 22-26): Study the following information to answer the given questions.

A word arrangement machine when given an input line of words, rearranges them following a particular rule in each step. The following is an illustration of the input and the steps of rearrangement.

Input: going but for crept te light sir
Step I: crept going but for te light sir
Step II: crept going light but for te sir
Step III: crept going light but for sir te
(Step III is the last step for this input)
As per the rules followed in the above steps, find out in the given questions the appropriate step for the given input.
22. Input: the in car as he may me

Which of the following will be the third step for this input?

1) car the in as he may me
2) car may the as in he me
3) car as may he the in me
4) car may the in as he me
5) None of these
23. If the second step of an input is 'clever remand window sales batch tiger never' which of the following will be its sixth step?
1) clever remand window batch sales tiger never
2) window remand clever sales batch tiger never
3) batch never sales tiger clever remand window
4) clever remand window tiger batch sales never
5) It cannot have sixth step.
24. If the input is 'true se veto be nuke my like', which of the following will be the IV step?
1) like nuke true veto be se my
2) be my like se true veto nuke
3) be my se like true veto nuke
4) veto true nuke like so be my
5) Cannot be determined
25. Input: 'more fight cats cough sough acts idea'. Which of the following steps would be the last step for this input?
1) III
2) IV
3) V
4) VI
5) VII
26. If the $V$ step of an input is 'more pure soft cat not so sir at', what will be the II step?
1) at so more pure cat not soft sir
2) more pure soft so sir cat at not
3) more pure soft cat so sir at not
4) more so sir soft pure cat at not
5) Cannot be determined

Directions (Q. 27-31): A word arrangement machine, when given a particular input, rearranges it following a particular rule. The following is the illustration of the input and the steps of arrangement:

Input: 95 is 11 my are
StepI: is 9511 my are
StepII: is 1195 my are
StepIII: is 11 my 95 are
Step III is the last step for this input.
Now, study the logic given above and answer the questions that follow:
27. Input: go 123 save be 3967 let

Which among the given steps will be the last step for the given input?

1) III
2) IV
3) V
4) VI
5) None of these
28. Input: we 143 lay as 12 may 36

What is step IV for the given input?

1) as 12 we lay 36143 may
2) as 12 we 36143 lay may
3) as we 143 lay 12 may 36
4) may 3612 lay 143 we as
5) None of these
29. If step III of an input is 'mare 1665 meat 1885 saves 20171 19199', then which of the following will definitely be the input?
1) meat saves 201711885 mare 166519199
2) mare 1885 saves meat 16651919920171
3) 19199 saves mare meat 1885166520171
4) Data inadequate
5) None of these
30. Input: like tea 1151264 eat 151 gate For the above input, which step will be the following arrangement?
Arrangement: eat 115 tea 151 like 1264 gate
1) VI 4) II
2) V
3) None of these
31. If step II of a given input is get 1161250 say 1124 four 148 hire' then which of the following is step VI of the given input?
1) get 116 say 148 four 1124 hire 1250
2) get 116 say 14812501124 four hire
3) get 116 say 148 four 11241250 hire
4) Data inadequate
5) None of these

Directions (Q. 32-36): Study the following information carefully and answer the questions given below:

A word arrangement machine, when given a particular input, rearranges it following a particular rule. The following is the illustration of the input and the steps of arrangement:

Input : top the name good for is there
Step I: is top the name good for there
Step II: is for top the name good there
Step III: is for the top name good there
Step IV: is for the top good name there
(This is the last arrangement and step IV is the last step of this input.)
32. If following is the second step of an input, what will be the fourth step?

Step II: is to for while they were going day

1) is to day for they while were going
2) is to day for while they were going
3) is to for day while they were going
4) Can't be determined
5) None of these
33. If following is the third step of an input, what will be its first step?
Step III: no dog was first five forest dense
1) no was dog first five forest dense
2) no first was dog five forest dense
3) no dog first was forest five dense
4) Can't be determined
5) None of these
34. Which of the following is the third step for the following input?
Input: lack of a common safe in the
1) a of in the lack common safe
2) a of in lack common safe the
3) a in of lack common safe the
4) a in of the lack common safe
5) None of these
35. How many steps will be required to get the final output from the following input?
Input: where do you go out of way
1) One
2) Three
3) Four
4) Eight
5) None of these
36. If step I of an input is 'If there was no good man', what step would be 'if no man there was good'?
1) Second
2) Third
3) Fourth
4) Can't be determined
5) None of these

Directions (37-41): Study the following information carefully and answer the questions given below.

When an input line of words is given to a word arrangement machine, it rearranges them following a particular rule in each step.

Input: car some pour tie more tin bee goat.
Step I: goat car some pour tie more tin bee.
Step II: goat more car some pour tie tin bee.
Step III: goat more pour car some tie tin bee.
Step IV: goat more pour some car tie tin bee.
Step V: goat more pour some bee car tie tin and step Vis the last output.
37. If the 3rd step of an input is:
bend take vide nut zeal pot car tin.
which of the following will be the last step?

1) VIth
2) Vth
3) VIIth
4) IVth 5) None of these
38. If the 2 nd step of an input is:
coat some for die song kill bit son,
which is certainly the input?
1) for come die song kill coat bit son
2) for die come song kill coat bit son
3) for die song come kill coat bit son
4) Can't be determined
5) None of these
39. Input: door site may for you mean now goal.

Which of the following is the 3rd step of the above
input?

1) door goal mean site for may now you
2) door goal mean site may for you now
3) door site goal mean may for you now
4) Can't be determined
5) None of these
40. Input: mute deal sit cut coat day long for Which of the following will be the 4th step?
1) coat deal mute sit cut day long for
2) coat deal long mute sit cut day for
3) coat deal long mute cut sit day for
4) coat deal long mute cut day for sit 5) None of these
41. Input: ask not feel task opt sale dark den Which of the following will be the last step?
1) Vth
2) VIth
3) IVth
4) VIIth
5) None of these

Directions (Q. 42-46): Read the following

## information carefully and answer the questions given

 below:A word-number arrangement machine, when given an input as a set of words and numbers, rearranges them following a particular rule and generates stepwise outputs till the rearrangement is complete following that rule.

Followings is an illustration of input and steps of rearrangement till the last step.

Input: pour ask 57 dear 39 fight 1728
Step I: ask pour 57 dear 39 fight 1728
Step II: ask 57 pour dear 39 fight 1728
Step III: ask 57 dear pour 39 fight 1728
Step IV: ask 57 dear 39 pour fight 1728
Step V: ask 57 dear 39 fight pour 1728
Step VI: ask 57 dear 39 fight 28 pour 17
and Step VI is the last output.
As per the rule followed in the above steps find out the answer to each of the following questions:
42. If step II of an input is "cut 9738 end for 2946 down", which of the following will be the last step?

1) $V$
2) IV
3) VI
4) VII
5) None of these
43. If the IVth step of an input is "ago 85 elite 79 exile fat 2641 ", which of the following will definitely be the IInd step of the input?
1) ago 8579 elite fat 4126 exile
2) ago 85 exile elite 4126 fat 79
3) ago 8526 exile 41 elite 79 fat
4) Cannot be determined
5) None of these
44. If the Ist step of an input is "car 17 vas tiger 9287 like 52 ", which of the following will be the IVth step?
1) car 92 like 87 tiger 5217 vas
2) car 92 like 8717 vas tiger 52
3) car 92 like 87 tiger 17 vas 52
4) car 92 like 17 vas tiger 8752
5) None of these
45. Input: zeal for 4931 high 22 track 12

Which of the following will be the IIIrd step?

1) for 49 high 31 track 22 zeal 12
2) for 49 high 31 zeal 22 track 12
3) for 49 high zeal 3122 track 12
4) for 49 high 31 track zeal 2212
5) None of these
46. Input: 19 feat 3428 dog bag take 43

Which of the following steps would be "bag 43 dog 19 feat 3428 take"?

| 1) IInd | 2) IVth |
| :--- | :--- |
| 3) Ist | 4)Can't be determined |
| 5) None of these |  |

5) None of these

Directions (Q. 47-51): Study the following information carefully and answer the given questions: A word and number arrangement machine when given
an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement.

Input: sky forward 17 over 9523 come 40
Step I: come sky forward 17 over 952340
Step II: come 95 sky forward 17 over 2340
Step III: come 95 forward sky 17 over 2340
Step IV: come 95 forward 40 sky 17 over 23
Step V: come 95 forward 40 over sky 1723
Step VI: come 95 forward 40 over 23 sky 17
Step VI is the last step of the rearrangement of the above input.

As per the rules followed in the above steps, answer the following questions.
47. Input: machine hire for 19 against 852146

Which of the following will be step II?

1) against 85 hire machine for 192146
2) against 85 machine 19 hire for 2146
3) against 85 machine hire for 192146
4) Cannot be determined
5) None of these
48. Input: box at 205362 gift now 32

Which of the following is step IV?

1) at 62 box 53 gift 3220 now
2) at 62 box 53 gift 32 now 20
3) at 62 box 53 gift 20 now 32
4) Cannot be determined
5) None of these
49. Input: on at 332742 sky mat 51

Which of the following steps will be the last?

1) VI
2) VII
3) V
4) VIII
5) None of these
50. Step III of an input is:
bring 63 desk 1129 together fight 30
Which of the following steps will be the last but one?
1) VI
2) V
3) VII
4) None of these
51. Step II of an input is:
earn 723146 higher goal 20 more
Which of the following is definitely the input?
1) 467231 earn higher goal 20 more
2) 20317246 higher goal earn more
3) higher 20317246 goal earn more
4) Cannot be determined
5) None of these

Directions (Q. 52-56): Read the following information carefully and answer the questions given below:

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule and generates stepwise outputs till the arrangement is complete following that rule.

Following is an illustration of input and steps of rearrangement till the last step.

Input: tree cut 9251 food 17 garden 32
Step I: cut tree 9251 food 17 garden 32
Step II: cut food tree 925117 garden 32
Step III: cut food 92 tree 5117 garden 32
Step IV: cut food 9251 tree 17 garden 32
Step V: cut food 9251 garden tree 1732
Step VI: cut food 9251 garden tree 3217
And Step VI is the last step of the input.
As per the rules followed in the above steps, find out the answer to each of the questions given below:
52. Step IV of an input is: earn more 82631231 quite new Which of the following will definitely be Step II of the output?

1) earn more 12638231 quite new
2) earn more new 82631231 quite
3) earn more quite new 82126331
4) Cannot be determined
5) None of these
53. Input: bring home 427315 goal 32 type Which of the following steps will be the last?
1) $V$
2) VI
3) IV
4) VII
5) None of these
54. Input: bench 4763 advance 1329 again between Which of the following is the step III of the output?
1) advance again 6347 bench 1329 between
2) advance again 6347 bench between 1329
3) advance again 6347 bench between 2913
4) Cannot be determined
5) None of these
55. Step II of an input is: desk eagle 12284169 foreign land
How many more steps will be required to complete the rearrangement?
1) 4
2) 6
3) 5
4) 3
5) None of these
56. Step III of an input is:
again dark 83 sour 1921 prey 39
Which of the following steps will be the last but one?
1) V
2) VI
3) VIII
4) VII
5) None of these

Directions (Q. 57-61): Study the following information to answer the given questions:

A word and number arrangement machine when given an input line of words and numbers, rearranges them following a particular rule in each step. The following is an illustration of input and steps of rearrangement:

Input: wind packet 197 back 12 task 34
Step I: 34 wind packet 197 back 12 task
Step II: 34 back wind packet 19712 task
Step III: 34 back 19 wind packet 712 task
Step IV: 34 back 19 packet wind 712 task
Step V: 34 back 19 packet 12 wind 7 task
Step VI: 34 back 19 packet 12 task wind 7
Step VII: 34 back 19 packet 12 task 7 wind and Step VII is the last step.
As per the rules followed in the above steps, find out in the given questions the appropriate step for the given input.
57. Input: 913 about tariff 24 call 29 even.

Which of the following will be step IV?

1) 29 about 24913 tariff call even
2) 29 about 24 call 913 tariff even
3) 29 about 24 call 139 tariff even
4) 29 about 24 call 13 even 9 tariff
5) Cannot be determined
58. If Step II of an input is " 37 desk 34 garden 5 father victory 17", which of the following steps will be the last step?
1) Step III
2) Step $V$
3) Step IV
4) Step VI
5) None of these
59. If Step I of an input is

59 bead tenure father 3811 ultimate 24
which of the following will be Step III?

1) 59 bead 38 tenure 11 father ultimate 24
2) 59 bead 3811 tenure father ultimate 24
3) 59 bead 38 tenure father 11 ultimate 24
4) 59 bead 38 father tenure 11 ultimate 24
5) None of these
60. If the last step of an input is 41 cost 32 over 28 project 17 violet which of the following must be the input?
1) project 32 cost over 1741 violet 28
2) project 32 cost over 41 violet 1728
3) project cost 32 over 4117 violet 28
4) Cannot be determined
5) None of these
61. Which of the following will be the Step III of the following input?
Input: 2412 entry sand butter 5132 carry
1) 51 butter 322412 entry sand carry
2) 51 butter 32 carry 2412 entry sand
3) 51 butter 32 carry 24 entry 12 sand
4) 512412 entry sand butter 32 carry
5) None of these

Directions (Q. 62-66): Study the following
information carefully and answer the given questions:
A word and number arrangement machine when given
an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement.

Input: 93 come home over 3247 now 26
Step I: over 93 come home 3247 now 26
Step II: over 2693 come home 3247 now
Step III: over 26 now 93 come home 3247
Step IV: over 26 now 3293 come home 47
Step V: over 26 now 32 home 93 come 47
Step VI: over 26 now 32 home 4793 come
Step VII: over 26 now 32 home 47 come 93
and Step VII is the last step.
As per the rules followed in the above steps, find out
in each of the following questions the appropriate step.
62. Step II of an input is:
sky 209037 begin again 11 home
Which of the following is definitely the input?

1) 209037 begin again 11 home sky
2) sky 903720 begin again 11 home
3) 902037 begin sky again 11 home
4) Cannot be determined
5) None of these
63. Step III of an input is:
take 17 mind game 297318 loud
How many more steps are required to complete the sequence?
1) Two
2) Three
3) Four
4) Five
5) None of these
64. Input: by now 5132 for 9120 me Which of the following steps will be the last?
1) III
2) IV
3) V
4) VI
5) None of these
65. Input: fight for all 396225 today 19

Which of the following will be step IV?

1) today 25 for 39 fight all 6219
2) today 19 for 25 fight all 3962
3) today 19 for 25 fight 39 all 62
4) Cannot be determined
5) None of these
66. Input: queen mary 79621720 green west Which of the following steps will be the last but one?
1) VI
2) VII
3) V
4) VIII
5) None of these

Directions (Q. 67-71): Study the following information carefully and answer the questions given below:

A word arrangement machine when given an input line of words rearranges it in every step following a certain rule. Following is an illustration of an input line of words and various steps of rearrangement:

Input: gone are take enough brought station
Step I: take gone are enough brought station
Step II: take are gone enough brought station
Step III: take are station gone enough brought
Step IV: take are station brought gone enough
And, Step IV is the last step for this input. Now find out appropriate step in each of the following questions following the above rule.
67. Input: car on star quick demand fat.

What will be the third step for this input?

1) star car quick demand on fat
2) star quick car demand on fat
3) star car demand quick on fat
4) star car quick on demand fat
5) None of these
68. If step III is "ultra barrack save enough party lying", which of the following would be the Input?
1) ultra enough party save barrack lying
2) ultra barrack enough party save lying
3) ultra enough barrack save party lying
4) enough ultra barrack save party lying
5) Cannot be determined
69. If step IV of input is 'violet for sour height journey medium', which of the following would be step II of that input?
1) violet journey height for sour medium
2) violet for sour journey height medium
3) violet for journey height sour medium
4) violet for sour height journey medium
5) Cannot be determined
70. If step III of an input is 'warden examination town ink garden restore', what step would be 'warden ink town garden restore examination'?
1) I
2) II
3) IV
4) V
5) None of these
71. Input: ink hurry yet for the victory

Which of the following will be the last step of the above input?

1) IIIrd
2) IVth
3) Vth
4) VIth
5) None of these

Directions (Q. 72-76): Study the following information carefully and answer the given questions:

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of an input and its rearrangement.
Input: boundary 2517 earlier 32 desk party 80
Step I: party boundary 2517 earlier 32 desk 80
Step II: party 17 boundary 25 earlier 32 desk 80
Step III: party 17 earlier boundary 2532 desk 80
Step IV: party 17 earlier 25 boundary 32 desk 80
Step V: party 17 earlier 25 desk 32 boundary 80
and Step V is the last step. (for this input)
As per the rules followed in the above steps, find out in each of the following questions the appropriate step for the given input.
72. Input: ordinary tight 628435 victory move 28

Which of the following will be step IV?

1) victory 28 ordinary 35 move 62 tight 84
2) victory 28 ordinary 35 tight 6284 move
3) victory 28 ordinary 35 move tight 6284
4) victory 28 ordinary tight 628435 move
5) None of these
73. Step IV of an input is: terminal 12 sound 149071 ask car. How many more steps are required to complete the rearrangement?
1) 3
2) 2
3) 1
4) 4
5) None of these
74. Input: quick buy 129175 astrologer dean 32 Which of the following will be the last step?
1) Step IV
2) Step $V$
3) Step VI
4) Step VII
5) None of these
75. Input: below deliver 8072 town window 2552 Which of the following will be the last but one step?
1) Step III
2) Step IV
3) Step V
4) Step VI
5) None of these
76. Step III of an input is:
xerox 20 yellow space mountain 317243
Which of the following is definitely Step I of that input?
1) xerox space yellow 20 mountain 317243
2) xerox yellow space 20 mountain 317243
3) xerox space 20 yellow mountain 327243
4) Cannot be determined
5) None of these

Directions (Q. 77-81): Study the following information carefully/and answer the given questions:

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement:

Input : now 4128 for join 37 go 61
Step I : 61 now 4128 for join 37 go
Step II : 61 for now 4128 join 37 go
Step III : 61 for 41 now 28 join 37 go
Step IV : 61 for 41 go now 28 join 37
Step V : 61 for 41 go 37 now 28 join
Step VI : 61 for 41 go 37 join now 28
Step VII: 61 for 41 go 37 join 28 now
Step VII is the last step for this input.
As per the rules followed in the above steps, find out in each of the following questions the appropriate step for the given input.
77. Input: when you 22 special 311647 town Which of the following steps will be the last but one?

1) IV
2) VI
3) V
4) VII
5) None of these
78. Input: chair wood 214259 height bench 78

How many steps will be required to complete the rearrangement?

1) Three
2) Four
3) Five
4) Six
5) None of these
79. Step IV of an input is:

74 again 69 call 1732 horse desk
Which of the following is definitely the input?

1) again call 74691732 horse desk
2) 74 call again 1769 horse 32 desk
3) call 74 again 691732 desk horse
4) Cannot be determined
5) None of these
80. Step III of an input is:

82 brown 74 sugar hobby lady 3249 .
Which of the following will be Step VI?

1) 82 brown 74 hobby 49 sugar lady 32
2) 82 brown 74 hobby 49 lady sugar 32
3) 82 brown 74 hobby 49 lady 32 sugar
4) Cannot be determined
5) None of these
81. Input: goal team ask 12928542 sound

Which of the following will be Step IV?

1) 92 ask 85 goal 42 sound 12 team
2) 92 ask 85 goal 42 sound team 12
3) 92 ask 85 goal 42 team 12 sound
4) 92 ask 85 goal team 1242 sound
5) None of these

Directions (Q. 82-86): Study the following information carefully and answer the given questions: Given an input line, a coding machine rearranges the input following certain steps as explained below:

Input : 47 desert go 56 there often 3212
Step I : 47 desert go 56 there often 3212
Step II : there 47 desert go 56 often 3212
Step III : there 12 often 47 desert go 5632
Step IV : there 12 often 3247 desert go 56
Step V : there 12 often 32 go 47 desert 56
The arrangement in Step V is the final arrangement and Step V is the last step.

In each of the following questions the rearrangement is done following the same rules as explained in the above illustration.
82. If the fourth step of an input is 'wonderful 22 seashore 3648 fine 62 morning', what was the first step? 1) fine 48 wonderful 22 seashore 3662 morning
2) fine 48 wonderful 2236 seashore 62 morning
3) fine 48 seashore wonderful 2236 morning 62
4) fine 48 seashore wonderful 3622 morning 62
5) Cannot be determined
83. What will be the third step for the following input?

Input: paper common 3651 pencil 28 test 66

1) test 28 paper pencil common 365166
2) test 28 pencil 66 paper common 3651
3) test 66 pencil paper 28 common 5136
4) test 28 pencil paper common 365166
5) None of these
84. If Step II of an input is 'waive 14 available time 3846 probation $85^{\prime}$, how many more steps will be required
to complete the arrangement?
1) Three
2) Four
3) Five
4) Two
5) None of these
85. Which step will be the last step for the input ' 27 sports 48 television commentary 18 house 36'?
1) IV
2) $V$
3) None of these
86. What will be the fourth step of an input having first step as 'number game 5423 always lacking 1675 '?
1) number 16 lacking 23 game always 5475
2) number 16 lacking 23 always 54 game 75
3) number 16 lacking 23 game 54 always 75
4) Cannot be determined
5) None of these

Directions (Q. 87-91): Study the following information carefully and answer the given questions:

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement.

Input : say dry 4296 get 39 kite 67
Step I : 96 say dry 42 get 39 kite 67
Step II : 96 dry say 42 get 39 kite 67
Step III : 96 dry 39 say 42 get kite 67

Step IV : 96 dry 39 say 6742 get kite
Step V : 96 dry 39 say 67 get 42 kite
Arrangement in Step V is the final arrangement and Step V is the last step.
You have to answer the questions by following the same rules as illustrated above.
87. Which step will be the last step of an input for which third step is " 91 go 28 mock pet 43 lead 37 "?

1) Eighth
2) Seventh
3) Sixth
4) Fifth
5) None of these
88. If the second step of an input is " 52 at deep follow 4116 road 32 ", what will be the fifth step?
1) 52 at 16 road 32 deep follow 41
2) 52 at 16 road 41 deep follow 32
3) 52 at 16 road 32 follow 41 deep
4) There will be no such step.
5) None of these
89. If the third step of an input is " 65 daily 12 tie 4223 foreign urgent" what will be definitely the input?
1) foreign 65 tie urgent 124223 daily
2) foreign 65 urgent tie 42 daily 2312
3) foreign 6512 urgent tie 42 daily 23
4) Cannot be determined
5) None of these
90. If the second step of an input is " 76 from 48 super itself 5618 went", how many more steps will be required to complete the arrangement?
1) Five
2) Six
3) Four
4) Three
5) None of these
91. What will be the third step if the input is "thirty days from now 32568724 "?
1) 87 thirty days from now 325624
2) 87 days thirty from now 325624
3) 87 days 24 thirty from now 3256
4) 87 thirty 24 days 32 from now 56
5) None of these

Directions (Q. 92-96): Given an input line a machine generates passcodes step by step following certain rules as illustrated below:

Input : talk seven 3748 given 83 likely 62
Step I : 37 talk seven 48 given 83 likely 62
Step II : 37 talk 48 seven given 83 likely 62
Step II : 37 talk 48 seven 62 given 83 likely
Step III : 37 talk 48 seven 62 likely given 83
Step IV : 37 talk 48 seven 62 likely 83 given
Step V is the last step for this input.
In the following questions the same logic as illustrated above is to be used.
92. Step II for an input is "23 working 4832 park blossom 26 garden". What will be the fifth step?

1) 23 working 26 park 4832 blossom garden
2) 23 working 26 park 3248 blossom garden
3) 23 working 2632 park 48 blossom garden
4) 23 working 2648 park 32 blossom garden
5) None of these
93. Second step of an input is " 12 where 8233 great wall 49 just". Which step will be the last step?
1) VI
2) VII
3) VIII
4) IV
5) None of these
94. What will be Step III for the following input?

Input: phone computer 32 link 187546 diary

1) 18 phone 46 link computer 7532 diary
2) 18 phone 32 link 46 computer 75 diary
3) 18 phone 32 computer link 7546 diary
4) 18 phone 32 link computer 7546 diary
5) None of these
95. Step IV of an input is " 22 united 37 trading killer 45 72 jogger". What will be the input definitely ?
1) united 2237 jogger 45 trading 72 killer
2) united trading 2237 jogger 4572 killer
3) united 22 trading jogger 37 killer 4572
4) Cannot be determined
5) None of these
96. What will be the third step of an input whose first step is " 1745 follow rule examination 3685 hut"?
1) 17 rule 3645 follow examination 85 hut
2) 17 rule 3645 follow 85 examination hut
3) 17 rule 3645 examination follow 85 hut
4) Cannot be determined
5) None of these

Directions (Q. 97-101): Given an input line the machine arranges the words and numbers in steps in a systematic manner as illustrated below:

Input line: 56 dress fine shine 326672 offer
Step I : 7256 dress fine shine 3266 offer
Step II : 72 shine 56 dress fine 3266 offer
Step III : 72 shine 6656 dress fine 32 offer
Step IV : 72 shine 66 offer 56 dress fine 32
Step V : 72 shine 66 offer 56 fine dress 32
Step VI : 72 shine 66 offer 56 fine 32 dress
Step VI is the last step and the output in Step VI is the final output.

As per the rules followed in the above steps, find out in each of the following questions the appropriate step for the given input.
97. Step II of an input is ' 53 window 4250 door lock key 36 '. How many more steps will be required to complete the arrangement?

1) Three
2) Six
3) Four
4) Five
98. Step IV an input is ' 62 sound 56 sleep roam present 33 49'. What will be the input definitely?
1) sound 62 sleep 56 roam present 3349
2) sleep sound 6256 roam present 3349
3) 62 sound sleep 56 roam present 3349
4) Cannot be determined
5) None of these
99. Which of the following will be the third step for input: 'jockey firm 3643 growth chart 22 45'?
1) 45 jockey 43 growth firm 36 chart 22
2) 45 jockey 43 firm growth 36 chart 22
3) 45 jockey 43 growth 36 firm chart 22
4) 45 jockey 43 firm 36 growth chart 22
5) None of these
100. Which step will be the last step for an input whose second step is '63 sour 1856 grapes healthy 32 rise'?
1) IV
2) V
3) VIII
4) VII
5) None of these
101. What will be the fifth step of an input whose first step is ' 85 journey train 3654 daily 28 mansion'?
1) 85 train 54 mansion 28 journey daily 36
2) 85 train 54 mansion journey 36 daily 28
3) 85 train 54 mansion 36 journey daily 28
4) There is no such step
5) None of these

Directions (Q. 102-106): A coding machine generates pass codes in steps. The process begins at 10 am and each step is a hour in duration. There is a rest period of an hour at $2 \mathbf{~ p m}$ after which the duration of each step is 45 minutes.

Input : trucks 49 carry 36 massive 25 load 16
Step I : carry trucks 4936 massive 25 load 16
Step II : carry 16 trucks 4936 massive 25 load
Step III : carry 16 load trucks 4936 massive 25
Step IV : carry 16 load 25 trucks 4936 massive
Step V : carry 16 load 25 massive trucks 4936
Step VI : carry 16 load 25 massive 36 trucks 49
Step VI is the last step for the above input.
Now answer the following questions, following the same rules as illustrated above for rearrangement of the input line.
102. If the third step of the input is "is 4 material 36 test 16 packed 64 " which of the following will be the fifth step?

1) is 4 material 16 packed 64 test 36
2) is 4 material 16 packed 36 test 64

3 ) is 4 material 16 test 36 packed 64
4) There are only four steps.
5) None of these
103. What will be the third step of the input
"ministers 25 solved 36 their 81 problems 64"?

1) ministers 25 problems 36 solved 81 their 64
2) ministers 25 problems 36 solved 64 their 81
3) ministers 25 problems 36 their 81 solved 64
4) ministers 25 solved 36 problems 81 their 64
5) None of these
104. If the input is "the 36 issue 49 became 9 serious 25 " how many steps will be required to complete the rearrangement?
1) Three
2) Four
3) Five
4) Six
5) None of these
105. How long excluding the rest period will it take to rearrange the input
"you 49 visited 81 their 16 relative 25 "
1) 5 hours 45 minutes
2) 5 hours
3) 5 hours 30 minutes
4) 4 hours 45 minutes
5) None of these
106. What will be the input if the fourth step of the arrangement is
"most 16 people 25 similarly 81 think 36 "?
1) most 25 people 16 similarly 81 think 25
2) most 25 people 16 think 81 similarly 36
3) most 16 people 25 think 36 similarly 81
4) Cannot be determined
5) None of these

Directions (Q. 107-111): Study the following information carefully and answer the given questions:

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement.

Input : world 3273 verb 26 new desk 19
Step I : 73 world 32 verb 26 new desk 19
Step II : 73 desk world 32 verb 26 new 19
Step III : 73 desk 32 world verb 26 new 19
Step IV : 73 desk 32 new world verb 2619
Step V : 73 desk 32 new 26 world verb 19
Step VI : 73 desk 32 new 26 verb world 19
Step VII: 73 desk 32 new 26 verb 19 world
and Step VII is the last step of the above input.
As per the rules followed in the above steps, find out in each of the following questions the appropriate step for the given input.
107. Step II of an input is: 51 brown 223649 cloud sky red.
How many more steps will be required to complete the rearrangement?

1) Three
2) Four
3) Five
4) Six
5) None of these
108. Step III of an input is : 58 dine 4318 tower silver mat 24 , which of the following will be step VI?
1) 58 dine 43 mat 24 silver 18 tower
2) 58 dine 43 mat 2418 tower silver
3) 58 dine 43 mat 18 tower silver 24
4) There will be no such step.
5) None of these
109. Input: 852396 case over for 42 win .

How many steps will be required to complete the rearrangement?

1) Four
2) Seven
3) Five
4) Six
5) None of these
110. Step IV of an input is: 63 car 51 eyes 2536 store lane. Which of the following is definitely the input?
1) eyes car 25633651 store lane
2) eyes 25 car 635136 store lane
3) eyes car 516336 store lane
4) Cannot be determined
5) None of these
111. Input: field eyes 9432 house rent 4927 Which of the following steps will be the last but one?
1) VI
2) VIII
3) V
4) VII

Directions (Q. 112-119): Study the following information carefully and answer the given questions:

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is
an illustration of input and rearrangement.
Input : 51 pour 32 start now 2346 house
Step I : 2351 pour 32 start now 46 house
Step II : 23 start 51 pour 32 now 46 house
Step III : 23 start 3251 pour now 46 house
Step IV : 23 start 32 pour 51 now 46 house
Step V : 23 start 32 pour 4651 now house
Step VI : 23 start 32 pour 46 now 51 house
And Step VI is the last step of the rearrangement.
As per the rules followed in the above steps, find out in each of the following questions the appropriate step for the given input.
112. Step II of an input is : 18 task bear cold dish 8163 31
How many more steps will be required to complete the rearrangement?

1) Three
2) Four
3) Five
4) Six
5) None of these
113. Input : 725937 go for picnic 24 journey

How many steps will it take to complete the rearrangement?

1) Three
2) Four
3) Five
4) Six
5) None of these
114. Input : nice flower 3412 costly height 4156

Which of the following will be step III?

1) 12 nice 34 height flower costly 4156
2) 12 nice 34 height 41 flower costly 56
3) 12 nice 34 flower costly height 4156
4) 12 nice flower 34 costly height 4156
5) None of these
115. Step II of an input is: 16 victory 193653 store lake town.
Which of the following will be step V?
1) 16 victory 19 town store 3653 lake
2) 16 victory 19 town 36 store 53 lake
3) 16 victory 19 town 3653 store lake
4) There will be no such step.
5) None of these
116. Step III of an input is: 15 yes 29 ask for soap 4237 Which of the following is definitely the input?
1) ask yes 2915 for soap 4237
2) yes ask 1529 for soap 4237
3) 2915 yes ask for soap 4237
4) Cannot be determined
5) None of these
117. Input : milk pot 1824 over goal 3653

Which of the following steps will be the last but one?

1) VI
2) V
3) VII
4) VIII
5) None of these
118. Step III of an input is : 36 win 449586 ultra box queen
How many more steps will be required to complete the rearrangement?
1) Three
2) Four
3) Five
4) Six
5) None of these
119. Input : new 22 model 27 pump 3811 join How many steps will be required to complete the rearrangement?
1) Four
2) Five
3) Six
4) Seven 5) None of these

Directions (Q. 120-124): A word-number arrangement machine, when given a particular input, rearranges it following a particular rule. The following is the illustration of the input and the steps of arrangement: Input: huge elephant 39 dog 5742 small 23
Step I: small huge elephant 39 dog 574223
Step II: small 23 huge elephant 39 dog 5742
Step III: small 23 huge 39 elephant dog 5742
Step IV: small 23 huge 39 elephant 42 dog 57
Step IV is the last step of the given input.
As per the rule followed in the above steps, find out
the appropriate step for the given input or vice versa in the following questions.
120. If step V of a given input be 'Ranchi 8 Nagpur 92 Mumbai 103 Delhi 100 ' what would be the input?

1) 8 Nagpur Mumbai 10392 Ranchi Delhi 100
2) Mumbai 103 Nagpur 892 Ranchi Delhi 100
3) Ranchi Mumbai 92 Nagpur 8103 Delhi 100
4) Can't be determined
5) None of these
121. If step II of a given input be 'Zoo 5 dead 20 gate 10 at 12 ' what would be the last step of that input?
1) Zoo 5 gate 10 dead 12 at 20
2) Zoo 5 gate 10 dead 1220 at
3) Zoo 5 gate 10 dead 20 at 12
4) Zoo 5 gate dead 1012 at 20
5) None of these
122. In how many steps can the following input be fully arranged?
Input: Mission impossible 2137 oscar winner 19.
1) IV
2) V
3) VI
4) VII
5) None of these
123. What would be the penultimate step for the following input?
Input: Seven Razor Fifty 50127 One 1
1) Seven 1 Razor 7 One 1250 Fifty
2) Seven 1 Razor 7 One 12 Fifty 50
3) Seven 1 Razor 7 One Fifty 5012
4) Seven 1 Razor 7 One 50 Fifty 12
5) None of these
124. The second step of a given input is "where 9 here 18 there 12 near 17 ". What will be Step $V$ for the given input?
1) Where 9 there 12 here 18 near 17
2) Where 9 there 12 near here 1817
3) Where 9 there 12 near 17 here 18
4) Where 9 there here 1812 near 17
5) Can't be determined

Directions (125-131): Study the following information carefully and answer the given questions:

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement.

Input : basket 8332 all turn 7651 now
Step I : turn basket 8332 all 7651 now
Step II : turn 32 basket 83 all 7651 now
Step III : turn 32 now basket 83 all 7651
Step IV : turn 32 now 51 basket 83 all 76
Step V : turn 32 now 51 basket 7683 all
Step VI : turn 32 now 51 basket 76 all 83
And Step VI is the last step of the rearrangement of the above input.

As per the rules followed in the above steps, find out in each of the following questions the appropriate step for the given input.
125. Input : 20 ask never 356284 tall grass

Which of the following steps will be the last but one?

1) V
2) VI
3) IV
4) VII
5) None of these
126. Step II of an input is : window 14 victory 635224 task for. Which of the following is definitely the Input?
1) victory 63 window 145224 task for
2) 63 victory window 145224 task for
3) victory 63 window 521424 task for
4) Cannot be determined
5) None of these
127. Step III of an input is : yes 15 ultra 967352 home rest. How many more steps will be required to complete the rearrangement?
1) Three
2) Five
3) Four
4) Two
5) None of these
128. Input : 49 box store 8463 on door 37

Which of the following will be Step V of the above input?

1) store 37 on 49 door 63 box 84
2) store 37 on 49 door box 8463
3) store 37 on 49 box 8463 door
4) There will be no such step.
5) None of these
129. Input : slow wheel 3257 high lake 1246 How many steps will be required to complete the rearrangement?
1) Five
2) Six
3) Seven
4) Eight
5) None of these
130. Step IV of an input is : year 14 team 226354 goal house. Which of the following steps will be the last?
1) IX
2) VIII
3) VII
4) VI
5) None of these
131. Input: bag full 328427 coin new 56 How many steps will be required to complete the rearrangement?
1) Seven
2) Eight
3) Five
4) Six
5) None of these

Directions (Q. 132-137): A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement.

Input : go now 523817 for again 65
Step I : 65 go now 523817 for again
Step II: 65 again go now 523817 for
Step III : 65 again 52 go now 3817 for
Step IV : 65 again 52 for go now 3817
Step V: 65 again 52 for 38 go now 17
Step VI : 65 again 52 for 38 go 17 now
Step VI is the last step of the rearrangement.
As per the rules followed in the above steps, find out in each of the following questions the appropriate step for the given input.
132. Input: show 5136 new far 8146 goal

Which of the following steps will be the last but one?

1) VII
2) VIII
3) VI
4) V
5) None of these
133. Input: home turf 39248644 roll over Which of the following steps will be the last?
1) $X$
2) IX
3) VIII
4) VII
5) None of these
134. Step II of an input is : 76 ask 1232 begin over join 42.

How many more steps will be required to complete the rearrangement?

1) Four
2) Five
3) Six
4) Three
5) None of these
6) Six
135. Step IV of an input is : 58 box 47 dew 1521 town pot. Which of the following steps will be the last?
1) VII
2) VI
3) VIII
4) IX
5) None of these
136. Step III of an input is: 94 car 86 window shut 5231 house. Which of the following is definitely the input?
1) 94 car window 86 shut 5231 house
2) 80 window 94 car shut 5231 house
3) car shut window 865231 house 94
4) Cannot be determined
5) None of these
137. Input: buy win task 523843 door 12. Which of the following will be step IV?
1) 52 buy 43 door 38 task 12 win
2) 52 buy 43 door 38 task win 12
3) 52 buy 43 door task win 3812
4) There will be no such step.
5) None of these

Directions (Q. 138-143): Study the following information carefully and answer the given questions:

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement.

Input : shop 17 table 2053 oven desk 39
Step I : 17 shop table 2053 oven desk 39
Step II : 17 table shop 2053 oven desk 39
Step III : 17 table 20 shop 53 oven desk 39
Step IV : 17 table 20 shop 3953 oven desk
Step V : 17 table 20 shop 39 oven 53 desk
and Step $\mathbf{V}$ is the last step of the rearrangement.
As per the rules followed in the above steps, find out in each of the following questions the appropriate step for the given input.
138. Input: 89 bind 32 goal house 6112 joy How many steps will be required to complete the arrangement?

1) Four
2) Five
3) Six
4) Seven
5) None of these
139. Step II of an input is: 15 yes 625148 talk now gone Which of the following will be step VI ?
1) 15 yes 48 talk 51 now gone 62
2) 15 yes 48 talk 5162 now gone
3) 15 yes 48 talk 51 now 62 gone
4) There will be no such step.
5) None of these
140. Step III of an input is : 21 victory 30 joint 6447 all gone
How many more steps will be required to complete the rearrangement?
1) Three
2) Four
3) Five
4) Six
5) None of these
141. Input: win 92 task 7359 house range 34

Which of the following will be step IV of the above input?

1) 34 win 59 task 73 range 92 house
2) 34 win 9259 task 73 house range
3) 34 win 92 task 7359 house range
4) There will be no such step.
5) None of these
142. Input: save 214378 them early 36 for Which of the following steps will be the last but one?
1) VI
2) VII
3) VIII
4) V
5) None of these
143. Input: desire 5963 all few 3846 zone How many steps will be required to complete the rearrangement?
1) Four
2) Five
3) Six
4) Seven
5) None of these

Directions (Q. 144-148): Study the following information carefully and answer the given questions:

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement.

Input : base 35 or gone 624987 ahead
Step I : 87 base 35 or gone 6249 ahead
Step II : 87 ahead base 35 or gone 6249
Step III : 87 ahead 62 base 35 or gone 49
Step IV : 87 ahead 62 base 4935 or gone
Step V : 87 ahead 62 base 49 gone 35 or and Step V is the last step of the rearrangement.
As per the rules followed in the above steps, find out in each of the following questions the appropriate step for the given input.
144. Input: how was your stay 56253664

Which of the following will be step VI?

1) 64 how 56 was your stay 2536
2) 64 how 56 stay 36 was 25 your
3) 64 how 56 stay 36 was your 25
4) There will be no such step.
5) None of these
145. Input : power fail now 522475 gate 34

Which of the following steps will be the last but one?

1) IV
2) $V$
3) VI
4) VII
5) None of these;
146. Step III of an input is: 91 car 851427 few new house
Which of the following is definitely the input?
1) 851491 car 27 few new house
2) car 91851427 few new house
3) car 851427 few new house 91
4) Cannot be determined
5) None of these
147. Step II of an input is: 75 down 1624 farm eager 62 sky
How many more steps will be required to complete the rearrangement?
1) Four
2) Five
3) Six
4) Seven
5) None of these
148. Input: 1435 when they came 6148 home

How many steps will be required to complete the rearrangement?

1) Four
2) Five
3) Six
4) Seven
5) None of these

Directions (Q. 149-154): Study the following information carefully and answer the given questions:

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of input rearrangement.

Input : but 3271 glory fair south 6584
Step I : south but 3271 glory fair 6584
Step II : south 84 but 3271 glory fair 65
Step III : south 84 glory but 3271 fair 65
Step IV : south 84 glory 71 but 32 fair 65
StepV : south 84 glory 71 fair but 3265
Step VI : south 84 glory 71 fair 65 but 32
and Step VI is the last step of the rearrangement.

- As per the rules followed in the above steps, find out in each of the following questions the appropriate step for the given input.

149. Step III of an input is: year 92 ultra 1523 strive house 39
How many more steps will be required to complete the rearrangement?
1) Three
2) Fou
3) Five
4) None of these
150. Input: any how 4924 far wide 3469

Which of the following steps will be the last but one?

1) VI
2) VII
3) V
4) VIII
5) None of these
151. Step II of an input is: town 74 pair 1531 nice job 42 Which of the following is definitely the input?
1) pair 1531 town nice job 4274
2) pair 15 town 3174 nice job 42
3) pair 15 town 7431 nice job 42
4) Cannot be determined
5) None of these
152. Input: play over 493712 match now 81 Which of the following will be step IV ?
1) play 81 over 4937 match now
2) play 81 over 493712 now
3) play 81 over 49 now 37 match 12
4) There will be no such step.
5) None of these
153. Step II of an input is: war 58 box cart 3349 star 24 Which of the following steps will be the last?
1) $V$
2) VI
3) IV
4) VII
5) None of these
154. Input: shower fall water 34516798 goal How many steps will be required to complete the rearrangement?
1) Three
2) Four
3) Six
4) Five
5) None of these

Directions (Q. 155-159): Study the following information carefully and answer the given questions:

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement.

Input : day 74 night 362568 all for
Step I : all day 74 night 362568 for
Step II : all 74 day night 362568 for
Step III: all 74 day 68 night 3625 for .
Step IV: all 74 day 68 for night 3625
Step V : all 74 day 68 for 36 night 25
and Step V is the last step of the rearrangement of the above input.

As per the rules followed in the above steps, find out in each of the following questions the appropriate step for-the given input.
155. Step III of an Input : bond 86 goal 1233 like high 46 Which of the following will be step VII? 1) bond 86 goal 46 like 1233 high
2) bond 86 goal 46 high like 3312
3) bond 86 goal 46 high 33 like 12
4) There will be no such step.
5) None of these
156. Input: mind new 27351959 own tower

Which of the following steps will be the last but one?

1) VI
2) IV
3) V
4) VII
5) None of these
157. Step IV of an Input: dear 63 few 511629 yrs now How many more steps will be required to complete the arrangement?
1) Four
2) Five
3) Three
4) Two
5) None of these
158. Step II of an input is: car 731825 wear 49 long for Which of the following is definitely the input?
1) 1825 wear 49 long for car 73
2) 7318 car 25 wear 49 long for
3) 187325 car wear 49 long for
4) Cannot be determined
5) None of these
159. Input: war 52 and peace 4316 now 24

How many steps will be required to complete the rearrangement?

1) Four
2) Five
3) Six
4) Seven
5) None of these

## Exercise-3

Directions (Q. 1-9): Study the following information and answer the questions given:

When a word arrangement machine is given an input line of words, it arranges them following a particular rule.
The following is an illustration of input and rearrangement:
Input: deep snow built offer zinc note find answer can
Step I: answer deep snow built offer zinc note find can
Step II: answer built deep snow offer zinc note find can
Step III: answer built can deep snow offer zinc note find
Step IV: answer built can deep find snow offer zinc note
StepV: answer built can deep find note snow offer zinc
Step VI: answer built can deep find note offer snow zinc
Step VI is the last step of the above arrangement as the intended arrangement is obtained.

As per the rules followed in the above steps, find out in each of the following questions the appropriate steps for the given input.

Directions (Q. 1-5):
Input: held nature yeast rich win alter infer lost so done 1. Which of the following is second to the right of the one that is seventh from the right end of step IV?

1) infer
2) lost
3) yeast
4) nature
5) None of these
2. Which of the following will be step VI for the given input?
1) alter done held infer lost nature rich so win yeast
2) alter done held infer nature lost rich so win yeast
3) alter done held infer lost nature rich so yeast win
4) alter done held infer lost nature so rich yeast win
5) None of these
3. What will be the position of 'infer' in step III?
1) Fifth from the left end
2) Eighth from the right end
3) Fourth from the right end
4) Eighth from the left end
5) None of these
4. How many steps will be required to complete the arrangement?
1) VII
2) VIII
3) VI
4) None of these
5) IX
5. Which of the following is the third word from the right of step IV?
1) win
2) rich
3) yeast
4) lost
5) None of these

Directions (Q. 6-9): Following are steps of an input. Rearrange them and answer the questions :
(A) ancient cones dish vault rope yell hint
(B) ancient cones vault dish rope yell hint
(C) ancient cones dish hint rope vault yell
(D) ancient vault dish rope cones yell hint
(E) ancient cones dish hint vault rope yell
6. Which of the following is step V ?

1) $D$
2) $A$
3) E
4) B
5) C
都
7. Which of the following is step III?
1) $E$
2) $B$
3) D
4) C
5) A
8. Which of the following is step IV?
1) A
2) $B$
3) C
4) $D$
5) E
9. Which of the following is step II?
1) A
2) C
3) $B$
4) E
5) $D$

Directions (Q. 10-17): Study the following information to answer the given questions:

A word and number arrangement machine when given an input line of word and numbers rearranges them following a particular rule. The following is an illustration
of input and rearrangement. (All numbers in these questions are two-digit numbers)
Input: lived 18 a 12 once 93 upon 32 time 46 wolf
Step I: a lived 1812 once 93 upon 3246 time wolf
Step II: a once 181293 upon 3246 lived time wolf
Step III: a once upon 1812933246 lived time wolf
Step IV: a once upon 9318123246 lived time wolf
Step V: a once upon 9346181232 lived time wolf
Step VI: a once upon 9346321812 lived time wolf
Step VI is the last Step of the arrangement of the above input as the intended arrangement is obtained.

Directions (Q. 10-14): Now, answer the questions
based on the following input :
Input: unique 84 can 77 open 86 quick 13 base 53 amiss 11 equal 98 start
10. Which of the following would be Step II for the above Input ?

1) amiss equal unique 8477 open 86 quick 13 base 531198 can start
2) amiss equal open unique 847786 quick 13 base 531198 can start
3) amiss equal open unique 84778613531198 base can quick start
4) amiss unique 8477 open 8613 base 5311 equal 98 can quick start
5) None of these
11. Which of these words/numbers would be fifth (from right side) in Step III for the input?
1) 53
2) 11
3) equal
4) None of these
12. Which of the following would be the last step for the input?
1) amiss equal open unique 98868477531311 base can quick start
2) amiss equal open unique 98848677531311 base can quick start
3) amiss equal open unique $\begin{array}{llllll}98 & 8684 & 77 & 53 & 13 & 11\end{array}$ can base quick start
4) amiss equal open unique 98868477531113 base can quick start
5) None of these
13. How many Steps would be needed to complete the arrangement for the above input?
1) VII
2) III
3) V
4) IV
5) None of these
14. The following stands for which step of the rearrangement?
amiss equal open unique 98847786135311 base can quick start
1) Step III
2) Step $V$
3) Step VI
4) Step IV
5) None of these

Directions (Q. 15-17) : Given below are five steps in a jumbled order in the form of (A), (B), (C), (D) and (E) for an input. Arrange them according to the order in which they should appear based on the example given. Then answer the questions that follow.

1) arrival on 16442866 finish match
2) arrival on 66442816 finish match
3) arrival 164428 on 66 finish match
4) arrival on 66441628 finish match
5) arrival on 66164428 finish match
15. Which of the following will be Step II?
1) $A$
2) $B$
3) E
16. Which of the following will be Step III?
1) $A$
2) $B$
3) C
4) $D$
5) E
17. Which of the following will be Step I?
1) $A$
2) $B$
3) C
4) $D$
5) E

Directions (Q. 18-22): Study the following information to answer the given questions:

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule. The following is an illustration of input and rearrangement. (Single digit numbers are preceded by a zero. All other numbers are two-digit numbers)
Input: good 18 to raise 0212 money 28 for 57 charity 09
Step I: to good 18 raise 0212 money 28 for charity 0957
Step II: to raise good 180212 money for charity 092857
Step III: to raise money good 0212 for charity 09182857
Step IV: to raise money good 02 for charity 0912182857
Step V: to raise money good for charity 020912182857
Step V is the last Step of the arrangement of the above
input as the intended arrangement is obtained.
Directions (Q. 18-19): These questions are based on the following input:
Input: always 19 give 2184 for 6214 worthy cause.
18. Which of the following would be step III for the above input?

1) worthy give for always 1914 cause 846221
2) worthy give for always 1419 cause 216284
3) always give for worthy 1914 cause 216284
4) worthy give for always 1914 cause 216284
5) always give for cause 1914 worthy 216284
19. How many steps would be needed to complete the arrangement for the above input?
1) VI
2) V
3) None of these

Directions (Q. 20-22): These questions are based on the following input:
Input: 5062 tips on 67 how can 42 stay young 1789 forever 03.
20. The following stands for which step of the arrangement? young tips stay 50 on how can 4217 forever 03626789 .

1) Step III
2) Step $V$
3) Step VI
4) Step IV
5) None of these
21. Which of the words/numbers below would be at the fifth position (from the right end) in Step V of the input?
1) forever
2) 42
3) 50
4) young
5) None of these
22. Which of the following would be the last step for the input?
1) young tips stay on how for ever can 03174250 626789.
2) young tips stay on how forever can 89676250 421703.
3) can forever how on stay tips forever 89676250 421703.
4) young tips stay on how forever can 03174250 676289.
5) can forever how on stay tips young 03174250 626789.

## Answers and explanations

## Exercise-1

(1-5): The machine operates as follows:
1st batch to 2nd batch: Second and fifth words interchange places.
2nd to 3rd: The middle two words interchange places.
3rd to 4th: First and last words interchange places.
4th to 5th: The middle words move to the extreme positions on their respective sides while the outer words move inwards.
Hereafter, the process is repeated, i.e.
5th to 6th: Same as 1st to 2nd
6th to 7th: Same as 2 nd to 3 rd
Let us now make our job easy by going in for digital representation. We assign numbers 1 to 6 to the words in the first batch: who-1, nut - 2 , cream -3 , page -4 , for -5 , table -6 . Thus, our table becomes:

| 1st batch: | 1 | 2 | 3 | 4 | 5 | 6 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 2nd batch: | 1 | 5 | 3 | 4 | 2 | 6 |
| 3rd batch: | 1 | 5 | 4 | 3 | 2 | 6 |
| 4th batch: | 6 | 5 | 4 | 3 | 2 | 1 |
| 5th batch: | 4 | 6 | 5 | 2 | 1 | 3 |
| 6th batch: | 4 | 1 | 5 | 2 | 6 | 3 |
| 7th batch: | 4 | 1 | 2 | 5 | 6 | 3 |

We can now answer the questions easily by applying the above table.

1. 1; 7th batch: from door no leaf grass but

As per the above code, 'say could very fire man on' would read as 154326 . Which clearly is the 3rd batch (see table).
2. 4; 4th batch: so when clear get lemon dust

7th batch: $\begin{array}{lllllll}4 & 1 & 2 & 5 & 6 & 3\end{array}$
clean dust lemon when so get
4. 2; Note that 4 th batch is the reverse order of the first batch.
5. 3; 5th batch: same is tea at now then

1st batch: $\begin{array}{lllllll}1 & 2 & 3 & 4 & 5 & 6\end{array}$
now at then same tea is
$(6-10):$ Here the rule followed is:
In each step the fourth word becomes first word and the last word becomes fourth word and all other words shift one place rightwards except the third, which shifts two place rightwards. In order to make things easier, let us represent the words digitally from 1 to 7 . Then we have:

| Input: | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Step I: | 4 | 1 | 2 | 7 | 3 | 5 | 6 |
| Step II: | 7 | 4 | 1 | 6 | 2 | 3 | 5 |
| Step III: | 6 | 7 | 4 | 5 | 1 | 2 | 3 |
| Step IV: | 5 | 6 | 7 | 3 | 4 | 1 | 2 |
| Step V: | 3 | 5 | 6 | 2 | 7 | 4 | 1 |
| Step VI: | 2 | 3 | 5 | 1 | 6 | 7 | 4 |

[Note: We have gone up to step VI because one of the questions (Q. 6) demands that.]
6. 3; Input: say not you are only wise yet

$$
\begin{array}{lllllll}
1 & 2 & 3 & 4 & 5 & 6 & 7
\end{array}
$$

Arrangement: not you only say wise yet are
$\begin{array}{lllllllll}\text { Step VI: } & 2 & 3 & 5 & 1 & 6 & 7 & 4\end{array}$
7. 1; Step V: so cd rom lay is nor it

| 3 | 5 | 6 | 2 | 7 | 4 | 1 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Step II: $\begin{array}{llllllll}7 & 4 & 1 & 6 & 2 & 3 & 5\end{array}$
is nor it rom lay so cd
8. 5; Step III: lo men chi from yet as know
$\begin{array}{lccccccc} & 6 & 7 & 4 & 5 & 1 & 2 & 3 \\ \text { Input: } & 1 & 2 & 3 & 4 & 5 & 6 & 7\end{array}$ yet as know chi from lo men
9. 5; The rule is given above.
10. 2
(11-17): Here the rule followed is:
The last word of the previous batch becomes first and the first and second words shift rightwards i.e. becomes second and third respectively. Now the second-last and the thirdlast words of the previous batch become fourth and fifth respectively and the third, fourth and fifth become sixth, seventh and eighth respectively.
For convenience, we assign numeric value to these words as: clothes-1, neat- 2 , and- 3 , clean- 4 , liked5, are-6 all-7, by-8

|  | Batch I: | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Batch II: | 8 | 1 | 2 | 7 | 6 | 3 | 4 |
|  | Batch III: | 5 | 8 | 1 | 4 | 3 | 2 | 7 |
|  | Batch IV: | 6 | 5 | 8 | 7 | 2 | 1 | 4 |
|  | Batch V: | 3 | 6 | 5 | 4 | 1 | 8 | 7 |
|  | Batch VI: | 2 | 3 | 6 | 7 | 8 | 5 |  |
| 11. 3 ; | Batch III: |  |  |  |  |  |  |  |
|  | night succeed |  | day | and | har | wo | rk | o f |
|  | $5 \quad 8$ |  | 1 | 4 | 3 |  |  |  |
|  | Batch VI: |  |  |  |  |  |  |  |
|  | 23 | 6 | 7 | 8 |  | 5 |  |  |
|  | work hard | for | to | ucce | ed | igh | an | d |

12. 4; Batch V:
visit in zoo should the we time day

$$
\begin{array}{llllllll}
3 & 6 & 5 & 4 & 1 & 8 & 7 & 2
\end{array}
$$

## Batch III:

zoo we the should visit day time in
$\begin{array}{llllllll}5 & 8 & 1 & 4 & 3 & 2 & 7 & 6\end{array}$
13. 1; Batch IV:
to fast rush avoid not do very run
$\begin{array}{llllllll}6 & 5 & 8 & 7 & 2 & 1 & 4 & 3\end{array}$
Batch II:
$\begin{array}{cccccccc}8 & 1 & 2 & 7 & 6 & 3 & 4 & 5\end{array}$
14. 1
15. 1
16. 3
17. 5
(18-24): Here the rule followed is:
In each step the fifth, third and first words become the first, second and third respectively. Fourth word remains at its previous position. Sixth, seventh and eighth words shift one position leftward and the second word becomes the last, i.e. eighth. For the sake of convenience,
if we assign numeric value to these words, viz things-1, keep-2, dust-3, your-4, all-5, away-6, from-7 \& never-8, the movement will be as follows:
Batch I (11 am-12 noon): $\begin{array}{lllllllll}1 & 2 & 3 & 4 & 5 & 6 & 7 & 8\end{array}$
Batch II (12 noon-1 pm): $\begin{array}{lllllllll}5 & 3 & 1 & 4 & 6 & 7 & 8 & 2\end{array}$
Batch III (1 pm-2 pm): $\quad \begin{array}{llllllll}6 & 1 & 5 & 4 & 7 & 8 & 2 & 3\end{array}$
Batch IV (2 pm-3 pm): $\begin{array}{lllllllll}7 & 5 & 6 & 4 & 8 & 2 & 3 & 1\end{array}$
Batch V (3 pm-4 pm): $\quad \begin{array}{lllllllll}8 & 6 & 7 & 4 & 2 & 3 & 1 & 5\end{array}$
Batch VI (4 pm-5 pm): $\begin{array}{llllllll}2 & 7 & 8 & 4 & 3 & 1 & 5 & 6\end{array}$
Batch VII (5 pm-6 pm): $\begin{array}{lllllllll}3 & 8 & 2 & 4 & 1 & 5 & 6 & 7\end{array}$
Batch VIII ( $\mathbf{6} \mathbf{~ p m - 7} \mathbf{~ p m}$ ): $\begin{array}{lllllllll}1 & 2 & 3 & 4 & 5 & 6 & 7 & 8\end{array}$
18. 3; Batch VII:
he for went then to the shop in
$\begin{array}{llllllll}3 & 8 & 2 & 4 & 1 & 5 & 6 & 7\end{array}$
Arrangement:
shop to the then in for went he
$\begin{array}{llllllll}6 & 1 & 5 & 4 & 7 & 8 & 2 & 3\end{array}$
19. 4
22. 5
(25-29): In each step the first word becomes the third; the third becomes the sixth; the sixth becomes seventh; the seventh becomes fifth; the fifth becomes second and the second becomes the first. The fourth word does not change its place. For convenience, write the steps numerically and then solve the questions using them.
Batch I (9 am to $\mathbf{1 0}$ am): $\quad 1234567$
Batch II (10 am to $\mathbf{1 1}$ am): 2514736
Batch III (11 am to 12 noon): 5724613
Batch IV (12 noon to $\mathbf{1} \mathbf{p m}$ ): 7654321
Batch V (2 pm to $\mathbf{3} \mathbf{p m}$ ): $\quad 6374152$
Batch VI ( $\mathbf{3} \mathbf{~ p m}$ to $\mathbf{4} \mathbf{~ p m}$ ): $\quad 3164275$
Batch VII (4 pm to 5 pm): 1234567
(As the step is same as that of Batch I the next steps will follow the same numeric series)
Batch VIII ( 5 pm to $\mathbf{6} \mathbf{~ p m}$ ): 2514736
Batch IX ( 6 pm to 7 pm): 5724613
Batch X (7 pm to $8 \mathbf{p m}$ ): 7654321
25. 5; 12 Noon: $\begin{array}{llllllll}7 & 6 & 5 & 4 & 3 & 2 & 1\end{array}$ she the girl is clever very good
3 pm: $\quad \begin{array}{llllllll} & 3 & 1 & 6 & 4 & 2 & 7 & 5\end{array}$ clever good the is very she girl
26. 4
28. 3
27. 2
(30-33): Here it is a case of shifting. And it is a case of two-step shifting, ie the logic consists of two steps.
This implies that the change from Batch II to Batch III is same as Input to Batch I. Therefore, the change from the Batch IV to Batch V will be the same as Batch II to Batch III.
Also, the changes from Batch I to Batch II, Batch III to Batch IV and Batch V to Batch VI will be the same.
Look at the changes from Input to Batch I; and from Batch I to Batch II.
P. If Input is $\quad 1234567$

Batch I becomes
Q. And if Batch I is

$$
\begin{aligned}
& 1726354 \\
& \hline 1234567
\end{aligned}
$$

Batch II becomes as follows: 7162534
Using the above two-step logic, let us make a chart:
$\begin{array}{lcllllll} & 1 & 2 & 3 & 4 & 5 & 6 & 7 \\ \text { Input: } & \text { A } & \text { B } & \mathbf{C} & \text { D } & \mathbf{E} & \text { F } & \text { G } \\ \text { Batch I: } & \mathrm{A} & \mathrm{G} & \mathrm{B} & \mathrm{F} & \mathrm{C} & \mathrm{E} & \mathrm{D}\end{array}$
(10 am to 11 am )


Batch VI: $\quad$ F
( 4 pm to 5 pm )
30. 4; The passcode for the batch at 3.00 pm means the passcode for the Batch V.
Input:
eight friends are sitting in the circle
Batch V:
$\begin{array}{cccccc}\text { G } & \text { B } & \text { D } & \text { A } & \text { C } & \text { E } \\ \text { circle } & \text { Friends } & \text { sitting eight } & \text { are } & \text { in } & \text { the }\end{array}$
31. 5
32. 1
33. 1
(34-38): Here, coding has been done in two steps after the words in the input are given a number each. In the Batch I, the words from the latter half and the first half (starting from the fifth word) are written alternately. In the Batch II, pairs of words at the positions fourth-fifth, third-sixth, secondseventh and first-eighth are written respectively. In further batches, these two steps are repeated alternately in the following way:

| Input: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 10:00 am Batch I: | 5 | 1 | 6 | 2 | 7 | 3 | 8 | 4 |
| 11:00 am Batch II: | 2 | 7 | 6 | 3 | 1 | 8 | 5 | 4 |
| 12:00 pm Batch III: | 1 | 2 | 8 | 7 | 5 | 6 | 4 | 3 |
| 1:00 pm Batch IV: | 7 | 5 | 8 | 6 | 2 | 4 | 1 | 3 |
| 3:00 pm Batch V: | 2 | 7 | 4 | 5 | 1 | 8 | 3 | 6 |
| 4:00 pm Batch VI: | 5 | 1 | 4 | 8 | 7 | 3 | 2 | 6 | Batch VI is the last batch for a single day. Here note that after four batches, ie from 2.00 pm there is a one-hour break and hence the Batch V starts at 3.00 pm .

34. $2 ; 11.00 \mathrm{am}$ is the timing for the second batch and 12.00 noon is the timing for the third batch. Hence, the passcode will be as follows:
11.00 am: he slowly recedes to his inner

$$
\begin{array}{llll}
2 & 7 & 6 & 3 \\
\text { apartment } & 1 & 8 \\
& & \text { intellect }
\end{array}
$$

12.00 noon:
his he inner slowly apartment

\[

\]

35. 4; Here, we know that 3 pm is the timing for the fifth batch. Hence, the pass code will be as follows: Batch II: are of clouds transformed

| 2 | 7 | 6 |  | 3 |
| :---: | :---: | :---: | :---: | :---: |
| they bhakti the | as |  |  |  |
| 1 | 8 | 5 | 4 |  |
| are of as the they bhakti |  |  |  |  |
| 2 | 7 | 4 | 5 | 1 |$\quad 8$

36. $1 ; 3.00 \mathrm{pm}$ and 1.00 pm are the timings for the fifth and the fourth batches respectively. Hence, the pass code for the fourth batch will be as follows:

Batch V: it is only the mind that

| 2 | 7 | 4 |
| :---: | :---: | :---: |
| creates | 5 |  |
| 3 | problems |  |
| 3 | 6 |  |

$\therefore$ Batch IV: is the that problems it only mind creates
37. 5; The timing for the break ( 2.00 pm ) comes after the batch IV (1.00 pm). Hence, the input will be as follows:
Batch IV: there is no permanent solution

| 7 | 5 | 8 | 6 |
| ---: | :---: | :---: | :---: |
| for | mental | problems |  |
| 4 | 1 | 3 |  |

$\therefore$ Input: mental solution problems for

| 1 | 2 | 3 | 4 |
| :---: | :---: | :---: | :---: |
| is | permanent | there | no |
| 5 | 6 | 7 | 8 |

38. 3; Batch I: nobody can help us in

$$
\begin{array}{cccc}
5 & 1 & 6 & 2 \\
\hline \\
\text { solving } & \text { our } & \text { problems } \\
3 & 8 & 4
\end{array}
$$

Hence, the input in the reverse order will be as follows:

| Input: | our | in | help | nobody | problems |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 8 | 7 | 6 |  | 5 | 4 |
|  | solving | us | can |  |  |
|  |  | 3 | 2 | 1 |  |

## Exercise-2

(1-7): From the last step it is clear that there are two alternating series of numbers: One in descending order and the other in ascending order.
When we go through input to step I, we find that the largest no. becomes the first and remaining numbers shift rightward. In the next step the smallest no. becomes the second and the rest shift rightward. These two steps continue alternately untill the two alternate series are formed.

1. 3; Step II: 7654218328954265110350

Step III: 7654254218328965110350
Step IV: 7654254265183289110350
2. 4; Input: 2391235836149537

Step I: 4952391235836137
Step II: 4953723912358361
Step III: 4953736123912358
3. 5; Input: 39881624503867229 Step I: 45039881623867229
Step II: 45029398816238672
Step III: 45029386398816272
Step IV: 45029386391628872
Step V: 45029386391627288
4. 1 ; Last step can be known directly.
5. 2; Step I: 785198324263739649

Step II: $78532198426373 \quad 9649$
Step III: $78532426198 \quad 3739649$
Step IV: 785324264919837396
6. 2; Step II: 2981212836212185

Step III: $29812 \quad 22 \quad 12836 \quad 185$
Step IV: $29812 \quad 21236 \quad 128185$
7. 4; Previous steps can't be determined
(8-14): In the first step, the largest number goes to the leftmost position, pushing the rest of the line rightward. In the next step, the word that comes first in the alphabetical order occupies the second position from the left, pushing the rest of the line rightward. Thus the numbers and words get arranged alternately till all the numbers are placed in the descending order and the words in the alphabetical order.
8. 4; Input: organize 1912 stable room 3572 house Step I: 72 organize 1912 stable room 35 houses. Step II: 72 house organize 1912 stable room 35
Step III: 72 house 35 organize 1912 stable room
Step IV: 72 house 35 organize 19 room 12 stable
9. 1; Input: bake never store $\begin{array}{llll}51 & 26 & 33 & \text { age }\end{array} 49$

Step I: 51 bake never store 2633 age 49
Step II: 51 age bake never store $26 \quad 33 \quad 49$
Step III: 51 age 49 bake never store 3326
Step IV: 51 age 49 bake 33 never store 26
Step V: 51 age 49 bake 33 never 26 store
10. 5; Input: always go there 396247 time 24

Step I: 62 always go there 3947 time 24
Step II: 62 always 47 go there 39 time 24
Step III: 62 always 47 go 39 there time 24
Step IV: 62 always 47 go 39 there 24 time
Hence step III will be the last but one.
11. 4; We can't proceed backward.
12. 4; Step III: 84 for 562917 won loss game

Step IV: 84 for 56 game 2917 won loss
Step V: 84 for 56 game 29 loss 17 won
13. 1; Step III: 86 box 6318 gear card 51 new

Step IV: 86 box 63 card 18 gear 51 new
Step V: 86 box 63 card 5118 gear new
Step VI: 86 box 63 card 51 gear 18 new
Hence 6-3=3 more steps will be required.
14. 5; Step IV: 59 bend 46 card 1427 win now Step V: 59 bend 46 card 2714 win now
Step VI: 59 bend 46 card 27 now 14 win
Since the line is already arranged, there will be no step VII.
(15-21): Here the rule followed is: numbers are getting arranged in descending order.
The largest of the given numbers interchanges its place with the first number. [In case the largest number is already arranged, the second largest is interchanged with the number next to the largest no., and so on until the numbers are arranged in descending order.
15. 2; Step II: $842 \quad 485 \quad 68 \quad 358$ 236 $123 \quad 93$ Step III: $842485 \begin{array}{lllllll}485 & 358 & 68 & 236 & 123 & 93\end{array}$
Step IV: 8424853581236
Step V: $842485358236123 \quad 68 \quad 93$
16. 1
17. 4; Input: $\begin{array}{lllllll}113 & 18 & 48 & 225 & 462 & 175 & 288\end{array}$

Step I: $\begin{array}{llllllll}462 & 18 & 48 & 225 & 113 & 175 & 288\end{array}$
Step II: $462 \begin{array}{lllllll}488 & 48 & 225 & 113 & 175 & 18\end{array}$
Step III: $4621288 \quad 225 \quad 48 \quad 113 \quad 175 \quad 18$
18. 3; Step I: $498 \quad 175 \quad 292 \quad 96$

Step II: $498 \quad 387 \quad 292 \quad 96$
Step III: $498 \quad 387 \quad 292175$
Step IV: 498
19. 4; Previous step can't be determined.
20. 5; Input: $\begin{array}{llllllll}158 & 294 & 22 & 89 & 142 & 385 & 463\end{array}$

Step I: 4632942289142385158
Step II: 463
21. 2 ; The series which is in strictly descending order will be the answer.
(22-26): The words are arranged according to the number of letters they have, one at a time. The word with the maximum number of letters is put first. If two words have the same number of letter, we go for alphabetical arrangement.
22. 2; Input: the in car as he may me

Step I: car the in as he may me
Step II: car may the in as he me
Step III: car may the as in he me
23. 5; Step II: clever remand window sales batch tiger never
Step III: clever remand window batch sales tiger never
Step IV: clever remand window batch never sales tiger
Now, step IV would be the last step.
24. 1; Input: true se veto be nuke my like

Step I: like true se veto be nuke my
Step II: like nuke true se veto be my
Step III: like nuke true veto se be my
Step IV: like nuke true veto be se my
25. 4; Input: more fight cats cough sough acts idea

Step I: cough more fight cats sough acts idea
Step II: cough fight more cats sough acts idea
Step III: cough fight sough more cats acts idea
Step IV: cough fight sought acts more cats idea
Step V: cough fight sough acts cats more idea
Step VI: cough fight sough acts cats idea more
26. 5; We can't move backward.
(27-31): From the last step it can be concluded that words and numbers are arranged alternately. Word with least number of letters shifts to the leftmost position followed by the least number among the given numbers. In case of two words with same number of letters, words are arranged as per their dictionary order. For getting arranged they are interchanged with the word/number whose place it occupies.
27. 4; Input: go 123 save be 3967 let

Step I: be 123 save go 3967 let
Step II: be 39 save go 12367 let
Step III: be 39 go save 12367 let
Step IV: be 39 go 67123 save let
Step V: be 39 go 67 let save 123
Step VI: be 39 go 67 let 123 save
28. 5; Input: we 143 lay as 12 may 36

Step I: as 143 lay we 12 may 36
Step II: as 12 lay we 143 may 36
Step III: as 12 we lay 143 may 36
Step IV: as 12 we 36143 may lay
29. 4; Previous step can't be determined.
30. 3; Input: like tea 1151264 eat 151 gate

Step I: eat tea 1151264 like 151 gate
Step II: eat 115 tea 1264 like 151 gate
Step III: eat 115 tea 151 like 1264 gate
31. 1; StepII: get 1161250 say 1124 four 148 hire Step III: get 116 say 12501124 four 148 hire
Step IV: get 116 say 1481124 four 1250 hire
Step V: get 116 say 148 four 11241250 hire
Step VI: get 116 say 148 four 1124 hire 1250
[Note: In the sample given for the arrangement,
the mode of arrangement is ambiguous. We have taken interechange as our basis but arrangement by shifting is also a possibility. Such ambiguous questions should not be asked.]
(32-36): The words get arranged one by one on the basis of the no. of letters, the word with least no. of words gets arranged first. If the no. of letters is the same, the word that comes first in the dictionary gets arranged first. While one word gets arranged, the others shift rightwards.
32. 1; Step II: is to for while they were going day Step III: is to day for while they were going
Step IV: is to day for they while were going
33. 4; Previous step can't be determined.
34. 3; Input: lack of a common safe in the

Step I: a lack of common safe in the
Step II: a in lack of common safe the
Step III: a in of lack common safe the
35. 5
36. 2 ; Step I: If there was no good man

Step II: If no there was good man
Step III: If no man there was good
$\mathbf{( 3 7 - 4 1 ) : ~ H e r e ~ t h e ~ r u l e ~ f o l l o w e d ~ i s : ~}$
Words are arranged according to their no. of letters. Words with largest no. of letters are arranged first. For two words with equal no. of letters they follow the order of English dictionary, ie the word which comes first in English dictionary is arranged first. In each step only one word is arranged and the rest shift one position rightwards. The process goes on untill all the words are arranged.
37. 2
38. 4; Previous step can't be determined.
39. $5 \quad$ 40. $3 \quad$ 41. 1
(42-46): From the last step it is clear that words are arranged in alphabetical order and nos. are arranged in decreasing order alternately. To obtain this output first the word, which comes first in dictionary, comes to the first place and the rest shift one place rightwards. In the next step the largest no. comes to the second place and the rest shift one place rightwards. These two steps occur alternately untill the last step is obtained.
42. 1
43. 4
44. 2
45. 3
46. 5
(47-51): From the last step it can be concluded that words and numbers are arranged alternately. Words are arranged alphabetically whereas numbers are arranged in descending order. When the arrangement of all elements gets completed in a particular step that step is called last step.
47. 3; Input: machine hire for 19 against 852146

Step I: against machine hire for 19852146
Step II: against 85 machine hire for 192146
48. 3; Input: box at 205362 gift now 32

Step I: at box 205362 gift now 32
Step II: at 62 box 2053 gift now 32
Step III: at 62 box 5320 gift now 32
Step IV: at 62 box 53 gift 20 now 32
49. 3; Input: on at 332742 sky mat 51

Step I: at on $33 \quad 27 \quad 42$ sky mat 51
Step II: at 51 on 332742 sky mat
Step III: at 51 mat on 332742 sky
Step IV: at 51 mat 42 on 3327 sky
Step V: at 51 mat 42 on 33 sky 27
50. 1; Step III: bring 63 desk 1129 together fight 30 Step IV: bring 63 desk 301129 together fight Step V: bring 63 desk 30 fight 1129 together Step VI: bring 63 desk 30 fight 2911 together Step VII: bring 63 desk 30 fight 29 together 11 Step VII is the last step. Hence, step VI is the secondlast step (penultimate step).
51. 4; Previous steps can't be determined.
(52-56): In the given arrangement the first and the second places are occupied by words; the third and the fourth by numbers; the fifth and the sixth by words; and the seventh and the eighth by numbers.
Words occupy place in alphabetical order while numbers occupy place in descending order. Whenever a word or a number gets arranged other elements shift one place rightward.
52. 4; Since it is a case of 'Arrangement', previous steps can't be obtained with certainty.
53. 1; Input: bring home 427315 goal 32 type

Step I: bring goal home 42731532 type
Step II: bring goal 73 home 421532 type
Step III: bring goal 7342 home 1532 type
Step IV: bring goal 7342 home type 1532
Step V: bring goal 7342 home type 3215
Since all the elements of Input get arranged in Step V, it is the last step.
54. 5; Input: bench 4763 advance 1329 again between Step I: advance bench 47631329 again between Step II: advance again bench 47631329 between Step III: advance again 63 bench 471329 between
55. 3; Step II: desk eagle 12284169 foreign land

Step III: desk eagle 69122841 foreign land
Step IV: desk eagle 69411228 foreign land
Step V: desk eagle 6941 foreign 1228 land
Step VI: desk eagle 6941 foreign land 1228
Step VII: desk eagle 6941 foreign land 2812
56. 1; Step III: again dark 83 sour 1921 prey 39

Step IV: again dark 8339 sour 1921 prey
Step V: again dark 8339 prey sour 1921
Step VI: again dark 8339 prey sour 2119
Since step VI is the last step (because all elements of step III get arranged in step VI), step V is the required step (penultinate step or last but one.)
(57-61): Here it is case of arrangement. The logic is: the words get arranged in alphabetical order. Whereas the numbers get arranged in descending order. Numbers occupy odd places in the final steps while words occupy even positions. When any element gets arranged the previous elements occupying that position shifts one place towards right.
57. 2; Input: 913 about tariff 24 call 29 even

Step I: 29913 about tariff 24 call even
Step II: 29 about 913 tariff 24 call even
Step III: 29 about 24913 tariff call even
Step IV: 29 about 24 call 913 tariff even
58. 3; Step II: 37 desk 34 garden 5 father victory 17

Step III: 37 desk 34 father garden 5 victory 17
Step IV: 37 desk 34 father 17 garden 5 victory
Since all the elements of the input are fully arranged in Step IV, this is the last step of the given input.
59. 4; Step I: 59 bead tenure father 3811 ultimate 24 Step II: 59 bead 38 tenure father 11 ultimate 24

Step III: 59 bead 38 father tenure 11 ultimate 24
60. 4 ; Since it is a case of arrangement, we can't obtain previous steps with certainty.
61. 1; Input: 2412 entry sand butter 5132 carry

Step I: 512412 entry sand butter 32 carry
Step II: 51 butter 2412 entry sand 32 carry
Step III: 51 butter 322412 entry sand carry
(62-66): An intuitive look at the input and the steps makes it clear that it is a case of arrangement. The input is a combination of words and numbers. Words get arranged according to reverse order of alphabetical arrangement whereas numbers get arranged in ascending order.
In step I, 'over' occupies the first place from the left end and the other elements are pushed one place rightward.
Similarly, in step II, '26' occupies the second place from the left end and the other elements are pushed one place rightward.
Thus alternate arranging of words and numbers finally gives the last step in which the odd places from the left are occupied by words and the even places are occupied by numbers.
62. 4; Since it is a case of arrangement, therefore previous steps or input can't be determined with certainty.
63. 2; Step III: take 17 mind game 297318 loud Step IV: take 17 mind 18 game 2973 loud Step V: take 17 mind 18 loud game $29 \quad 73$ Step VI: take 17 mind 18 loud 29 game 73 Hence, step VI is the last step. Therefore, three more steps are required to complete the sequence.
64. 4; Input: by now 5132 for 9120 me

Step I: now by 5132 for 9120 me
Step II: now 20 by 5132 for 91 me Step III: now 20 me by 5132 for 91 Step IV: now 20 me 32 by 51 for 91 Step V: now 20 me 32 for by 5191 Step VI: now 20 me 32 for 51 by 91 Hence, step VI is the last step for the given input.
65. 2; Input: fight for all 396225 today 19 Step I: today fight for all $\begin{array}{lllll}39 & 62 & 25 & 19\end{array}$ Step II: today 19 fight for all $39 \quad 62 \quad 25$ Step III: today 19 for fight all 396225 Step IV: today 19 for 25 fight all 3962
66. 5; Input: queen mary 79621720 green west Step I: west queen mary 79621720 green
Step II: west 17 queen mary 796220 green
Step III: west 17 queen 20 mary 7962 green
Step IV: west 17 queen 20 mary 6279 green Step V: west 17 queen 20 mary 62 green 79
Hence, step V is the last step. Therefore the penultimate step (last but one) is step IV.
(67-71): From the last step it is clear that when we arrange the words of the input as in English dictionary order, then arrangement starts with the last word, then the first word, then second last word and so on.
67. 1; Input: car on star quick demand fat

Step I: star car on quick demand fat
Step II: star car quick on demand fat
Step III: star car quick demand on fat
68. 5; Previous step can't be determined.
69. 5; Previous step can't be determined.
70. 1; It is clear that the given arrangement comes earlier than step III because there is a reshuffle
in the first three words. Now, we start with the unknown step (say X) and move towards step III.
Step X: Warden ink town garden restore examination
Step ( $\mathbf{X}+\mathbf{1}$ ): Warden examination ink town garden restore
Step $(\mathbf{X}+\mathbf{2})$ : Warden examination town ink garden restore
But $X+2=3$
$\therefore \mathrm{X}=1$
71. 3; Input: ink hurry yet for the victory

Step I: yet ink hurry for the victory
Step II: yet for ink hurry the victory
Step III: yet for victory ink hurry the
Step IV: yet for victory hurry ink the
Step V: yet for victory hurry the ink
(72-76): From the last step it is clear that two alternate series: a number series and a word series are established. The number series is in ascending order while the word series follows the rule of English dictionary. The word which appears later in the dictionary comes first in the series.
To establish the series, first the word, which appears later in the dictionary comes at the first position and the rest shift one position rightwards. Similarly, the least number comes at the second position and the rest shift one position rightwards. The process continues until the required series is obtained.
72. 5; Input: ordinary tight 628435 victory move 28 Step I: victory ordinary tight 628435 move 28
Step II: victory 28 ordinary tight 628435 move
Step III: victory 28 tight ordinary 628435 move
Step IV: victory 28 tight 35 ordinary 6284 move
73. 1 ; Step IV: terminal 12 sound 149071 ask car

Step V: terminal 12 sound 14 car 9071 ask
Step VI: terminal 12 sound 14 car 7190 ask
Step VII: terminal 12 sound 14 car 71 ask 90
74. 2; Input: quick buy 129175 astrologer dean 32 Step I: quick 12 buy 9175 astrologer dean 32
Step II: quick 12 dean buy 9175 astrologer 32
Step III: quick 12 dean 32 buy 9175 astrologer
Step IV: quick 12 dean 32 buy 7591 astrologer
Step V: quick 12 dean 32 buy 75 astrologer 91
75. 3; Input: below deliver 8072 town window 2552

Step I: window below deliver 8072 town 2552
Step II: window 25 below deliver 8072 town 52
Step III: window 25 town below deliver 807252
Step IV: window 25 town 52 below deliver 8072
Step V: window 25 town 52 deliver below 8072
Step VI: window 25 town 52 deliver 72 below 80
Step VI is the last step. Hence step V is the penultimate step.
76. 4; Previous step can't be determined.
(77-81): Here it is a case of arrangement.
The logic is: the words get arranged in alphabetical order. Whereas the numbers get arranged in descending order. Numbers occupy odd places in the final steps while words occupy even positions. When any element gets arranged, the previous element occupying that position shifts one place towards right.
77. 3; Here we have to find out the penultimate step, ie second-last step.
Input: when you 22 special 311647 town
Step I: 47 when you 22 special 3116 town

Step II: 47 special when you 223116 town
Step III: 47 special 31 when you 2216 town
Step IV: 47 special 31 town when you 2216
Step V: 47 special 31 town 22 when you 16
Step VI: 47 special 31 town 22 when 16 you
Here, step VI is the last step. Thus, the penultimate step will be step V .
78. 4; Input: chair wood 214259 height bench 78

Step I: 78 chair wood 214259 height bench
Step II: 78 bench chair wood 214259 height
Step III: 78 bench 59 chair wood 2142 height
Step IV: 78 bench 59 chair 42 wood 21 height
Step V: 78 bench 59 chair 42 height wood 21
Step VI: 78 bench 59 chair 42 height 21 wood Hence, step VI is the last step.
79. 4; Here, it is a case of arrangement. Therefore the previous steps can't be obtained with certainty.
80. 2; Step III: 82 brown 74 sugar hobby lady 3249

Step IV: 82 brown 74 hobby sugar lady 3249
Step V: 82 brown 74 hobby 49 sugar lady 32
Step VI: 82 brown 74 hobby 49 lady sugar 32
81. 3; Input: goal team ask 12928542 sound

Step I: 92 goal team ask 128542 sound
Step II: 92 ask goal team 128542 sound
Step III: 92 ask 85 goal team 1242 sound
Step IV: 92 ask 85 goal 42 team 12 sound
(82-86): It is a case of arrangement. Look at the last step. From the last step we came to know that words are arranged according to the reverse order of English alphabet. Whereas the numbers are arranged in ascending order. In the final arrangement we get word, number, word, number, .........
From input to step I, there is no change. From step I to step II only one element gets arranged. But from step II to step III two elements get arranged. From step III to step IV; and from step IV to step V only one element gets arranged.
82. 5; Since it is a case of arrangement we can't get 1 st step.
83. 4; Input: paper common 3651 pencil 28 test 66

Step I: paper common 3651 pencil 28 test 66
Step II: test paper common 3651 pencil 2866
Step III: test 28 pencil paper common 365166
84. 1; Step II: waive 14 available time 3846 probation 85

Step III: waive 14 time 38 available 46 probation 85
Step IV: waive 14 time 38 probation available 4685
Step V: waive 14 time 38 probation 46 available 85 Here, step V is the last step. Hence, three more steps are needed after step II to complete the arrangement.
85. 3; Input: 27 sports 48 television commentary 18 house 36
Step I: 27 sports 48 television commentary 18 house 36
Step II: television 27 sports 48 commentary 18 house 36
Step III: television 18 sports 2748 commentary house 36
Step IV: television 18 sports 27 house 48 commentary 36
Step V: television 18 sports 27 house 3648 commentary
Step VI: television 18 sports 27 house 36 commentary 48
Here, the complete arrangement is obtained in step VI. Hence, Step VI is the last step.
86. 5; Step I: number game 5423 always lacking 1675

Step II: number 16 game 5423 always lacking 75
Step III: number 16 lacking 23 game 54 always 75 Since step III is the last step, fourth step can't be possible.
(87-91): It is a case of simple arrangement.
Look at the last step. From last step it is obvious that numbers and words get arranged alternately. Also, the numbers are arranged in the following way:
Largest, Smallest, Second largest, Second smallest ... and so on.
Also, the words are arranged in the following way:
A ..., Z ..., B ..., Y ... and so on.
From input to step I, a number gets arranged first and the remaining elements are pushed rightward. From step I to step II, a word gets arranged and the remaining elements are pushed rightward. The process continues and all the elements get arranged. If an element is found already arranged, another element gets arranged.
87. 2; Step III: 91 go 28 mock pet 43 lead 37

Step IV: 91 go 28 pet mock 43 lead 37
Step V: 91 go 28 pet 43 mock lead 37
Step VI: 91 go 28 pet 43 lead mock 37
Step VII: 91 go 28 pet 43 lead 37 mock
Hence, step VII is the last step.
88. 2; Step II: 52 at deep follow 4116 road 32

Step III: 52 at 16 deep follow 41 road 32
Step IV: 52 at 16 road deep follow 4132
Step V: 52 at 16 road 41 deep follow 32
89. 4; It is a case of arrangement. Previous steps can't be obtained with certainty.
90. 3; Step II: 76 from 48 super itself 5618 went

Step III: 76 from 1848 super itself 56 went
Step IV: 76 from 18 went 48 super itself 56
Step V: 76 from 18 went 5648 super itself
Step VI: 76 from 18 went 56 itself 48 super Step VI is the last step. Thus, four more steps are required to get the arrangement.
91. 3; Input: thirty days from now 32568724

Step I: 87 thirty days from now 325624
Step II: 87 days thirty from now 325624
Step III: 87 days 24 thirty from now 3256
(92-96): An intuitive look at the input and the steps makes it clear that it is a case of arrangement. The input is a combination of words and numbers. Words get arranged according to reverse order of alphabetical arrangement, whereas numbers get arranged in an ascending order.
From input to step I, '37' occupies the first place from the left end and the other elements are pushed one place rightward.
Similarly, in step II, since the word 'talk' is already arranged at the second place, therefore '48' occupies the third place and the other elements are pushed one place rightward.
Thus, alternate arranging of numbers and words finally gives the last step in which the odd places from the left are occupied by numbers and the even places are occupied by words.
92. 2 ; Step II: 23 working 4832 park blossom 26 garden Step III: 23 working $2648 \quad 32$ park blossom garden

Step IV: 23 working 26 park 4832 blossom garden
Step V: 23 working 26 park $32 \quad 48$ blossom garden
93. 1; Step II: 12 where 8233 great wall 49 just

Step III: 12 where 3382 great wall 49 just
Step IV: 12 where 33 wall 82 great 49 just
Step V: 12 where 33 wall 49 great 82 just
Step VI: 12 where 33 wall 49 just 82 great Hence, step VI is the last step.
94. 4; Input: phone computer 32 link 187546 diary Step I: 18 phone computer 32 link 7546 diary Step II: 18 phone 32 computer link 7546 diary Step III: 18 phone 32 link computer 7546 diary
95. 4; Since it is a case of arrangement, therefore previous steps can't be obtained.
96. 1; Step I: 1745 follow rule examination 3685 hut Step II: 17 rule 45 follow examination 3685 hut Step III: 17 rule 3645 follow examination 85 hut
(97-101): In Step I the largest number occupies the leftmost position, pushing the rest of the line rightwards. In the next step the word that comes last in the alphabetical order occupies the second position from the left and the remaining terms move rightwards. This goes on alternately till all the numbers get arranged in descending order and the words in reverse alphabetical order at alternate positions. In case a term is already arranged, the machine moves on to the next one.
97. 2; Step II : 53 window 4250 door lock key 36 Step III : 53 window 5042 door lock key 36 Step IV : 53 window 50 lock 42 door key 36 Step V : 53 window 50 lock 42 key door 36 Step VI : 53 window 50 lock 42 key 36 door Hence, four more steps are required.
98. 4; We cannot determined the arrangement in the reverse direction.
99. 1; Input: jockey firm 3643 growth chart 2245

Step I: 45 jockey firm 3643 growth chart 22
Step II: 45 jockey 43 firm 36 growth chart 22
Step III: 45 jockey 43 growth firm 36 chart 22
100.5; Step II: 63 sour 1856 grapes healthy 32 rise Step III: 63 sour $56 \quad 18$ grapes healthy 32 rise Step IV: 63 sour 56 rise 18 grapes healthy 32 Step V: 63 sour 56 rise 3218 grapes healthy Step VI: 63 sour 56 rise 32 healthy 18 grapes Hence step VI will be the last step.
101.3; Step I: 85 journey train 3654 daily 28 mansion Step II: 85 train journey 3654 daily 28 mansion Step III: 85 train 54 journey 36 daily 28 mansion Step IV: 85 train 54 mansion journey 36 daily 28 Step V: 85 train 54 mansion 36 journey daily 28
(102-106): The words get arranged in alphabetical order and the numbers in ascending order - first a word and then a number. And this goes on alternately. When a word or number gets arranged, the remaining terms shift rightward.
102.2; Step III: is 4 material 36 test 16 packed 64 Step IV: is 4 material 1636 test packed 64 Step V: is 4 material 16 packed 36 test 64
103.2; Input: ministers 25 solved 36 their 81 problems 64
Step I: ministers 25 problems solved 36 their 81 64
Step II: ministers 25 problems 36 solved their 8164

Step III: ministers 25 problems 36 solved 64 their 81
104. 4 ; Input: the 36 issue 49 became 9 serious 25

Step I: became the 36 issue 499 serious 25
Step II: became 9 the 36 issue 49 serious 25
Step III: became 9 issue the 3649 serious 25
Step IV: became 9 issue 25 the 3649 serious
Step V: became 9 issue 25 serious the 3649
Step VI: became 9 issue 25 serious 36 the 49
105.3; Input: you 49 visited 81 their 16 relative 25

Step I: relative you 49 visited 81 their 1625
Step II: relative 16 you 49 visited 81 their 25
Step III: relative 16 their you 49 visited 8125
Step IV: relative 16 their 25 you 49 visited 81
Step V: relative 16 their 25 visited you 4981
Step VI: relative 16 their 25 visited 49 you 81
The first four steps will take one hour each and the last two 45 min each. Hence total time taken is $4 \times 1 \mathrm{hr}+2 \times 45 \mathrm{~min}=5 \mathrm{hr} 30 \mathrm{~min}$.
106.4; We can't proceed backward.
(107-111): In one step the largest number comes to the leftmost position while the remaining line shifts rightward. In the next step the word that comes first in the alphabetical order shifts to the second position and the remaining line shifts rightward. This goes on alternately till the numbers get arranged in descending order and the words in alphabetical order at alternate positions.
107.2; Step II: 51 brown 223649 cloud sky red

Step III: 51 brown 492236 cloud sky red
Step IV: 51 brown 49 cloud 2236 sky red
Step V: 51 brown 49 cloud 3622 sky red
Step VI: 51 brown 49 cloud 36 red 22 sky
Hence 6-2 $=4$ more steps are required.
108. 1 ; Step III: 58 dine 4318 tower silver mat 24

Step IV: 58 dine 43 mat 18 tower silver 24
Step V: 58 dine 43 mat 2418 tower silver Step VI: 58 dine 43 mat 24 silver 18 tower
109.3; Input: 852396 case over for 42 win Step I: $96 \quad 85 \quad 23$ case over for 42 win Step II: 96 case 8523 over for 42 win Step III: 96 case 85 for 23 over 42 win Step IV: 96 case 85 for 4223 over win Step V: 96 case 85 for 42 over 23 win
110.4; We can't move backward.
111. 5; Input: field eyes 9432 house rent 4927

Step I: 94 field eyes 32 house rent 4927
Step II: 94 eyes field 32 house rent 4927
Step III: 94 eyes 49 field 32 house rent 27
Step IV: 94 eyes 49 field 32 house 27 rent Hence Step III will be the last but one.
(112-116): In step I the least number comes to the leftmost position, pushing the rest of the line rightward. In step II the word that comes last in the alphabetical order shifts to second from left, pushing again the rest of the line rightward. Similarly, in step III the second least number shifts to third from left. In step IV the second from last in the alphabetical order comes to the fourth position. And this goes on alternately till all the numbers are arranged in ascending order and the words in reverse alphabetical order.
112.3; Step II: 18 task bear cold dish 816331

Step III: 18 task 31 bear cold dish 8163
Step IV: 18 task 31 dish bear cold 8163
Step V: 18 task 31 dish 63 bear cold 81

Step VI: 18 task 31 dish 63 cold bear 81
Step VII: 18 task 31 dish 63 cold 81 bear Hence $7-2=5$ more steps will be required.
113. 4; Input: 725937 go for picnic 24 journey Step I: 24725937 go for picnic journey Step II: 24 picnic 725937 go for journey Step III: 24 picnic 377259 go for journey Step IV: 24 picnic 37 journey 7259 go for
Step V: 24 picnic 37 journey 5972 go for Step VI: 24 picnic 37 journey 59 go 72 for
114. 1; Input: nice flower 3412 costly height 4156 Step I: 12 nice flower 34 costly height 4156
Step II: 12 nice 34 flower costly height 4156
Step III: 12 nice 34 height flower costly $41 \quad 56$
115. 4 ; Step II: 16 victory 193653 store lake town Step III: 16 victory 19 town 3653 store lake Step IV: 16 victory 19 town 36 store 53 lake Since the line is already arranged, there will be no fifth step.
116. 4; We can't work out backward.
117. 2 ; Input: milk pot 1824 over goal 3653

Step I: 18 milk pot 24 over goal 3653
Step II: 18 pot milk 24 over goal 3653
Step III: 18 pot 24 milk over goal 3653
Step IV: 18 pot 24 over milk goal 3653
Step V: 18 pot 24 over 36 milk goal 53
Step VI: 18 pot 24 over 36 milk 53 goal
Hence Step V is the last but one.
118. 1; Step III: 36 win 449586 ultra box queen

Step IV: 36 win 44 ultra 9586 box queen
Step V: 36 win 44 ultra 8695 box queen
Step VI: 36 win 44 ultra 86 queen 95 box Hence $6-3=3$ more steps will be required.
119. 1; Input: new 22 model 27 pump 3811 join Step I: 11 new 22 model 27 pump 38 join Step II: 11 pump new 22 model 2738 join Step III: 11 pump 22 new model 2738 join Step IV: 11 pump 22 new 27 model 38 join
(120-124): From the last step it is clear that two alternate series: a no. series and a word series are established. The no. series is in ascending order, while the word series follows the rule of English dictionary. The word which appears later in the dictionary comes first in the series.
To establish the series, first the word, which appears later in the dictionary comes at the first position and the rest shift one position rightwards. Similarly, the least no. comes at the second position and the rest shift one position rightwards. The process continues until the required series is set up.
120.4; Previous step can't be determined.
121.1; Last step can be written directly.
122.2; Input: Mission impossible 2137 oscar winner 19 Step I: Winner mission impossible 2137 oscar 19 Step II: Winner 2 mission impossible 137 oscar 19 Step III: Winner 2 oscar mission impossible 13719 Step IV: Winner 2 oscar 7 mission impossible 1319 Step V: Winner 2 oscar 7 mission 13 impossible 19
123.3; Input: Seven Razor Fifty 50127 One 1

Step I: Seven 1 Razor Fifty 50127 One
Step II: Seven 1 Razor 7 Fifty 5012 One
Step III: Seven 1 Razor 7 One Fifty 5012
Step IV: Seven 1 Razor 7 One 12 Fifty 50
Hence, step III is the penultimate step.
124. 2; Step II: where 9 here 18 there 12 near 17 Step III: where 9 there here 1812 near 17 Step IV: where 9 there 12 here 18 near 17 Step V: where 9 there 12 near here 1817
(125-131): In the first step the word that comes first in the reverse alphabetical order comes to the first place and the rest of the line shifts rightward. In the next step, the largest number occupies the next place and the rest of the line shifts rightward. This goes on alternately till the words get arranged in the reverse alphabetical order and the numbers in a descending order.
125.3; Input: 20 ask never 356284 tall grass Step I: tall 20 ask never 356284 grass
Step II: tall 20 never ask 356284 grass
Step III: tall 20 never 35 ask 6284 grass
Step IV: tall 20 never 35 grass ask 6284
Step V: tall 20 never 35 grass 62 ask 84 Since Step V is the last step, step IV will be the last but one.
126.4; The previous steps can't be determined in a noncyclical rearrangement.
127.3; Step III: yes 15 ultra $96 \quad 73 \quad 52$ home rest Step IV: yes 15 ultra $5296 \quad 73$ home rest Step V: yes 15 ultra 52 home 9673 rest Step VI: yes 15 ultra 52 home 7396 rest Step VII: yes 15 ultra 52 home 73 rest 96 Hence 7-3 = 4 more steps will be required.
128. 1; Input: 49 box store 8463 on door 37 Step I: store 49 box 8463 on door 37 Step II: store 3749 box 8463 on door Step III: store 37 on 49 box 8463 door Step IV: store 37 on 49 door box 8463 Step V: store 37 on 49 door 63 box 84
129.1; Input: slow wheel 3257 high lake 1246

Step I: wheel slow 3257 high lake 46 Step II: wheel 12 slow 3257 high lake 1246 Step III: wheel 12 slow 32 lake 57 high 46 Step IV: wheel 12 slow 32 lake 4657 high Step V: wheel 12 slow 32 lake 46 high 57
130. 3; Step IV: year 14 team 226354 goal house Step V: year 14 team 22 house 6354 goal Step VI: year 14 team 22 house 5463 goal
Step VII: year 14 team 22 house 54 goal 63
131.4; Input: bag full 328427 coin new 56

Step I: new bag full 328427 coin 56
Step II: new 27 bag full 3284 coin 56
Step III: new 27 full bag 3284 coin 56
Step IV: new 27 full 32 bag 84 coin 56
Step V: new 27 full 32 coin bag 8456
Step VI: new 27 full 32 coin 56 bag 84
(132-137): In step I, the largest number goes to the extreme left and the rest of the line shifts rightwards. In the next step the word that comes first in alphabetical order goes to the second position from the left and the rest of the line shifts rightwards. Thus the numbers and the words get arranged alternately till all the numbers are in descending order and all the words in alphabetical order.
132.3; Input: show 5136 new far 8146 goal Step I: 81 show 5136 new far 46 goal
Step II: 81 far show 5136 new 46 goal Step III: 81 far 51 show 36 new 46 goal
Step IV: 81 far 51 goal show 36 new 46
Step V: 81 far 51 goal 46 show 36 new

Step VI: 81 far 51 goal 46 new show 36
Step VII: 81 far 51 goal 46 new 36 show Thus step VI will be the last but one.
133. 5; Input: home turf 39248644 roll over Step I: 86 home turf 392444 roll over Step II: 86 home 44 turf 3924 roll over
Step III: 86 home 44 over turf 3924 roll
Step IV: 86 home 44 over 39 turf 24 roll
Step V: 86 home 44 over 39 roll turf 24
Step VI: 86 home 44 over 39 roll 24 turf Thus step VI will be the last.
134. 1; Step II: 76 ask 1232 begin over join 42

Step III: 76 ask 421232 begin over join
Step IV: 76 ask 42 begin 1232 over join
Step V: 76 ask 42 begin 3212 over join
Step VI: 76 ask 42 begin 32 join 12 over
Thus $6-2=4$ more steps will be required.
135. 2; Step IV: 58 box 47 dew 1521 town pot

Step V: 58 box 47 dew 2115 town pot
Step VI: 58 box 47 dew 21 pot 15 town
Thus step VI will be last.
136. 4; We can't proceed backward.
137. 5; Input: buy win task 523843 door 12

Step I: 52 buy win task 3843 door 12
Step II: 52 buy 43 win task 38 door 12
Step III: 52 buy 43 door win task 3812
Step IV: 52 buy 43 door 38 win task 12
(138-143): In step I, the smallest number goes to the extreme left and the rest of line shifts rightward. In the next step the word that comes first in the reverse alphabetical order goes to the second position from the left and the rest of the line shifts rightward. Thus, the numbers and the words get arranged alternately till all the numbers are in ascending order and all the words in reverse alphabetical order.
138.3; Input: 89 bind 32 goal house 6112 joy Step I: 1289 bind 32 goal house 61 joy
Step II: 12 joy 89 bind 32 goal house 61 Step III: 12 joy 3289 bind goal house 61 Step IV: 12 joy 32 house 89 bind goal 61 Step V: 12 joy 32 house 6189 bind goal Step VI: 12 joy 32 house 61 goal 89 bind
139.3; Step II: 15 yes 625148 talk now gone

Step III: 15 yes 486251 talk now gone
Step IV: 15 yes 48 talk 6251 now gone
Step V: 15 yes 48 talk 5162 now gone
Step VI : 15 yes 48 talk 51 now 62 gone
140.5; Step III: 21 victory 30 joint 6447 all gone

Step IV: 21 victory 30 joint 4764 all gone Step V: 21 victory 30 joint 47 gone 64 all $5-3=2$ more steps will be required.
141. 5; Input: win 92 task 7359 house range 34

Step I: 34 win 92 task 7359 house range
Step II: 34 win 5992 task 73 house range
Step III: 34 win 59 task 9273 house range
Step IV: 34 win 59 task 7392 house range
142.5; Input: save 214378 them early 36 for

Step I: 21 save 4378 them early 36 for
Step II: 21 them save 4378 early 36 for
Step III: 21 them 36 save 4378 early for
Step IV: 21 them 36 save 43 for 78 early Hence step III will be the last but one.
143.2; Input: desire 5963 all few 3846 zone

Step I: 38 desire 5963 all few 46 zone
Step II: 38 zone desire 5963 all few 46

Step III: 38 zone 46 desire 5963 all few
Step IV: 38 zone 46 few desire 5963 all
Step V: 38 zone 46 few 59 desire 63 all
(144-148): In the first step, the largest number comes to the first position and the remaining line shifts rightward. In the next step, the word that comes first in the alphabetical order goes on to occupy the second position, pushing the rest of the line rightward. This goes on alternately till all the numbers are arranged in a descending order and all the words alphabetically at alternate positions.
144. 4; Input: how was your stay 56253664

Step I: 64 how was your stay 562536
Step II: 64 how 56 was your stay 2536
Step III: 64 how 56 stay was your 2536
Step IV: 64 how 56 stay 36 was your 25
Step V: 64 how 56 stay 36 was 25 your Since the line gets fully arranged in step V, there will be no step VI.
145. 3; Input: power fail now 522475 gate 34

Step I: 75 power fail now 5224 gate 34
Step II: 75 fail power now 5224 gate 34
Step III: 75 fail 52 power now 24 gate 34 Step IV: 75 fail 52 gate power now 2434
Step V: 75 fail 52 gate 34 power now 24 Step VI: 75 fail 52 gate 34 now power 24 Step VII: 75 fail 52 gate 34 now 24 power Hence Step VI will be the last but one.
146. 4; We can't proceed backward.
147. 1 ; Step II: 75 down 1624 farm eager 62 sky

Step III: 75 down 621624 farm eager sky
Step IV: 75 down 62 eager 1624 farm sky
Step V: 75 down 62 eager 2416 farm sky
Step VI: 75 down 62 eager 24 farm 16 sky
Hence $6-2=4$ more steps will be required.
148. 3; Input: 1435 when they came 6148 home. Step I: 611435 when they came 48 home Step II: 61 came 1435 when they 48 home Step III: 61 came 481435 when they home Step IV: 61 came 48 home 1435 when they Step V: 61 came 48 home 3514 when they Step VI: 61 came 48 home 35 they 14 when
(149-154): In the first step, the word that comes first in the reverse alphabetical order comes to the first place and the rest of the line shifts rightward. In the next step, the largest number occupies the next place and the rest of the line shifts rightward. This goes on alternately till the words get arranged in the reverse alphabetical order and the numbers in a descending order.
149. 2; Step III: year 92 ultra 1523 strive house 39 Step IV: year 92 ultra 391523 strive house Step V: year 92 ultra 39 strive 1523 house Step VI: year 92 ultra 39 strive 2315 house Step VII: year 92 ultra 39 strive 23 house 15 Hence $7-3=4$ more steps will be required.
150.3; Input: any how 4924 far wide 3469

Step I: wide any how 4924 far 3469
Step II: wide 69 any how 4924 far 34
Step III: wide 69 how any 4924 far 34
Step IV: wide 69 how 49 any 24 far 34
Step V: wide 69 how 49 far any 2434
Step VI: wide 69 how 49 far 34 any 24
Hence Step V will be the last but one.
151. 4 ; We can't proceed backward.
152.4; Input: play over 493712 match now 81

Step I: play 81 over 493712 match now
Step II: play 81 over 49 now 3712 match
Step III: play 81 over 49 now 37 match 12
Since the line is already arranged, there will be
no 4th step.
153. 2; Step II: war 58 box cart 3349 star 24

Step III: war 58 star box cart 334924
Step IV: war 58 star 49 box cart 3324
Step V: war 58 star 49 cart box 3324
Step VI: war 58 star 49 cart 33 box 24
154. 4; Input: shower fall water 34516798 goal

Step I: water shower fall 34516798 goal
Step II: water 98 shower fall 345167 goal
Step III: water 98 shower 67 fall 3451 goal
Step IV: water 98 shower 67 goal fall 3451
Step V: water 98 shower 67 goal 51 fall 34
(155-159): In the first step, the word that comes first in the alphabetical order shifts to the leftmost position, while the remaining line shifts rightward. In the next step, the largest number shifts to the second position from left, pushing the remaining line rightward. This goes on alternately till the words get arranged in an alphabetical order and the numbers in a descending order at alternate positions.
155. 3 ; Step III: bond 86 goal 1233 like high 46

Step IV: bond 86 goal 461233 like high Step V: bond 86 goal 46 high 1233 like
Step VI: bond 86 goal 46 high 3312 like
Step VII: bond 86 goal 46 high 33 like 12
156. 5; Input: mind new 27351959 own tower Step I: mind 59 new 273519 own tower Step II: mind 59 new $3527 \quad 19$ own tower Step III: mind 59 new 35 own 2719 tower Step IV: mind 59 new 35 own 27 tower 19 Hence step III will be the last but one.
157. 3; Step IV: dear 63 few 511629 yes now

Step V: dear 63 few 51 now 1629 yes
Step VI: dear 63 few 51 now 2916 yes
Step VII: dear 63 few 51 now 29 yes 16 Hence $7-4=3$ more steps will be required.
158. 4; We can't proceed backward.
159. 3; Input: war 52 and peace 4316 now 24

Step I: and war 52 peace 4316 now 24
Step II: and 52 war peace 4316 now 24
Step III: and 52 now war peace 431624
Step IV: and 52 now 43 war peace 1624
Step V: and 52 now 43 peace war 1624
Step VI: and 52 now 43 peace 24 war 16

## Exercise-3

(1-9):
Input: held nature yeast rich win alter infer lost so done
Step I: alter held nature yeast rich win infer lost so done
Step II: alter done held nature yeast rich win infer lost so
Step III: alter done held infer nature yeast rich win lost so
Step IV: alter done held infer lost nature yeast rich win so
Step V: alter done held infer lost nature rich yeast win so
Step VI: alter done held infer lost nature rich so yeast win
Step VII: alter done held infer lost nature rich so win yeast

1. 4
2. 3
3. 5 ; fourth from the left end or seventh from the right
4. 1
(6-9): Step I: D
Step II: B
Step III: A
Step IV: E
Step V: C
5. 5 7. 5
6. 5 9.3
(10-17): After careful analysis of the given input and various steps of rearrangement, it is evident that the numbers are rearranged in the middle in descending order and words are arranged in alphabetical order from the left and right. The words beginning with vowels are rearranged from the left in alphabetical order and the words beginning with consonants are rearranged from the right in the reverse alphabetical order.
(10-14):
Input: unique 84 can 77 open 86 quick 13 base 53 amiss 11 equal 98 start
Step I: amiss unique 84 can 77 open 8613 base 5311 equal 98 quick start
Step II: amiss equal unique 8477 open 8613 base 5311 98 can quick start
Step III: amiss equal open unique 84778613531198 base can quick start
Step IV: amiss equal open unique 98847786135311 base can quick start
Step V: amiss equal open unique $\begin{array}{lllllll}98 & 86 & 84 & 77 & 13 & 53 & 11\end{array}$ base can quick start
Step VI: amiss equal open unique $\begin{array}{lllllll}98 & 86 & 84 & 77 & 53 & 13 & 11\end{array}$ base can quick start
7. 5 ; None of these
8. 4 ; 98 would be fifth from the right in step III.
9. 1 ; Option (1) is the last step.
10. 5; Six steps
11. 4 ; It is step IV.
(15-17):
Step I: (C) arrival 164428 on 66 finish match
Step II: (A) arrival on 16442866 finish match
Step III: (E) arrival on 66164428 finish match
Step IV: (D) arrival on 66441628 finish match
Step V: (B) arrival on 66442816 finish match
12. 1 ; A is the step II.
13. 5 ; E is the step III.
14. 3; $C$ is the step I.
(18-22): After careful analysis of the given input and various steps of arrangement it is evident that in each step one word and one number are rearranged. The words are rearranged from the left in alphabetical order but in reverse order while the numbers are rearranged in descending order from the right.
(18-19):
Input: always 19 give 2184 for 6214 worthy cause
Step I: worthy always 19 give 21 for 6214 cause 84
Step II: worthy give always 1921 for 14 cause 6284
Step III: worthy give for always 1914 cause 216284
Step IV: worthy give for cause always $\begin{array}{llllll}14 & 19 & 21 & 62 & 84\end{array}$
15. 4 ; Option (4) is the Step III.
16. 3; Four steps are needed to complete the arrangement.
(20-22):
Input: 5062 tips on 67 how can 42 stay young 1789 forever 03
Step I: young 5062 tips on 67 how can 42 stay 17 forever 0389
Step II: young tips 5062 on how can 42 stay 17 forever 036789
Step III: young tips stay 50 on how can 4217 forever 03 626789
Step IV: young tips stay on how can 4217 forever 0350 626789
Step V: young tips stay on how forever can 17034250 626789
Step VI: young tips stay on how forever can 03174250 $\begin{array}{lll}62 & 67 & 89\end{array}$
17. 1; It is Step III.
18. $2 ; 42$ is at the fifth position from the right end in Step V
19. 1; Option (1) is the last step

## Chapter 8

## Questions Asked In Exams

## Puzzle 1

Directions: Study the following information carefully and answer the questions given below:

Three ladies and four men are a group of friends, ie R, M, T, S, L, W and Z. Each one has a different profession, ie Lawyer, Travel Agent, Air-hostess, Doctor, Professor, Consultant and Jeweller and each one owns a different car, ie Alto, Corolla, Santro, Lancer, Ikon, Scorpio and Esteem, not necessarily in that order. None of the ladies is a Consultant or a Lawyer. T is an Air-hostess and she owns an Ikon car. R owns a Scorpio. M is not a Doctor. L is a Jeweller and he owns Corolla. W is a Lawyer and does not own Alto. $Z$ is a Consultant and owns Santro. The Doctor owns Esteem car whereas the Professor owns Scorpio. The Travel Agent owns an Alto. None of the ladies own a Scorpio.

## Questions:

1. What car does S own?
1) Alto
2) Santro
3) Lancer
4) Esteem
5) None of these
2. Who owns the car Lancer?

3. Who is the Doctor?
1) $R$
2) S
3) Data inadequate
4) None of these
5) L
5. Who are the three ladies in the group?
1) T, R, L
2) $T, M, S$
3) $\mathrm{W}, \mathrm{T}, \mathrm{M}$
4) Data inadequate
5) None of these
[PNB Management Trainee Exam-2005]

## Puzzle 2

Directions: Study the following information carefully and answer the questions given below:

Seven people N, K, T, B, M, W and R have their weekly offs on different days of the week, ie Sunday, Monday, Tuesday, Wednesday, Thursday, Friday and Saturday, not necessarily in that order. Each of them has a liking for different cuisine, ie Indian, Italian, Mexican, Chinese, Spanish, Continental and Thai, not necessarily in that order. K likes Thai food and gets his weekly off on Thursday. B likes Italian food and does not have off on Sunday. M has weekly off on Saturday and R has his weekly off on Tuesday. W likes continental food whereas the one who has weekly off on Monday likes Mexican cuisine. T does not like Spanish cuisine and has weekly off on Wednesday. The one who likes Indian food does not have a weekly off on Tuesday or Wednesday.
Questions:

1. Who has a weekly off on Friday?
1) $T$
2) $R$
3) Data inadequate
4) None of these
2. What cuisine does R like?
1) Continental
2) Indian
3) Spanish
4) None of these
3. On which day does N have weekly off?
1) Tuesday
2) Friday
3) Sunday
4) None of these
4. Who likes Chinese cuisine?
1) $T$
2) $B$
3) None of these
5. On which day does W have weekly off?
1) Monday
2) Sunday
3) Data inadequate
4) None of these
[PNB Management Trainee Exam-2005]

## Puzzle 3

Directions: Study the following information carefully and answer the questions given below:
(i) P, Q, R, S and T finished a work, working from Monday to Saturday, one of the days being a holiday, each working overtime only on one of the days.
(ii) R or T did not work overtime on the first day.
(iii) Q worked overtime the next day after the holiday.
(iv) The overtime work done on the previous day of the holiday was by R .
(v) There was a two days' gap between the days on which $P$ and $Q$ worked over time.
(vi) $P$ worked overtime the next day of the overtime

## Questions:

1. Which of the following is the correct statement ?
1) $P$ worked overtime last among them.
2) $P$ worked overtime earlier than $S$.
3) The holiday was on Friday.
4) $S$ worked overtime earlier than $Q$.
5) None of these
2. On which day did R work overtime?
1) Monday
2) Tuesday
3) None of these
4) Thursday
5) Friday
3. How many days' gap was there between the days on which $P$ and $T$ worked overtime?
1) Three
2) Two
3) One
4) Cannot be determined
5) None of these
4. When did T work overtime?
1) On the day previous to that on which $S$ worked overtime
2) On the next day of the day on which $Q$ worked overtime
3) Two days after the day on which $S$ worked overtime
4) Cannot be determined
5) None of these
[Andhra Bank PO Exam-2005]

## Puzzle 4

Directions: Study the following information carefully and answer
the questions given below:

## 278 / Magical Book on Puzzle

Seven friends P, F, R, T, Q, N and D are studying different specialisations IT, Civil, HRM, Marketing, Finance, Journalism and Pharmacy, not necessarily in the same order. Each one of them has a liking for a different colour-red, blue, green, yellow, pink, orange and grey-not necessarily in the same order. Three of them are girls. P likes yellow colour but does not study IT or HR. The one who studies Civil likes grey colour and is a girl. Q , who is the sister of N , studies Marketing and likes pink colour. D's specialisation is in Pharmacy and likes red colour. N, the wife of R, studies HR and likes green. F likes grey and R likes orange. The one who likes blue studies Finance.

## Questions:

1. Who is studying Civil Engineering?
1) $P$
2) T
3) Cannot be determined
4) F
5) None of these

2 Which of the following is the group of girls?

1) $\mathrm{F}, \mathrm{D}, \mathrm{N}$
2) $\mathrm{F}, \mathrm{Q}, \mathrm{N}$
3) $Q, N, P$
4) None of these
3. Which subject is studied by $R$ ?
1) Civil
2) Finance
3) Journalism
4) None of these
4. Who is studying Journalism?
1) $P$
2) $Q$
3) $R$
4) Cannot be determined
5) None of these
5. Which of the following combinations of person - colour - subject is correct?


## Puzzle 5

Directions: Study the following information carefully and answer the questions given below:
$\mathrm{P}, \mathrm{Q}, \mathrm{R}, \mathrm{S}, \mathrm{T}, \mathrm{V}, \mathrm{W}$ and Z are eight friends studying in three different engineering colleges - $\mathrm{A}, \mathrm{B}$ and C in three disciplines - Mechanical, Electrical and Electronics with not less than two and not more than three in any college. Not more than three of them study in any of the three disciplines. W studies Electrical in college $B$ with only $T$, who studies Mechanical. $P$ and $Z$ do not study in college C and study in the same discipline but not Electrical. R studies Mechanical in college C with V, who studies Electrical. S studies Mechanical and does not study in the same college where R studies. Q does not study Electronics.

## Questions:

1. Which of the following combinations of college-student-specialisation is correct?
1) C-R-Electronics
2) A-Z-Electrical
3) B-W-Electronics
4) B-W-Electrical
5) B-Z-Electronics
2. In which of the following colleges do two students study in Electrical discipline?
1) A only
2) B only
3) C only
4) Cannot be determined
5) None of these
3. In which discipline does Q study?
1) Electrical
2) Mechanical
3) Electrical or Mechanical

## 4) Data inadequate 5) None of these

4. In which of the colleges at least one student studies in Mechanical discipline?
1) A only
2) B only
3) C only
4) Both A and B
5) All A, B and C
6) $A$ or $B$
7) $A$
8) B
9) None of these
[Corporation Bank PO Exam-2006]

## Puzzle 6

Directions: Study the following information carefully and answer the questions given below:

A, B, C, D, E, F, G and H are eight employees working in three departments - Marketing, Finance and Production - in an organisation with at least two of them in any department. Each of them has a different choice of TV channels from Star, Zee, ESPN, DD, Sony, NDTV, Aaj Tak and BBC not necessarily in the same order.

D likes ESPN and he works in Production department with only G. B and F do not work in the same department. H likes DD and does not work in Finance department. A does not work in the same department with either F or C, who does not work in Marketing department. E works with C in the same department and likes Star. B likes Aaj Tak and none of his colleagues in the department likes either Sony or NDTV. G likes Zee. F does not like Sony.


1) Marketing
2) Marketing or Finance
3. Which channel does F like?
1) Zee
2) NDTV
3) None of these
4) Data inadequate
4. Which of the following groups work in Marketing department?
1) BAC
2) BGE
3) BAE 5) None of these
5. In which department does B work?
1) Marketing
2) Production
3) Data inadequate
4) None of these
[Central Bank of India PO Exam-2006]

## Puzzle 7

Directions: Study the following information carefully and answer the questions given below:

A private bank deputed eight of its managers $P, T, D, E, J, Q, M$ and $R$ to different cities Bangalore, Delhi, Chennai, Hyderabad, Jaipur, Cochin, Pune and Ahmedabad for marketing of three different products $X, Y$ and $Z$. The order of managers, cities and products is not necessarily the same. Each product is marketed in not less than two cities and not more than three cities.

T goes to Delhi for marketing of product Y. J goes to Hyderabad for marketing of product $Z$. E does not go to Bangalore or Jaipur and markets the same product as M , who goes to Ahmedabad. R goes to Chennai for marketing of

## 280 / Magical Book on Puzzle

product Z. Same product is marketed in Bangalore and Delhi. E and Q are marketing the same product. P goes to Pune for marketing of product $Z$.

## Guestions:

1. Which of the following groups of managers go for marketing product ' X '?
1) $\mathrm{E}, \mathrm{Q}, \mathrm{R}$
2) $\mathrm{J}, \mathrm{Q}, \mathrm{M}$
3) $\mathrm{J}, \mathrm{M}, \mathrm{R}$
4) $\mathrm{Q}, \mathrm{M}, \mathrm{R}$
5) None of these
2. E goes to which of the following cities?
1) Jaipur
2) Cochin
3) Ahmedabad
4) Cannot be determined
5) None of these
3. Which of the following combination of product, manager and city is correct?
1) $X-Q$ - Jaipur
2) $X-Q$ - Cochin
3) $X$ - E - Bangalore
4) $Y$ - $D$ - Cochin
5) None of these

Which of the following persons go for marketing of product Y ?

1) $\mathrm{Q}, \mathrm{D}, \mathrm{M}$
2) $\mathrm{Q}, \mathrm{T}$
3) $T, D, Q$
4) $\mathrm{T}, \mathrm{D}$
5) None of these
5. Who goes to Bangalore?
1) $Q$
2) M
3) $D$
4) $D$ or $Q$
5) None of these
[Andhra Bank PO Exam-2006]

## Puzzle 8

Directions: Study the following information carefully and answer the questions given below:
(i) A school held competitions for Chess, Table Tennis, Carrom, KhoKho and Volleyball during the annual sports week from Monday to Saturday, each game on one day, one day being a rest day.
(ii) Carrom competition was held not on the first or on the last day but was held earlier than Table Tennis competition.
(iii) Kho-Kho competition was held on the immediate next day of the Table Tennis competition day.
(iv) Chess competition was held on the immediate previous day of the rest day.
(v) Kho-Kho competition day and Volleyball competition day had a twoday gap between them.
(vi) Volleyball competition was held on the immediate following day of the rest day.

## Questions:

1. Which of the following was a rest day?
1) Wednesday
2) Tuesday
3) Friday
4) Thursday
5) None of these
2. Kho-Kho and Carrom competition days had a gap of how many days between them?
1) Nil
2) Two
3) Three
4) Four
5) None of these
3. On which day was the Chess competition held?
1) Thursday
2) Friday
3) Monday
4) Wednesday
5) None of these
4. Which of the following is a wrong statement?
1) Carrom competition was held on the immediate previous day of Table Tennis competition.
2) Kho-Kho competition was held on three days after the day on which Volleyball competition was held.
3) There was a gap of three days between the days on which Chess and Table Tennis competitions were held.
4) There was a two days' gap between the rest day and the day on which Carrom competition was held.
5) None of these
5. Which of the following is the correct statement?
1) Kho-Kho competition was held after Table Tennis competition.
2) Chess competition was held on Thursday.
3) No competition was held on Wednesday.
4) Table Tennis competition was held earlier than Chess competition.
5) None of these
[IDBI PO Exam-2005]

## Puzzle 9

Directions: Study the following information carefully and answer the questions given below:

Eight members A, B, C, D, E, F, G and H belonging to three families X, Y, $Z$ go for weekend outing in three different cars I, II, III. Four out of the eight members are females. Members of any one family travel in different cars. Each car has at least one male and one female member. Each family has at least two
 Questions:

1. Which of the following groups of persons travels in car I?
1) $D, F, G$
2) $D, E, G$
3) $D, G, H$
4) $\mathrm{D}, \mathrm{F}, \mathrm{H}$
5) None of these
2. Which car has only two members travelling in it?
1) I
2) II
3) III
4) II or III
5) Cannot be determined
3. Which of the following members of families $Y$ and $Z$ travel in different cars?
1) $\mathrm{F}, \mathrm{G}$
2) $\mathrm{C}, \mathrm{F}$
3) $\mathrm{C}, \mathrm{G}$
4) $\mathrm{F}, \mathrm{H}$
5) C, F 5) None of these

4 Which of the following groups of persons is a group of all females?

1) $B, D, G$
2) $A, B, C$
3) B, E, F
4) $D, E, F$
5) None of these
5. Which of the following members of families $X$ and $Y$ travel in the same car?
1) $C, F$
2) $\mathrm{D}, \mathrm{F}$
3) $\mathrm{C}, \mathrm{D}$
4) F, E
5) None of these
[Bank of Baroda PO Exam-2007]

## Puzzle 10

Directions: Study the following information carefully and answer the questions given below:

## 282 / Magical Book on Puzzle

Seven officers L, M, N, P, Q, R \& S work in three different shifts I, II \& III with at least two persons working in each shift. Each one of them has a different weekly off from Monday to Sunday not necessarily in the same order.

M works in second shift only with $R$, whose weekly off is on Friday. Q's weekly off is on the next day of L's weekly off and both of them work in different shifts. P works in third shift and his weekly off is on Saturday. S has a weekly off on Monday and he works in first shift. The one who has a weekly off on Sunday works in first shift. L and P do not work in the same shift. L's weekly off is on Tuesday.

## Questions:

1. Whose weekly off is on Sunday?
1) L
2) M
3) None of these
2. Which of the following group of officers works in shift I?
1) $L, N, S$
2) $\mathrm{L}, \mathrm{S}$
3) $\mathrm{N}, \mathrm{S}$
4) $\mathrm{L}, \mathrm{P}, \mathrm{Q}$
5) None of these
3. On which day is Q 's weekly off ?
1) Tuesday
2) Wednesday
3) Sunday
4) Cannot be determined
5) None of these
4. Which of the following combinations of shift, person and weekly off is definitely correct?
1) II, M, Sunday
2) III, N, Sunday
3) II, P, Sunday
4) I, L, Tuesday
5) None of these
5. Whose weekly off falls on Thursday?
1) $L$
2) N
3) $Q$

the questions given below:
Eight family members Dhruv, Garima, Avinash, Varsha, Aakash, Deepti, Charu and Moksh are sitting around a square table in such a way that two persons sit on each of the four sides of the table facing the centre. Members sitting on opposite sides are exactly opposite each other.

Aakash and Garima are exactly opposite each other. Deepti is immediately right to Garima. Dhruv and Moksh are sitting on the same side. Moksh is exactly opposite Avinash, who is to the immediate left of Varsha. Dhruv is towards right of Deepti.

## Guestions:

1. Which of the following statements is definitely true?
1) Charu is opposite Varsha.
2) Deepti is to the left of Garima.
3) Avinash is towards the right of Aakash.
4) Moksh is sitting opposite Dhruv.
5) None of these
2. Who is sitting opposite Dhruv?
1) Charu
2) Deepti
3) Varsha
4) Moksh
5) None of these
3. Who is sitting opposite Deepti?
1) Moksh
2) Charu
3) Charu or Varsha
4) None of these
4. Who is next to Varsha in anti-clockwise direction?
1) Garima
2) Avinash
3) Deepti
4) None of these
5) Dhruv
5. Which of the following pairs of persons has both the persons sitting on the same side with first person sitting to the left of second person?
1) Aakash - Charu 2) Moksh - Charu
2) Dhruv - Aakash
3) Avinash - Charu 5) None of these
[Andhra Bank PO Exam-2007]

## Puzzle 12

Directions: Study the following information carefully and answer the questions given below:

Seven professionals A, B, C, D, E, F and G are practising their professions in different cities Chennai, Bangalore, Hyderabad, Mumbai, Ahmedabad, Jaipur and Bhubaneshwar, not necessarily in the same order. Each has a different profession -Doctor, Engineer, Pharmacist, Lawyer, Counsellor, Professor and Artist, not necessarily in the same order.

A is a Pharmacist and practises in Bhubaneshwar. D practises in Bangalore but is not a Doctor or an Artist. The one who practises in Hyderabad is a Professor. G is a Counsellor and does not practise in Mumbai or Chennai. E is a Lawyer and practises in Ahmedabad. F practises in Chennai but is not an artist. C practises in Mumbai.

## Questions:

1. What is D's profession?
1) Doctor
2) Professor
3) Engineer
4) Cannot be determined
2. Who is the Professor?
1) B
2) E
4. 
2) C
3) None of these
combinations of
4) None of these

Which of the following
2) Engineer - Chennai
3) Doctor - Bangalore
4) Artist - Mumbai
5) None of these
4. Which of the following persons works in Jaipur?

1) $B$
2) G
3) C
4) $B$ or $G$
5) None of these
5. Who is the Doctor?
1) $D$
2) $B$
3) C
4) B or C
5) None of these
[NABARD PO Exam-2008]

## Puzzle 13

Directions: Study the following information carefully and answer the questions given below:

Seven candidates Harish, Samir, Nilesh, Shailaja, Nikita, Laxman and Sujata are to be interviewed for selection as Trainee Officers by different panels I to VII for different companies $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}, \mathrm{E}, \mathrm{F}$ and G not necessarily in the same order.

Nilesh is interviewed by panel IV for Company A. Samir is interviewed by panel III but not for company C or D. Harish is interviewed for company B but not by panel I or II. Nikita is interviewed by panel VI for company E. Panel VII conducts the interview for company F. Shailaja is interviewed by panel I but not for company C. Panel II does not interview Laxman.
Questions:

1. Shailaja is interviewed for which company?
1) $A$
2) $G$
3) $F$
4) D
5) None of these
2. Panel II conducts interview for which company?
1) C
2) $F$
3) G
4) B 5) None of these
3. Who is interviewed for company G?
1) Nikita
2) Samir
3) None of these
4. Who is interviewed for company F?
1) Shailaja
2) Sujata
3) Laxman
4) Cannot be determined
5) None of these
5. Which candidate is interviewed by panel V?
1) Harish
2) Laxman
3) Sujata
4) Shailaja
5) None of these
[Bank of Maharashtra PO Exam-2008]

## Puzzle 14

Directions: Study the following information carefully and answer the questions given below:

P, Q, R, S, T, V and W are seven friends working in a call centre. Each of them has different day offs in a week from Monday to Sunday not necessarily in the same order. They work in three different shifts I, II and III with at least two of them in each shift.

R works in shift II and his day off is not Sunday. P's day off is Tuesday and he does not work in the same shift with either $\mathcal{G}$ or W . None of those who work in shift I has day off either on Wednesday or on Friday. V works with only T in shift III. S's day off is Sunday. V's day off is immediate next day of that of R's day off. T's day off is not on Wednesday. W's day off is not on the previous day of P's day off. S works in shift I. $Q$ does not work in the same shift with R and his day off is not on Thursday.

## Guestions:

1. Which of the following is W's day off?
1) Tuesday
2) Monday
3) None of these
2. Which of the following is R's day off ?
1) Friday
2) Thursday
3) Tuesday
4) Wednesday
5) None of these
3. Which of the following groups of friends work in shift II?
1) RP
2) RV
3) BWS
4) Data inadequate
5) None of these
4. Which of the following is Q's day off ?
1) Friday
2) Wednesday
3) Thursday
4) Monday
5) None of these
5. Which of the following groups of friends work in shift I?
1) RV
2) RP
3) GWS
4) Data inadequate
5) None of these
[Vijaya Bank PO Exam-2008]

## Puzzle 15

Directions: Study the following information carefully and answer the questions given below:
$\mathrm{M}, \mathrm{N}, \mathrm{P}, \mathrm{R}, \mathrm{T}, \mathrm{W}, \mathrm{F}$ and H are sitting around a circle facing the centre. P

## Questions Asked In Exams /

is third to the left of M and second to the right of $\mathrm{T} . \mathrm{N}$ is second to the right of P. R is second to the right of W , who is second to the right of M. F is not an immediate neighbour of $P$.

## Questions:

1. Who is to the immediate right of P ?
1) H
2) $F$
3) $R$
4) Data inadequate 5) None of these
2. Who is to the immediate right of H ?
1) $R$
2) $F$
3) M
4) Data inadequate 5) None of these
3. Who is to the immediate left of R ?
1) P
2) H
3) W
4) $T$ 5) Data inadequate
4. Who is third to the right of H ?
1) $T$
2) $W$
3) $R$
4) F 5) Data inadequate
5. Who is second to the right of F ?
1) M
2) $R$
3) T
4) Data inadequate
5) None of these
6. In which of the following is the first person sitting in between the second and the third person?
1) NHM
2) PHN
3) TRP
4) TWF
5) None of these
[Union Bank of India PO Exam-2008]
 is third to the right of C and second to the left of H. D is not an immediate neighbour of C or $\mathrm{H} . \mathrm{E}$ is on the immediate right of A , who is second to the right of G.

## Guestions:

1. Who sits between G and D?
1) H
2) $D$
3) $F$
4) E
5) None of these
2. Which of the following is the correct position of B with respect to H ?
I. Second to the right
II. Fourth to the right
III. Fourth to the left
IV. Second to the left
1) Only I
2) Only II
3) Only III
4) Both II \& III 5) None of these
3. Who is second to the left of C ?
1) A
2) $B$
3) E
4) D
5) None of these
4. Which of the following pairs of persons has first person sitting to the right of the second person?
1) CB
2) AE
3) FG
4) HA
5) DB
5. Who is on the immediate right of C ?
1) $E$
2) $B$
3) $D$
4) B or D
5) None of these

## 286

## [State Bank of India PO (Prelims) Exam-2008]

## Puzzle 17

Directions: Study the following information carefully and answer the questions given below:

Seven members L, H, K, T, F, J and R represent different countries in Olympics, viz, USA, China, Korea, France, Russia, Australia and Japan; each one competes for a different sport, viz. Volleyball, Archery, Rifle Shooting, Tennis, Boxing, Athletics and Football. The order of persons, countries and games is not necessarily the same.

K represents China for Archery. T represents USA but not for Volleyball or Rifle Shooting. The one who represents Japan competes for Boxing. F competes for Volleyball but not for Korea. L represents Australia for Athletics. The one who represents Russia competes for Tennis. J does not represent Korea or Japan. R competes for Rifle Shooting.

## Questions:

1. Which of the following combinations is correct?
1) J - Tennis - France
2) R-Tennis - Russia
3) R - Tennis - France
4) J - Tennis - Russia
5) None of these
2. Who represents Japan?
1) $F$
2) $R$
3) J
4) H
5) None of these
3. F represents which country?
1) France
2) Russia
3) Japan
(4) Korea who competes 5) None of these
4. The one who competes for Rifle Shooting, 1) France 2) Korea 4) USA
5) None of
5. For which game does T compete?
1) Boxing
2) Football
3) Tennis
4) None of these
5) Cannot be determined
[State Bank of India PO (Prelims) Exam-2008]

## Puzzle 18

Directions: Study the following information carefully and answer the questions given below:

Ashwini, Priya, Sudha, Rani, Meeta, Geeta and Mukta are sitting around a circle facing the centre. Ashwini is third to the left of Mukta and to the immediate right of Rani. Priya is second to the left of Geeta, who is not an immediate neighbour of Meeta.

## Questions:

1. Who is to the immediate right of Priya?
1) Meeta
2) Sudha
3) Mukta
4) Cannot be determined
5) None of these
2. Who is second to the left of Rani?
1) Ashwini
2) Meeta
3) Sudha
4) None of these

Which of the following pairs of persons has the first person sitting to the immediate left of the second person?

1) Rani-Meeta
2) Ashwini-Geeta
3) Geeta-Sudha
4) None of these
5) Sudha-Priya
4. Which of the following groups has the first person sitting between the other two?
1) Meeta-Ashwini-Geeta
2) Sudha-Rani-Geeta
3) Mukta-Priya-Rani 4) Mukta-Priya-Sudha 5) None of these
5. Which of the following is the correct position of Rani with respect to Mukta?
I. Third to the right
II. Third to the left
III. Fourth to the left
IV. Fourth to the right
1) I only
2) II only
3) Both II \& IV
4) Both I \& III
5) Both I \& II

## [Bank of Baroda PO Exam-2008]

## Puzzle 19

Directions: Study the following information carefully and answer the questions given below:

A, B, C, D, E, F and G are members of a sports club and have liking for different games, viz Carrom, Table Tennis, Badminton, Bridge, Hockey, Football and Lawn Tennis but not necessarily in the same order. Each one of them has a liking for different musical instruments, viz Sitar, Guitar, Harmonium, Flute, Tabla, Banjo and Santoor, not necessarily in the same order.

B likes Carrom and Banjo. E likes to play Bridge but not Harmonium or Tabla. The one who plays Hockey plays Sitar. F plays Guitar but not Table Tennis or Lawn Tennis. A plays Badminton and Flute. The one who plays Lawn Tennis does not play Tabla. C plays Harmonium and G plays Hockey.
Questions:

1. Who plays Santoor?
1) $D$
2) $A$
3) E
4) D or $E$
5) None of these
2. D plays which game?
1) Table Tennis
2) Lawn Tennis
3) Football
4) Cannot be determined
5) None of these
3. Which of the following combinations of game-person-musical instrument is definitely correct?
1) Badminton - B - Flute
2) Table Tennis - E - Santoor
3) Lawn Tennis - D - Tabla
4) Table Tennis - C - Tabla
5) None of these
4. Who plays Football?
1) C
2) $D$
3) G
4) F 5) None of these
5. Who plays Table Tennis?
1) C
2) $F$
3) D
4) Cannot be determined
5) None of these
[Bank of Baroda PO Exam-2008]

## Puzzle 20

## 288 / Magical Book on Puzzle

Directions: Study the following information carefully and answer the questions given below:
$\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}, \mathrm{E}, \mathrm{F}, \mathrm{G}$ and H are sitting around a circle, facing the centre. F sits to the immediate right of $D$ and third to the left of $A$. G sits third to the left of $D$ who does not sit next to E . B sits next to G but not next to D . C does not sit next to either D or A .

## Questions:

1. Who sits to the immediate left of A ?
1) $E$
2) F
3) $G$
4) H
5) None of these
2. What is the position of H with respect to C ?
1) Second to the left 2) First to the right
2) Third to the right
3) Second to the right 5) None of these
3. Which of the following pairs sits between $G$ and $D$ ?
1) $A C$
2) DF
3) HB
4) FA
5) None of these
4. Starting from A's position, if all the eight are arranged in alphabetical order in clockwise direction, the seating position of which of the following (excluding A ) would not change?
1) $B$
2) C
3) $D$
4) H
5) None of these
5. Four of the following are alike based upon their seating arrangement around the circle. Which is the one that does not belong to that group?
1) FH
2) GE
3) CD
4) BG
5) EF

the questions given below:
P, $\mathrm{Q}, \mathrm{R}, \mathrm{S}, \mathrm{T}, \mathrm{W}$ and Z are seven students studying in three different institutes - A, B and C. There are three girls among the seven students who study in each of the three institutes. Two of the seven students study BCA, two study medicine and one each studies Aviation Technology, Journalism and MBA. R studies in the same college as $P$, who studies MBA in college B. No girl studies Journalism or MBA. T studies BCA in college A and his brother W studies Aviation Technology in college C. S studies Journalism in the same college as Q . Neither R nor Z studies BCA. The girl who studies BCA does not study in college $C$.

## Questions:

1. Which of the following pairs of students study medicine?
1) $Q Z$
2) $W Z$
3) $P Z$
4) SZ
5) None of these
2. In which college does Q study?
1) $A$
2) $B$
3) C
4) Data inadequate
5) None of these
3. In which of the colleges do three of them study?
1) $A$
2) $B$
3) A and B
4) C
5) None of these
4. What is the field of study of $Z$ ?
1) Aviation Technology
2) BCA
3) MBA
4) Medicine
5) None of these
5. Which of the following three represents girls?
1) SQR
2) GRZ
3) SQZ
4) Data inadequate
5) None of these
[Bank of Baroda (Agriculture Officer) Exam-2008]

## Puzzle 22

Directions: Study the following information carefully and answer the questions given below:
$\mathrm{M}, \mathrm{D}, \mathrm{P}, \mathrm{K}, \mathrm{R}, \mathrm{T}$ and W are sitting around a circle facing the centre. D is second to the right of $P$, who is third to the right of $K$. T is third to the right of W , who is not an immediate neighbour of $\mathrm{D} . \mathrm{M}$ is third to the left of R .

## Guestions:

1. Who is second to the right of T ?
1) $D$
2) $K$
3) $M$
4) Data inadequate
5) None of these
2. In which of the following pairs is the second person sitting to the immediate right of the first person?
1) $D T$
2) TP
3) PR
4) KW 5) None of these
3. Who is on the immediate left of R ?
1) W
2) $P$
3) K
4) T
5) None of these
4. Who is on the immediate left of M ?

[Oriental Bank of Commerce (PO) Exam-2008]

## Puzzle 23

Directions: Study the following information carefully and answer the questions given below:
$\mathrm{P}, \mathrm{Q}, \mathrm{R}, \mathrm{S}, \mathrm{T}, \mathrm{U}, \mathrm{V}$ and W are sitting around a circular table, facing the centre. P sits third to the right of W and third to the left of Q . S sits second to the right of $T$. V sits second to the left of $R$. T is not the neighbour of $Q$ while $U$ is neither a neighbour of $T$ nor of $W$.

## Guestions:

1. Who sits second to the left of V?
1) $R$
2) $P$
3) U
4) T
5) None of these
2. Who sits between $U$ and $P$ ?
1) $S$
2) $R$
3) V
4) B
5) None of these
3. Starting from P's position, if all the eight are arranged in alphabetical order in clockwise direction, the seating position of how many members (excluding P) would not change?
1) None
2) One
3) Two
4) Three
5) Four
4. Which of the following pairs has only one person sitting between them, if the counting is done in the clockwise direction?
1) T, V
2) $\mathrm{V}, \mathrm{Q}$
3) $\mathrm{W}, \mathrm{P}$

## 290 / Magical Book on Puzzle

4) $R, P$
5) None of these
5. Four of the following are alike in a certain way based on their positions in the seating arrangement and so form a group. Which is the one that does not belong to that group?
1) $\mathrm{W}, \mathrm{T}$
2) $\mathrm{P}, \mathrm{U}$
3) $\mathrm{S}, \mathrm{Q}$
4) $R, P$
5) $P, Q$
[Punjab National Bank (Management Trainee) Exam-2009]

## Puzzle 24

Directions: Study the following information carefully and answer the questions given below:

A group of friends having seven members A, B, C, D, E, F and G contains four men and three ladies. Each one of them has a different professionstockbroker, lawyer, doctor, professor, engineer, businessman and bankerand each one has passed out of a different college-P, S, V, W, X, Y and Z, not necessarily in the same order. None of the ladies is a businessman or a stockbroker. C is a doctor and she has passed out from 'College $X$ '. A is a 'College Y' passout. B is not a professor. E is a banker and is a 'College S' passout. F is a stockbroker and has not studied in 'College P'.
$G$ is a businessman and has studied in 'College V'. The professor is a 'College Z' passout. The lawyer has studied in 'College P'. None of the ladies has studied in 'College Y' or 'College S'.

## Questions:

1. What is the profession of $D$ ?
1) Doctor
2) Stockbroker
3) Engineer
4) None of these
2. Who among the following is a lawyer?

3. Which of the following groups represents ladies in the group of friends?
1) $A, B, C$
2) $E, F, G$
3) $B, C, D$
4) $B, E, G$
5) None of these
4. From which of the following colleges has the stockbroker passed out?
1) W
2) Y
3) S
4) $X$
5) None of these
5. Which of the following combinations is correct?
1) B-Doctor-Female
2) C-W-Male
3) A-Businessman-Y
4) D - Professor - Male 5) None of these
[Punjab National Bank (Management Trainee) Exam-2009]

## Puzzle 25

Directions: Study the following information carefully and answer the questions given below:

Eight friends A, B, C, D, E, F, G and H are sitting around a circle facing the centre. E is third to the left of G , who is on the immediate right of B , who is third to the left of $\mathrm{A} . \mathrm{H}$ is second to the right of F , who is not an immediate neighbour of E . D is not an immediate neighbour of B .

## Questions:

1. Who is second to the right of B ?
1) $F$
2) $A$
3) H
4) $D$
5) None of these
2. Which of the following pairs has the first person on the immediate left of the second person?
1) GB
2) AF
3) CE
4) HD
5) None of these
3. Which of the following is the correct position of B with respect to D ?
1) Second to the right 2) Second to the left 3) Third to the right
2) Third to the left 5) None of these
4. Who sits between A and D ?
1) $F$
2) E
3) $G$
4) B
5) H
5. What is E's position with respect to C?
1) On the immediate right
2) On the immediate left
3) Second to the right
4) Cannot be determined
5) None of these
[Canara Bank PO Exam-2009]

## Puzzle 26

Directions: Study the following information carefully and answer the questions given below:

Seven members H, I, J, K, L, M and N are working in different cities Ahmedabad, Bangalore, Chennai, Hyderabad, Kolkata, Delhi and Mumbai, not necessarily in the same order. Each one has a different mother tongue-Tamil, Kannada, Telugu, Hindi, Marathi, Punjabi and Bangla, not necessarily in the same order.
$J$ works in Bangalore and his mother tongue is not Tamil or Marathi. K's mother tongue is Punjabi and he works in Ahmedabad. $L$ and $M$ do not work in Chennai and none of them has Marathi mother tongue. I works in_Hyderabad and his mother tongue is Telugu. The one who works in Delhi has Bangla mother tongue. N works in Mumbai and his mother tongue is Hindi. L does not work in Kolkata.

## Questions:

gue?

1) Telugu
2) Hindi
3) Bangla
4) Kannada
5) None of these
2. Who works in Chennai?
1) H
2) L
3) M
4) L or M
5) None of these
3. Which of the following combinations is correct?
1) Marathi - I - Hyderabad
2) Tamil - M - Kolkata
3) Marathi - I - Chennai
4) Punjabi - K - Delhi
5) None of these
4. Who works in Delhi?
1) H
2) M
3) L
4) K 5) None of these
5. What is M's mother tongue?
1) Bangla
2) Marathi
3) Telugu
4) Cannot be determined
5) None of these
[Canara Bank PO Exam-2009]

## Puzzle 27

Directions: Study the following information carefully and answer the questions given below:
$\mathrm{P}, \mathrm{Q}, \mathrm{R}, \mathrm{S}, \mathrm{T}, \mathrm{V}$ and W are sitting around a circle facing at the centre. V is second to the left of $P$ and second to the right of $W$. T is third to the right of $Q$ and is not an immediate neighbour of V. S is third to the right of R .

## 292 / Magical Book on Puzzle

## Questions:

1. Who is second to the right of Q ?
1) $R$
2) W
3) T
4) S
5) None of these
2. Who is to the immediate left of S ?
1) V
2) T
3) None of these
4) $Q$
5) W
right of $R$ ?
6) W
7) $T$
8) $P$
9) Data inadequate
10) None of these
4. In which of the following groups is the first person sitting between the second and the third persons?
1) $R P Q$
2) TWS
3) QPR
4) QVS
5) None of these
6) W
7) $T$
8) S
9) $R$
10) None of these
[Indian Overseas Bank PO Exam-2009]

## Puzzle 28

Directions: Study the following information carefully and answer the questions given below:
$\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}, \mathrm{E}, \mathrm{F}, \mathrm{G}$ and H are eight friends sitting around a circular table facing the centre. A sits second to the left of D, who is third to the left of E. C sits third to the right of G, who is not an immediate neighbour of E . H sits
 4) Only E 5) Only G and E
2. Who sits second to the right of $E$ ?

1) $B$
2) $F$
3) $G$
4) C
5) None of these
3. What is the position of A with respect to H ?
1) Third to the left
2) Third to the right
3) Second to the left
4) Second to the right 5) Fourth to the left
4. Four of the following five are alike based upon their seating arrangements and so form a group. Which is the one that does not belong to that group?
1) CH
2) FG
3) DA
4) BE
5) GB
5. Which of the following pairs has the second person sitting to the immediate left of the first person?
1) DB
2) EH
3) FA
4) GD
5) None of these
[NABARD Bank Officer's Exam-2009]

## Puzzle 29

Directions: Study the following information carefully and answer the questions given below:
$\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}, \mathrm{E}, \mathrm{F}$ and G are seven friends studying seven different branches of engineering, namely Mechanical, Chemical, Electrical, Electronics, Civil, Computer and Aeronautical Engineering, not necessarily in this order. Each of them studies in three different colleges, X, Y and Z. Not less than two study
in any college. D studies Electrical engineering in College $X$. The one who studies Chemical Engineering does not study in college Z. F studies Aeronautical Engineering in college $Y$ with only $B$. A does not study in college $X$ and does not study Civil Engineering. E studies Computer Engineering and does not study in college $X$. G studies Electronics Engineering but not in college X. None in college $X$ studies Mechanical or Civil Engineering.

## Questions:

1. Which of the following groups represents the persons studying in college Z?
1) $\mathrm{D}, \mathrm{B}$
2) $\mathrm{C}, \mathrm{E}, \mathrm{G}$
3) $A, G$
4) $G, E, A$
5) None of these
2. In which of the following colleges does C study?
1) $X$
2) $Y$
3) $Z$
4) Either $X$ or $Z$
5) Cannot be determined
3. Which of the following combinations is correct?
1) A-Civil-Z
2) B-Chemical-Y
3) C -Chemical-Z
4) G-Electronics -Y 5) None of these
4. B studies which of the following branches of engineering?
1) Chemical
2) Mechanical
3) Civil
4) Cannot be determined
5) None of these
5. Who studies Chemical engineering?
1) $B$
2) C
3) E
4) A
5) None of these

- 

Directions: Study the following information carefully and answer
questions given below:
$A, B, C, D, E, F, G$ and $H$ are sitting around a circle facing the centre. B is second to the right of H and third to the left of $A$. D is not an immediate neighbour of either B or H and is second to the right of F . C is fourth to the right of $G$.

## Guestions:

1. Who is to the immediate right of B ?
1) C
2) E
3) H
4) Data inadequate 5) None of these
2. Who is third to the right of $E$ ?
1) $C$
2) F
3) $D$
4) Data inadequate 5) None of these
3. In which of the following pairs is the second person sitting to the immediate left of the first person?
1) BC
2) HE
3) FA
4) GD
5) None of these
4. Who is fourth to the right of H ?
1) $B$
2) $A$
3) F
4) Data inadequate
5) None of these
5. If E and F interchange their places, who will be second to the right of B ?
1) F
2) C
3) D
4) Data inadequate
5) None of these
[United Bank of India PO Exam-2009]

## 294 / Magical Book on Puzzle

## Puzzle 31

Directions: Study the following information carefully and answer the questions given below:

P, Q, R, S, T, V and W are seven students of a college. Each of them has a favourite subject from Physics, Chemistry, English, Biology, History, Geography and Philosophy, not necessarily in the same order. Each of them also has a favourite sport from Football, Cricket, Hockey, Volleyball, Badminton, Table Tennis and Basketball, not necessarily in the same order.

R likes Philosophy and his favourite sport is Hockey. The one who likes Football likes English. T's favourite sport is not Badminton or Table Tennis. V does not like either History or Biology. The one whose favourite sport is Basketball does not like Physics. W likes Chemistry and his favourite sport is Volleyball. S likes Geography. Q's favourite sport is Badminton. V does not like English and his favourite sport is not Basketball. P's favourite sport is Cricket. The one whose favourite sport is Badminton does not like Biology.

## Questions:

1. Which subject does P like?
1) History
2) Biology
3) Chemistry
4) Data inadequate
5) None of these
2. Who likes History?
1) $P$
2) $R$
3) Data inadequate
3. What is Q's favourite sport?
1) Cricket
2) Table Tennis
3) Football
4) Badminton
5) None of these
4. 

Whose favourite sport is

1) $S$
2) Data inadequate
3) W
4) None of these

5) Biology
6) Physics
7) None of these
8) Chemistry
9) Data inadequate
[United Bank of India PO Exam-2009]

## Puzzle 32

Directions: Study the following information carefully and answer the questions given below:
$P, Q, R, S, T$ and $M$ are six students of a school, one each studies in Class I-VI. Each of them has a favourite colour from red, black, blue, yellow, pink and green, not necessarily in the same order.

Q likes black and does not study in Class IV or V. The one who studies in Class IV does not like green. P studies in Class II. M likes blue and does not study in Class IV. The one who likes yellow studies in Class VI. S likes pink and studies in Class I. R does not study in Class VI.

## Guestions:

1. In which class does R study?
1) $V$
2) III
3) IV
4) Data inadequate
5) None of these
2. Which colour does R like?
1) Black
2) Yellow
3) None of these
4) Green
3. Which colour does P like?
1) Green
2) Yellow
3) None of these
4) Red
4. Which of the following combinations is correct ?
1) P - II - Yellow
2) Q - III - Green
3) S - I - Black
4) T - V - Yellow
5) None of these
5. In which class does M study?
1) IV
2) III
3) II
4) V
5) None of these
[Andhra Bank PO Exam-2009]

## Puzzle 33

Directions: Study the following information carefully and answer the questions given below:
$\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}, \mathrm{E}, \mathrm{F}, \mathrm{G}$ and H are sitting around a circle facing the centre. H is fourth to the left of $B$ and second to the right of $F$. A is third to the left of $C$, who is not an immediate neighbour of $F$. G is second to the left of A. D is second to the right of $E$.

## Questions:

1. Who is on the immediate right of F ?
1) H
2) A
3) $G$
4) Data inadequate
5) None of these
2. Who is third to the left of $A$ ?
1) C
2) F
3) B
4) Data inadequate
5) None of these
3. In which of the following pairs is the first person sitting on the immediate left of the second person?

4. Who is on the immediate right of H ?
1) $E$
2) C
3) H
4) Data inadequate
5) None of these
6. Who is on the immediate right of $B$ ?
1) $D$
2) E
3) F
4) Data inadequate
5) None of these
[Andhra Bank Marketing Associate Exam-2009]

## Puzzle 34

Directions: Study the following information carefully and answer the questions given below:
$A, B, C, D, E, F, G$ and $H$ are sitting around a circle facing the centre. $B$ is third to the right of $F$ and third to the left of $H$. C is fourth to the left of $A$, who is not an immediate neighbour of F or B . E is not an immediate neighbour of $B$. $G$ is second to the right of $D$.

## Questions:

1. Who is to the immediate left of B ?
1) $D$
2) $G$
3) None of these
2. Who is to the immediate right of H ?
1) $A$
2) E
3) Data inadequate
4) None of these
3. Which of the following pairs represents the immediate neighbours of $F$ ?
1) CH
2) ED
3) HD

## 296 / Magical Book on Puzzle

4) CE
5) None of these
4. In which of the following pairs is the first person sitting to the immediate right of the second person?
1) BG
2) GA
3) AH
4) HE
5) CF
5. Who is third to the left of E?
1) A
2) C
3) G
4) Data inadequate
5) None of these
[Bank of Maharashtra (Agriculture Officer) Exam-2009]

## Puzzle 35

Directions: Study the following information carefully and answer the questions given below:

P, $\mathrm{Q}, \mathrm{R}, \mathrm{S}, \mathrm{T}, \mathrm{V}$ and W are seven students of a school. Each of them studies in a different standard-from Standard IV to Standard X—not necessarily in the same order. Each of them has a favourite subject from English, Science, History, Geography, Mathematics, Hindi and Sanskrit, not necessarily in the same order.

Q studies in VII Standard and does not like either Mathematics or Geography. R likes English and does not study either in V or in IX. T studies in VIII Standard and likes Hindi. The one who likes Science studies in X Standard. S studies in IV Standard. W likes Sanskrit. P does not study in X Standard. The one who likes Geography studies in V Standard.

## Guestions:

1. In which standard does W study?
2. Which subject does P like?

| 1) Geography | 2) Mathematics |
| :--- | :--- |
| 4) History | 5) None of these |


3. Which subject does S like?

1) History
2) Geography
3) Mathematics
4) Data inadequate
5) None of these
4. In which standard does P study?
1) IV
2) VII
3) IX
4) $X$
5) None of these
5. Which of the following combinations of student-standard-subject is correct?
1) T - VIII - Mathematics
2) W - VII - Sanskrit
3) Q - VII - Geography 4) V - X - Science
4) None of these
[RBI Grade 'B' Officer's Exam-2009]

## Puzzle 36

Directions: Study the following information carefully and answer the questions given below:
(i) A, B, C, D, E, F, G and H are eight students, each having a different height,
(ii) D is shorter than A but taller than G.
(iii) E is taller than H but shorter than C .
(iv) B is shorter than D but taller than F.
(v) C is shorter than G .
(vi) G is not as tall as F.

Guestions:

1. Which of the following is definitely false?
1) $G$ is shorter than $F$. 2) $C$ is shorter than $F$. 3) $F$ is taller than $C$.
2) $B$ is taller than $E$. 5) All are true
2. If another student $J$, who is taller than $E$ but shorter than $G$, is added to the group, which of the following will be definitely true?
1) $C$ and $J$ are of the same height. $\quad$ 2) $J$ is shorter than $D$.
2) $J$ is shorter than H. 4) $J$ is taller than A.
3) None of these
3. Which of the following will definitely be the third from top when the eight students are arranged in descending order of height?
1) $B$
2) $F$
3) G
4) $B$ or $G$
5) Cannot be determined
4. How many of them are definitely shorter than $F$ ?
1) Three
2) Four
3) Five
4) Data inadequate 5) None of these
5. Which of the following is redundant to answer all the above questions?
1) (ii) only
2) (ii) and (iii) only3) (iii) and (iv) only
3) (ii) and (v) only 5) All are necessary to answer the above questions.
[RBI Grade 'B' Officers' Exam-2009]

## Puzzle 37

Directions: Study the following information carefully and answer the questions given below:
$\mathrm{A}, \mathrm{M}, \mathrm{D}, \mathrm{P}, \mathrm{R}, \mathrm{T}, \mathrm{B}$ and H are sitting around a circle, facing the centre. M is third to the left of $A$, who is second to the left of $T$. $D$ is second to the right of $H$, who is second to the right of $T$. $R$ is second to the right of $B$, who is not an immediate neighbour of T .
Questions:

1. Which of the following combinations represents the first and the second
to the left of B respectively?
1) MD
2) DH
3) AM
4) AR 5) DM
2. Who is third to the right of $T$ ?
1) $D$
2) $B$
3) H
4) M 5) None of these
3. Who is to the immediate left of H ?
1) $P$
2) $M$
3) $T$
4) $R$ 5) Data inadequate
4. Who is second to the left of $B$ ?
1) $D$
2) H
3) M
4) Data inadequate
5) None of these
5. In which of the following combinations the third person is second to the left of the second person?
1) BAR
2) DBM
3) TPH
4) PMH
5) None of these
[Corporation Bank PO Exam-2009]

## Puzzle 38

Directions: Study the following information carefully and answer the questions given below:

A group of seven friends, A, B, C, D, E, F and G work as Economist,

## 298 / Magical Book on Puzzle

Agriculture Officer, IT Officer, Terminal Operator, Clerk, Forex Officer and Research Analyst, for Banks L, M, N, P, Q, R and S, but not necessarily in the same order. C works for Bank N and is neither a Research Analyst nor a Clerk. E is an IT Officer and works for Bank R. A works as a Forex Officer and does not work for Bank L or Q. The one who is an Agriculture Officer works for Bank M. The one who works for Bank $L$ works as a Terminal Operator. $F$ works for Bank Q. G works for Bank P as a Research Analyst. D is not an Agriculture Officer.

## Questions:

1. Who amongst the following works as an Agriculture Officer?
1) C
2) $B$
3) F
4) $D$ 5) None of these
2. For which bank does D work?
1) Q
2) L
3) None of these
3. What is the profession of C ?
1) Terminal Operator
2) Agriculture Officer
3) Economist
4) Cannot be determined
5) None of these
4. Who amongst the following works as a Clerk?
1) C
2) $B$
3) F
4) D
5) None of these
5. Which of the following combinations of person, profession and bank is correct?
1) A - Forex Officer - M 2) D - Clerk - L

2) None of these
7. For which bank does B work?
1) M
2) S
3) L
4) Either $M$ or $S$
5) None of these
[Oriental Bank of Commerce PO Exam-2009]

## Puzzle 39

Directions: Study the following information carefully and answer the questions given below:
$\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}, \mathrm{E}, \mathrm{F}, \mathrm{G}, \mathrm{H}$ and K are sitting around a circle facing the centre B is fourth to the left of $G$, who is second to the right of $C$. $F$ is fourth to the right of C and is second to the left of K . A is fourth to the right of K . D is not an immediate neighbour of either $K$ or $B$. $H$ is third to the right of $E$.
Questions:

1. In which of the following combinations is the third person sitting between the first and the second persons?
1) EKB
2) CHB
3) FGD
4) None of these
2. Who is fourth to the left of E ?
1) $A$
2) C
3) $G$
4) Data inadequate 5) None of these
3. Who is second to the right of K ?
1) $C$
2) H
3) F
4) E
5) Data inadequate
4. Who is third to the right of H ?
1) $A$
2) D
3) F
4) None of these
5) $G$
5. Who is fourth to the right of D ?
1) $K$
2) H
3) None of these
4) E
[Indian Bank PO Exam-2010]

## Puzzle 40

Directions: Study the following information carefully and answer the questions given below:
$\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}, \mathrm{E}, \mathrm{F}, \mathrm{G}$ and H are sitting around a circular table, facing the centre. A sits third to the left of C and second to the right of E. B sits second to the right of D , who is not an immediate neighbour of $\mathrm{E} . \mathrm{H}$ sits second to the left of $F$. G is not an immediate neighbour of D.

## Guestions:

1. Which of the following pairs has only one person sitting between them, if the counting is done in clockwise direction?
1) F, G
2) $\mathrm{H}, \mathrm{G}$
3) $\mathrm{H}, \mathrm{B}$
4) None of these
2. Who sits third to the right of E ?
1) $D$
2) $G$
3) None of these
3. What is the position of $G$ with respect to A's position?

4. Starting from A's position, if all the eight are arranged in alphabetical order in clockwise direction, the seating position of how many members (excluding A) would-remain unchanged?
1) None
2) One
3) Three
4) Four
5) Two
[IDBI PO Exam-2009]

## Puzzle 41

Directions: Study the following information carefully and answer the questions given below:
$\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}, \mathrm{E}, \mathrm{F}, \mathrm{G}, \mathrm{H}$ and K are sitting around a circle facing the centre. $F$ is fourth to the right of $A$, who is third to the right of $B$. $K$ is fourth to the left of B and third to the right of D. C is third to the right of $\mathrm{H} . \mathrm{E}$ is second to the left of G.
Guestions:

1. Who is fourth to the left of G?
1) C
2) $A$
3) Data inadequate
2. What is E's position with respect to B?
1) Second to the left
2) Third to the right
3) Fourth to the right
4) Third to the left
5) Fifth to the right
3. Who is third to the right of K ?
1) $F$
2) E
3) G
4) Data inadequate
5) None of these
4. Who is on the immediate right of F ?
1) $B$
2) $G$
3) E
4) Data inadequate
5) None of these
5. In which of the following combinations is the third person sitting between the first and the second person?
1) GFB
2) BGH
3) KEC
4) EGF
5) ADC
[SBI PO Exam-2010]

## Puzzle 42

Directions: Study the following information carefully and answer the questions given below:

A, B, C, D, E, F, G and H are eight employees of an organization working in three departments, viz Personnel, Administration and Marketing with not more than three of them in any department. Each of them has a different choice of sports from football, cricket, volleyball, badminton, lawn tennis, basketball, hockey and table tennis, not necessarily in the same order.

D works in Administration and does not like either football or cricket. F works in Personnel with only A, who likes table tennis. E and H do not work in the same department as D. C likes hockey and does not work in Marketing. G does not work in Administration and does not like either cricket or badminton. One of those who work in Administration likes football. The one who likes volleyball works in Personnel. None of those who work in Administration likes either badminton or lawn tennis. H does not like cricket.

2. In which department does E work?

1) Personnel
2) Marketing
3) Administration
4) Data inadequate 5) None of these
3. Which of the following combinations of employee-department-favourite sport is correct?
1) E - Administration - Cricket
2) F - Personnel - Lawn Tennis
3) H - Marketing - Lawn Tennis
4) B - Administration - Table Tennis
5) None of these
4. What is E's favourite sport?
1) Cricket
2) Badminton
3) Basketball
4) Lawn Tennis 5) None of these
5. What is G's favourite sport?
1) Cricket
2) Badminton
3) Lawn Tennis
4) None of these
5) Basketball
[SBI PO Exam-2010]

## Puzzle 43

Directions: Study the following information carefully and answer the questions given below:
$\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}, \mathrm{E}, \mathrm{F}, \mathrm{G}$ and H are sitting around a circle facing the centre. B is second to the right of D , who is third to the right of F . C is second to the left
of A , who is second to the left of $\mathrm{F} . \mathrm{G}$ is third to the right of E .

## Questions:

1. In which of the following combinations is the first person sitting between the second and the third persons?
1) GCD
2) FGH
3) EFH
4) ABE 5) None of these
2. Who is third to the right of H ?
1) $G$
2) $D$
3) C
4) Data inadequate 5) None of these
3. Who is on the immediate right of A?
1) $B$
2) E
3) Data inadequate 5) None of these
4) $F$
4. What is H's position with respect to B?
1) Fifth to the right 2) Third to the left
2) Fifth to the left
3) Third to the right 5) Fourth to the left
5. Who is on the immediate left of G?
1) H
2) $F$
3) $D$
4) Data inadequate
5) None of these
[Allahabad Bank PO Exam-2010]

## Puzzle 44

Directions: Study the following information carefully and answer the questions given below:
$P, Q, R, S, T, V, W$ and $Z$ are sitting round a circle facing the centre. $T$ is second to the right of $R$, who is third to the right of $P$. $S$ is second to the left of $P$ and fourth to the right of $Q . Z$ is third to the right of $V$, who is not an immediate neighbour of P . Questions:
1 . In which of the following combinations is the first person sitting between the second and the third persons?

1) VTS
2) $T Z S$
3) PWQ
4) VRT
5) GRV
2. Who is second to the right of $T$ ?
1) S
2) $Z$
3) None of these
3. What is P's position with respect to S?
1) Fourth to the left
2) Fourth to the right
3) Fifth to the left
4) Sixth to the left
5) Third to the right
4. Who is on the immediate left of $Z$ ?
1) $T$
2) $P$
3) S
4) V 5) None of these

Who is second to the right of W?

1) $R$
2) $Q$
3) $Z$
4) S
5) None of these
[Coporation Bank PO Exam-2010]

## Puzzle 45

Directions: Study the following information carefully and answer the questions given below:
$\mathrm{P}, \mathrm{Q}, \mathrm{R}, \mathrm{S}, \mathrm{T}, \mathrm{U}, \mathrm{V}$ and W are sitting around a circle facing the centre. T is second to the left of P and third to the right of $\mathrm{V} . \mathrm{S}$ is second to the right of W , who is on the immediate right of $T . \Omega$ is third to the right of U .

## 302 / Magical Book on Puzzle

## Questions:

1. In which of the following pairs is the third person sitting in between the first and the second persons?
1) USP
2) VRU
3) TQW
4) WPS
5) None of these
2. Who is on the immediate left of T ?
1) $Q$
2) W
3) $R$
4) Data inadequate
5) None of these
3. Who is second to the right of P ?
1) S
2) V
3) Date inadequate
4. What is R's position with respect to W?
1) Third to the left
2) Fourth to the left
3) Sixth to the right
4) Fifth to the left
5) None of these
5. Who is fourth to the left of R ?
1) U
2) $P$
3) S
4) W
5) None of these
[Punjab and Sind Bank PO Exam-2010]

## Puzzle 46

Directions: Study the following information carefully and answer the questions given below:

Five plays A, B, C, D and E were organised in a week from Monday to Saturday with one play each day and no play was organised on one of these days. Play $D$ was organised before Thursday but after Monday. Play E wás organised on Saturday. Play C was not organised on the first day. Play B was organised on the next day on which play C was organised. Play A was organised on Tuesday.

## Questions:

1. On which day was play $B$ organised?
1) Thursday
2) Friday
3) None of these
2. On which day was no play organised?
1) Monday
2) Wednesday
3) Data inadequate 5) None of these
3. Which play was organised on Wednesday?
1) $A$
2) C
3) $D$
4) Data inadequate
5) None of these
[Syndicate Bank PO Exam-2010]

## Puzzle 47

Directions: Study the following information carefully and answer the questions given below:
$\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}, \mathrm{E}, \mathrm{F}, \mathrm{G}$ and H are sitting around a circle facing the centre. F is second to the right of $A$ and third to the left of $C$. $B$ is second to the left of $C$ and fourth to the right of $\mathrm{H} . \mathrm{D}$ is second to the right of G

## Questions:

1. Who is to the immediate left of D ?
1) H
2) C
3) $G$
4) Data inadequate
5) None of these
2. Who is second to the right of $E$ ?
1) $B$
2) $G$
3) H
4) Data inadequate
5) None of these
3. Who is third to the left of B?
1) $E$
2) H
3) None of these
4. What is the position of G with respect to A?
1) Third to the left
2) Third to the right
3) Fifth to the left
4) Fourth to the right 5) Fifth to the right
5. In which of the following combinations is the third person sitting in between the first and the second persons?
1) BGC
2) EFB
3) DAH
4) AEF
5) GCD
[Syndicate Bank PO Exam-2010]

## Puzzle 48

Directions: Study the following information carefully and answer the questions given below:
(a) Six plays are to be organised from Monday to Sunday-one play each day with one day when there is no play. 'No play' day is not Monday or Sunday.
(b) The plays are held in sets of 3 plays each in such a way that 3 plays are held without any break, ie 3 plays are held in such a way that there is no 'No play' day between them but immediately before this set or immediately after this set it is 'No play' day.
(c) Play Z was held on 26th and play X was held on 31 st of the same month.
(d) Play B was not held immediately after play A (but was held after A, not necessarily immediately) and play $M$ was held immediately before 8 .
(e) All the six plays were held in the same month.

Guestions:

## ay?

1) $Z$
2) $M$
3) $Q$
4) Cannot be determined
5) None of these
2. Which day was play $Z$ organised?
1) Tuesday
2) Monday
3) Wednesday
4) Cannot be determined
5) None of these
3. Which date was a 'No play' day?
1) 26 th
2) 28 th
3) 29 th
4) Cannot be determined
5) None of these
4. Which of the following is true?
1) Play B is held immediately before play M.
2) Play $Z$ is held after play $B$.
3) There was a gap after 2 plays and then 4 plays were organised.
4) First play was organised on the 25 th.
5) Play B was held on Friday.
5. Which day was play $Q$ organised?
1) Friday
2) Wednesday
3) Saturday
4) None of these
5) Cannot be determined

## 304 / Magical Book on Puzzle

## Puzzle 49

Directions: Study the following information carefully and answer the questions given below:
(i) In a family of 6 persons, there are two couples.
(ii) The Lawyer is the head of the family and has only two sons - Mukesh and Rakesh-both Teachers.
(iii) Mrs. Reena and her mother-in-law both are Lawyers.
(iv) Mukesh's wife is a Doctor and they have a son, Ajay.

## Questions:

1. Which of the following is definitely a couple?
1) Lawyer-Teacher
2) Doctor-Lawyer
3) Teacher-Teacher
4) Cannot be determined
5) None of these
2. What is the profession of Rakesh's wife ?
1) Teacher
2) Doctor
3) Lawyer
4) Cannot be determined
5) None of these
3. How many male members are there in the family?
1) Two
2) Three
3) Four
4) Cannot be determined
5) None of these
4. What is/was Ajay's Grandfather's occupation?
1) Teacher
2) Lawyer
3) Doctor
4) Cannot be determined

[Central Bank of India PO Exam-2010]

## Puzzle 50

Directions: Study the following information carefully and answer the questions given below:
(i) There are 8 friends $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}, \mathrm{E}, \mathrm{F}, \mathrm{G}, \mathrm{H}$ seated in a circle facing the centre.
(ii) AC, DG, HE and FB are seated adjacent to each other. A is also seated adjacent to H .
(iii) $B$ is 2 nd to the right of $H$.
(iv) E is 3rd to the right of C .

## Questions:

1. Who is 2 nd to the left of $A$ ?
1) $D$
2) $G$
3) $F$
4) Cannot be determined
5) None of these
2. Who is 3rd to the left of C ?
1) $G$
2) $D$
3) B
4) None of these
3. What is C's position with reference to E?
1) 5th to the righ
2) 4 th to the left
3) 4 th to the right
4) 3rd to the right 5) Cannot be determined
4. Who is 2nd to the right of $A$ ?
1) $B$
2) E
3) $F$ None of these
5. Who among the following pairs may not be seated adjacent to each other?
1) AH
2) DC
3) EB
4) Cannot be determined
5) None of these
[Central Bank of India PO Exam-2010]

## Puzzle 51

Directions: Study the following information carefully and answer the questions given below:

A, B, C, D, E, F, G and H are eight boys studying in VIII, IX and X standards of a school with not more than three in any standard. Each of them has a favourite sport from Football, Cricket, Volleyball, Basketball, Lawn Tennis, Table Tennis, Badminton and Hockey not necessarily in the same order.

D likes Badminton and does not study either in VIII or X. H's favourite sport is Hockey and he studies in standard X with only B among them. A likes Volleyball and does not study in the same standard in which E studies. F studies in VIII std. and his favourite sports is Football. G does not study in the same standard in which C studies. None of the students studying in IX std. likes Cricket or Basketball. B likes Table Tennis. G does not like Lawn Tennis.

## Questions:

1. What is C's favourite sport?
2. 


3. In which std. does $G$ study?

1) IX
2) VIII
3) Either IX or VII
4) Data inadequate
5) None of these
4. Which of the following combinations of students- standard-favourite sport is not correct?
1) G - VIII - Volleyball 2) F - VIII - Football 3) D - IX - Badminton
2) H-X-Hockey 5) All are correct
5. Which of the following combinations of sports represents the favourite sports of the students studying in VIII standard?
1) Football, Lawn Tennis, Cricket 2) Football, Cricket, Basketball
2) Football, Volleyball, Basketball 4) Data inadequate
3) None of these
[Punjab National Bank Specialist Officers Exam-2007]

## Puzzle 52

Directions: Study the following information carefully and answer the questions given below:

M, V, K, D, T, J and R are seven friends studying in different classesIllrd, IVth, Vth, Vlth, Vllth, VIIIth and IXth standards. Each of them has different favourite colours-yellow, blue, red, white, black, green and violet. J likes red and studies in class Vth. R likes violet and studies in Class Illrd. M studies in Class VIIIth and does not like green and yellow. K likes white and does not study in Vllth and in IVth. D studies in Vlth and likes black. T does not study in IVth. V does not like green.

## 306 / Magical Book on Puzzle

## Questions:

1. In which standard does ' V study?
1) IVth
2) IXth
3) Data inadequate 5) None of these
4) VIIIth
. What is M's favourite colour?
5) Red
6) Yellow
7) Blue 5) None of these
3. In which standard does K study?
1) IIIrd
2) Vth
3) VIIth 5) None of these
4. What is V's favourite colour?
1) Green
2) Red
3) Data inadequate 5) None of these
5. In which standard does T study?
1) IVth
2) VIIth
3) IXth
4) None of these
5) Green
6) IVth
7) Yellow
8) VIIIth
[Dena Bank (SO) Exam-2007]

## Puzzle 53

Directions: Study the following information carefully and answer the questions given below:

Seven Professors A, B, C, D, E, F and G are engaged in evaluation of answer papers in three different subjects English, Mathematics and History. At least two persons evaluate the papers in each subject. Each of the evaluators stay in different buildings $\mathrm{P}, \mathrm{Q}, \mathrm{R}, \mathrm{S}, \mathrm{T}, \mathrm{V}$ and W not necessarily in the same order. A evaluates English papers only with $E$ and stays in building R. D stays in building W and does not evaluate Maths papers. The one who stays in building $V$ evaluates History papers. $B$ and $C$ do not evaluate the papers in the same subject. Those who evaluate English papers do not stay in builđing Q. F stays in building P but does not evaluate History papers. G evaluates same papers as F. C stays in building $T$.

## Questions:

1. Who stays in building V?
1) $E$
2) F
3) $G$
4) B
5) None of these
2. Which of the following combinations of subject, person and buildings is definitely correct?
1) Maths F-Q
2) Maths G-Q
3) History D-T
4) History E-S
5) None of these
3. Which of the following groups of persons evaluate the Mathematics paper?
1) CF
2) EFG
3) CFG
4) FG
5) None of these
4. Papers in which subject are evaluated by D ?
1) History
2) Maths
3) English
4) English or Mathematics
5) History or Mathematics
5. E stays in which building?
1) P
2) $Q$
3) T
4) Cannot be determined
5) None of these

## Puzzle 54

Directions: Study the following information carefully and answer the questions given below:

Seven executives A, B, C, D, E, F and G from a company have to visit seven different places Ahmedabad, Kolkata, Delhi, Chennai, Hyderabad, Bangalore and Jaipur to market their newly launched product. The order of persons and cities may not be necessarily the same. Each one flies by a different airline Spicejet, Kingfisher, Sahara, Jet, Air Deccan, Indian Airlines, Air India, not necessary in the same order.

C goes to Kolkata but not by Sahara or Jet Airlines. D flies by Air India to Bangalore. The one who goes to Jaipur does not travel by Air Deccan or Sahara. E travels by Air Deccan. A does not go to Ahmedabad. F travels to Hyderabad by Spice jet. B goes to Chennai by Kingfisher. E does not go to Ahmedabad. G does not go to Jaipur.

## Questions:

1. Who travels by Sahara Airlines?
1) $A$
2) $C$
3) G
4) None of these
5) Cannot be determined
2. Who goes to Jaipur?
1) $A$
2) E
3) D
4) None of these
3. The one who travels by Air Deccan, visits which place?
1) Ahmedabad
2) Delhi
3) Bangalore
Puzzle 55
Directions: Stundhra Bank (SO) Exam-2007]
[Ane following information carefully and answer

## the questions given below:

Moon TV had decided to celebrate sports programmes week by telecasting programmes on Badminton, Cricket, Football, Hockey, Tennis and Volleyball (not necessarily in the same order) in a week starting from Wednesday.
(i) Sixth day of the programme was holiday.
(ii) Tennis was telecast immediately after Hockey and Football was telecast on fifth day of the programme.
(iii) Badminton was telecast on third day after Saturday and Hockey programme was telecast on fourth day before the holiday.
(iv) Volleyball was not telecast on first day.

## Questions:

1. On which of the following days Volleyball programme was telecast?
1) Second day
2) Seventh day
3) Fourth day
4) Data inadequate
5) None of these
2. Which of the following days would be holiday?
1) Sunday
2) Monday
3) Saturday
4) Tuesday
5) None of these
3. Which of the following pairs of programmes were respectively telecast before and after the holiday?
1) Badminton and Football
2) Badminton and Tennis
3) Football and Volleyball
4) Football and Badminton
5) None of these
4. Which of the following programmes was telecast on Wednesday?
1) Cricket
2) Tennis
3) Hockey

## 308 / Magical Book on Puzzle

## 4) Data inadequate 5) None of these

5. Which of the following days and programme combinations are definitely false?
1) Wednesday-Cricket
2) Tuesday-Badminton
3) Thursday-Hockey
4) Friday-Tennis
5) Sunday-Volleyball
[North Malabar Gramin Bank Officer's Exam-2008]

## Puzzle 56

Directions: Study the following information carefully and answer the questions given below:
(i) There is a group of five persons $\mathrm{M}, \mathrm{N}, \mathrm{O}, \mathrm{P}$ and Q of a family. They are businessman, farmer, lawyer, doctor and teacher.
(ii) N is an unmarried teacher, who is M's daughter.
(iii) $Q$ is a lawyer, who is O's brother.
(iv) O in this family is the only husband of a married couple.
(v) $M$ is a farmer, who is father of two sons and an unmarried daughter.
(vi) M's daughter-in-law is a doctor.

1. Who is doctor in this family?
1) N
2) $P$
3) O
4) Q
5) M
2. Who is businessman in this family?
1) M
2) $N$
3) O
4) $P$
5) $Q$
3. Which of the following is a group of women in this family?

4. Which of the following is a group of males?
1) $\mathrm{M}, \mathrm{N}$ and O
2) $M, Q$ and $P$
3) $\mathrm{M}, \mathrm{O}$ and Q
4) $\mathrm{M}, \mathrm{P}$ and Q
5) $N$ and $P$
[Union Bank of India PO Exam-2008]

## Puzzle 57

Directions: Study the following information carefully and answer the questions given below:
(i) A marketing-executive plans to visit each of six companies $\mathrm{J}, \mathrm{K}, \mathrm{L}, \mathrm{M}$, N and O exactly once during the course of one day.
(ii) He must visit $J$ before $K$ and $N$.
(iii) He must visit K before M .
(iv) The third company he visits must be L.

## Questions:

1. If the marketing-executive visits $O$ first, which company must he visit second?
1) J
2) K
3) L
4) M
5) N

Which of the following could visits the six companies?

1) J, O, L, K, N, M
2) $\mathrm{M}, \mathrm{K}, \mathrm{L}, \mathrm{N}, \mathrm{O}, \mathrm{J}$
3) $\mathrm{J}, \mathrm{N}, \mathrm{K}, \mathrm{M}, \mathrm{L}, \mathrm{O}$
4) L, O, J, N, M, K
5) L, N, J, K, M, O
[Union Bank of India PO Exam-2008]

## Puzzle 58

Directions: Study the following information carefully and answer the questions given below:
$a, b, c, d, e, f$ and $g$ are sitting around a circle facing at the centre. $d$ is third to the left of a who is second to the left of $f$. e is not a neighbour of either f or d. c is third to left of b.

## Questions:

1. What is e's position with respect to f?
1) Third to the right 2) Fourth to the left
2) Second to the left
3) Data inadequate 5) None of these
2. Who is sitting between $g$ and $b$ ?
1) f only
2) d only
3) Both f and d
4) Data inadequate 5) None of these
3. Who is to the immediate left of $d$ ?
1) $c$
2) $g$
3) f
4) Data inadequate 5) None of these
4. Which of the following information represents the first person sitting to the immediate right of the second person?
1) $a b$
2) fg
3) ce
4) ae
5) None of these
5. Who is second to the right of d?
1) a
2) f
3) $e$
4) Data inadequate
5) None of these
[Indian Bank Computer Officer's Exam-2008]
 different day of the week from Monday to Sunday. The order of persons, companies and days of the week are not necessarily the same.
$J$ organises workshop in Company $D$ on Wednesday. 3 does not conduct workshop for companies $A$ or $C$ and conducts on the next day of $L$ who conducts the workshop for Company F. T conducts workshop for Company E on Friday. K conducts workshop on Monday but not for Company C or G. M conducts workshop for Company A but not on Tuesday.

## Questions:

1. Who conducts workshop on Saturday?
1) M
2) $Q$
3) L
4) $Q$ or $L$
5) None of these
2. On which day does Q conduct the workshop?
1) Sunday
2) Saturday
3) Tuesday
4) Cannot be determined
5) None of these
3. M conducts workshop on which day?
1) Saturday
2) Sunday
3) Tuesday
4) Thursday
5) None of these
4. Which of the following combinations of person-company and day is correct?
1) K-B-Wednesday
2) R-B-Monday
3) K-C-Monday
4) K-G-Sunday
5) None of these
5. Who conducts workshop for Company C and on which day?
1) R, Thursday
2) R, Tuesday
3) Q, Saturday

## 310 / Magical Book on Puzzle

## 4) Q, Sunday <br> 5) None of these <br> [Punjab National Bank Agriculture Officer's Exam-2008]

## Puzzle 60

Directions: Study the following information carefully and answer the questions given below:

P, Q, R, S, T, V and W are seven members of a club. Each of them has a favourite sport from-Chess, Table Tennis, Lawn Tennis, Volleyball, Badminton, Basketball and Carrom, not necessarily in the same order. Each of them also has a specific choice of colour from-Blue, Red, Green, Yellow, Grey, Black and White, not necessarily in the same order

R likes Green and his favourite sport is Badminton. V's choice of colour is neither Red nor Black. T's favourite sport is neither Table Tennis nor Basketball. The one who likes Blue does not like Carrom. The one who likes Volleyball does not like Yellow and Grey. Q's favourite sport is Lawn Tennis and he likes Black. S likes White. W likes Basketball. P likes Volleyball. T likes Blue. The one who likes Basketball does not like Grey.

## Questions:

1. What is V's choice of colour?
1) Black
2) Grey
3) Data inadequate 5) None of these
2. What is T's favourite sport?
1) Basketball
2) Volleyball
3) Data inadequate
4) None of these
5) Chess

5. What is W's choice of colour?
1) Green
2) White
3) Black
4) Data inadequate
5) None of these
6. Which of the following combinations of sport and colour is correct?
1) Table Tennis, Yellow
2) Volleyball, Red
3) Volleyball, Grey
4) Chess, Black
5) Carrom, Green
[IDBI Officers' Exam-2008]

## Puzzle 61

Directions: Study the following information carefully and answer the questions given below:
$\mathrm{J}, \mathrm{K}, \mathrm{H}, \mathrm{R}, \mathrm{F}, \mathrm{L}, \mathrm{N}$ and Q are sitting around a circular table facing the centre. $H$ is third to the left of $L$ and is to the immediate right of $K . R$ is third to the left of N but is not a neighbour of H or L . J is second to the right of Q .

## Questions:

1. Who is second to the left of N ?
1) Q
2) K
3) J
4) F or J
5) None of these
2. Which of the following groups of persons has the first person sitting between the next two?
1) LKN
2) QFL
3) JHR
4) JHF
5) None of these
3. Who is to the immediate left of R ?
1) $Q$
2) $K$
3) F
4) N
5) None of these
4. Which of the following is correct position of J with respect to K ?
1) Third to the left
2) Third to the right
3) Second to the left
4) Second to the right 5) Fourth to the right
5. Four of the following five are alike in a certain way on the basis of their seating positions and so form a group. Which is the one that does not belong to the group?
1) $R Q$
2) LK
3) HJ
4) JR
5) FN
[Allahabad Bank PO Exam-2008]

## Puzzle 62

Directions: Study the following information carefully and answer the questions given below:

Eight executives B, G, H, K, D, F, T and V are working in three departments Engineering, Systems and Marketing of the organization and are posted at different places viz. Chennai, Kozikode, Kolkata, Ranchi, Patna, Bhopal, Nagpur and Hyderabad not necessarily in the same order. At least two and not more than three executives work in any of the three departments.

G works in Engineering department at Chennai. H is posted in Ranchi but not in Systems department. No one from Marketing department is posted in Hyderabad. The only other person in same department as that of $G$ is posted in Kolkata. D is posted in Hyderabad and F in Kozikode. V is not posted in Kolkata and works in the same department as that of D. B and T both work in Marketing department. The one who works in Marketing is not posted in Bhopal. $T$ is not posted in Nagpur

## Questions:

1. T is posted at which place?
1) Nagpur
2) Patna
3) Bhopal
4) Cannot be determined
5) None of these
2. Who is posted in Kolkata?
1) $K$
2) $T$
3) V
4) K or T
5) None of these
3. Which department has only two Executives?
1) Systems
2) Marketing
3) Engineering
4) Marketing or Systems
5) Cannot be determined
4. Which of the following group of persons work in Mar-keting department?
1) KBT
2) BTF
3) BHD
4) BHT
5) None of these
5. Which of the following combinations of department, person and place is correct?
1) Marketing-B-Bhopal
2) Engineering-G-Kolkata
3) Systems-V-Chennai
4) None of these
5) Systems-T-Patna
[Allahabad Bank PO Exam-2008]

## 312 / Magical Book on Puzzle

## Puzzle 63

Directions: Study the following information carefully and answer the questions given below:
$\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}, \mathrm{E}, \mathrm{F}, \mathrm{G}$ and H are sitting around a circle, facing the centre. A sits fourth to the right of H while second to the left of F . C is not the neighbour of $F$ and $B$. D sits third to the right of $C$. H never sits next to G.

## Questions:

1. Who amongst the following sits between $B$ and $D$ ?
1) $G$
2) F
3) H
4) A
5) C
2. Which of the following pairs sit between H and G ?
1) BH
2) EF
3) CE
4) DB
5) None of these
3. Four of the following are alike in a certain way based on their positions in the seating arrangement and so form a group. Which is the one that does not belong to that group?
1) AE
2) HF
3) BD
4) GE
5) CH
4. Who is to immediate right of A ?
1) C
2) $D$
3) $G$
4) Data inadequate 5) None of these
5. Who sits second to the right of $B$ ?
1) $A$
2) C
3) E
4) None of these

5) Only II
6) Only II and III
7) Data inadequate
8) Both III and IV
9) Only I and IV
[Andhra Bank PO Exam-2008]

## Puzzle 64

Directions: Study the following information carefully and answer the questions given below:

There are five men, Anuj, Kunal, Sourav, Rahul and Harish. The one who is tallest is not the youngest. Kunal is older than only Harish. Sourav is older than Rahul but shorter than him. Only one person is taller than Rahul. Anuj is shortest while younger than only Sourav and Rahul. Only two men are shorter than Sourav.

## Questions:

1. Which of the following men is third tallest of the five?
1) Sourav
2) Rahul
3) Harish
4) Kunal 5) Kunal or Rahul
2. Who among the following men is tallest?
1) Sourav
2) Rahul
3) Kunal
4) Harish
5) Sourav or Harish
3. If the five men are made to stand in a line according to their height, first in ascending order, then in descending order, then whose position will remain the same in both the arrangements?
1) Harish
2) Rahul
3) Kunal
4) Sourav
5) Rahul and Anuj
4. Who among the following is older than Kunal but younger than Rahul?
1) Harish
2) Sourav
3) Anuj
4) Data inadequate 5) Sourav or Anuj
5. Who among the following is taller than Anuj only?
1) Sourav
2) Harish
3) Rahul
4) Kunal
5) Kunal or Harish
[Andhra Bank PO Exam-2008]

## Puzzle 65

Directions: Study the following information carefully and answer the questions given below:
$A, B, C, D, E, F, G$ and $H$ are sitting around a circle, facing the centre. E and $G$ always sit next to each other. D sits third to the right of C. F sits second to the left of $H$. C never sits next to A while $D$ never sits next to $G$. $H$ is not the neighbour of $D$ and $C$.

## Questions:

1. Who sits between A and D ?
1) $B$
2) F
3) $C$
4) E 5) None of these
2. Who sits second to the left of $B$ ?
1) $F$
2) $G$
3) None of these
4) $A$
5) E
right of F ?
6) $D$
7) C
8) B
4. Which of the following pairs sits between $B$ and $F$ ?

Which of the following pairs sits between B and F ?
$\begin{array}{ll}\text { 1) } \mathrm{HB} & \text { 2) } \mathrm{FD} \\ \text { 4) } \mathrm{GC} & \text { 5) } \mathrm{AH} \\ \text { Four of the following are alike in a certain way based on their positions in }\end{array}$
5. Four of the following are alike in a certain way based on their positions in
the seating arrangement and so form a group. Which is the one that does not belong to that group?

1) CH
2) BA
3) FE
4) DG
5) AC
[Dena Bank Agriculture Officers Exam-2008]

## Puzzle 66

Directions: Study the following information carefully and answer the questions given below:

Seven members A, B, C, D, E, F and G represent seven different states Madhya Pradesh, Uttar Pradesh, Bihar, Kerala, Tamil Nadu, Orissa and Maharashtra in seven different games Hockey, Chess, Cricket, Badminton, Table-Tennis, Golf and Billiards. The order of persons, states and games is not necessarily the same.

D represents Kerala in Chess. E represents Golf team but not from Maharashtra or Uttar Pradesh, A represents Madhya Pradesh for Badminton. C represents Orissa but not for Cricket or Table-Tennis. The one who represents Bihar, represents "Table-Tennis. The one who represents Hockey represents Uttar Pradesh. F represents Maharashtra for Cricket. G does not represent Bihar.

## Questions:

1. Who represents Uttar Pradesh?
1) $G$
2) F
3) B
4) Cannot be determined

## 314 / Magical Book on Puzzle

## 5) None of these

2. Who represents Bihar?
1) $G$
2) $E$
3) $B$
4) B or E
5) None of these
3. Who represents Billiards team?
1) $G$
2) $F$
3) C
4) B 5) None of these
4. E represents which state?
1) Bihar
2) Kerala
3) Tamil Nadu
4) None of these
5) Uttar Pradesh
5. Which of the following combinations of game and state is correct?
1) Orissa-Chess
2) Orissa-Billiards
3) Tamil Nadu-Cricket
4) Maharashtra-Chess 5) None of these
[Dena Bank Agriculture Officers Exam-2008]

## Puzzle 67

Directions: Study the following information carefully and answer the questions given below:
$\mathrm{B}, \mathrm{D}, \mathrm{F}, \mathrm{H}, \mathrm{K}, \mathrm{W}, \mathrm{M}$ and T are sitting around a circle facing at the centre. F is third to the left of D who is second to the left of H. B is fourth to the right of H. K is third to the right of $M$ who is not an immediate neighbour of $F$. T is not an immediate neighbour of B or D .

## Guestions:

1. Who is to the immediate right of T ?
1) K
2) F
3) Dàta inadequate
2. Who is second to the
1) $T$
2) Data inadequate

3) $T$
4) $F$
5) M
6) W
7) Data inadequate
4. Who is third to the left of H ?
1) W
2) F
3) None of these
5. What is Ts position with respect toW?
1) Third to the right
2) Third to the left
3) Second to the left
4) Second to the right 5) None of these
[Andhra Bank IT Officers' Exam-2008]

## Puzzle 68

Directions: Study the following information carefully and answer the questions given below:

A, B, C, D, E, F and G are seven boys. Each of them studies a different subject as Economics, Bio-Chemistry, Biology, Physics, English, German and Psychology. Each of them likes a different game as Football, Cricket, Badminton, Table-Tennis, Carrom, Volleyball and Hockey. The order of boys, subject and games is not necessarily the same.

B studies Biology and likes cricket. D likes football but not studies Biochemistry or English and G likes Table-Tennis but not studies Physics. F studies Economics but not likes Carrom. A studies Psychology likes Hockey. One who studies Physics likes Badminton. C plays Carrom but not studies

Bio-chemistry.

## Guestions:

1. F likes which game?
1) Volleyball
2) Badminton
3) Table-Tennis
4) Cannot be determined
5) None of these
2. Who studies English?
1) E
2) $D$
3) C
4) $G$
5) None of these
3. Which one of the following statements is certainly true?
1) One who likes football studies English
2) One who likes Volleyball studies Bio-chemistry
3) One who likes Carrom sudies Psychology
4) One who likes Hockey studies English
5) One who likes Carrom studies English
4. D studies which subject?
1) Economics
2) Physics
3) Biology
4) German
5) None of these
5. Who likes Badminton?
1) $D$
2) $E$
3) G
4) Cannot be determined
5) None of these

## [Andhra Bank IT Officers' Exam-2008]

## Puzzle 69

Directions: Study the following information carefally and answer the questions given below:

Ashwini, Priya, Sudha, Rani, Meeta, Geeta and Mukta are sitting around a circle facing the centre. Ashwini is third to the left of Mukta and to the immediate right of Rani. Priya is second to the left of Geeta, who is not an immediate neighbour of Meeta.

## Guestions:

1. Who is to the immediate right of Priya?
1) Meeta
2) Sudha
3) Mukta 4) Cannot be determined
4) None of these
2. Who is second to the left of Rani?
1) Ashwini
2) Meeta
3) Priya
4) Sudha
5) None of these
3. Which of the following pairs of persons has the first person sitting to the immediate left of the second person?
1) Rani-Meeta
2) Ashwini-Geeta
3) Geeta-Sudha
4) None of these
4. Which of the following groups has the first person sitting between the other two?
1) Meeta-Ashwini-Geeta
2) Sudha-Rani-Geeta
3) Mukta-Priya-Rani 4) Mukta-Priya-Sudha
4) None of these
5. Which of the following is the correct position of Rani with respect to Mukta?
I. Third to the right
II. Third to the left

## 316 / Magical Book on Puzzle

III. Fourth to the left
IV. Fourth to the right

1) I only
2) II only
3) Both I and II
4) Both II and IV
5) Both I and III
[Bank of Baroda (SO) Exam-2008]

## Puzzle 70

Directions: Study the following information carefully and answer the questions given below:

A, B, C, D, E, F and G are members of a sports club and have liking for different games, viz Carrom, Table Tennis, Badminton, Bridge, Hockey, Football and Lawn Tennis but not necessarily in the same order. Each one of them has a liking for different musical instruments, viz Sitar, Guitar, Harmonium, Flute, Tabla, Banjo and Santoor, not necessarily in the same order.

B likes Carrom and Banjo. E likes to play Bridge but not Harmonium or Tabla. The one who plays Hockey plays Sitar. F plays Guitar but not Table Tennis or Lawn Tennis. A plays Badminton and Flute. The one who plays Lawn Tennis does not play Tabla. C plays Harmonium and G plays Hockey. 1. Who plays Santoor?

1) $D$
2) $A$
3) E
4) $D$ or $E$
5) None of these
2. D plays which game?
1) Table Tennis
2) Lawn Tennis
3) Football
4) Cannot be determined
5) None of these
3. Which of the following combinations of game-person-musical instrument is definitely correct?
1) Badminton-B - Flute
2) Table Tennis $-E-$ Santoo
3) Lawn Tennis - D - Tabla
4) Table Tennis - C - Tabla
5) None of these
4. Who plays Football?
1) C
2) $D$
3) None of these
5. Who plays Table Tennis?
1) C
2) $F$
3) D
4) Cannot be determined
5) None of these
[Bank of Baroda (SO) Exam-2008]

## Puzzle 71

Directions: Study the following information carefully and answer the questions given below:
$\mathrm{P}, \mathrm{Q}, \mathrm{R}, \mathrm{S}, \mathrm{T}, \mathrm{V}$ and W are sitting around a circle facing at the centre. R is third to the left of $V$ who is second to the left of $T$. W is second to the right of P who is not an immediate neighbour of $\mathrm{V} . \mathrm{S}$ is not an immediate neighbour of W.

## Guestions:

1. Who is second to the right of R ?
1) $T$
2) $W$
3) Q
4) Data inadequate 5) None of these
2. Who is third to the left of P?
1) $S$
2) W
3) $Q$
4) Data inadequate
5) None of these
3. Who is third to the right of Q ?
1) $T$
2) $P$
3) S
4) Data inadequate
5) None of these
4. In which of the following pairs is the first person sitting to the immediate right of the second person?
1) $P R$
2) PT
3) RW
4) QV
5) None of these
5. Which of the following pairs represents the immediate neighbours of $R$ ?
1) PT
2) PQ
3) WT
4) PW
5) Data inadequate
[Punjab National Bank Agriculture Officer's Exam-2009]

## Puzzle 72

Directions: Study the following information carefully and answer the questions given below:

Eight friends P, Q, R, S, T, V, X and Z are sitting around a circular table facing centre. $P$ sits third to the right of $X$ and second to the left of R. $S$ and T do not sit next to each other. $S$ sits second to the right of $Q$, who is not a neighbour of P . T sits second to the left of V .

## Questions:

1. Four of the following five are similar in a certain way based on their position in the seating arrangement. Which of the following does not

B. Fourth to the left
C. Second to the right
D. Fourth to the right
1) Only A
2) Both A and B
3) Both B and D
4) Only D
5) None of these
3. Who sits to the immediate left of R ?
1) V
2) $Z$
3) $T$
4) $P$
5) None of these
4. Which of the following sits between X and V ?
1) Q
2) $X$
3) $Z$
4) $R$
5) None of these
5. In which of the following pairs, second person is sitting to the left of the first person?
1) $X S$
2) PT
3) RV
4) QV
5) None of these
[Allahabad Bank Agriculture Officer's Exam-2009]

## Puzzle 73

Directions: Study the following information carefully and answer the questions given below:

Seven friends A, B, C, D, E, F and G work in four different departments ie, Marketing. Finance HR and IT. Not more than two work in the same department. Each of them works in different organisations which are P, Q, R, S, T, W and

## 318 / Magical Book on Puzzle

Z not necessarily in this order. A who does not work for organisation P works in Marketing Department like C. E works for organisation W and does not work in Finance Department. B works for organisation $T$ and works in the same Department as D. Only F works in HR Department. None in Marketing or IT department works for organisation $R$. C works for organisation $S$. The one who works for organisation $Z$ works for the Finance Department.

## Guestions:

1. Which of the following combinations is correct?
1) C-S-Finance
2) E-T-IT
3) A - R-Marketing
4) $\mathrm{F}-\mathrm{Q}-\mathrm{HR}$
5) None of these
2. Which of the following works in IT Department?
1) $G$
2) $D$
3) B
4) Data inadequate 5) None of these
3. Who works for organisation R ?
1) $A$
2) F
3) $G$
4) $Z$
5) None of these
4. Which of the following pairs works in Finance Department?
1) $A, B$
2) $\mathrm{E}, \mathrm{G}$
3) $\mathrm{F}, \mathrm{D}$
4) $\mathrm{D}, \mathrm{B}$
5) None of these
5. For which of the following organisations does D work ?
1) $P$
2) Q
3) $Z$
4) $R$
5) None of these
[Allahabad Bank Agriculture Officer's Exam-2009]

## Puzzle 74

## Directions: Study the following information carefully and answer

 the questions given below:$A, B, C, D, E, F, G$ and $H$ are sitting around a circle facing at the centre.
$G$ is fourth to the right of $A$ who is second to the right of $D$. $E$ is second to the right of $C$ who is not an immediate neighbour of $G$ or $D$. $B$ is second to the right of $F$.

## Questions:

1. In which of the following pairs is the first person sitting to the immediate right of the second person?
1) EG
2) GF
3) HE
4) BD
5) None of these
2. Who is third to the left of H ?
3) B
4) $A$
5) $D$
6) Data inadequate 5) None of these
3. Who is second to the right of H ?
1) E
2) $G$
3) F
4) Data inadequate
5) None of these
4. What is F's position with respect to C?
A. Fourth to the left
B. Fifth to the left
C. Fourth to the right
D. Third to the right
1) Only A
2) Only B
3) Only A and D
4) Only A and C
5. Who is to the immediate right of $G$ ?
1) $F$
2) $G$
3) $D$
4) Data inadequate
5) None of these
[United Commercial Bank PO Exam-2009]

## Puzzle 75

Directions: Study the following information carefully and answer the questions given below:
$\mathrm{B}, \mathrm{M}, \mathrm{K}, \mathrm{H}, \mathrm{T}, \mathrm{R}, \mathrm{D}, \mathrm{W}$ and A are sitting around a circle facing at the centre. $R$ is third to the right of $B$. $H$ is second to the right of $A$ who is second to the right of $\mathrm{R} . \mathrm{K}$ is third to the right of T , who is not an immediate neighbour of $H$. D is second to the left of $T . M$ is fourth to the right of $W$.

## Questions:

1. Who is to the immediate left of W?
1) $R$
2) T
3) B
4) Data inadequate
5) None of these
2. Who is third to the left of M?
1) $B$
2) W
3) K
4) T
5) None of these
6) K
7) $A$
8) $T$
9) Data inadequate
4. Who is to the immediate left of D ?
1) H
2) M
3) Data inadequate
4) None of these
5) B
5. In which of the following combinations is the third person sitting in between the first and the second persons ?


Directions: Study the following information carefully and answer the questions given below:
$\mathrm{P}, \mathrm{Q}, \mathrm{R}, \mathrm{S}, \mathrm{T}, \mathrm{V}, \mathrm{W}, \mathrm{Y}$ and Z are sitting around a circle facing the centre. $V$ is second to the left of $P$ who is third to the left of Y. $S$ is fourth to the left of $P$. T is third to the right of Q who is to the immediate right of V . W is fourth to the right of $Z$.

1. In which of the following combinations is the first person sitting in between the second and the third persons ?
1) RSZ
2) YTW
3) VZQ
4) PQV
2. Who is second to the right of $Z$ ?
1) Q
2) $P$
3) W
4) Data inadequate
5) None of these
3. In which of the following pairs is the first person sitting to the immediate right of the second person ?
1) VQ
2) ZV
3) SZ
4) $R S$
5) YT
4. Who is third to the left of S ?
1) $Y$
2) W
3) $T$
4) Data inadequate
5) None of these
5. Who is third to the right of W ?
1) S
2) $R$
3) V
4) $Z$
5) Data inadequate
[Bank of India Banking Officers' Exam-2010]

## 320 / Magical Book on Puzzle

## Puzzle 77

Directions: Study the following information carefully and answer the questions given below:
$\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}, \mathrm{E}, \mathrm{F}, \mathrm{G}$ and H are eight persons working in three different departments viz. Operations, Sales and Finance of an organisation with at least two and not more than three in any department. They are in three different scales viz. I, II and III with at least two in any one scale.

Both the employees in Operations department are in Scale II. D works in Sales department and belongs to Scale I. A works in Finance department and does not belong to Scale I. Two employees in Sales department belong to one scale. F works with only H in one of the departments. C works with E in one of the departments. B does not work with either $C$ or $A$ in the same department. G does not belong to Scale III. E does not belong to Scale I.

## Questions:

1. Which of the following combinations is correct?
1) Operation - F - I
2) Operation - H - III
3) Sales - B - II
4) Finance - E - III
5) All are correct
2. Which of the following groups of employees work in Sales department ?
1) DBE
2) DBC
3) Data inadequate
4) None of these
3. H belongs to which scale?
1) I
2) II
3) Data inadequate
4) None of these
5) DBG
4. G-belongs to which scale ?
$\begin{array}{ll}\text { 1) II } & \text { 2) III } \\ \text { 4) I or II } & \text { 5) None of these } \\ \text { C belongs to which scale ? } \\ \text { 1)I }\end{array}$
4) I or II
5) None of these
[Bank of India Banking Officers' Exam-2010]

## Puzzle 78

Directions: Study the following information carefully and answer the questions given below:
$\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}, \mathrm{E}, \mathrm{F}, \mathrm{G}$ and H are sitting around a circle facing at the centre. C is third to the left of A and second to the right of $\mathrm{E} . \mathrm{B}$ is second to the right of $C$. $D$ is second to the right of $F$ who is second to the right of $A$. $G$ is not an immediate neighbour of $C$.

## Questions:

1. Who is to the immediate right of C ?
1) H
2) $G$
3) Data inadequate 5) None of these
2. Who is to the immediate right of $H$ ?
1) $D$
2) $G$
3) Data inadequate
4) None of these
5) A
3. Who is the immediate left of $D$ ?
1) C
2) H
3) F
4) E 5) Data inadequate
4. Who is third to the right of H ?
1) E
2) $F$
3) Data inadequate
4) $D$
5. Who is second to the right of G ?
1) A
2) $D$
3) E
4) $B$
5) Data inadequate
6. In which of the following is the first person sitting in between the second and the third person ?
1) BHA
2) CHB
3) EDC
4) EFG
5) None of these
[Baroda Rajasthan Gramin Bank Officers Exam-2010]

## Puzzle 79

Directions: Study the following information carefully and answer the questions given below:

A, B, C, D, E, F, G, H and I are sitting around a circle facing the centre. D is fourth to the right of A and second to the left of G. C is second to right of G and third to the left of I. F is fourth to the right of H. B is not an immediate neighbour of G or A .

## Guestions:

1. Who is third to the left of A ?
1) $E$
2) $G$
3) $D$
4) $\mathrm{F} \quad$ 5) None of these
2. Who is fourth to the right of B ?
1) H
2) C
3) G 5) None of these
4) A
3. Who is to the immediate left of D ?
1) $B$
2) $F$
3) None of these
4. Who is second to the right of $F$ ?
1) $G$ Data inadequate
2) C
3) None of these
5. In which of the following combinations is the second and the third persons ?
1) FBD
2) CEG
3) HIB
4) GEF
[Sarva UP Gramin Bank Officers Exam-2010]

## Puzzle 80

Directions: Study the following information carefully and answer the questions given below:
$\mathrm{A}, \mathrm{B}, \mathrm{D}, \mathrm{E}, \mathrm{F}, \mathrm{G}$ and H are sitting around a circle facing the centre. D is fourth to the right of H and second to the left of B. F is fourth to the right of B. $G$ is fourth to the right of $E$ who is not an immediate neighbour of $B$ or $D$. $A$ is not an immediate neighbour of $D$.

## Guestions:

1. What is B's position with respect toG?
1) Third to the right
2) Third to the left
3) Fifth to the right
4) Fourth to the left 5) Fourth to the right
2. In which of the following combinations is the third person sitting in between the first and the second persons?
1) ABC
2) GCD
3) AHE
4) CBA
5) EFG
3. Who is third to the right of A ?
1) H
2) E
3) $F$
4) Data inadequate 5) None of these
4. Who is to the immediate left of D ?
1) $G$
2) C
3) F
4) Data inadequate 5) None of these
5. Who is fourth to the left of G?
1) $E$
2) $F$
3) H
4) Data inadequate
5) $A$
[Bank of Baroda PO Exam-2010]

## Puzzle 81

Directions: Study the following information carefully and answer the questions given below:

Four friends Amrita, Deepa, Smita and Rhea complete their PhD in different number of years. The one who took maximum time took eight years to complete her PhD while the one who took the least time took only three years to complete it. Rhea took more time only than Amrita and completed her PhD in five years. Smita did not take longer time than Deepa to complete her PhD.

## Questions:

1. How many years did Amrita take to complete her PhD?
1) 8
2) 3
3) 4
4) Either 6 or 7
5) Cannot be determined
2. How many years did Smita take to complete her PhD ?
1) 8
2) 3
3) 4
4) 7
5) Cannot be determined
3. Who amongst the following took the maximum number of years to complete PhD ?
1) Amrita
2) Rhea
3) Deepa
4. How many meaningful E using each letter only once in each word? 1) None 4) Three 2) One 5) More than three

5. If it is possible to make only one meaningful word with the second, fifth, eighth and the eleventh letters (when counted from left hand side) of the word DEVELOPMENT, which would be the second letter of the word from the left ? If more than one such word can be formed, give $X$ as the answer. If no such word can be formed, give $Z$ as your answer.
1) E
2) $L$
3) T
4) X
5) $Z$
[Punjab National Bank (SO) Exam-2010]

## Puzzle 82

Directions: Study the following information carefully and answer the questions given below:

Eight friends P, B, R, S, T, V, W and Z, out of whom one is a pilot, professor, businessman, doctor, lawyer, banker, cricketer or an architect (but not necessarily in the same order), are sitting around a circular table, facing the centre.
${ }_{1} \mathrm{~S}$ who is a banker sits third to right of Z .
1 The professor and the architect are immediate neighbours of each other. Neither the professor nor the architect is an immediate neighbour of either Z or S .
${ }_{1}$ Cricketer and the pilot are immediate neighbour of each other. Neither $Z$ nor $W$ is a pilot.
${ }_{1}$ The one who is a professor sits second to the right of $T$ who is a
lawyer. V who is a cricketer is not an immediate neighbour of the banker.
${ }_{1}$ Only R sits between the professor and the doctor. P sits third to the right of the pilot.

## Questions:

1. Which of the following pairs represents the immediate neighbours of the doctor ?
1) Professor-businessman
2) Pilot - professor
3) Cricketer - businessman
4) Lawyer - architect
5) None of these
2. What is the position of the businessman with respect to the pilot ?
1) Third to the left $\quad$ 2) Second to the left
2) Fourth to the right 5) Second to the right
3. Who sits third to the right of the professor ?
1) The banker
2) $Q$
3) The cricketer
4) The lawyer
5) None of these
4. Which of the following is true regarding R ?
1) He is a doctor
2) He is an immediate neighbour of the pilot
3) $R$ sits between $Q$ and $T$
4) He is an immediate neighbour of the professor
5) None is true
5. How many people sit between the 'banker' and ' W ' when counted in anticlockwise direction from the banker?

6. What is the profession of $Z$ ?
1) Businessman
2) Architect
3) Professor
4) Doctor
5) None of these
8. Who amongst the following sits exactly between T and Q ?
1) Cricketer
2) Architect
3) Professor
4) Doctor
5) Banker
[Punjab National Bank (SO) Exam-2010]

## Puzzle 83

Directions: Study the following information carefully and answer the questions given below:
$\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}, \mathrm{E}$ and F are seated in a circle facing the centre. A and C are seated adjacent to each other and E and B are also seated adjacent to each other. B is to the immediate left of F. There are two persons between D and E. A is not seated adjacent to E .

## Questions:

1. How many persons are seated between F and E if we go anticlockwise from F to E ?
1) 1
2) 2
3) 3
4) Cannot be determined
5) None of these
2. Who is to the immediate left of E ?
1) C
2) $B$
3) $F$
4) Cannot be determined

[Bank of India PO Exam-2010]

## Puzzle 84

Directions: Study the following information carefully and answer the questions given below:
$\mathrm{Q}, \mathrm{R}, \mathrm{S}, \mathrm{T}, \mathrm{U}$ and V are seated to a straight line facing North. S is second to the right of $T$ and $T$ is second to the right of $Q$. $R$ is to the left of $Q$ and is second to the left of $V$.

## Questions:

1. How many persons are seated between T and V ?
1) 1
2) 2
3) 3
4) 4
5) None of these
2. Four of the following five are alike in a certain way based on their seating position in the above arrangement and so form a group. Which is the one that does not belong to the group ?

3. Which of the following represents persons seated at the two extremes ?
1) RQ
2) US
3) None of these
5. If $\mathrm{S}: \mathrm{T}$ and $\mathrm{T}: \mathrm{Q}$, then $\mathrm{U}:$ ?
1) T
2) V
3) $Q$
4) S
5) $R$
[Bank of India PO Exam-2010]

## Puzzle 85

Directions: Study the following information carefully and answer the questions given below:
$\mathrm{V}, \mathrm{U}$ and T are seated in a circle facing the centre. $\mathrm{A}, \mathrm{B}$ and C are also seated in the same circle but two of them are not facing the centre (facing opposite direction of the centre). $V$ is second to the left of $\mathrm{C} . \mathrm{U}$ is second to the right of $\mathrm{A} . \mathrm{B}$ is third to the left of T . C is second to the right of T . A is seated next to V .

## Questions:

1. Which of the following are not facing the centre ?
1) BA
2) CA
3) BC
4) Cannot be determined
5) None of these
2. Which of the following is T's position with respect to $B$ ?
1) Third to the right
2) Second to the right
3) Third to the left
4) Third either to the right or to the left
5) None of these
3. Which of the following is V's position with respect to C ?
1) Second to the right
2) Third to the left
3) Fourth to the right
4) Fourth to the left
5) Cannot be determined
4. Which of the following is true regarding the seating arrangement?
1) A, B and C are seated adjacent
2) $V, U$ and $T$ are seated adjacent
3) There are two persons whose seating arrangement cannot be ascertained
4) Those not facing the centre are seated adjacent
5) There are only two persons seated between $V$ and $T$
5. Which of the following is A's position with respect to U?
1) Second to the left
2) Second to the right
3) Third to the right
4) Cannot be determined
5) None of these
[Bank of India PO Exam-2010]

## Puzzle 86

Directions: Study the following information carefully and answer the questions given below:

In a Group of 5 , each person has an exclusive and different preference (has/likes) for a pen, a watch and a car. Pen preferences are Parker, Lamy, Pointer, Lexi and Cello. Car preferences are Wagon R, Swift, Santro, Mica and City. Watch preferences are Timex, Titan, Fastrack, Samay and Citizen.

Suman has Mica and Parker but does not prefer among watches -Titan or Fastrack. The one who has Swift, likes Fastrack. Mrudula has preference for City, Cello and Citizen. Amit has preference for Lamy and Timex, Veena prefers Wagon $R$ and Lexi. Harsh's preference for a watch is not Titan.

## Questions:

1. Which watch is Suman's preference?
1) Titan
2) Fastrack
3) Samay
4) Cannot be determined
5) None of these
2. Which pen is Harsh's preference?
1) Lamy
2) Pointer
3) Lexi
4) Cannot be determined
5) None of these
3. Which watch is Harsh's preference?
1) Samay
2) Fastrack
3) Timex
4) Cannot be determined
5) None of these
4. Who's preference is Swift?
1) Harsh
2) Amit
3) Veena
4) Cannot be determined
5) None of these
5. Which watch is Veena's preference?
1) Sarnay
2) Fastrack
3) Titan
4) Cannot be determined
5) None of these

## Puzzle 87

Directions: Study the following information carefully and answer the questions given below:

In a seven-storey building, having floors numbered one to seven, P, Q, R, $\mathrm{S}, \mathrm{T}$ and V each live on a different floor. (The ground floor is numbered floor no. 1, the floor above it floor no. 2 and so on.) One of the floors in the building is vacant. P lives on the fifth floor. No floor below fifth floor is vacant; also no odd numbered floor is vacant. Only S lives between T and V . T does not live on an odd numbered floor. T does not live on a floor immediately above or immediately below R's floor. 8 does not live on the bottommost floor.

## Questions:

1. Who lives on the topmost floor ?
1) B
2) S
3) $R$
4) V 5) No one as it is vacant
2. On which of the following floors does R live ?
1) Seventh
2) Sixth
3) Second
4) First
3. Which of the following floors is vacant?
1) Seventh
2) Sixth
3) Third
4) Second
5) Fourth
[United Bank of India PO Exam-2010]

## Puzzle 88

Directions: Study the following information carefully and answer the questions given below:

In a sports event, different games are scheduled to be held on seven days, starting on Monday and ending on Sunday. Two games are scheduled to be held on Saturday as well as on Sunday and one game on each of the remaining five days. The games to be held in these seven days are: Basketball, football, boxing, sprinting, swimming, shooting, weightlifting, wrestling and cycling, but not necessarily in the same order.

Shooting is scheduled to be held on Thursday. Boxing and cycling are scheduled to be held on the same day. Wrestling is scheduled to be held three days before basketball, i.e. two sports are scheduled between wrestling and basketball. Wrestling is not scheduled to be held on Wednesday. Weightlifting is scheduled immediately after the day boxing is scheduled. Football is scheduled immediately after the day wrestling is scheduled. Swimming is not scheduled on Monday.

## Questions:

1. Which of the following games is scheduled to be held on Friday ?
1) Basketball
2) Wrestling
3) Swimming
4) Weightlifting
5) Sprinting
2. Which of the following games is scheduled to be held on Sunday?
1) Football
2) Wrestling
3) Basketball
4) Cycling
5) Swimming
3. On which of the following days is sprinting scheduled ?
1) Saturday
2) Friday
3) Wednesday
4) Monday
5) Cannot be determined
4. On which of the following days is weightlifting scheduled?
1) Monday
2) Tuesday
3) Wednesday
4) Friday
5) Sunday
5. Shooting is related to Basketball in the same way as Wrestling is related to
1) Sprinting
2) Football
3) Shooting
4) Weightlifting
5) Boxing
[United Bank of India PO Exam-2010]

## Puzzle 89

Directions: Study the following information carefully and answer the questions given below:
$\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}, \mathrm{E}, \mathrm{F}, \mathrm{G}$ and H are sitting around a square table in such a way that four of them sit at four corners of the square while four sit in the middle of each of the four sides. The ones who sit at the four corners face the centre while those who sit in the middle of the sides face outside.

Two females sit in the middle of the sides and two at the corners. A sits second to the left of G. G sits in the middle of one of the sides. C sits fourth to the right of his wife and his wife is not an immediate neighbour of A or G . B sits third to right of her husband. B does not sit at any of the corners. Only D sits between $B$ and $H . H$ is the husband of $A . E$ is a male.

## Questions:

1. Which of the following is true with respect to the given seating arrangement?
1) No two males are immediate neighbours of each other
2) $G$ and $H$ do not face each other in the seating arrangement
3) $E$ and $D$ are immediate neighbours of each other
4) $F$ is a male and sits diagonally opposite to $E$
5) A sits in the centre of one of the sides of the square table
2. Who amongst the following is B's husband?
$\begin{array}{ll}\text { 1) } \mathrm{C} & \text { 2) } \mathrm{G} \\ \text { 4) } \mathrm{F} & \text { 5) Cannot be determined }\end{array}$
How many people sit between B and C when count
square table direction from B ?
1) None
2) One
3) Two
4) Three
5) Four
4. Who amongst the following is the wife of $C$ ?
1) $D$
2) F
3) B
4) G
5) Cannot be determined
5. What is the position of E with respect to C ?
1) Immediately to the left
2) Second to the left
3) Third to the right
4) Immediately to the right
5) Second to the right
[United Bank of India PO Exam-2010]

## Puzzle 90

Directions: Study the following information carefully and answer the questions given below:
$\mathrm{P}, \mathrm{T}, \mathrm{Q}, \mathrm{U}, \mathrm{S}$ and R are standing in a straight line facing North. S is standing third from the left end of the line. $R$ is fourth to the right of $T$. Neither P nor $R$ is at the end of the line. Q is second to the left of P .

## Questions:

1. Who amongst the following is standing fourth from the left end of the line?
1) $Q$
2) $R$
3) $P$
4) $U$
5) None of these
2. If TQ : SP then, ? : RU
1) QS
2) TS
3) SP
4) QT
5) None of these
3. Who amongst the following are at the extreme ends of the line?
1) TU
2) $T R$
3) RU
4) TP
5) US

Directions ( $8.4-5$ ): Four of the following five are alike in a certain way based on their positions in the above arrangement and so form a group. Which of the following does not belong to the group ?
4. 1) SRP
2) GPS
4) TSQ
5) TSU
5. 1) UR
2) PS
3) PUR
3) QT
4) SR
5) RP

## Puzzle 91

Directions: Study the following information carefully and answer the questions given below:

Six friends Hetal, Jayshree, Rohini, Meena, Nidhi and Swati, stay in different areas of a city i.e., Dadar, Matunga, Mulund, Vikroli, Thane and Kanjurmarg not necessarily in the same order. All six have different hobbies which are singing, dancing, drawing, travelling, cooking and reading not necessarily in the same order.

Hetal stays in Vikroli and her hobby is neither dancing nor reading. The one whose hobby is travelling stays in Mulund. Jayshree's hobby is drawing and she does not stay in either Dadar or Matunga. Meena stays in Kanjurmarg and her hobby is cooking. Rohinilikes reading but she and Nidhi do not stay in Matunga.
Questions:

1. What is Swati's hobby?
1) Singing
2) Dancing
3) Travelling 5) None of these
2. Whose hobby is singing ?
1) Nidhi
2) Rohini
3) Hetal
4) None of these
3. Whose hobby is travelling ?
1) Hetal
2) Swati
3) Rohini
4) None of these
4. Where does Jayshree stay ?
1) Thane
2) Vikroli
3) Kanjurmarg
4) Mulund
5) None of these
6) Swati

Where does Rohini stay ?

1) Matunga
2) Mulund
3) Thane
4) Dadar
5) None of these
[IDBI Assistant Manager Exam-2010]

## Puzzle 92

Directions: Study the following information carefully and answer the questions given below:

Seven flights namely Jet Airways. British Airways, Delta, Guantas, Emirates, Lufthansa and Air India are scheduled to fly to London. There is only one flight to London on each of the seven days of the week, starting from Monday and ending on Sunday.

Delta flies on Wednesday. Air India flies the day next to British Airways.

British Airways does not fly on Monday or Friday. Two airlines fly between the days British Airways, and Emirates fly. Emirates does not fly on Sunday. Quantas flies a day before Lufthansa.

## Questions:

1. On which of the following days does Jet Airways fly?
1) Friday
2) Sunday
3) Tuesday
4) Thursday
5) None of these
2. How many flights fly between Lufthansa and Delta ?
1) None
2) One
3) Two
4) Three
5) Five
3. Which of the following flights flies on Friday ?
1) Air India
2) Quantas
3) Emirates
4) Lufthansa
5) Jet Airways
4. If Delta postpones its flight to Sunday owing to some technical reasons and all the flights scheduled for Thursday to Sunday are now made to take oil a day ahead of the schedule, which of the following flights would now fly on Friday?
1) Lufthansa
2) Jet Airways
3) British Airways
4) Air India
5) Quantas
5. If Emirates is related to British Airways and Delta is related to Quantas in a certain way based upon the given flight schedule, then Jet Airways will be related to which of the following based upon the same relationship'?
1) Lufthansa
2) Quantas
3) Delta
4) Air India
5) None of these
 centre. No two males or two females are immediate neighbours of each other.

A is wife of $H$. A sits third to the left of $E$. F sits second to the right of D. D is not an immediate neighbour of A or $\mathrm{E} . \mathrm{H}$ and C are immediate neighbours of each other. $F$ is not an immediate neighbour of his wife $B$.

## Questions:

1. Which of the following is true about G ?
1) $G$ is a male
2) $G$ sits exactly between $F$ and $H$
3) $G$ sits third to the left or $E$
4) G sits second to the right of $B$
5) None is true
2. Who sits third to the left of $B$ ?
1) F
2) H
3) $D$
4) A 5) None of these
3. How many people sit between $B$ and $F$ when counted in anti-clockwise direction from B ?
1) One
2) Two
3) Three
4) Four
5) More than four
4. Four of the following live are alike in a certain way and so form a group. Which is the one that does not belong to that group ?
1) H
2) $F$
3) E
4) $G$
5) $D$
5. Which of the following groups consists of only female members of the

## 330 / Magical Book on Puzzle

## group?

1) $A, B, H$
2) $\mathrm{G}, \mathrm{F}, \mathrm{C}$
3) $\mathrm{C}, \mathrm{H}, \mathrm{G}$
4) D, H, C
5) None of these
6. If all the persons are made to sit in alphabetical order in clockwise direction, starting from $A$, the positions of how many (excluding A) will remain unchanged as compared to their original seating positions?
1) None
2) One
3) Three
4) Four
5) Two
[Bank of Maharashtra PO Exam-2010]

## Puzzle 94

Directions: Study the following information carefully and answer the questions given below:
$\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}, \mathrm{E}, \mathrm{F}, \mathrm{G}$ and H are sitting around a circular table facing the centre. Each one of them has a different profession viz. doctor, engineer, architect, teacher, clerk, shopkeeper, businessman and banker.

A sits third to right of teacher. D sits second to left of G. G is not an immediate neighbour of the teacher. Only one person sits between B who is the shopkeeper and teacher. The one who is an architect sits third to right of the shopkeeper. H sits between architect and engineer. E is not an immediate neighbour of $H$. Engineer sits third to the right of clerk. Only one person sits between businessman and F. E is neither a businessman nor a doctor.

## Guestions:

1. Which of the following is true with respect to the given seating arrangement?
1) E is an immediate neighbour of the engineer
2) E is an architect
3) The clerk is an immediate neighbour of the banker
4) The teacher sits between $H$ and the engineer
5) Shopkeeper sits second to the right of the teacher
2. What is the profession of H ?
1) Businessman
2) Architect
3) Banker
4) Teacher
5) Shopkeeper
3. What is the position of doctor with respect to the banker?
1) Immediately to the left
2) Third to the left
3) Second to the right
4) Fourth to the left
5) Second to the left
4. Who sit/s exactly between the architect and the businessman?
1) C and H
2) Clerk
3) Banker and shopkeeper
4) Doctor
5) C and teacher
5. Who amongst the following is a clerk?
1) C
2) $D$
3) E
4) F
5) G
[UCO Bank PO Exam-2011]

## Puzzle 95

Directions: Study the following information carefully and answer the questions given below:

Twelve people are sitting in two parallel rows containing six people each, in such a way that there is an equal distance between adjacent persons. In
row-1 $\mathrm{P}, \mathrm{Q}, \mathrm{R}, \mathrm{S}, \mathrm{T}$ and V are seated and all of them are facing South. In row$2 \mathrm{~A}, \mathrm{~B}, \mathrm{C}, \mathrm{D}, \mathrm{E}$ and F are seated and all of them are facing North. Therefore, in the given seating arrangement each member seated in a row faces another member of the other row.
$P$ sits third to the left of T. Neither $P$ nor $T$ sits at an extreme end of the line. A sits second to the right of $E$. Neither A nor $E$ faces T or P. A does not sit at an extreme end. $R$ does not face $A$ and $R$ does not sit at an extreme end of the line. Only one person sits between $F$ and $C$. Neither $F$ nor $C$ faces T. C does not sit at the extreme end. Only one person sits between $V$ and $Q$. $F$ is not an immediate neighbour of B and A does not face V .

## Questions:

1. How many persons are seated between $B$ and $D$ ?
1) One
2) Two
3) Three
4) Four
5) None
2. $V$ is related to $B$ in the same way as $Q$ is related to $C$. To which of the following is P related to, following the same pattern?
1) F
2) $A$
3) $D$
4) E
5) None of these
3. Which of the following is true regarding V ?
1) $V$ faces $A$
2) $T$ is not an immediate neighbour of $V$.
3) $C$ faces the one who is second to left of $V$
4) $V$ sits at one of the extreme ends of the line
5) $R$ sits third to the right of $V$

[UCO Bank PO Exam-2011]

## Puzzle 96

Directions: Study the following information carefully and answer the questions given below:

Six chemicals $L, M, N, O, P$ and $Q$ are kept in bottles of different colours viz, green, red, blue, white, pink and violet, not necessarily in the same order. These bottles are arranged from left to right, again not necessarily in the same order.

Chemical M is kept in white bottle. Chemical L is not kept in green bottle and is kept to the immediate left of the violet bottle. Chemical O is kept in the blue bottle and is kept exactly between the bottles containing chemicals L and M. The red bottle is at the extreme left end. The bottles containing chemical $Q$ is not kept at either of the ends. The green bottle is kept at the extreme right end. Chemical P is not kept near the white bottle.

## Questions:

1. Four of the following five are alike in a certain way based on their positions in the above arrangement and so form a group. Which is the one that does not belong to the group?
1) LM
2) LP
3) QO
4) LQ
5) NO
2. Which bottle contains chemical L?
1) Pink 2) Blue

## 332 / Magical Book on Puzzle

3) Red
4) Cannot be determined
5) None of these
3. Which of the following combinations of chemical and bottle is correct ?
1) P - Red
2) N - Green
3) $P$ - Green
4) Q - Pink
5) None of these
4. Which bottle contains chemical?
1) Pink
2) Green
3) Violet
4) Cannot be determined
5) None of these
5. If all the six chemicals are arranged alphabetically from left to right, positions of how many will remain unchanged?
1) None
2) One
3) Two
4) Three
5) Four
6. Which bottle contains chemical N ?
1) Green
2) Red
3) Pink
4) Cannot be determined
5) None of these
7. Which chemical is kept in the bottle at the extreme right end ?
1) $P$
2) N
3) $L$
4) Cannot be determined
5) None of these
[UCO Bank PO Exam-2011]

## Puzzle 97

Directions: Study the following information carefully and answer the questions given below:

Six plays A, B, C, D, E and F are to be staged starting from Monday and ending on Sunday with one of the days being an off day, not necessarily in the same order, Each of the plays has different time duration: $\frac{1}{2}$ hour, 1 hour, $1 \frac{1}{2}$ hours, 2 hours, $2 \frac{1}{2}$ hours and 3 hours, again not necessarily in the same order.

Sunday is not an off day and a Play of $\frac{1}{2}$ hour duration is staged on that day. Play $A$ is staged immediately before Play E. There are two plays staged between Play $F$ which is for 3 hours and Play $C$ which is for $1 \frac{1}{2}$ hours. The off day is after the staging of Play E and there are two days between the off day and Play A. Play D which is for 2 hours is not staged on Monday. The play staged immediately before the off day is of 3 hours. Play A is for less than $2 \frac{1}{2}$ hours.

1. What is the time duration of Play B?
1) $2 \frac{1}{2}$ hours
2) 2 hours
3) 1 hour
4) Vi hour
5) None of these
2. Which day is the off day?
1) Tuesday
2) Monday
3) Friday
4) Saturday
5) Cannot be determined
3. Which of the following combinations of Play - Day - Time Duration is correct ?
1) E - Wednesday - 2 hours
2) A - Tuesday - 1 hour
3) C - Thursday - $1 \frac{1}{2}$ hours
4) F - Tuesday - 3 hours
5) None is correct
4. On which day is Play D staged?
1) Wednesday
2) Saturday
3) Tuesday
4) Friday
5) Cannot be determined
5. How many plays are staged before the off day?
1) Two
2) One
3) Five
4) Three
5) None of these

Directions (g. 6-7): Keeping all the other information the same, if $D$ is staged on Monday, then
6. A play of what time duration would be staged on Thursday?

1) 2 hours
2) $2 \frac{1}{2}$ hours
3) 1 hour
4) 3 hours
5) Cannot be determined
7. Which day would be the off day?
1) Tuesday
2) Monday
3) Friday
4) Saturday
5) Cannot be determined
[UCO Bank PO Exam-2011]
Puzzle 98
Directions: Study the following information carefully and answer
the questions given below:
Eight people $S, R, N, L, M . T, O$ and $P$ are sitting in a circle facing the centre. All eight belong to different professions - reporter, doctor, cricketer, teacher, accountant, shopkeeper, painter and supervisor. They are not necessarily seated in the mentioned order.

M is sitting third to the left of O . The doctor is to the immediate right of M and $M$ is not a reporter. $R$ is sitting fourth to the right of $P$. Neither $R$ nor $P$ is an immediate neighbour of M. T is a teacher and is sitting third to the right of the doctor. The shopkeeper is sitting second to the left of the teacher. The painter is sitting second to the left of M. S the cricketer is sitting exactly between T and P . The accountant is sitting second to the right of the cricketer. N is sitting third to the left of T .

## Questions:

1. Who amongst the following is a reporter ?
1) O
2) L
3) None of these
2. What is S 's position with respect to R ?
1) Third to the right 2) Second to the right 3) Third to the left
2) Second to the left 5) Fourth to the right
3. How many people are sitting between $P$ and $N$ when counted in an anticlockwise direction from N ?
1) One
2) Two
3) Three
4) Four
5) None
4. Four of the following five pairs are alike in a certain way based on their positions in the above arrangement and so form a group. Which of the following does not belong to the group ?
1) Teacher - Painter
2) Supervisor - Shopkeeper
3) Cricketer - Reporter
4) Doctor - Accountant
5) Shopkeeper - Doctor
5. Which one of the following statements is false according to the above mentioned arrangement?
1) N is to the immediate right of the supervisor
2) The cricketer is third to the right of the shopkeeper
3) The doctor is sitting exactly between the supervisor and the accountant
4) $L$ is neither a teacher nor a supervisor
5) There are only three people between S and N
[RBI Grade 'B' Officers' Exam-2011]

## Puzzle 99

Directions: Study the following information carefully and answer the questions given below:

Six friends - Deepak, Varun, Anit, Nilesh, Rajesh and Siddharth are studying six different specialisations of engineering which are - metallurgy, telecommunication, software, mechanical, electrical and hardware not necessarily in the same order. Each one likes a different sport - hockey, cricket, swimming, football, badminton and tennis again not in the same order.

Nilesh is not studying hardware Rajesh is studying software and likes hockey. Anit likes swimming and is not studying hardware. The one who likes football is studying electrical. Siddharth is studying mechanical and does not like tennis. The one who likes badminton is studying telecommunication. Deepak and Varun do not like badminton. Deepak does not like tennis.


1) Football
2) Cricket
3) Hockey
4) Cannot be determined
5) None of these
3. Which of the following person-specialisation combination is correct according to the given information?
1) Nilesh-Hardware
2) Varun-Electrical
3) Anit-Metallurgy
4) Siddharth - Software
5) None is correct

Directions (9. 4-5): If all six friends are asked to sit in a straight line, facing north, in an alphabetical order (according to their names), from left to right, then
4. Who will be to the immediate left of the one studying electrical?

1) The one who likes badminton
2) The one who is studying telecommunication
3) The one who is studying hardware
4) The one who likes hockey
5) None of these
5. Which of the following combinations will represent the favourite sport of the immediate neighbours of Rajesh?
1) Badminton - Football
2) Cricket-Tennis
3) Cricket-Football
4) Tennis - Football
5) Cricket - Badminton

## Puzzle 100

Directions: Study the following information carefully and answer the questions given below:

Six friends $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}, \mathrm{E}$ and F working in the same office take different time to reach office. All of them take time in the multiples of ten in such a manner that the one who reaches office the earliest, reaches in 10 minutes and the one who takes maximum time reaches office in 60 minutes. D takes more time than E but less time than A . A reaches in 30 minutes. B takes less time than only $F$.

## Questions:

1. How much time does C take to reach office?
1) 60 minutes
2) 50 minutes
3) 40 minutes
4) 20 minutes
5) Cannot be determined
2. Who amongst the following takes maximum time to reach office?
1) $B$
2) C
3) D
4) F
5) Cannot be determined
3. How many people take more time to reach office than $D$ ?
1) Four
2) Three
3) Two
4) One
5) None
[RBI Grade 'B' Officers' Exam-2011]

## Puzzle 101

 that four of them sit at four corners of the square while four sit in the middle of each of the four sides. The ones who sit at the four corners face outside while those who sit in the middle of the sides face the centre of the table.
$P$ sits third to the right of $S$. S faces the centre. $Q$ sits third to the left of M. M does not sit in the middle of the sides. Only one person sits between $Q$ and $R$. R is not an immediate neighbour of $M$. T faces the centre. $K$ is not an immediate neighbour of $R$.

## Questions:

1. What is position of M with respect to L ?
1) Third to the right
2) $M$ and $L$ sit diagonally opposite to each other
3) Second to the right
4) Second to the left
5) Fifth to the right
2. Who sits exactly between $Q$ and $R$ ?
1) T
2) $P$
3) K
4) M
5) $S$ and $K$
3. Which of the following pairs represents the persons seated in the middle of the sides who face each other?
1) $S, Q$
2) K, L
3) $M, P$
4) $R, T$
5) $T, Q$
4. Who amongst the following sit between $R$ and $K$ when counted in anticlockwise direction from K ?
1) No one sits between $R$ and $K$ as $R$ and $K$ are immediate neighbours of each other
2) S, P and L

## 336 / Magical Book on Puzzle

3) $P$ and $Q$
4) $L$ and $R$
5) $\mathrm{M}, \mathrm{S}$ and T
5. If K is made to face the opposite direction, who would sit to his immediate right?
1) $R$
2) $Q$
3) $P$
4) T
5) S
6. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?
1) $L$
2) $M$
3) K
4) P
5) $R$
[RBI Grade 'B' Officers' Exam-2011]

## Puzzle 102

Directions: Study the following information carefully and answer the questions given below:

Twelve friends A, B, C, D, E, F, G, H, I, J, K and L were born in different months of the same year. A was born in the month of April and G was born in the month of August. $J$ was born in the month immediately preceding the month in which $K$ was born and immediately succeeding the month in which C was born. J was not born in the month of October nor in February. There is a gap of two months between the birthdays of $L$ and $B$. There were 30 days in the month in which $L$ was born. D was born in the month immediately after the month in which I was born. There were 31 days in the month in which $D$ was born. There is a gap of one month between the birthdays of B and F . E and H were born in that months which had 31 days each.
Questions:

1. In which of the following months $B$ was born?
$\begin{array}{lll}\text { 1) December } & \text { 2) June } \\ \text { 4) November } & \text { 5) September }\end{array}$
2. Four of the following five are alike in a certain way and hence form a group. Which one of the following does not belong to that group?
1) $L$
2) $A$
3) J
4) K
5) B
3. Who among the following was born in the month of February?
1) J
2) L
3) E or H
4) C
5) I
4. How many friends did celebrate their birthdays after F ?
1) None
2) Three
3) Four
4) Five
5) Six
5. If I is related $A$ and $B$ is related to $J$ on the basis of months in which they were born, then with which of the following $L$ is related on the same basis?
1) $G$
2) $A$
3) K
4) E
5) H
[RBI Grade 'B' Officers' Exam-2011]

## Puzzle 103

Directions: Study the following information carefully and answer the questions given below:

Twelve persons are sitting in two parallel lines in such a way that there are six persons in each row at equidistance. $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}, \mathrm{E}$ and F are sitting in row- 1 and they face towards east. $\mathrm{P}, \mathrm{Q}, \mathrm{R}, \mathrm{S}, \mathrm{T}$ and V are sitting in row-2 and
they face towards west. One person of one row faces the other person of the other row.

P, who is sitting at one of the ends of the row, is second to the right of T. A does not face $P$ or $T$. A is third to the left of $F$. There are two persons between Q and V . There is only one person between C and D . C and D do not face P. B is neighbour of C. S, who does not face $D$, is not the neighbour of G . Guestions:

1. Who among the following faces F ?
1) B
2) T
3) S
4) $R$
5) V
2. How many persons are sitting between E and C ?
1) One
2) Two
3) Three
4) Four
5) None
3. $E$ is related to $R$ in the same way as $B$ is related to $S$. On this pattern $F$ is related to
1) $V$
2) $P$
3) T
4) $Q$
5) None of these

Which of the following statements is true about B ?

1) $Q$ is the neighbour of that person who faces $B$
2) $C$ is not the immediate neighbour of $B$
3) $E$ is second to the right of $B$
4) $T$ faces $B$
5) B is second from the left end of the row
5. Who are sitting at the ends of the row?


Directions: Study the following information carefully and answer the questions given below:

Seven friends A, B, C, D, E, F and G studied in colleges X, Y and Z and are currently in different professions, namely Medicines, Fashion Designing, Engineering, Business, Acting, Teaching and Architecture (not necessarily in the same order). At least two and not more than three friends had studied in the same college.

C is an architect and studied in college Y . E is not a businessman. Only G amongst the seven friends studied in college X along with E. F is an engineer and did not study in college Y. B is an actor and did not study in the same college as F. A did not study in college $Z$. Those who studied in college X are neither Fashion Designers nor teachers. None of those who studied in college Y is a teacher.
Guestions:

1. Who amongst the following have studied in college $Z$ ?
1) B, A
2) $\mathrm{C}, \mathrm{F}$
3) $\mathrm{B}, \mathrm{D}, \mathrm{F}$
4) A, D
5) $D, F$
2. Which of the following groups represents the students of college Y ?
1) C, E, G
2) A, C, D
3) A, B, C
4) D, B, C
5) None of these
3. What is the profession of F ?
1) Engineering
2) Business
3) Medicines
4) Acting
5) None of these
4. Who amongst the following is in the profession of Medicine?
1) E
2) $G$
3) A

## 338 / Magical Book on Puzzle

4) $D$
5) None of these
5. What is the profession of $A$ ?
1) Teaching
2) Medicine
3) Business
4) Fashion Designing 5) None of these
6. Which of the following combinations of person, college and profession is definitely correct?
1) E-X-Fashion Designing
2) $\mathrm{F}-\mathrm{X}$-Engineering
3) A-Y-Businessman
4) D-Z-Teaching
5) None of these
7. Who amongst the following is a teacher?
1) $A$
2) D
3) E
4) G
5) None of these
[Syndicate Bank PO Exam-2010]

## Puzzle 105

Directions: Study the following information carefully and answer the questions given below:

Eight friends Q, R, S, T, V, W, Y and Z are sitting around a circular table, facing the centre. There are three males and five females in the group of friends. No two males are immediate neighbours of each other.

1 V sits second to the right of his wife.
1 S sits third to the right of V .
1 W sits second to the right of her husband $Z . Z$ is not an immediate neighbour of V's wife.
1 T is a male and Y is not an immediate neighbour of V .

3) Third to the left
4) Second to the right
5) Third to the right
2. Which of the following statements regarding S is definitely correct?

1) $S$ is one of the male members of the group.
2) Both the immediate neighbours of $S$ are females.
3) $S$ sits third to the left of $T$.
4) W is an immediate neighbour of S .
5) $S$ sits second to the right of $Q$.
3. Who amongst the following is V's wife?
1) $Q$
2) $Y$
3) $R$
4) T
5) None of these
4. Who amongst the following has a male sitting to the immediate left and the right?
1) $Y$
2) $R$
3) Q
4) S
5) None of these
5. Which of the following is not true regarding $T$ ?
1) $T$ is an immediate neighbour of $Z$ 's wife.
2) No male is an immediate neighbour of $T$.
3) $Q$ sits second to right of $T$.
4) The one who sits third to the left of $T$ is a male.
5) All are true
6. Which of the following pairs represents the immediate neighbours of $T$ ?
1) $R Q$
2) $W Z$
3) YV
4) WY
5) None of these
7. How many people sit between V and S when counted in anti-clockwise direction?
1) None
2) One
3) Two
4) Three
5) Four
8. Who amongst the following sits exactly between V and Y ?
1) Q
2) W
3) $R$
4) T
5) Z

[Syndicate Bank PO Exam-2010]

## Puzzle 106

Directions: Study the following information carefully and answer the questions given below:

In an international meet, representatives $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}, \mathrm{E}, \mathrm{F} \mathrm{G}$ and H from eight different countries, viz Thailand, France, Holland, Austria, US, Spain, India and Germany (not necessarily in the same order), sit around a circular table facing the centre. A, who represents Germany, sits third to the left of E. The one who is from India sits on the immediate right of $A$. D, who is from Holland, sits second to the right of B. B is not an immediate neighbour of E . C, who is from Spain, sits exactly in the middle of people representing US and India. G, the representative from France, sits second to the left of $H$, who is from Thailand.

## Questions:

1. How many people sit between $A$ and the representative from Austria when counted in clockwise directions?
$\begin{array}{ll}\text { 1) None } & \text { 2) One } \\ \text { 4) Three } & \text { 5) Four }\end{array}$
2. Which of the following is TRUE reg
1) F is the representative of Austria
2) F sits second to the left of the representative from Thailand.
3) The representative from Germany is not an immediate neighbour of $F$.
4) E sits third to the right of $F$.
5) None of these
3. In which of the following pairs is the representative from the first country sitting on the immediate left of the representative from the second country?
1) India-Thailand
2) Austria-US
3) Thailand-Holland
4) Spain-Germany
5) US-Spain
4. What is the position of $B$ with respect to the position of the representative from the US?
1) Third to the left
2) Fourth to the right 3) Fourth to the left
3) Second to the right 5) Second to the left
5. Which of the following pairs represents the immediate neighbours of the representative from Holland?
1) CG
2) BE
3) AH
4) HB
5) GE
6. The representative from which of the following countries is seated second to the left of the Indian representative?
1) Thailand
2) US
3) France
4) Spain
5) None of these
7. The representative from which of the following countries sits exactly in the middle of the representatives from Thailand and France?
1) Holland
2) Austria
3) Germany
4) US
5) None of these
[NABARD Bank PO Exam-2010]

Answers and explanations

## Puzzle 1

| Person | Profession | Car | Gender |
| :---: | :---: | :---: | :---: |
| T | Air-hostess | Ikon | Female |
| R | Professor | Scorpio | Male |
| L | Jeweller | Corolla | Male |
| W | Lawyer | Lancer | Male |
| $Z$ | Consultant | Santro | Male |
| S | Doctor | Esteem | Female |
| M | Travel Agent | Alto | Female |

1. 4
2. 3
3. 1
4. 2
5. 2

Puzzle 2

| Person | Food | Day |
| :---: | :---: | :---: |
| K | Thai | Thursday |
| B | Italian | Friday |
| M | Indian | Saturday |
| R | Spanish | Tuesday |
| W | Continental | Sunday |
| N | Mexican | Monday |
| T | Chinese | Wednesday |

## 1. 5; B

2. 4
3. 3
4. 1
5. 2

## Puzzle 3

From the clues (i), (iii), (iv) (v) and (vi) we get three possible arrangements for Monday to Saturday. These arrangements are as follows:

1. R, Holiday, Q, T, S, P
2. T, S, P, R, Holiday, Q
3. S, P, R, Holiday, Q, T

Reject the possibilities 1 and 2 because of clue (ii). Hence, the arrangement 3 is the correct one. Thus, we get

| S.No. | Day | Person |
| :---: | :---: | :---: |
| 1. | MON | S |
| 2. | TUE | P |
| 3. | WED | R |
| 4. | THU | Holiday |
| 5. | FRI | Q |
| 6. | SAT | T |

1. 4
2. 5; Wednesday
3. 1
4. 2

## Puzzle 4

Arrange the whole information in the following form.

| S. No. | Person | Specialisation | Colour |
| :---: | :---: | :---: | :---: |
| 1 | $\mathrm{P}_{(+)}$ | Journalism | Yellow |
| 2 | $\mathrm{Q}_{(-)}$ | Marketing | Pink |
| 3 | $\mathrm{D}_{(+)}$ | Pharmacy | Red |
| 4 | $\mathrm{~N}_{(-)}$ | HR | Green |
| 5 | $\mathrm{R}_{(+)}$ | IT | Orange |
| 6 | $\mathrm{~F}_{(-)}$ | Civil | Grey |
| 7 | $\mathrm{~T}_{(+)}$ | Finance | Blue |

1. 3
2. 2
3. 5; IT
4. 1
5. 4

## Puzzle 5

College
A
B
C

## Student

P(Electronics), Z (Electronics), S(Mechanical)

C
W (Electrical), T (Mechanical)

1. 4
$\begin{array}{ll}\text { 2. } 3 & \text { 3. } 1\end{array}$
2. 5
3. 1

.
.

## Puzzle 7

| Product | Manager and city |  |  |
| :--- | :--- | :--- | :--- |
| 1. X | Q(Jaipur), | E(Cochin), | M(Ahmedabad) |
| 2.Y | T(Delhi), | D (Bangalore) |  |
| 3. Z | J(Hyderabad), | R (Chennai), | P(Pune) |

1. 5; Q, E and M
2. 2
3. 1
4. 4
5. 3

## Puzzle 8

| Day | Game |
| :---: | :---: |
| Mon | Chess |
| Tue | Rest |
| Wed | Volleyball |
| Thu | Carrom |
| Fri | Table Tennis |
| Sat | Kho-kho |

1. 2
2. 5; One day
3. 3
4. 4
5. 1

## 342 / Magical Book on Puzzle

## Puzzle 9

I. $\mathrm{D}_{(-)}(\mathrm{X})$,
$\mathrm{F}_{(-)}(\mathrm{Y}), \quad \mathrm{H}_{(+)}(\mathrm{Z})$
II. $\mathrm{E}_{(+)}(\mathrm{X})$,
$\mathrm{C}_{(-)}(\mathrm{Y}), \mathrm{G}_{(+)}(\mathrm{Z})$
III. -——
$\mathrm{A}_{(+)}(\mathrm{Y}), \mathrm{B}_{(-)}(\mathrm{Z})$

1. 4
2. 3
3. 1
4. 5
5. 2

## Puzzle 10

| Worker | Shift | Weekly Off |
| :---: | :---: | :---: |
| L | I | Tue |
| M | II | Thu |
| N | I | Sun |
| P | III | Sat |
| Q | III | Wed |
| R | II | Fri |
| S | I | Mon |

1. 3
2. 1
3. 2
4. 4
5. 5; M


## Puzzle 12

| Professional | City | Profession |
| :---: | :---: | :---: |
| A | Bhubaneshwar | Pharmacist |
| B | Hyderabad | Professor |
| C | Mumbai | Artist |
| D | Bangalore | Engineer |
| E | Ahmedabad | Lawyer |
| F | Chennai | Doctor |
| G | Jaipur | Counsellor |

1. 3
2. 1
3. 4
4. 2
5. $5 ; \mathrm{F}$

## Puzzle 13

| Candidate | Panel | Company |
| :---: | :---: | :---: |
| Nilesh | IV | A |
| Samir | III | G |
| Harish | V | B |
| Nikita | VI | E |
| Shailaja | I | D |
| Laxman | VII | F |
| Sujata | II | C |

1. 4
2. 1
3. 2
4. 3
5. 1

Puzzle 14

| Friend | Shift | Day off |
| :---: | :---: | :---: |
| P | II | Tuesday |
| Q | I | Monday |
| R | II | Wednesday |
| S | I | Sunday |
| T | III | Friday |
| $V$ | III | Thursday |
| W | I | Saturday |

1. 3
2. 4
3. 1
4. 4
5. 3

## Puzzle 15



1. 1
2. 5; N
3. 4
4. 4
5. 3
6. 1

## 344 / Magical Book on Puzzle

## Puzzle 16



1. 3
2. 4
3. 1
4. 5
5. 2

Puzzle 17

| Member | Country | Sport |
| :---: | :---: | :---: |
| K | China | Archery |
| T | USA | Football |
| F | France | Volleyball |
| L | Australia | Athletics |
| J | Russia | Tennis |
| R | Korea | Rifle Shooting |
| H |  | Japan |
| 2.4 | 3. 1 | 4.2 |
| 4. | 5. 2 |  |
| Puzzle 18 |  |  |



1. 3
2. 5; Geeta
3. 4
4. 2
5. 5

## Questions Asked In Exams / 345

## Puzzle 19

| Member | Sports | Instument |
| :---: | :---: | :---: |
| A | Badminton | Flute |
| B | Carrom | Banjo |
| C | Lawn Tennis | Harmonium |
| D | Table Tennis | Tabla |
| E | Bridge | Santoor |
| F | Football | Guitar |
| G | Hockey | Sitar |

## Puzzle 20




| Student | College | Subject |
| :---: | :---: | :---: |
| $\mathrm{P}(+)$ | B | MBA |
| $\mathrm{B}(-)$ | A | BCA |
| $\mathrm{R}(-)$ | B | Medicine |
| $\mathrm{S}(+)$ | A | Journalism |
| $\mathrm{T}(+)$ | A | BCA |
| $\mathrm{W}(+)$ | C | Aviation |
| $\mathrm{Z}(-)$ | C | Medicine |

1. 5; RZ
2. 1
3. 1
4. 4
5. 2

Puzzle 22


1. 3
2. 4
3. 1
4. 3
5. 5; R

## 346 / Magical Book on Puzzle

## Puzzle 23



1. 3
2. 2 ;
3. 1


Thus only R's position does not change.
4. 4
5. 5; In all others the first person is second to the left of the second person.

## Puzzle 24

| Member | Profession | College |
| :---: | :---: | :---: |
| $\mathrm{A} \mathrm{(+)}$ | Engineer | Y |
| $\mathrm{B} \mathrm{(-)}$ | Lawyer | P |
| $\mathrm{C}(-)$ | Doctor | X |
| $\mathrm{D} \mathrm{(-)}$ | Professor | Z |
| $\mathrm{E}(+)$ | Banker | S |
| $\mathrm{F}(+)$ | Stockbroker | W |
| $\mathrm{G} \mathrm{(+)}$ | Businessman | V |

1. 4
2. 2
3. 3
4. 1
5. 5

## Puzzle 25



1. 1
2. 4
3. 3
4. 5
5. 2

## Puzzle 26

| Member | City | Mother tongue |
| :---: | :---: | :---: |
| H | Chennai | Marathi |
| I | Hyderabad | Telugu |
| J | Bangalore | Kannada |
| K | Ahmedabad | Punjabi |
| L | Delhi | Bangla |
| M | Kolkata | Tamil |
| N | Mumbai | Hindi |

1. 4
2. 1
3. 2
4. 3
5. 5; Tamil

Puzzle 27


1. 1
2. 4
3. 2
4. 51
5. 1

Puzzle 28


1. 1
2. 2
3. 4
4. 3; In all others, the second person is second to the right of the first.
5. 5

## Puzzle 29

| Friend | College | Branch |
| :---: | :---: | :---: |
| A | Z | Mechanical |
| B | Y | Civil |
| C | X | Chemical |
| D | X | Electrical |
| E | Z | Computer |
| F | Y | Aeronautical |
| G | Z | Electronics |


| 1. 4 |
| :---: | 2. 1

## 348 / Magical Book on Puzzle

## Puzzle 30



1. 4; C or G
2. 2
3. 5
4. 3
5. 5; E

## Puzzle 31

| Student | Subject | Sport |
| :---: | :---: | :---: |
| P | Biology | Cricket |
| Q | History | Badminton |
| R | Philosophy | Hockey |
| S | Geography | Basketball |
| T | English | Football |
| V | Physies | Table Tennis |
| W | Chemistry | Volleyball |
| 1.2 | 2. 3 | 3. |

Puzzle 32

| Student | Class | Colour |
| :---: | :---: | :---: |
| P | II | Green |
| Q | III | Black |
| R | IV | Red |
| S | I | Pink |
| T | VI | Yellow |
| M | V | Blue |

1. 3
2. 5; Red
3. 1
4. 5
5. 4

## Puzzle 33



1. 2
2. 3
3. 4
4. 2
5. 1
6. $5 ; \mathrm{G}$

## Puzzle 34

1. 1
2. 2
3. 4


Puzzle 35

| Student | Standard | Subject |
| :---: | :---: | :---: |
| P | V | Geography |
| Q | VII | History |
| R | VI | English |
| S | IV | Maths |
| T | VIII | Hindi |
| V | X | Science |
| W | IX | Sanskrit |

1. 2
2. 1
3. 3
4. 5; V
5. 4

Puzzle 36


A $>\mathrm{D}>\mathrm{B}>\mathrm{F}>\mathrm{G}>\mathrm{C}>\mathrm{E}>\mathrm{H}$

1. 5
2. 2; A $>\mathrm{D}>\mathrm{B}>\mathrm{F}>\mathrm{G}>\mathrm{C}, \mathrm{J}>\mathrm{E}>\mathrm{H}$
3. 1
4. 2; G, C, E and H.
5. 5

Puzzle 37


1. 5
2. 4
3. 1
4. 3
5. 2

## Puzzle 38

| Friend | Profession | Bank |
| :---: | :---: | :---: |
| A | Forex Officer | S |
| B | Agriculture Officer | M |
| C | Economist | N |
| D | Terminal Operator | L |
| E | IT Officer | R |
| F | Clerk | Q |
| G | Research Analyst | P |

1. 2
2. 2
3. 3
4. 3
5. 5
6. 4

Puzzle 39


Puzzle 40


1. 2
2. 3
3. 4
4. 5; H
5. 1 ;


All positions change.

## Puzzle 41



1. 1
2. 4
3. 3
4. 2
5. 5

Puzzle 42

| Employee | Department | Sport |
| :---: | :---: | :---: |
| A | Pers | TT |
| B | Admin | Football |
| C | Admin | Hockey |
| D | Admin | Basketball |
| E | Mktg | Cricket |
| F | Pers | Volleyball |
| G | Mktg | LT |
| $\mathbf{H} 3.2$ | Mktg | Badminton |

Puzzle 43


1. 4
2. 3
3. 2
4. 5
5. 1

## Puzzle 44



1. 5
2. 2
3. 4
4. 3
5. 1

## 352 / Magical Book on Puzzle

## Puzzle 45



1. 5
2. 1
3. 3
4. 1
5. 2

Puzzle 46


## Puzzle 48

| Date | Day | Play |
| :---: | :---: | :---: |
| 25 | Monday | A |
| 26 | Tuesday | Z |
| 27 | Wednesday | B |
| 28 | Thursday | No play |
| 29 | Friday | M |
| 30 | Saturday | Q |
| 31 | Sunday | X |

1. 5; A
2. 1
3. 2
4. 4
5. 3

## Puzzle 49



1. 1
2. 3
3. 2; Rakesh, Mukesh and Ajay
4. 4; The family doesn't have Ajay's grandfather.
5. 4

Puzzle 50


Puzzle 52

| Friend | Class | Colour |
| :---: | :---: | :---: |
| M | VIII | Blue |
| V | IV | Yellow |
| K | IX | White |
| D | VI | Black |
| T | VII | Green |
| J | V | Red |
| R | III | Purple |
| 2.4 | $\mathbf{3 . 5}$ | $\mathbf{4 . 3}$ |

## 354 / Magical Book on Puzzle

## Puzzle 53

| A | English | R |
| :---: | :---: | :---: |
| B | History | V |
| C | Maths | T |
| D | Histroy | W |
| E | English | S |
| F | Maths | P |
| G | Maths | Q |

1. 4
2. 2
3. 3
4. 1
5. 5

Puzzle 54

| A | Jaipur | Jet |
| :---: | :---: | :---: |
| B | Chennai | Kingfisher |
| C | Kolkata | Indian Airlines |
| D | Bangalore | Air India |
| E | Delhi | Air Deccan |
| F | Hyderabad | Spicejet |
| G | Ahmedabad | Sahara |
| 1.3 |  |  |

## Puzzle 55

On the basis of given information and conclusions as well as subconclusions drawn from them we can construct the following chart:

| S. No. | Day | Sports |
| :---: | :---: | :---: |
| 1st Day | Wednesday | Cricket |
| 2nd Day | Thursday | Hockey |
| 3rd Day | Friday | Tennis |
| 4th Day | Saturday | Volleyball |
| 5th Day | Sunday | Football |
| 6th Day | Monday | Holiday |
| 7th Day | Tuesday | Badminton |

1. 3; Volleyball was telecast on fourth day, i.e., Saturday.
2. 2; Monday was holiday.
3. 4; Football was telecast before holiday and Badminton was telecast after holiday.
4. 1; Cricket was telecast on Wednesday.
5. 5; On Sunday football was telecast.

## Puzzle 56

| Member | Sex | Profession | Relationship |
| :---: | :---: | :---: | :---: |
| M | M | Farmer | Father of O, O and N |
| N | F | Teacher | Daughter of M |
| O | M | Businessman | Husband of P |
| P | F | Doctor | Wife of O |
| Q | M | Lawyer | Brother of O |

1. 2; Clearly, ' P ' is doctor in this family.
2. 3; Clearly, ' O ' is businessman in this family.
3. 4; ' N ' and ' P ' are women.
4. 4; ' O ' and ' P ' are couple.
5. 3; Clearly, ' M ' ' $O$ ' and ' Q ' are male members of this family.

## Puzzle 57

1. 1; Of the six companies if ' O ' is the, first, L is third and order, ' $J$ ', ' K ', ' M ' and ' $J$ ', ' $N$ ' is to be followed. Clearly, ' $J$ ' must be visited second.
2. 1; According to information, L must be in third place and the order $\mathrm{J}, \mathrm{K}$, M must not be violated. This is followed only in the arrangement $\mathrm{J}, \mathrm{O}$, $\mathrm{L}, \mathrm{K}, \mathrm{N}, \mathrm{M}$.
Puzzle 58

3. 5
4. 1
5. 2
6. 4
7. 3

Puzzle 59

| Persons | Companies | Days |
| :---: | :---: | :---: |
| R | C | Tuesday |
| J | D | Wednesday |
| M | A | Thursday |
| Q | G | Sunday |
| L | F | Saturday |
| T | E | Friday |
| K | B | Monday |

1. 3
2. 1
3. 4
4. 5
5. 2

## 356 / Magical Book on Puzzle

## Puzzle 60

| Members | Colours | Sports |
| :---: | :---: | :---: |
| R | Green | Badminton |
| V | Grey | Table Tennis or Carrom |
| T | Blue | Chess |
| Q | Black | Lawn Tennis |
| S | White | Carrom or Table Tennis |
| W | Yellow | Basketball |
| P | Red | Volleyball |
| 1. 2 | 2. 3 | 3. 4 | | 4. 3 |
| :--- |$\quad$ 5. 5

## Puzzle 61




| B | Marketing | Nagpur |
| :---: | :---: | :---: |
| G | Engineering | Chennai |
| H | Marketing | Ranchi |
| K | Engineering | Kolkata |
| D | Systems | Hyderabad |
| F | Systems | Kozikode |
| T | Marketing | Patna |
| V | Systems | Bhopal |

1. 2
2. 1
3. 3
4. 4
5. 5

## Puzzle 63



1. 2
2. 3
3. 1
4. 2
5. 4
6. 5

## Puzzle 64

According to age,
Sourav > Rahul > Anuj > Kunal > Harish

## According to height,

Kunal > Rahul > Sourav > Harish > Anuj

1. 1
2. $3 \quad$ 3. 4
3. 3
4. 2

## Puzzle 65



1. 2
2. 3
3. 4
4. 5
5. 5

## Puzzle 66

| Members | States | Games |
| :---: | :---: | :---: |
| A | Madhya Pradesh | Badminton |
| B | Bihar | Table-Tennis |
| C | Orissa | Billiards |
| D | Kerala | Chess |
| E | Tamil Nadu | Golf |
| F | Maharashtra | Cricket |
| G | Uttar Pradesh | Hockey |

1. 1
2. 3
3. 3
4. 4
5. 2

## Puzzle 67



1. 1
2. 2
3. 4
4. 1
5. 5

## 358 / Magical Book on Puzzle

## Puzzle 68

| Boys | Games | Subjects |
| :---: | :---: | :---: |
| A | Hockey | Psychology |
| B | Cricket | Biology |
| C | Carrom | English |
| D | Football | German |
| E | Badminton | Physics |
| F | Volleyball | Economics |
| G | Table Tennis | Bio-Chemistry |

1. 1
2. 3
3. 5
4. 4
5. 2

## Puzzle 69



1. 3
2. 5; Geeta
3. 4
4. 2
5. 5

Puzzle 70

| Member | Sports | Instument |
| :---: | :---: | :---: |
| A | Badminton | Flute |
| B | Carrom | Banjo |
| C | Lawn Tennis | Harmonium |
| D | Table Tennis | Tabla |
| E | Bridge | Santoor |
| F | Football | Guitar |
| G | Hockey | Sitar |

1. 3
2. 1
3. 5
4. 4
5. 3

## Questions Asked In Exams / 359

## Puzzle 71



1. 3
2.5; V is third to the left of P .

$$
\begin{array}{lll}
3.1 & 4.2 & 5.4
\end{array}
$$

## Puzzle 72




## Puzzle 74



1. 4
2. 3
3. 2
4. 5
5. 1

## 360 / Magical Book on Puzzle

## Puzzle 75



1. 2
2. 5
3. 3
4. 1
5. 5

## Puzzle 76



1. 4; V is sitting between Z and Q .
2. 1; Q is second to the right of $Z$.


| Person | Department | Scale |
| :---: | :---: | :---: |
| A | Finance | III |
| B | Sales | III |
| C | Finance | III |
| D | Sales | I |
| E | Finance | III |
| F | Operations | II |
| G | Sales | I |
| H | Operations | I |

1. 4; The combination Finance - E-III is correct.
2. 3; B, D and G work in Sales department.
3. 2; H belongs to scale II.
4. 3; G belongs to scale I.
5. 3; C belongs to scale III.

## Puzzle 78



1. 1
2. 5
3. 4
4. 4
5. 3
6. 1

## Puzzle 79


1.2
4.3
Puzzle 80
$\square \square$


1. 1; $B$ is third to the right of $G$.
2.2; D is sitting between G and C .
2. $3 ; \mathrm{F}$ is third to the right of A .
3. $1 ; \mathrm{G}$ is to the immediate left of D .
4. 3; A is fourth to the left of G.

## 362 / Magical Book on Puzzle

## Puzzle 81

Amrita $>$ Rhea $>$ Smita $>$ Deepa

| Friends | Number of Years |
| :---: | :---: |
| Amrita | 3 |
| Rhea | 5 |
| Smita | 6 or 7 |
| Deepa | 8 |
| 1. 2 | 2. 4 |

1. 2
2. 4
3. 4
4. 4; Meaningful words are TIDE, TIED and DIET.
5. 1; Second, fifth, eighth and the eleventh letters from left are E, L, M and T respectively.
Meaningful word is MELT of which second letter from the left is E .

## Puzzle 82



## Puzzle 83

On the basis of given information following seating arrangement can be made:


1. 3; There are three persons $D, A$ and $C$ between $F$ and $E$, if we go anticlockwise from $F$ to $E$.
2. 1; $C$ is sitting to the immediate left of $E$.
3. 2; In all others there are two persons between the first and the second person. While in BD , only one person is sitting.
4. 3; Except in FDA, in all others the three persons are seated in clockwise.
5. 4; Except AF, all other pairs indicate the persons seated adjacent to each other.

## Puzzle 84

Following seating arrangement can be possible:


1. 5; There is no person between T and V .
2. 4; Except in UT, in all others the first person is sitting to the immediate left of the second person.
3. $5 ; \mathrm{Q}$ is fourth to the left of S .
4. 4; R and S are seated at the two extremes.
5. $2 ; \mathrm{S}$ is second to the right of T .
$T$ is second to the right of Q .
U is second to the right of V .

6. 3; B and $C$ are not facing the centre. Since the information ' $U$ is second to the right of $A^{\prime}$ given in the question indicates that $A$ is facing the centre.
7. 4; T is third to the left or right of $B$.
8. 3; $V$ is second to the left of C or fourth to the right of C .
9. 4 ; Option 4 is correct.
10. 1; A is second to the left of $U$.

## 364 / Magical Book on Puzzle

## Puzzle 86

On the basis of information given in the question, following table can be constructed:

| Person | Pen | Car | Watch |
| :---: | :---: | :---: | :---: |
| Suman | Parker | Mica | Samay |
| Mrudula | Cello | City | Citizen |
| Amir | Lamy | Santro | Timex |
| Veena | Lexi | Wagon R | Titan |
| Harsh | Pointer | Swift | Fastrack |

1. 3; Suman likes Samay watch.
2. 2; Harsh likes Pointer pen.
3. 2; Harsh likes Fastrack watch.
4. 1; Harsh likes Swift car.
5. 3; Veena likes Titan watch.

## Puzzle 87

On the basis of given information, following table can be constructed:


1. 1; Q lives on the topmost floor.
2. 5; R lives on the first floor.
3. 2; Sixth floor is vacant.

## Puzzle 88

| Days | Games |
| :---: | :---: |
| Monday | Sprinting |
| Tuesday | Wrestling |
| Wednesday | Football |
| Thursday | Shooting |
| Friday | Basketball |
| Saturday | Boxing, Cycling |
| Sunday | Weightlifting, Swimming |

1. 1; Basketball
2. 5; Weighlifting and swimming
3. 4; Monday
4. 5; Sunday
5. 2; Basketball is scheduled immediately after Shooting. Similarly, Football is scheduled immediately after Wrestling.

## Puzzle 89



H is husband of $\mathrm{A} . \mathrm{C}$ is husband of $\mathrm{D} . \mathrm{E}$ is husband of B .

1. 5; Option (5) is true.
2. 3; E is husband of B .
3. 3; Two persons $F$ and $G$ sit between $B$ and $C$.
4. 1 ; D is wife of C .
5. 5; Second to the right.


| 1 | 1 | 1 | 1 | 1 | 1 |
| :--- | ---: | :--- | :--- | ---: | ---: |
| T | Q | S | P | R | U |

1. 3
2. 3
3. 1
4. $5 ; ~ \mathrm{~S} \xrightarrow{+2} \mathrm{R} \xrightarrow{-1} \mathrm{P}$
$\mathrm{Q} \xrightarrow{+2} \mathrm{P} \xrightarrow{-1} \mathrm{~S}$
$\mathrm{P} \xrightarrow{+2} \mathrm{U} \xrightarrow{-1} \mathrm{R}$
$\mathrm{T} \xrightarrow{+2} \mathrm{~S} \xrightarrow{-1} \mathrm{Q}$
$\mathrm{T} \xrightarrow{+2} \mathrm{~S} \xrightarrow{+3} \mathrm{U}$
5. 4; $\mathrm{U} \xrightarrow{-1} \mathrm{R} ; \mathrm{P} \xrightarrow{-1} \mathrm{~S} ; \mathrm{Q} \xrightarrow{-1} \mathrm{~T} ; \mathrm{S} \xrightarrow{+2} \mathrm{R} ; \mathrm{R} \xrightarrow{-1} \mathrm{P}$

## 366

## Puzzle 91

| Friends | Places of Satying | Hobbies |
| :---: | :---: | :---: |
| Hetal | Vikroli | Singing |
| Jayshree | Thane | Drawing |
| Rohini | Dadar | Reading |
| Meena | Kanjurmarg | Cooking |
| Nidhi | Mulund | Travelling |
| Swati | Matunga | Dancing |

1. 2
2. 4
3. 3
4. 1
5. 4

## Puzzle 92

On the basis of given information following table can be constructed:

| Days | Flights |
| :---: | :---: |
| Monday | Emirates |
| Tuesday | Jet Airways |
| Wednesday | Delta |
| Thursday | British Airways |
| Friday | Air India |
| Saturday | Quantas |
| Sunday |  |

1. 3; Jet Airways flies on Tuesday.
2. 4; Three flights fly between Lufthansa and Delta.
3. 1; Air India flies on Friday.
4. 5; Quantas will fly on Friday.
5. 4; There are two flights between Emirates and British Airways.

## Puzzle 93

Sitting arrangement would be as follows:


A is wife of $H$.
$B$ is wife of $F$.

1. $4 ; \mathrm{G}$ is a female who sits second to right of $B$.
2. 2; $H$ sits third to the left of $B$.
3. 2; Two persons $D$ and $G$ sit between $B$ and $F$ when counted in anticlockwise direction from $B$.
4. 4 ; G is a female while all others are males.
5. 5; Female members are $\mathrm{A}, \mathrm{G}, \mathrm{B}$ and C .
6. 3 ;


## Puzzle 94

Sitting arrangement is as given below:


1. 3; Statement (3) is true.
2. 4; H is a Teacher.
3. 2; $D$, Doctor is third to the left of Banker $E$.
4. 4; Doctor D sits between F, Architect and A, Businessman.
5. 5 ; $G$ is a clerk.

## Puzzle 95



## 368 / Magical Book on Puzzle

1. 2; To persons - A and C - are seated between $B$ and $D$.
2. 1; V and B are opposite diagonally. Therefore, $P$ is related to $F$.
3. 4; V sits at one of the extreme ends of the line.
4. 2; V and S are at extreme ends of the Row-1.
5. 5; T faces B.

## Puzzle 96



1. 4; Except in LQ, in all others there is a gap of one bottle.
2. 1; Chemical L is in Pink bottle.
3. 3; P- Green is correct.
4. 3; Chemical Q is in Violet bottle.
5. 2 ;

| $N$ | $M$ | $O$ | $L$ | $Q$ | $P$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $L$ | $M$ | $N$ | $O$ | $P$ | $Q$ |

6. 2; Chemical N is in Red bottle.
7. 1; Chemical Pis kept in the bottle at the extreme right.

Puzzle 97

| Days | Play | Duration |
| :--- | :--- | :--- |
| Monday | C | $1 \frac{1}{2}$ Hours |
| Tuesday | A | 1 Hour |
| Wednesday | E | $2 \frac{1}{2}$ Hours |
| Thursday | F | 3 Hours |
| Friday | D | Off day |
| Saturday | B | 2 Hours |
| Sunday | $\frac{1}{2}$ Hour |  |

1. 4; Duration of Play B is $\frac{1}{2}$ Hour.
2. 3; Friday is off day.
3. 2; A-Tuesday - 1 Hour is correct.
4. 2; D is staged on Saturday.
5. 5; Four plays were staged before the off day.
6. 2; If D is staged on Monday, Play E of $2 \frac{1}{2}$ Hours duration will be staged on Thursday.
7. 4; Now, Saturday would be the off day.

## Puzzle 98

Sitting arrangement:


1. $1 ; \mathrm{O}$ is a reporter.
2. 1; S is third to the right of R .
3. 4; Four persons - R, O, T and S.
4. 5; Shopkeeper and Doctor are immediate neighbours.
5. 3; The doctor is sitting exactly between the Supervisor and Shopkeeper.

## Puzzle 99

| $F$ Friend | Specialisation | Sport |
| :---: | :---: | :---: |
| Deepak | Electrical | Football |
| Varun | Hardware | Tennis |
| Anit | Metallurgy | Swimming |
| Nilesh | Telecommunication | Badminton |
| Rajesh | Software | Hockey |
| Siddharth | Mechanical | Cricket |

1. 3; Varun is studying Hardware.
2. 1; Deepak likes Football.
3. 3; The combination Anit - Metallurgy is correct.
(4-5):

4. 5; Deepak is studying Electrical. Anit is to the immediate left of Deepak. Anit is studying Metallurgy and likes Swimming.
5. 5; Immediate neighbours of Rajesh are Nilesh and Siddharth. Nilesh likes Badminton and Siddharth likes Cricket.

## Puzzle 100

$\mathrm{E}<\mathrm{D}<\mathrm{A}$
10
20
$\mathrm{B}<\mathrm{F}$
5060

## 370 / Magical Book on Puzzle

$\mathrm{E} \rightarrow 10$ Minutes
$\mathrm{A} \rightarrow 30$ Minutes $\quad \mathrm{C} \rightarrow 40$ Minutes
B $\rightarrow 50$ Minutes
$\mathrm{F} \rightarrow 60$ Minutes

1. 3; C takes 40 minutes.
2. 4; F takes maximum time.
3. 1; Four persons.

## Puzzle 101



1. 4; M is second to the left of L .
2.2; P sits exactly between Q and R .
2. 5; Q faces T and both are sitting in the middle of the sides.
3. 3; P and Q .
4. 2; Q would sit to the immediate right of K .

| Puzzle 102 |  |
| :---: | :---: |
| Month | Friend |
| January | E/H |
| February | I |
| March | D |
| April | A |
| May | K |
| June | J |
| July | C |
| August | G |
| September | L |
| October | E/H |
| November | B |
| December | F |

1. 4; B was born in November.
2. 4; Except $K$, all others are born in the months having 30 days.
3. 3; E or H was worn in January.
4. 1; F was born in December.
5. 2; The month of birth of friends has 30 or 28 days.

Puzzle 103


1. 5 ; F is facing V .
2. 2; Two persons-A and B.
3. 4; E and R at the left ends of the rows. B and S are third from the left end.


## Puzzle 104

| Friend | College | Subject |
| :---: | :---: | :---: |
| A | Y | Fashion |
| B | Y | Acting |
| C | Y | Architecture |
| D | Z | Teaching |
| E | X | Medicine |
| F | Z | Engineering |
| G | X | Business |

1. 5
2. 3
3. 1
4. 1
5. 4
6. 4
7. 2

## 372 / Magical Book on Puzzle

## Puzzle 105



1. 5
2. 4
3. 2
4. 2
5. 5
6. 4
7. 3
8. 1

Puzzle 106


1. 3; D and H
2. 5
3. 3
4. 4
5. 3
6. 5; Holland
7. 2

## PROBLEMS ON SEATING ARRANGEMENT

## SEATING ARRANGEMENTS

In this type of questions, some clues regarding seating or placing (linear/ circular)of some persons or items is given. The candidate is required to form the paper sequence using these clues and answer the questions accordingly.
I) Read the following information carefully and answer the questions given below:

Six persons $A, B, C, D, E$ and $F$ are sitting in two rows, three in each. $E$ is not at the end of any row $D$ is second to the left of $F$. C the neighbour of E , is sitting diagonally opposite to D. B is the neighbour of $F$.

1. Which of the following are sitting diagonally opposite to each other?
(a) $F$ and $C$ (b) D and A (c) A and C (d) A and F
(e) A and B
2. Who is facing $B$ ?
(a) A
(b) C
(c) D
(d) $E$ (e) $F$
3. Which of the following are in same row?
(a) A and E (b) E and D (c) C and B (d) A and B
4. Which of the following are in one of the two rows?
(a) FBC
(b) CEB
(c) DBF
(d) AEF
(e) ABF
5. After interchanging seat with E , who will be the neighbours of $D$ in the new position?
(a) C and A (b) F and B (c) only B (d) only A (e) only C

## Solution:

The given information can be analysed as follows:

E is not at end so; $E$ must be in the middle of one of the rows.

D is second to the left of $F$ so, order of rows must be D_F.
$C$ is neighbour of $E$ and is sitting diagonally opposite to $D$ means $C$ is under $F$ in the other row i.e. $D-F-E C$.
$B$ is neighbour of $F$; $s$ the arrangement must be $D B E A E C$.

1. Other than $D$ and $C, A$ and $F$ are sitting diagonally opposite to each other, as seen in the arrangement. So the answer is (d).
2. Clearly, E is opposite to B in the other row. So, E is facing $B$ and the answer is (d).
3. Clearly, from amongst the given alternatives, A and E are in the same row. So the answer is (a).
4. Clearly, from amongst the given alternatives, $D, B$ and $F$ are in the same row. So, the answer is (c).
5. Clearly, neighbours of $E$ are $A$ and $C$. So, on interchanging the seat with $E$, the new neighbours of $D$ will be $A$ and $C$. So the answer is (a).
```
***********************************************************
``` \(\star\)
II) Eight books are kept one over the other counting from the top the second, fifth and sixth books are on plays. Two books on plays are between two books on composition. One book of plays is between two books on poetry. While the book at the top of the book of literature is a book of composition.

Which book is fourth from the top?
(a) plays
(b) poetry
(c) composition
(d) literature

\section*{Solution:}

We analyse the given information as follows :

Let \(C\) denote 'composition', \(P\) denote 'plays', Po denote 'poetry' and L denote 'literature'.
\begin{tabular}{cccccccc}
1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 \\
- & P & - & - & P & P & - & - \\
- & - & - & C & P & P & C & - \\
Po & P & PO & - & - & - & - & - \\
- & - & - & - & - & - & C & L
\end{tabular}

So the arrangement becomes:
\(\begin{array}{llllllll}1 & 2 & 3 & 4 & 5 & 6 & 7 & 8\end{array}\)
Po P Po C P P C L

Clearly the fourth book from the top is on composition. So the answer is (c).
III) Read the following information and answer the Questions that follows.
(1) Six friends A, B, C, D, E and F are sitting in a closed circle facing the center.
(2) \(E\) is to the left of \(D\).
(3) \(C\) is between \(A\) and \(B\).
(4) \(F\) is between \(E\) and \(A\).
1. Who is to the left of \(B\) ?
(a) A
(b) C
(c) D
(d) E
(e) none of these
2. Who is to the right of C ?
(a) A
(b) \(B\)
(c) D
(d) E
(e) F
3. Which of the above given statements is superfluous?
(a) 1
(b) 2
(c) 3
(d) 4
(e) none of these

Solution:
Clearly, in the circle this arrangement is as shown
D
\begin{tabular}{ll}
\(B\) & \(E\) \\
\(C\) & \(F\)
\end{tabular}

A
1. Clearly, D is the left of B. So the answer is (C)
2. Clearly, A is to the right of C. so the answer is (a).
3. Since all the statements are necessary to determine the arrangement none of them is superfluous. So the answer is (e).

\section*{EXERCISE}
1. Four girls are sitting on a bench to be photographed. Shikha is to the left of Reena. Manju is to the right of Reena. Rita is between Reena and Manju.

Who would be second from the left in the photograph?
(a) Reena
(b) Shikha
(c) Manju (d) Rita

Answer is (d)
Shikha is to the left of Reena and Manju is to her right. Rita is between Reena and Manju. So the order is Shikha , Reena , Rita and Manju. In the photograph Rita will be second from left.
2. There are five different houses, \(A\) to \(E\) in a row. A is to the right of \(B\) and \(E\) is to the left of \(C\) and right of \(A\). \(B\) is to the right of \(D\).

Which of the houses is in the middle?
(a) A
(b) \(B\)
(c) D
(d) \(E\)

Answer is (a)
\(B\) is to the right of \(D\). A is to the right of \(B\). \(E\) is to the right of \(A\) and left of \(C\). So the order is in the middle.
```

D, B, A, E, C. Clearly $A$ is in the middle.

```
3. In a march past, seven persons are standing in a row. \(Q\) is standing left to \(R\) but right to \(P\). O is standing right to \(N\) and left to P.Similarly, \(S\) is standing right to \(R\) and left to \(T\).

Find out who is standing in middle?
(a) P
(b) Q
(c) R
(d) 0

Answer is (b)

Q is left to \(R\) and to the right of \(P\) i.e. \(P, Q, R\).
O is to the right of \(N\) and left of \(P\) i.e. \(N, O, P\).
\(S\) is to the right of \(R\) and left of \(T\) i.e. R, \(S\), \(T\). Clearly, \(Q\) is in the middle.
4. Five children are sitting in a row. S is sitting next to \(P\) but not \(T . K\) is sitting next to \(R\) who is sitting on extreme left and \(T\) is not sitting next to \(K\). Who are sitting adjacent to \(S\) ?
(a) \(K\) and \(P\)
(b) \(R\) and \(P\)
(c) only C
d) \(P\)
and \(T\)
(e) Insufficient

Answer is (d)
\(S\) is sitting next to \(P\). So, the order \(S\), \(P\) or \(P, S\) is followed. K is sitting next to R. So, the order \(R, K\) is followed because \(R\) is on the extreme left. \(T\) is not next to \(P\) or \(K\). So, the arrangement will be \(R, K, P, S, T\). Clearly, \(P\) and \(T\) are sitting adjacent to \(S\).
5. Five girls are sitting in a row, Rashi is not adjacent to Sulekha or Abha. Anuradha is not adjacent to Sulekha. Rashi is adjacent to Monika. Monika is at the middle in the row. Then, Anuradha is adjacent to whom out of the following ?
(a) Rashi (b) Sulekha (c) Abha (d) Monika
e) Cannot be determined

\section*{Answer is (a)}
```

Clearly, the order is
Anuradha, Rashi, Monika, Sulekha Abha.
Anuradha is adjacent to Rashi

```
6. Read the following information carefully and answer the questions given below it:
(A) There are five friends
(B) They are standing in a row facing south.
(C) Jayesh is to the immediate right to Alok.
(D) Pramod is between Bhagat and Subodh.
(E) Subodh is between Jayesh and Pramod.
1. Who is at the extreme left end?
(a) Alok (e) None of these (b) Bhagat (c) Subodh
(d) Inadequate Data
2. Who is in the middle?
(a) Bhagat
(b) Jayesh
(c) Pramod
(d) Subodh (e)Alok

\section*{Solution:}

The boys are standing facing south. So, consider left and right accordingly.

Jayesh is to the right of Alok i.e. Jayesh, Alok.
Pramod is between Bhagat and Subodh i.e. Bhagat, Pramod, Subodh

Subodh is between Jayesh and Pramod.
So, the sequence is Bhagat, Pramod,Subodh, Jayesh, Alok,

\section*{Answer:}
1. (a), Alok is at extreme left end.
2. (d), Subodh is in the middle.
7. Study the given information carefully and answer the questions that follows.
(1) A, B, C, D, E, F and G are sitting on a wall and all of them are facing east.
(2) C is on the immediate right to D.
(3) B is at an extreme end and has \(E\) as his neighbour.
(4) G is between \(E\) and \(F\).
(5)D is sitting third from the south end.
1. Who is sitting to the right of \(E\) ?
(a) A (b) C (c) D (d) \(F\) (e) None of these
2. Which of the following pairs of people are sitting at The 2extreme ends?
(a) \(A B\) (b) \(A E\) (c) \(C B\) (d) \(F B\) (e) Cannot be determined
3. Name the person who should change places with \(C\) such that he gets the third place from the north end?
(a) E (b) F (c) C (d) G
4. Immediatly between which of the following pairs of People are sitting?
(a) AC
(b) \(A F\)
(c) \(C E\) (d) \(C F\)
(E) None of these

\section*{Solution:}

C is to the right of \(D\). D is third from south.
So, B will be at the extreme end from north because it should have \(E\) as its neighbour.
\(G\) is between \(E\) and \(F\). SO, the sequence is
B->
E->
G->
F->
East

D->
C->
A->

\section*{Answer:}
1. (e), G is sitting to the right of \(E\).
2. (a), A and B are sitting at the extreme ends.
3. (C), G should change place with \(C\) to make it third from north.
4. (d), D is sitting between \(C\) and \(F\).
8. In the Olympic games, the flags of six nations were flown on the masts in the following way:

The flag of America was to the left of Indian tricolor and to the right of the flag of France. The flag of Australia was on the right of the Indian flag but was to the left of the flag of Japan which was to the left of the flag of China.

Find the two flags which are in the center.
(a) India and Australia
(c) Japan and Australia
(b) America and India
(d) America and Australia

\section*{Solution:}

The correct sequence is
France, America, India, Australia, Japan, China.
The two flags in the center are India and Australia.
9. Mr. A, Miss.B, Mr.C and Miss.D are sitting around a table and discussing their trades.
(1) Mr A sits opposite to cook.
(2) Miss B sits right to the barber.
(3) The washer man is on the left of the tailor.
(4) Miss D sits opposite to Mr C.

\section*{What are the trades of \(A\) and \(B\) ?}
(a) Tailor and Barber
(c) Barber and Cook
(b) Tailor and Cook
(d) Washer man and Cook.

Solution: (b)
C and D sit opposite to each other .So if A sits opposite to cook, B shall be cook.

Now \(B\) is to the right of barber. So, one of the rest say \(C\) will be barber, then \(D\). On the opposite side shall be washer man or tailor. But washer man is on the left of tailor and A is to the left of D. So, A is washer man and D is tailor. Thus, \(A\) and \(B\) are Washer man and Cook.
10. On the information given below, answer the questions.
(A) \(P, Q, R, S\) and \(T\) are sitting in a circle facing the center.
(B) R is immediate left of T .
(C) P is between S and T .
1. Who is to the immediate left of \(R\) ?
(a) \(P\)
(b) Q
(c) S
(d) T
(e) cannot be determine
2. Which of the Following statements can be dispensed with?
(a) None (b) B only (c) C only (d) B or C only (Ans) None

\section*{Solution:}

Solution for 1 st and 2nd questions is in the circle the arrangement is as shown:

P
\(\mathrm{S} \quad \mathrm{T}\)

Q
R

\section*{Answer:}
1. (b), Q is to the immediate left of \(R\).
2. (a) None. All the three statements are essential to find out the answer for the first question so none can be dispensed with.
11. Six friends \(A, B, C, D, E\) and \(F\) are sitting in a closed Circle facing the center.

A is facing D. C is between \(A\) and \(B\). \(F\) is between \(E\) and \(A\). Who is to the immediate left of \(B\) ?
(a) A
(b) C
(c) \(D\)
(d) E

Answer is (b)
Clearly, in a circle the arrangement is as shown:

A
C \(\quad \mathrm{F}\)

B E

D
So, C is to the immediate left of \(B\) hence the answer is (b)

According to my opinion there can be another arrangement based on the given details:
```

            A
    F
        C
    E
                                B
                            D
    Hence D is the immediate left of B... so the answer could be (c ) as well....

```
12. \(A, B, C, D, E\) and \(F\) are seated in a circle facing the center. \(C\) is between \(F\) and \(B\).

A is second to the left of \(D\) and second to the right of \(E\).
1. Who is facing A?
(a) B (b) D (c) \(F\) (d) either \(F\) or \(B\) (e) None
2. Who among the following is facing D ?
(a) A (b) C (c) E (d) cannot be determine (e) None

Solution: Solution for 1st and 2nd questions is The circular arrangement is as shown

\section*{C}

A
E

F
B

\section*{D}

\section*{Answer:}
1. (a), Clearly B is facing A.
2. (b), C is facing D.

According to me there can be another arrangement as follows:
```

                    C
    A E
    B F
                            D
    If so the answer for the first question will be (
d) either F or B

```
13. Eight friends \(A, B, C, D, E, F, G\) and \(H\) are sitting in circle facing the center.

B is sitting between \(G\) and \(D\). H is third to the left of \(B\)
and second to the right of \(A\). \(C\) is sitting between \(A\) and \(G\) and \(B\) and \(E\) are not sitting opposite to each other.
1. Who is third to the left of \(D\) ?
(a) A (b) \(E\) (c) \(F\) (d) cannot be determine (e) None
2. Which of the following statements is not correct?
(a) C is third to the right of D.
(b) A is sitting between \(C\) and \(F\).
(c) D and A are sitting opposite to each other.
(d) E is sitting between \(F\) and D.
(e) E and C are sitting opposite to each other

Solution: Solution for the 1 st and 2 nd question is

B is between \(G\) and \(D\) i.e. the order is \(G\) B D.
\(H\) is third to the left of \(B\) and second to the right of \(A\). So, forming a circle we have:
\(\mathrm{H} \quad \mathrm{A}\)
G D

B

C is between \(A\) and \(G\). But \(E\) is not opposite B. So, C is between \(A\) and \(H\).
\begin{tabular}{cccccc} 
& & C & & \\
& H & & & A & \\
F & & & & E \\
& G & & \(D\) &
\end{tabular}

Answer:
1. (c), \(F\) is third to the left of \(D\).
2. (d), Clearly, E is not sitting between \(F\) and \(D\).
14. A group of eight members sit in a circle. D is between \(A\) and \(F\) and is opposite to \(G . E\) is to the right of \(A\) but on the left of \(C\), whose right hand neighbour is G. B enjoys having \(H\) to his left and \(F\) to his right.

Find the member who is diagonally opposite to A?
(a) \(B\) (b) \(F\) (c) \(G(d) H\)

Answer: (d)

In a circle the arrangement is as shown
G
H C

B E
F A

D

H is diagonally opposite to A.

\section*{Three-statement Data Sufficiency}

Directions: Each of the questions below consists of a question and two or three statements given below it. You have to decide whether the data provided in the statements are sufficient to answer the question.
1. How is P related to Q ?
A. \(P\) is the mother of \(R\), who is the sister of \(S\).
B. \(S\) is the brother of \(Q\), who is the son of \(T\).
C. \(P\) is the wife of \(T\).
1) Only A and B together are sufficient
2) Only B and C together are sufficient
3) \(A\) and either \(B\) or \(C\) are sufficient
4) \(B\) and either \(A\) or \(C\) are sufficient
5) All even together are not sufficient
2. What is the direction of K with respect to L ?
A. \(K\) is east of \(M\), which is south of \(L\).
B. N is north of L and north-west of K .
C. \(K\) is south-east of \(N\), which is north of \(M\).
1) Only either A or B alone is sufficient
2) Only \(A\) alone is sufficient
3) Only B and either A or C are sufficient
4) Either \(A\) alone or \(B\) and \(C\) together are sufficient
5) Only B alone is sufficient
3. How is B related to Y ?
A. \(X\) and \(Y\) are brothers. \(B\) is the brother of \(A\) and \(A\) is the mother of \(X\).
B. \(A\) is the brother of \(B\) and father of \(X\), who is the brother of Y.
C. \(B\) is the brother of \(A\) and father of \(X . X\) is the brother of Y.
1) Any one of the three is sufficient
2) Either (A) or (B) is sufficient
3) All the three are necessary
4) Either (B) or (C) is sufficient
5) None of these
4. What is the meaning of the code 'kullu' in a code lanugage?
A. In that code language rem tez kullu pullu tullu means 'Sher Singh is my son' and 'gullu sullu rullu pullu' means 'is he at home'.
B. In that code language nel pullu kullu dela means 'my daughter is Nirmala' and setha gama lala means 'sit with me'.
C. In that code language nel dela pullu nillu means 'her daughter is Nirmala' and 'kettu bala' means 'go home'.
1) \(B\) and either \(A\) or \(C\)
2) Either \(C\) or \(A\)
3) Either A or B or C
4) Any two of them
5) None of these
5. In which direction from city ' X ' is city ' Y ' situated?
A. City ' X ' is to the east of city ' W ' but both the cities ' Y ' and ' X ' are in the straight line.
B. No cities are to the north of ' \(X\) '.
C. No cities except ' \(X\) ' are on the same straight line on which ' \(W\) ' is situated.
1) Either A or B or C 2) B and C
3) Only B 4) All are true
5) None of these
6. How is 'L' related to ' \(W\) '?
A. ' P ' is wife of one of the sons of ' X ' and mother of the grandson of the father of ' Y '.
B. ' \(Y\) ' is the father of ' \(W\) ' but ' \(W\) ' is not the daughter of the wife of ' Y '.
C. ' L ' is the brother of ' T ', who is granddaughter of
the father-in-law of the mother of ' \(L\) '.
1) None
2) All the information even together are not sufficient.
3) Any one of them
4) Only C
5) None of these
7. \(P, Q, R, S, T, U\) and \(V\) are seven policemen standing in a column (not necessarily in the same order) facing east. Who is exactly in the middle?
A. The number of persons between \(S\) and \(U\) is equal to that between V and S .
B. \(P\), who is 5th from one end, is 3 positions behind R .
C. Q and P are adjacent to each other, so are T and S .
1) Either A or B or C
2) Only B
3) Only A
4) All together are sufficient
5) None of these
8. How many sons and daughters does Amod have?
A. Amod's wife says she has number of sons twice the number of daughter.
B. Tom, who is one of the sons of Amod, says that he has one-and-a-half times as many brothers as sisters.
C. Tinu, who is one of the daughters of Amod, says that she has 4 times as many brothers as sisters.
1) Any one of them
2) Any two of them
3) Either B or C
4) Either A or C
5) None of these
9. Who is the uncle of \(L\) ?
A. P, brother of \(M\), is father of \(L\); \(M\) is father of \(S\).
B. R is father of L's cousin
1) A alone is sufficient
2) \(B\) alone is sufficient
3) Either \(A\) alone or \(B\) alone is sufficient
4) Both A and B together are not sufficient
5) Both A and B together are necessary
10. How is Raju related to Manohar?
I. Pramila is the mother-in-law of Rashmi, the wife of Raju.
II. Pramila's brother is Raju's maternal uncle.
III. Pramila's husband is the only son of Manohar.
1) Only I and II
2) Only I and III
3) Only I and either II or III
4) Any two of the three
5) Question cannot be answered even with the information in all three statements
11. What is the code for 'rope' in a code language?
I. 'use the rope' is written as 'nik ta re' in the code language.
II. 'rope is straight' is written as 'pe da ta'.
III. 'always use rope' is written as 'ma re ta'.
1) Only I and II
2) Only I and III
3) Only II and III
4) Only II and either I or III
5) Question cannot be answered even with the information in all three statements
12. Who amongst Subodh, Neeraj, Tara, Meena and Anil is the first to take the lecture?
I. Subodh takes lecture before Meena and Neeraj but not before Anil.
II. Tara is not the first to take the lecture.
III. Meena is not the last to take the lecture.
1) Only I
2) Only I and II
3) Only I and either II or III
4) All I, II and III are necessary
5) Question cannot be answered even with the information in all three statements
13. \(P\) is in which direction with respect to \(Q\) ?
I. \(M\) is to the North of \(R\), who is to the West of Q .
II. \(P\) is to the East of \(M\).
III. \(P\) is to the North-East of \(R\).
1) Only I and II
2) Only I and III
3) Any two of the three
4) All I, II and III are necessary
5) Question cannot be answered even with the information in all three statements.
14. What is Sunita's rank from top in a class of 45 students?
I. Sunita is five ranks below Samir, who is 15 th from the bottom.
II. Radha is 30th from the top and Neeta is 4th from the bottom.
III. Sunita is exactly in the middle of Radha and Neeta.
1) Only I
2) Only II and III
3) Either only I or only II and III
4) Only I and either II or III
5) None of these
15. Among \(P, T, J, F\) and \(L\) who scored the highest?
I. P scored less than \(J\) and \(F\).
II. T scored more than F but less than L .
III. J has not scored the highest.

16.
I. Pillar ' M ' is to the East of pillar T , which is to the South of pillar ' G '.
II. Pillar ' P ' is to the North of pillar ' M '.
III. Pillar ' \(R\) ' is to the North of pillar ' \(P\) ' and to the East of pillar ' Q '.
1) Only I and II
2) Only I and III
3) Only II and either I or III
4) Only III
5) All I, II and III
17. What is the code for 'adequate' in a code language?
I. In the code language, 'rainfall is adequate' is written as 'vo al ji'.
II. In the code language, 'food is adequate' is written as 'vo ji fa'.
III. In the code language, 'food is delicious' is written as 'fa vo re'.
\(\begin{array}{ll}\text { 1) Only I and III } & \text { 2) Only II and III } \\ \text { 3) Only I and II } & \text { 4) All I, II and III }\end{array}\)
5) None of these
18. How is Sanjeev related to Radha?
I. Sanjeev is the son of Radha's grandfather's only daughter.
II. Sanjeev has no siblings.
III. Radha has only one brother.
1) Only I and II
2) Only I and III
3) Only II and III
4) Only I and either II or III
5) None of these
19. How many children are there in the class?
I. Saurabh is fifth from the top if arranged in descending order of marks.
II. Sulabha, who is ten ranks below Saurabh, is 25th from the bottom.
III. Jatin is four ranks above Sulabha.
1) Only I and III
2) Only II and III
3) Only I and II
4) Any two of three
5) None of these
20. How many daughters does W have?
I. B and D are the sisters of \(M\).
II. M's father T is the husband of W.
III. Out of the three children which T has, only one is a boy.
1) Only I and III are sufficient to answer the question.
2) All I, II and III are required to answer the question.
3) Only II and III are sufficient to answer the question.
4) Question cannot be answered even with all I, II and III.
5) Only I and II are sufficient to answer the question.
21. Who among \(A, B, C, D, E\) and \(F\), each having a different height, is the tallest?
I. \(B\) is taller than \(A\) but shorter than \(E\).
II. Only two of them are shorter than C.
III. D is taller than only F.
1) Only I and II are sufficient to answer the question.
2) Only I and III are sufficient to answer the question.
3) Only II and III are sufficient to answer the question.
4) All I, II and III are required to answer the question.
5) All I, II and III even together are not sufficient to answer the question.
22. Towards which direction is Village \(J\) from Village

W?
I. Village R is to the west of Village W and to the north of Village \(T\).
II. Village \(Z\) is to the east of Village \(J\) and to the south of Village \(T\).
III. Village \(M\) is to the north-east of Village \(J\) and to the north of Village \(Z\).
1) Only III is sufficient to answer the question.
2) Only II and III sufficient to answer the question.
3) All I, II and III are required to answer the question.
4) Question cannot be answered even with all I, II and III.
5) None of these
23. On which day of the week did Suresh visit Chennai? (Assume that the week starts from Monday.)
I. Suresh took a leave on Wednesday.
II. Suresh visited Chennai the day after his mother's visit to his house.
III. Suresh's mother visited Suresh's house on neither Monday nor Thursday.
1) Only II and III are sufficient to answer the question.
2) Only I and II are sufficient to answer the question.
3) Only I and III are sufficient to answer the question.
4) All I, II and III are required to answer the question.
5) Question cannot be answered even with all I, II and III.
24. How is 'go' written in a code language?
I. 'now or never again' is written as 'torn ka na sa' in that code language.
II. 'you come again now' is written as 'ja ka ta sa' in that code language.
III. 'again go now or never' is written as 'na ho ka sa torn' in that code language.
1) Only I and III are sufficient to answer the question.
2) Only II and III are sufficient to answer the question.
3) Only I and II are sufficient to answer the question.
4) All I, II and III are required to answer the question.
5) None of these

\section*{Answers and explanations Three-statement Data Sufficiency}
1. 4; From A and B: (-) P \(\Leftrightarrow\) (+)
\((-) \mathrm{R}-\mathrm{S}(+)-\mathrm{Q}(+)\)
Thus, \(P\) is mother of \(Q\).
From \(B\) and \(C:(-) P \Leftrightarrow T(+)\)
\[
S(+)-Q^{(+)}
\]

Again, P is mother of Q .
2. 2; From A: L

\(K\) is south-east of \(L\). Hence A alone is sufficient. From B: K is east of L but we don't know whether north or south. And C is no help either.
3. 5; In (B) we have no information about the sex of ' \(B\) '. Hence correct answer is either (A) or (C).
4. 1; We can access the answer with the help of \(B\) and either A or C.
5. 4; From A: The possible situations are as follows:
1. \(\mathrm{W}-\mathrm{X}-\mathrm{Y}\)
2. W \(-\mathrm{Y}-\mathrm{X}\)



From \(A\) and \(B\) : We reject situation 3 .
Now, from A, B and C: we reject situations 1, 2 and 5 . Hence we have the only possible situation as indicated in 4 . Hence, we need all the three informations
6. 2; Statement \(C\) has no relation either with statement A or with \(B\). In the statement \(C\), ' \(W\) ' is not being talked about. Similarly, in statemnts A and B, 'L' is not being talked about. Hence all the three statements even together are not sufficient.
7. 4; VQPSTRU or UQPSTRV
8. 2; From A: B = 2 S ;

From B: \(B-1=\frac{3}{2} S\);
From C: \((\mathrm{S}-1) 4=\mathrm{B}\)
Where, \(\mathrm{B}=\) no. of brothers; \(\mathrm{S}=\) no. of sisters
We have three different equations. Hence any two of them will be sufficient.
9. 2; From (A):


Hence ' M ' is uncle of ' \(L\) '.

From (B): It is clear that ' \(R\) ' is uncle of ' \(L\) '.
10. 2; Statement I and statement II both lack information about Manohar. Hence, reject the options 1), 3) and 4).

Now, check for the possibility of the option 2).
Using, statement I and statement III, we get
\[
\begin{aligned}
\operatorname{Pramila}_{(-)} & \left.\Leftrightarrow\right|_{(+)} ^{\text {Manohar }}(\text { Manohar's son }) \\
& \Leftrightarrow \text { Raiul }^{*}
\end{aligned}
\]

Hence, Raju is the grandson of Manohar.
11. 4; From I: we get
use the rope \(\Rightarrow\) nik ta re
From II: we get
rope is straight \(\Rightarrow\) pe da ta
From III: we get
always use rope \(\Rightarrow m a\) re \(t a\)
From I and II: We get that the only word which is common in (i) and (ii) is 'rope' and only code which is common in (i) and (ii) is 'ta'. Hence, the code for 'rope' is 'ta'.
From II and III:
We get that the code for 'rope' is 'ta'. But from I and III we can't get the specific code of 'rope' among 'ta' and 're'.
Hence, only II and either I or III are sufficient.
12. 2; From I it is obvious that either Anil or Tara took the first lecture. And with the help of II it becomes clear that Anil took the first lecture.
13. 4; From I and II: we get


P may be towards North or North-west or NorthEast of Q. Since we do not get any specific answer both I and II together are not sufficient.
From I and III: We get


Once, again we do not get any specific answer because P may be North-West or North or NorthEast of Q .
From I, II and III: we get

\(P\) is to the North of \(Q\).
14. 3; From I: We get Sunita's rank is (15-5 =) 10th from the bottom, ie ( \(45-10+1=\) ) 36th from the top.
From II and III: We get
Radha's rank from top \(=30\) th
Neeta's rank from top \(=45-4+1=42\) nd
Now, Sunita's rank \(=\frac{30+42}{2}\)
\(=36\) th (from top)
15. 5; From I and II: We get
\(\mathrm{L}>\mathrm{T}>\mathrm{F}>\mathrm{P}\)
\(J>P\)
From I, II and III: We get
\(\mathrm{L}>\mathrm{T}>\mathrm{F}>\mathrm{P}\)
L > J > P
Hence, 'L' scored the highest.
16. 4; From III: We get


It is obvious from the positions of ' P ' and ' Q ' that
17. 2 the pillar ' \(P\) ' is to the North-East of the pillar ' Q '. food is adequate \(\Rightarrow\) vo ji fa ... (i) food is delicious \(\Rightarrow\) fa vo re ... (ii) From (i) and (ii), we get 'vo \(f a\) ' is the code of 'food is', hence the code for 'adequate' is ' \(j i\) '.

\section*{18. 2; From I and II: We get}

(+)
Hence, Sanjeev is the cousin of Radha.
From I and III: Sanjeev is either brother or cousin
of Radha.
19. 3; From I and II: We get

Sulabha's rank from top \(=5+10=15\) th
Sulabha's rank from bottom \(=25\) th
Total number of students in the class
\(=15+25-1=39\)
20. 3; From the statements II and III:


Though, sex of M is not known, it is given in statement III, that T has three children and only one of them is boy. Therefore, we may conclude that W has two daughters.
21. 4; From statement I:
\[
\mathrm{E}>\mathrm{B}>\mathrm{A}
\]

From statement II:
\[
->->->\mathrm{C}>->-
\]

\section*{From statement III:}

Now combining all the above statements, we have
\[
\mathrm{E}>\mathrm{B}>\mathrm{A}>\mathrm{C}>\mathrm{D}>\mathrm{F}
\]
22. 5; From statement II:


From statement III:

\(J\) is in south-west direction from \(W\).
23. 5; Even by combining all the statements, we cannot find the day of the week on which Suresh's mother visited Suresh's house.
24. 1; From statements I and III:
now or never again \(\Rightarrow\) torn ka na sa
again go now or never \(\Rightarrow\) na ho ka sa torn ...(ii)
From (i) and (ii), code for 'go' is 'ho'.

\section*{Chapter 24 \\ Syllogism}

\section*{Introduction}

Syllogism is originally a word given by the Greeks. Which means 'inference' or 'deduction'.

\section*{Definitions of Some Important Terms}

The terms defined below are used in the well defined method for solving the problems on syllogism.

\section*{Proposition}

A proposition is a sentence that makes a statement and gives a relation between two terms. It consists of three parts (a) the subject; (b) the predicate; (c) the relation between the subject and the predicate.

Some examples of propositions are being given below:
(i) All coasts are beaches.
(ii) No students are honest.
(iii) Some documents are secret
(iv) Some cloths are not cotton.

\section*{Subject and Predicate}

A subject is that part of the proposition about which something is being said. A predicate, on the other hand, is that term of the proposition which is stated about or related to the subject.

Thus, for example, in the four propositions mentioned above, 'coasts', 'students', 'documents' and 'cloths' are subjects while 'beaches', 'honest', 'secret' and 'cotton' are predicates.

\section*{Categorical Propositions}

A categorical proposition makes a direct assertion. It has no conditions attached with it. For example, "All S are P", "No S are P", "Some S are P" etc are categorical propositions, but "If S , then P " is not a categorical proposition.

\section*{Types of Categorical Propositions}
(a) Universal Proposition: Universal propositions either fully include the subject or fully exclude it. Examples are,

All coasts are beaches.
No Students are honest.
Universal propositions are further classified as
(i) Universal Positive Proposition: A proposition of the form "All S are P", for example, "All coasts are beaches", is called a universal positive proposition. And it is usually denoted by a letter "A".
(ii) Universal Negative Proposition: A proposition of the form "No S are P", for example, "No students are honest", is called a universal negative proposition. And it is usually denoted by a letter "E".
(b) Particular Proposition: Particular proposition either only partly include or only partly exclude the subject while making a statement. Examples are,

Some documents are secret.
Some cloths are not cotton.
Particular propositions are also further classified as
(i) Particular Positive Proposition: A proposition of the form "Some S are P", for example, "Some documents are secret", is called a particular positive proposition and it is denoted by the letter "I".
(ii) Particular Negative Proposition: A proposition of the form "Some S are not P" for example, "Some cloths are not cotton", is called a particular negative proposition. And is usually denoted by the letter "O".

\section*{Important Note}

The definition of the \(\mathbf{A}, \mathbf{E}, \mathbf{I}, \mathbf{O}\) propositions are very, very important and the student must have the ability to immediately recognise these types. With this need in mind we are listing these four types of propositions in the following table:

The Four Types of Propositions
\begin{tabular}{|l|l|l|}
\hline \multicolumn{1}{|c|}{\begin{tabular}{c} 
Type of \\
Proposition
\end{tabular}} & \multicolumn{1}{c|}{ Universal } & \multicolumn{1}{c|}{ Particular } \\
\hline Positive & \begin{tabular}{l} 
A Format: \\
All S are P \\
Example: \\
All coasts are \\
beaches.
\end{tabular} & \begin{tabular}{l} 
I Format: \\
Some S are P. \\
Example: \\
Some documents \\
are secret.
\end{tabular} \\
\hline Negative & \begin{tabular}{l} 
E Format: \\
No S are P \\
Example: \\
No student are \\
honest.
\end{tabular} & \begin{tabular}{l} 
O Format: \\
Some S are not P. \\
Example: \\
Some cloths are
\end{tabular} \\
\hline
\end{tabular}

\section*{Mediate and Immediate Inference}

Mediate Inference: Syllogism is actually a problem of mediate inference. In mediate inference conclusion is drawn from two given statements. For example, if two statements are given: "All tips are balls" and "All balls are pencils", then a conclusion could be drawn that "All tips are pencils". This is a case of syllogism or mediate inference because conclusion is drawn from two propositions. We will learn how to draw conclusion (mediate inference) from the two given propositions later on in this chapter.

Immediate Inference: In immediate inference conclusion is drawn from only one given proposition. For example, let a given statement be "All coasts are beaches". Then, based on this statement, a conclusion could be drawn that "Some beaches are coasts". This is a case of immediate inference.

\section*{Important Cases of Immediate Inference}

In order to be able to solve syllogism problems completely and speedily we need to have a thorough idea of immediate inference. There are many aspects or methods of immediate inference. These include conversion, obversion, contraposition etc. We shall not study the less important of these methods. We shall see only two important cases of immediate inference.

\section*{I. Implications (of a given proposition):}

Let us see examples given below:
(a) Suppose we are given a proposition "All coasts are beaches". then this proposition naturally implies that the conclusion "Some coasts are beaches" must be true. It is very easy to comprehend because if "all" are beaches, then "some" ("some" is only a part of "all") must be beaches.
(b) Take the statement "No students are honest". If this statement is true the conclusion "Some students are not honest", too, must be true.
Thus, the above examples state that
(i) if a given proposition is of \(\boldsymbol{A}\)-type, then it also implies that the I-type conclusion must be true.
(ii) an E-type proposition also implies an \(\mathbf{O}\)-type conclusion. Always remember the above two implications as thumb rules.

\section*{II. Conversion}

The second impportant method of immediate inference is conversion. Let us see as to how to convert a given proposition. The following rules are to be employed in order to convert a given proposition:
Step I: The subject becomes the predicate and the predicate becomes the subject.
Step II: The type of the given proposition is changed according to the pattern given in the table.

Table: Rules of Conversion
\begin{tabular}{|c|c|}
\hline A Statement of the type & When converted becomes a statement of the type \\
\hline A format: All S are P. Example: All coasts are beaches. & \begin{tabular}{l}
I Format: \\
Some P are S. \\
Example: \\
Some beaches are coasts.
\end{tabular} \\
\hline \begin{tabular}{l}
E Format: \\
No \(S\) are \(P\). \\
Example: \\
No students are honest.
\end{tabular} & \begin{tabular}{l}
E Format: \\
No P are S . \\
Example: \\
No honest are students.
\end{tabular} \\
\hline \begin{tabular}{l}
I Format: \\
Some S are P. \\
Example: \\
Some documents are secret.
\end{tabular} & \begin{tabular}{l}
I Format: \\
Some P are S. \\
Example: \\
Some secret are documents.
\end{tabular} \\
\hline \begin{tabular}{|l|}
\hline O Format: \\
Some S are not P. \\
Example: \\
Some cloths are not cotton. \\
\hline
\end{tabular} & O-Type statements cannot be converted. \\
\hline
\end{tabular}

\section*{Analytical Method to Solve Syllogism}

There can be two methods of solving syllogism. the analytical method and the method of Venn-diagrams.

To solve syllogism, I take analytical method instead of Venn-diagram method delebrately because I consider, analytical method is easier to comprehend and the candidate can solve questions on syllogism more quickly
by analytical method than venn-diagram method. Though, I will be discussing about Venn-Diagram also in the latter section of this book.

The analytical method for solving syllogism completely consists of the following easy steps:
I. Draw mediate inferences
II. Draw immediate inferences (implication or conversion)
III. Check for complementary pairs

\section*{I. Draw Mediate Inferences}

There are two extremely simple steps to draw mediate inferences:

Step I: Properly align the given sentences.
Step II: Use the given table to draw the conclusion.

\section*{Step I: Aligning the given sentences}

The first step is to properly align the two sentences. Before going into the details of 'aligning' we must remember that "The two given propositions must always have one common term, otherwise no conclusion could be drawn"

Now, by a properly aligned pair of propositions we mean that the two propositions should be written in such a way that the common term is the predicate of the first proposition and the subject of the second.

Here, there can be two cases, either the statements are already aligned or are not already aligend. If the statements are not already aligned, then they can be aligned by
(i) changing the order of the sentences and/or
(ii) convert one of the sentences.

Now, see the examples given below that will better illustrate the concept:

\section*{Align all the pair of statements in the examples given below: \\ Ex. 1: I. All boys are goodlooking. \\ II. Some boys are Indian.}

Discussion:
Here the term 'boys' is common to both the given statements. And the 'subject of the first statement is the subject of the second statement'. Hence the statements are not properly aligned.

We can align this by
(a) Converting the first statement

All boys are goodlooking \(\rightarrow\) conversion \(\rightarrow\) Some goodlooking are boys. Hence the aligned pair is
[Some goodlooking are boys.
Some boys are Indian.]
(b) Converting the second statement and changing the order of the sentences
The aligned pair will be
[Some Indians are boys. (converted form of second statement)
All boys are goodlooking.]
Ex. 2: I. Some girls are cute.
II. Some Americans are cute.

\section*{Discussion:}

Here the term 'cute' is common to both the given statements. And the predicate of the first statement is the predicate of the second statement. Hence the statement are not properly aligned.

We can align the pair by
(a) converting the first statement and changing the order of the statements. The aligned pair will be: [Some Americans are cute.
Some cute are girls (converted form of first statement).]
(b) converting the second statement, the aligned pair will be: [Some girls are cute.
Some cute are Americans (converted form of second statement).]
Ex. 3: I. No table is chair.
II. Some doors are tables.

\section*{Discussion:}

Here the term 'table' is common to both the given statements. And the subject of the first statement is predicate of the second statement. Hence the statements are not properly aligned. We can align this pair by changing the order of the statements. The aligned pair will be:
[Some doors are tables. No table is a chair.]
Ex. 4: I. Some books are pants.
II. No pants are worthy.

\section*{Discussion:}

Here the term 'pants' is common to both the statements. And the sentences are already aligned, since predicate of the first statement is the subject of the second statement.

\section*{Rule of IEA}

We have seen that in order to align a sentence, conversion is necessary when the common term is either a subject in both the sentences or a predicate in both the sentences (see Ex. 1 and Ex. 2 in the previous section). In such cases we have to convert one of the sentences. A question may arise here as to which of the two statements to choose for conversion. For this remember the rule of IEA. That is, given a pair of to-be-aligned sentences, the priority should be given, while converting to I-type statement, to E-type statement and then to A-type statement, in that order. Hence, if in the given pair one sentence is of type I and the other of type A, then the sentence of type I should be converted.

\section*{Step II: Use the table to draw conclusions}

After step I (which involved aligning the two sentences) has been completed, we are left with the easy and selfexplanatory table which can be used to draw conclusions.

Table
To draw conclusions from a pair of aligned statements
\begin{tabular}{|c|c|c|}
\hline \begin{tabular}{c} 
If the firsts \\
statement \\
is of the type
\end{tabular} & \begin{tabular}{c} 
and the second \\
statement is \\
of the type
\end{tabular} & \begin{tabular}{c} 
then the \\
conclusion \\
will be
\end{tabular} \\
\hline A & \(\mathbf{A}\) & \(\mathbf{A}\) \\
\hline A & \(\mathbf{E}\) & \(\mathbf{E}\) \\
\hline A & 1 & - \\
\hline A & O & - \\
\hline E & \(\mathbf{A}\) & \(\mathbf{O}^{*}\) \\
\hline E & E & - \\
\hline E & I & \(\mathbf{O}^{*}\) \\
\hline E & O & - \\
\hline I & E & I \\
\hline I & I & \(\mathbf{O}\) \\
\hline I & O & - \\
\hline I & A or E or I or O & - \\
\hline O & & - \\
\hline
\end{tabular}

Note : The reader should note that
(i) There are only 6 cases where a conclusion can be drawn. These cases are highlighted in the table by bold letters and can be memorised in short form as:
\begin{tabular}{|c|c|c|c|c|}
\hline A & + & A & = & A \\
\hline A & + & E & = & E \\
\hline E & + & A & = & O* \\
\hline E & + & I & = & O* \\
\hline I & + & A & = & I \\
\hline I & + & E & = & 0 \\
\hline
\end{tabular}
(ii) The ' - ' sign in the third column of the above table means that no definite conclusion can be drawn.
(iii) Above table gives correct results if and only if the two sentences have been properly aligned.
(iv) Format of the conclusion (very important): The conclusion or the inference is itself a proposition whose subject is the subject of the first statement and whose predicate is the predicate of the second statement. The common term disappears.
(v) The meaning of \(\mathbf{O}^{*}\) : In the third column of above table we have written \(\mathrm{O}^{*}\) in place of O at two places. By O* we mean that the conclusion or inference is of type O but its format is exactly opposite the format mentioned in (iv). In this case the subject of the inference is the predicate of the second sentence and the predicate of the inference is the subject of the first sentence.

\section*{An illustrative example}

Draw inferences for the following pairs of statements:
(i) All books are hooks. All hooks are crooks.
(ii) All tables are chairs. All tables are glasses.
(iii) Some posters are goodlooking. All posters are expensive.
(iv) Some pencils are torches. No books are pencils.
(v) No bandit is kindhearted. All bandits are blackmailers.
(vi) Some roses are red. Some roses are good.

\section*{Solution:}
(i) Step I: The sentences are already aligned. Step II: By the table, we see that A + A = A. Hence the inference will be of type A. Its subject will be the subject of the first sentence, ie books, and the predicate will be the predicate of the second sentence, ie crooks. Hence, inference: All books are crooks.
(ii) Step I: The common term 'tables' is a subject in both the sentences. Hence we will have to convert in order to align. Since both the sentences are of the same type (A), we may convert any of them. We choose to convert the first. Consequently, the aligned pair of sentences is:

Some chairs are tables. (Converted form of all tables are chairs.)
All tables are glasses.
Step II: From the table, I \(+A=I\). Hence the conclusion will be of type I, its subject being the subject of the first sentence (after aligning has taken place), ie 'chairs', and its predicate being the predicate of the second sentence, ie 'glasses'. Hence, Inference: Some chairs are glasses.
(iii) Step I: Again the common term 'posters' is a subject in both the sentences. By the rule of IEA we convert the I-type statement which is the first statement. Consequently, the aligned pair of sentences is:

Some goodlooking are posters (converted).
All posters are expensive.
Step II: I + A = I, hence inference is:
Some goodlooking are expensive.
(iv) Step I: The common term 'pencils' is a subject in one sentence and a predicate in the other. Hence, changing the order of the statements is sufficient to align the two sentences. Consequently, the aligned pair will be:

No books are pencils.
Some pencils are torches.
Step II: \(\mathrm{E}+\mathrm{I}=\mathrm{O}^{*}\). As we know, \(\mathrm{O}^{*}\) means that the conclusion is of type \(O\) but the subject of the conclusion is the predicate of the second sentence and the predicate of the conclusion is the subject of the first sentence. Hence, inference is:

Some torches are not books.
(v) Step I: By the rule of IEA, we convert the E-type statement. The aligned pair is:

No kindhearted is a bandit.
All bandits are blackmailers.
Step II: \(\mathrm{E}+\mathrm{A}=\mathrm{O}^{*}\). Hence, inference is:
Some blackmailers are not kindhearted.
(vi) Step I: We convert the first sentence and obtain the following pair of aligned sentences:

Some red are roses.
Some roses are good.
Step II: I + I = _. This means that there can be no definite inference.

\section*{II. Draw Immediate Inferences (implication or conversion)}

We say this step as Step III.
Step III: Check for any immediate inferences (implication or conversion)
Consider the following. Here two statements are given, followed by two conclusions.
(i) Statements: All books are chairs.

All chairs are red.
Conclusions: (i) All books are red.
(ii) Some red (objects) are books.

Here we have (the sentences are already aligned) \(\mathrm{A}+\mathrm{A}\) \(=\) A. Hence the conclusion should be: All books are red. But if we convert this conclusion, we obtain: Some red (objects) are books. Hence, both the conclusions given above should be taken as true.
(i) Statements: Some buses are trucks. Some trucks are cars.
Conclusions: (i) Some trucks are buses.
(ii) Some cars are trucks.

Here we have (the sentences are already aligned) I + I \(=\) ', ie, no conclusion. But if we convert the first statement 'Some buses are trucks', we get 'Some trucks are buses'. Similarly, on converting the second statement, we get 'Some cars are trucks'.

Hence we observe that although there is no conclusion or mediate inference using steps I and II, still on converting the given statements themselves we find that both the given conclusions are true.
(iii) Statements: All buses are trucks.

All trucks are cars.

Conclusions: (i) Some buses are trucks.
(ii) Some cars are buses.

Here we have, \(A+A=A\). Hence the conclusion should be: "All buses are cars." But this answer choice is not given. But if we convert this statement we get "Some cars are buses" which is the second given conclusion. Also, an immediate implication of "All buses are trucks" is "Some buses are trucks". Hence, here again, both the conclusions are correct.

Hence the above three examples show that while judging the given conclusions, we should not only take the conclusion (mediate inference) drawn from the table (if any) as correct, but the immediate inferences (immediate implications and/or conversions) of the given statements as well as of the conclusion drawn from the table, should also be treated as correct inferences.

\section*{III. Check for Complementary Pair}

We can say this step as Step IV.
Two statements make a complementary pair if
(a) both of them have the same subject and the same predicate.
(b) they fall into any of these categories:
(i) I and O type pair
(ii) E and I type pair
(iii) A and O type pair

Think over the following:
Ex. 1: Conclusions:
(i) Some students are Indians.
(ii) Some students are not Indians.

It is easy to understand that one of these conclusions must be true. This is because when 'Some students are Indians' is false the other conclusion 'Some students are not Indians' is automatically true. We call such a pair of sentences as complementary pair. Thus a pair of sentences is called complementary pair if it is so that when one is false other is true. Hence, in a complementary pair, at least one of the two statements is always true. This is a typical case where the choice "either (i) or (ii) follows" is true. Remember that this answer choice follows even without looking at the statements.

We give below some more examples of complementary pairs of statements:
Ex. 2: No student is a table. Some students are tables.
Ex. 3: All beautiful are kind. Some beautiful are not kind.
More generally, we can classify complementary pairs by the type of proposition. You may notice that in Ex 2, E and I type propositions made complementary pairs; in Ex 3, A and O type propositions made complementary pairs while in the earlier example \(I\) and \(O\) type propositions ['Some students are Indians' and 'Some students are not Indians'] made complementary pairs.
Please note that sometimes a pair of statements may be complementary although it may not appear so. Consider the given example,
Ex. 4: Some books are hooks.
Some hooks are not books.
Explanation: Here the two sentences do not have the same subject and predicate. 'Books' is the subject of the first sentence and the predicate of the second while 'hooks' is the predicate of the
first sentence and the subject of the second. Hence the sentences do not appear to be complementary. But if we convert the first sentence from 'Some books are hooks' to 'Some hooks are books', the two sentences have the same subject and predicate now, and being an 'I and O' pair they are complementary.
Note: This step asks you to check for a complementary pair. If you do find a complementary pair you should choose "either of them follows". This step is applicable to only those conclusions which do not follow from step II or III. Thus, the choice "Either of them follows" should be chosen if
(i) None of the given two conclusions are found to be correct, and
(ii) the two conclusions form a complementary pair.
The rule is explained by way of the following examples:
Ex. 5: Statements: Some stones are radios.
Some radios are chairs.
Conclusions: No stones are chairs.
Explanation: You may check that none of the given conclusions is correct. But the two conclusions form a complementary pair because they are 'E and I' type. Hence the choice 'either of them follows' is correct.
Ex. 6: Statements: Some stones are radios.
Some radios are chairs.
Conclusions: No stones are chairs.
Some chairs are not stones.
Explanation: You may check that none of the given conclusions is correct. The answer conclusions do not form a complementary pair
[E-O pair is not complementary]. Hence the choice 'None of them follows' is correct.
Ex. 7: Statements: Some stones are radios. All radios are chairs.
Conclusions: Some stones are chairs. Some stones are not chairs.
Explanation: We see that the answer conclusions form a complementary pair. But this does not mean that the choice "either of the two follows" is correct. This is because the conclusion 'Some stones are chairs’ is correct.
I hope that this thorough and exhaustive analysis will be of immense help to the readers and they will never be confused for the choice "either of them follows".

\section*{Summary of the Analytical Method}

Now, the discussion of the analytical method is complete. For the readers' benefit, I once again summarise the steps to do a syllogism problem.
Step I: Properly align the sentences.
Step II: Use the table to draw conclusion.
Step III: Check for immediate inferences.
Step IV: Check for complementary pairs if steps II and III fail.
Each of the steps given above has been elaborately and clearly explained before. The reader is advised to go through those details once again.

\section*{Three-Statement Syllogism}

Three-statement syllogism problems are not more difficult than the usual two-statement syllogism. It may,
of course, be a little more time-taking but it is not more difficult.

\section*{Step I:}

The first step in solving a three-statement syllogism problem involves "carefully choosing the two relevant statements out of the three given statements". You should perform the first step in the following manner:
(i) Take a given conclusion.
(ii) See the subject and the predicate of this given conclusion.
(iii) Now see which of the two given statements has this subject and predicate.
(iv) A. If there is one term common between the two statements chosen in the previous part [(iii)], these two statements are your relevant statements.
B. If there is no term common between the two statements chosen in the previous part [(iii)], then all the three statements are your relevant statements. In this case you will have to apply a chain-like formula.

\section*{Step II:}

In syllogism, there are four types of statements, viz A, \(E, I\) and \(O\). When two statements are given and they are arranged in such a way that the predicate of the first sentence and the subject of the second sentence is the same, then the following six formulae are applicable.
\(A+A=A \quad I+A=I \quad I+E=O\)
\(A+E=E \quad E+A=O^{*} \quad E+I=O^{*}\)
Note: O* means "O reversed." In this case the predicate and the subject of the conclusion appear in reverse order. For example, "No bomb is comb" + (Some combs are bullets" is of the form \(\mathrm{E}+1\) and it will give a conclusion "O reversed", ie "Some bullets are not bombs". It will not be "Some bombs are not bullets". Thus, in the second step you should apply the formulae to get conclusions. The second step should be performed in the following order:
(i) Take a given conclusion. See its subject and predicate. Now, by using the first step, find out how many and which statements are relevant for this conclusion.
(ii) I. If two statements are relevant for a given conclusion, write them in such an order that the predicate of the first sentence and the subject of the second sentence are the same.
II. If three statements are relevant for a given conclusion then write them as a chain. Arrange them in such a way that the predicate of the first sentence and the subject of the second sentence are the same, and the predicate of the second sentence and the subject of the third sentence are the same. For example,
A. No hook is a cook.
B. All books are docks.
C. Some docks are hooks.

These should be rearranged as a chain below:

(iii) Now apply the formulae. Note that there are six formulae only. This means that there are only six types of cases in which a conclusion is possible. In any other type of cases you may write "no conclusion". For example, A + I = no conclusion. Also, note that when three statements are simultaneously relevant, you have to write them in a chain and use the formula repeatedly. For example, if you get \(I+A+E\), you should write it as \((\mathrm{I}+\mathrm{A})+\mathrm{E} \Rightarrow \mathrm{I}+\mathrm{E}(\because \mathrm{I}+\mathrm{A}=\mathrm{I}) \Rightarrow \mathrm{O}(\because \mathrm{I}+\mathrm{E}=\mathrm{O})\). Thus you get, \(I+A+E=O\).
Similarly,you may see that \(\mathrm{A}+\mathrm{E}+\mathrm{I}=(\mathrm{A}+\mathrm{E})+\mathrm{I}=\) \((\mathrm{E})+\mathrm{I}=\mathrm{O}^{*}\) or O reversed.
(iv) Now compare the given conclusion with the result of the formula that you have applied. If they match, the given conclusion is true. If they do not match, it is false.

\section*{Step III:}

In certain cases, a conclusion follows directly from one given statement only. This is called immediate inference. Also, in some cases, two given answer choices make a complementary pair, and in such cases "either of them follows" should be chosen. Therefore, in the third step you should do the following:
(i) Check for immediate inference: Take a given conclusion. If it has already been marked as a valid conclusion after step II then leave it. Otherwise,
check if it is an immediate inference of any of the three given statements.

\section*{(ii) Check for complementary pair:}
(a) Check if any two given conclusions have the same subject and the same predicate.
(b) If yes, then check that none of them has been marked as a valid conclusion after step II or as a case of immediate inference.
(d) If none of them has been marked as a valid conclusion then they will form a complementary pair if they are an A-O or an IO or an I-E pair.
(d) If they do make a complementary pair then mark the choice "either of the two follows".

\section*{A Summary of the Method}

The entire process of solving three-statement syllogism is performed in three simple steps. These three steps have been already described above. To make it clearer, we are giving below the gist of these three steps:

Take a given conclusion.
Perform step I. In other words, find out the relevant statements to test this conclusion.
Perform step II. In other words, use the formulae to test a given conclusion. [If more than two statements are relevant for a given conclusion, use the chainlike formulae]. If the given conclusion has been rejected in step II.
Perform step III: (i). In other words check for immediate inference. If the given conclusion has still not been accepted.
Perform step III: (ii). In other words check for complementary pair. [Note: You do not need to perform Step III (i), if a conclusion has already been accepted in step II. Again, you do not need to perform step III (ii), if a given conclusion has already been accepted in step III (i)].

\section*{Illustrative Examples}

Ex. 1: Statements:
(A) All docks are boxes.
(B) Some cars are docks.
(C) No boxes are chocolates.

\section*{Conclusions:}
I. Some cars are boxes.
II. No chocolates are docks.
III. Some cars are chocolates.
IV. Some cars are not chocolates.
1) Only I and IV follow
2) Only I and II follow
3) Either III or IV, and I follow
4) I, IV and II follow
5) Either III or IV, and I and II follow

\section*{Explanations:}

Conclusion I. We first take conclusion I. Here, the subject is 'cars' and the predicate is 'boxes'. Now, we see that 'cars' is in statement B and 'boxes' is in statement A. Now look at statements A and B. Do they have a common term? Yes, the common term is 'docks'. Therefore, A and B are our two relevant statements.

Now we perform step II. For this, we first arrange A and B in such a way that the predicate of the first sentence is the subject of the second. This is done as:

Some cars are docks. (I)


All docks are boxes. (A)
Now we have, \(I+A=I\). So the conclusion will be of type I; it will be "Some cars are boxes." Hence, conclusion I is valid. (Now, we do not need to perform step III because the conclusion has been accepted in step II itself.)
Conclusion II. Now we take conclusion II. Here, the subject is 'chocolates' and the predicate 'docks'. Now we see that 'chocolates' appears in statement 'C'. But 'docks' appears in both ' A ' and ' B '. So, which of the two should we take? We should take ' \(A\) ' because (Note this) there is a term common between A and C . We would not take \(B\) because there is no term common between \(B\) and \(C\).

Now we perform step II. For this we write the sentences in such a way that the predicate of the first sentence is the subject of the second. This is done as:

All docks are boxes. (A)


Now, we have: \(\mathrm{A}+\mathrm{E}=\mathrm{E}\). Hence, the conclusion will be "No docks are chocolates". Now the given conclusion is: "No chocolates are docks". But "No docks are chocolates" automatically implies "No chocolates are docks". Hence this conclusion is also valid. [Again we do not need to perform step III because the conclusion has been accepted in step II itself.]
Conclusion III. Now we take conclusion III. Here, the subject is 'cars' and the predicate 'chocolates'. We see that 'cars' appears in 'B' while 'chocolates' appears in ' \(C\) '. Now, is there any common term between ' \(B\) ' and ' \(C\) '? We see that there is no term common between ' \(B\) ' and ' \(C\) '. So we will have to use a chainlike formula in this case because all the three statements are relevant here.

So we should perform step II. For this we should write the three statements in such a way that the predicate of the first sentence is the subject of the second and the predicate of the second sentence is the subject of the third. This is done as:

Some cars are docks. (I)

All docks are boxes. (A)


No boxes are chocolates. (E)
Now, we have the chainlike formula:
\(\mathrm{I}+\mathrm{A}+\mathrm{E}=(\mathrm{I}+\mathrm{A})+\mathrm{E}=(\mathrm{I})+\mathrm{E}=\mathrm{O}\). Thus a valid conclusion would be of type \(O\); that is "Some cars are not chocolates". But this is conclusion IV. Hence, conclusion IV is valid. But conclusion III is not accepted in step II. So we perform step III (i). We see
that "Some cars are not chocolates" does not follow from any of the three given statements alone. So this test fails. Now, we perform step III (ii). For this, we will have to first search any other conclusion that has the same subject; and predicate. We see that conclusion IV fulfils this condition because the subject and the predicate of conclusions III and IV are the same: 'cars' and 'chocolates' respectively. Again, conclusion III is of type I and conclusion IV is of type O and we know that an I-O pair makes a complementary pair.

Still, we would not choose the choice "either of them follows" unless it is made sure that step II and step III (i) fail on conclusion IV too. But we see that conclusion IV is accepted in step II. So, despite the fact that conclusion III and IV make a complementary pair, we do not accept the choice "either of them follows" because, conclusion IV is accepted in step II.

Conclusion IV.
As already explained, it is a valid conclusion.
Answer: 4 (I, II and IV follow).

\section*{Quicker Approach}

Till now, we have presented step-by-step, exhaustive solutions to the questions. This may give an indication that this method is very lengthy. But, actually it is not so. In fact, once you have solved ten such questions, the method will become very easy for you. First of all, you should do step I mentally. After a certain time you won't take more than a couple of seconds for this step. Similarly, after some practice, you will develop the ability of doing
step II and step III mentally, too. Once you attain the skill you will be able to solve 5 questions of three-statement syllogism in less than 4 minutes. To convince you that this method is really fast, I am presenting another example. In this example, I am only writing the relevant steps and omitting unnecessary details.
Ex. 2:Statements: A. All birds are swans.
B. Some skirts are birds.
C. All swans are ducks.

Conclusions: I. Some ducks are birds.
II. Some skirts are ducks.
III. All birds are ducks.
IV. Some birds are not ducks.
1) Only I and II follow
2) Only II and III follow
3) Either III or IV follows
4) I, II and either III or IV follow 5) I, II and III follow

Solution:
Conclusions I, III, IV: Subject and predicate are "ducks" and "birds". Hence, the relevant statements are A and C. Now, All birds are swans + All swans are ducks \(=A+A=A=\) All birds are ducks. Hence, III is valid. Again, "All birds are ducks" gives "Some ducks are birds". Hence I is valid. Ill and IV make complementary pair but we do not choose "either III or IV follows" because III has already been accepted.
Conclusion II: Subject \(=\) 'skirts' and predicate \(=\) 'ducks'. 'Skirts' appears in B while 'ducks' appears in C. But there is no term common between B and C . Hence, all three statements are relevant. Now, rearrange the three statements. Some skirts are birds + All birds are swans + All swans are ducks \(=1+\mathrm{A}+\mathrm{A}\) \(=(I+A)+A=(I)+A=I=\) Some skirts are ducks.
Hence, conclusion II is valid.
Answer: 5 (I, II, III follow).

\section*{The Euler's Circles or Venn-Diagrams}

There is a pictorial way of representing the propositions, formulated by Euler, an ancient mathematician. Suppose that the proposition is trying to relate the subject ( S ) with the predicate ( P ). Then there are four ways in which the relation could be made according to the four propositions:

Type-A


Fig. I All S are P .

Type-I


Fig. III
Some \(S\) are \(P\).

Type-E


Fig. II
No S are P .
Type-0


Fig. IV
Some \(S\) are not \(P\).

Fig. I clearly represents 'All S are P'. This is denoted by the fact that the whole circle denoting \(S\) (denoting 'all S') lies within the circle denoting P. Similarly, Fig. II represents 'No \(S\) are \(P\) ' because the circles denoting \(S\) and P do not intersect at all. Fig. III, similarly, represents the proposition "Some S are P" because some part of the circle
denoting S as indicated by the shaded area of S (representing 'some S') lies within the circle denoting P. Slightly more attention-seeking is the representation for the \(\mathbf{O}\) proposition "Some S are not P". For this, take a closer look at Fig. IV. The figure shows that some portion of the circle \(S\) has no intersection with the circle \(P\), while the remaining portion of the circle S is left incomplete and it is uncertain whether this portion touches \(P\) or not. The verbal interpretation of this figure would be: "there are some S that are definitely not P while there may be some S that might be P or might not be P ".

The case may be better understood by taking the following two sets.

Let \(\mathrm{S}=\) \{Green, Red, Blue, Madan, Mohan\} and let \(\mathrm{P}=\) \{names\}. Now, in this case, there are some S (Green, Red, Blue) that are not names and therefore not P. While there are some S (Madan, Mohan) that are names and are, therefore, P. Therefore, here, we have "Some S are not P" while "Some S are P". The correct pictorial representation for such a case would be like Fig. Ill, that is:

"Some S are not P". ["Some S are P".]
Fig. V
Now, consider another case.
Let, \(S=\{\) even numbers \(\}\), that is, \(S-\{2,4,6,8, \ldots\).\(\} , and\) let \(P=\{\) odd numbers \(\}\), that is, \(P=\{1,3,5,7, \ldots\}\). Now, here again, we may find "Some \(S\) ", say \(\{2,4,8\}\) that are not odd numbers and, therefore, not P. Therefore, the proposition "Some S are not P " is true in this case as well. But on a closer scrutiny we find that there is no element in S which is an odd number or which is a P. In fact, here, we have "No S are P". The correct pictorial representation for such a case would be like figure II, that is,


Fig. VI
Fig. IV is a general representation for the statement "Some S are not P". This proposition gives no clue whether the remaining S are there in P or not. The dotted portion of Fig. IV represents this lack of information only. If it is further known that the remaining \(S\) are in \(P\) then the dotted portion should be drawn to intersect with the circle P and it would take the shape of Fig. V, while if it is known, on the other hand, that the remaining \(S\) are not in P either, then the dotted portion too, should be outside the circle \(P\) and hence the representation would take the form of Fig. VI.

Quite similar to this, there could be the case of the statement "Some S are P". This statement is as ambiguous as the statement "Some S are not P ". The reader may analyse this statement on the same lines as discussed above. He should be able to appreciate the fact that "Some S are P " may have two aspects. One, where the remaining S are not P , and two, where the remaining S are also P . Correspondingly, there could be two representations, viz:
```

"Some S are P".
["Some S are not P".]
and
"Some S are P"
["All S are P".]
["All S are P".]

```


Fig. VII
Based on the discussions made so far, we tabulate the concepts developed in the following table.

Table 2: Euler's Circles and representation of the four propositions
\begin{tabular}{|c|c|}
\hline If the Type of the given proposition is & Then its pictorial representation is \\
\hline \[
\begin{gathered}
A \\
\text { All } S \text { are } P
\end{gathered}
\] & Always \\
\hline \[
\begin{gathered}
E \\
\text { No } S \text { are } P
\end{gathered}
\] & \begin{tabular}{l}
Always \\
S \\
P
\end{tabular} \\
\hline & Either S P \begin{tabular}{l} 
Some S are P. \\
[Some S are not P ]
\end{tabular} \\
\hline Some S are \(P\) &  \\
\hline & \begin{tabular}{l}
Or, \\
Some S are P \\
[All P are S ]
\end{tabular} \\
\hline \multirow{3}{*}{\(\stackrel{O}{\text { Some } S \text { are not } P}\)} & \begin{tabular}{l}
Some S are not P \\
Either [Some S are P ]
\end{tabular} \\
\hline & \begin{tabular}{l}
Or, \\
Some S are not P [All P are S ]
\end{tabular} \\
\hline & Or, \(\quad \mathrm{S} \quad \begin{aligned} & \text { Some } \mathrm{S} \text { are not } \mathrm{P} \\ & \text { [no } \mathrm{S} \text { are } \mathrm{P}]\end{aligned}\) \\
\hline
\end{tabular}

\section*{Problems Based on Possibilities}

Questions based on possibilities are often asked in various competitive exams. To solve syllogism questions on possibilities, following points should be kept in mind:
(1) When definite conclusions (either definitely true or definitely false) can be drawn from the given propositions, they are certainties. It is to be noted that conclusions can be drawn either by 'immediate inference' (implication or conversion) or by 'mediate inference' (combining pair of aligned propositions).
For example, take an A-type proposition as given below:

All S are P
For this statement, following are the definite conclusions:
(i) All S are \(\mathrm{P} \rightarrow\) conversion \(\rightarrow\) Some P are S [Definitely True]
[Since, on conversion of A-Type statement, we obtain I-type of statement]
(ii) All S are \(\mathrm{P} \rightarrow\) implication \(\rightarrow\) Some S are P [Definitely True]
(iii) No \(S\) are \(P\) [Definitely False]
(iv) Some S are not P [Definitely False]

Therefore, the above drawn conclusions are cases of certainties.
(2) When definite conclusions cannot be drawn from the pair of aligned statements (mediate inference), cases of possibilities exist.
It should be noted that there are only six cases where a conclusion can be drawn. These cases are as given below:
\(A+A=A\)
\(A+E=E\)
\(\mathrm{E}+\mathrm{A}=\mathrm{O}^{*}\)
\(\mathrm{E}+\mathrm{I}=\mathrm{O}^{*}\)
\(\mathrm{I}+\mathrm{A}=\mathrm{I}\)
\(\mathrm{I}+\mathrm{E}=\mathrm{O}\)
Except the abovementioned cases, in all other cases, possibilities exist.
\(\mathrm{A}+\mathrm{I}=\)
\(\mathrm{A}+\mathrm{O}=-\)
\(\mathrm{E}+\mathrm{E}=-\)
\(\mathrm{E}+\mathrm{O}=-\)
\(\mathrm{I}+\mathrm{I}=-\)
\(\mathrm{I}+\mathrm{O}=-\)
\(\mathrm{O}+[\mathrm{A}\) or E or I or O\(]=-\)
Note: '-' stands for 'No conclusion'.
Now, we analyse the different cases of possibilities in the following pages:

\section*{Immediate Possibilities}

\section*{A-Type [All S are P]}
I. Implication

Conclusions:
(i) Some S are P [True]
(ii) Some S are not P [False]
(iii) No S are P [False]

The above three conclusions are either definitely true or definitely false.
II. Conversion

We know that A-Type of statements can be converted to I-Type of statements. Therefore, All S are \(\mathrm{P} \rightarrow\) conversion \(\rightarrow\) Some \(P\) are \(S\)

Hence, 'Some P are S ' is a definite conclusion.
But 'All P are S' is a possibility.

\section*{E-Type [No S are P]}
I. Implication

\section*{Conclusions:}
(i) All S are P [False]
(ii) Some S are P [False]
(iii) Some S are not P [True]

The above conclusions are either definitely true or definitely false.
II. Conversion

No \(S\) are \(P(E) \rightarrow\) conversion \(\rightarrow\) No \(P\) are \(S(E)\).
Therefore, 'No P are S' is a case of certainty.

\section*{I-Type [Some \(\mathbf{S}\) are P]}
I. Implication

Conclusions:
(i) No S are P [False]

The above conclusion is definitely false.
Cases of Possibilities:
(i) All S are P [Doubtful]
(ii) Some S are not P [Doubtful]

All the above statements are cases of possibilities.
II. Conversion

Some S are P (I) \(\rightarrow\) conversion \(\rightarrow\) Some P are S (I). The above statement is a definite conclusion obtained by conversion of the given I-Type of proposition. There are some possibilities related to I-type of statements as given below:
(i) All P are S
(ii) Some P are not S

O-Type [Some \(S\) are not \(P\) ]
I. Implication

Conclusions:
(i) All S are P [False]

The above conclusion is definitely false.
Cases of Possibility:
(i) No S are P [Doubtful]
(ii) Some S are P [Doubtful]

The above statements are cases of possibilities.
II. Conversion

We know that O-type of statements cannot be converted. Therefore, there can be no definite conclusion from the conversion of O-type of statements. However, the following possibilities exist:
(i) All P are S
(ii) No P are S
(iii) Some P are S
(iv) Some \(P\) are not \(S\)

Note: Here, for the cases of possibilities, we consider
O-Type and \(\mathbf{O}^{*}\)-Type statements alike. For this reason we do not take up \(\mathbf{O}^{*}\)-Type as a separate case.
Summary
Cases of Possibility
A-Type [All S are P ]
(i) All P are S

I-Type [Some \(S\) are \(P\) ]
(i) All S are P
(ii) Some S are not P
(iii) All P are S
(iv) Some \(P\) are not \(S\)

O-Type [Some \(S\) are not \(P\) ]
(i) No S are P
(ii) Some \(S\) are \(P\)
(iii) All P are S
(iv) No P are S
(v) Some \(P\) are \(S\)
(vi) Some P are not S

\section*{Mediate Possibilities}

When we have been given any of the following types of pair of aligned statements, cases of possibilities exist:
\(\mathrm{A}+\mathrm{I} ; \mathrm{A}+\mathrm{O} ; \mathrm{E}+\mathrm{E} ; \mathrm{E}+\mathrm{O} ; \mathrm{I}+\mathrm{I} ; \mathrm{I}+\mathrm{O} ; \mathrm{O}+[\mathrm{A}\) or E or I or O]
Suppose, we have the following propositions:
1. \(\mathbf{A}+\mathbf{I}\)

All S are P
Some P are Q
2. \(\mathbf{A}+0\)

All \(S\) are \(P\)
Some \(P\) are not \(Q\)
3. \(\mathbf{E}+\mathbf{E}\)

No S is P
No \(P\) is \(Q\)
4. \(\mathbf{E}+\mathbf{O}\)

No S is P
Some \(P\) are not \(Q\)
5. \(I+I\)

Some S are P
Some \(P\) are \(Q\)
6. \(I+O\)

Some \(S\) are \(P\)
Some \(P\) are not \(Q\)
Note: Similarly, we can write a pair of aligned statements for \(\mathrm{O}+\mathrm{A}, \mathrm{O}+\mathrm{E}, \mathrm{O}+\mathrm{I}\) and \(\mathrm{O}+\mathrm{O}\) also. We know that from the above pairs of aligned statements, definite conclusions cannot be drawn. But some relationships between \(S\) and \(Q\) exist and we cannot say definitely that the relationships do exist. Therefore, cases of possibility arise. That is there are the possibilities that some relationships between \(S\) and \(Q\) exist. For any of the above pairs of aligned statements, following are the all standard cases of possibilities that exist between S and Q .
(a) All S are Q
(b) Some \(S\) are \(Q\)
(c) Some \(S\) are not \(Q\)
(d) All \(Q\) are \(S\)
(e) Some \(Q\) are \(S\)
(f) Some Q are not S

\section*{'Either......or' Cases in Possibility}

We will try to understand the 'Either.....or' cases of possibility by examples as given below:
Ex. 1: Statements: Some \(P\) are \(Q\).
All Q are R .
No R is S .

\section*{Conclusions:}
I. All \(S\) being \(P\) is a possibility.
II. All P being R is a possibility.

Explanation:
Some \(P\) are \(Q+\) All \(Q\) are \(R+\) No \(R\) is \(S=I+A+E=\) \((I+A)+E=I+E=O=\) Some \(P\) are not \(S\). From this
O-Type of conclusion there is a possibility of all S
being P. Therefore, conclusion I follows. Again, Some \(P\) are \(Q+\) All \(Q\) are \(R=I+A=I=\) Some \(P\) are R. From this conclusion, possibility of all P being R exists. Therefore, conclusion II follows. But if II is possible, I can't be possible. How? Then All P are \(\mathrm{R}+\) No R is \(\mathrm{S}=\mathrm{A}+\mathrm{E}=\mathrm{E}=\) No P is S . Thus, both conclusions I and II can't follow simultaneously. Therefore, 'Either I or II follows' will be the correct answer.
Ex. 2: Statements: Some \(P\) are \(Q\).
All \(Q\) are \(R\).
No R is S .

\section*{Conclusions:}
I. All P being R is a possibility.
II. All S being P is a possibility.

\section*{Explanation:}

Some \(P\) are \(Q+\) All \(Q\) are \(R=I+A=I=\) Some \(P\) are \(R\) \(\Rightarrow\) All \(P\) being \(R\) is a possibility. Therefore, conclusion \(I\) follows. Again, Some \(P\) are \(Q+\) All \(Q\) are \(R+\) No \(R\) is \(\mathrm{S}=\mathrm{I}+\mathrm{A}+\mathrm{E}=(\mathrm{I}+\mathrm{A})+\mathrm{E}=\mathrm{I}+\mathrm{E}=\mathrm{O}=\) Some P are not \(\mathrm{S} \Rightarrow\) All S being P is a possibility. Therefore, conclusion II follows. But, conclusions I and II both cannot be true simultaneously. If I follows, All P are \(\mathrm{R}+\) No R is \(\mathrm{S}=\mathrm{A}+\mathrm{E}=\mathrm{E}=\) No P is S . Hence II can't follow. Hence, 'Either I or II follows' will be the correct answer.

\section*{Determining the Hidden Proposition}

The reader must have noticed that there are some sentences in the previous example that are on standard patterns as given in the first table. But some other sentences are not on the standard patterns. We should know, therefore, how to find out the hidden propositions in such sentences.

\section*{Some A-type propositions not beginning with 'All'}
(i) All positive propositions beginning with 'every', 'each', 'any', are A-type propositions.

\section*{Examples:}
(a) Every man makes sandwiches. (All men make sandwiches.)
(b) Each of them has a share of profit.
(All (of them) have a share of profit.)
(c) Any one could kill a mosquito.
(All (men) can kill mosquitoes.)
(ii) A positive sentence with a particular person as its subject is always an A-type proposition.

\section*{Examples:}
(a) He should be awarded a gold medal.

He (is a man) who should be awarded a (gold medal). Subject Predicate.
(b) Baba Ramdev is a controversial personality.
(iii) A positive sentence with a very definite exception is also of \(\boldsymbol{A}\)-type.

\section*{Example:}

All students except Ram have failed.
(All except Ram (are the students) who have failed.) Subject

Predicate

\section*{Some E-type propositions not beginning with 'No'}
(i) All negative sentences beginning with 'no one', 'none', 'not a single', etc are \(\boldsymbol{E}\)-type propositions.

\section*{Examples:}
(a) None can escape from Tihar.
(No man is one who/can escape from Tihar).
Subject Predicate
(b) Not a single player is present. (No player is present.)
(ii) A sentence with a particular person as its subject but a negative sense is an \(\mathbf{E}\)-type proposition.

\section*{Examples:}
(a) He does not deserve a gold medal.
(He (is not a man) who deserves a gold medal.) Subject

Predicate
(b) Baba Ramdev is not a controversial personality.
(iii) A negative sentence with a very definite exception is also of \(\boldsymbol{E}\)-type.

\section*{Example:}

No student except Ram has failed.
(iv) When an interrogative sentence is used to make an assertion, this could be reduced to an \(\boldsymbol{E}\)-type proposition.

\section*{Examples:}
(a) Is there any sanity left in the world?
(No sanity is left in the world.)
(b) Is there any person who can cheat himself? (None can cheat himself.)

\section*{Some I-type propositions not beginning with 'Some'}
(i) Positive propositions beginning with words such as 'most', 'a few', 'mostly', 'generally’, ‘almost', 'frequently’, 'often', 'at least' are to be reduced to the I-type.

\section*{Examples:}
(a) Girls are usually feminine. (Some girls are feminine.)
(b) Students are frequently short-tempered. (Some students are short-tempered.)
(c) Almost all the books have been sold. (Some books have been sold.)
(d) A few dollars are left in my pocket. (Some dollars are left in my pocket.)
(e) Most of the paper is handmade. (Some (of the) paper is handmade.)
(f) At least some people are rich. (Some people are rich.)
(ii) Negative propositions beginning with words such as 'few', 'seldom', 'hardly’, 'scarcely', 'rarely', 'little' etc are to be reduced to the I-type.

\section*{Examples:}
(a) Few men are not corruptible. (Some men are corruptible.)
(b) Seldom are people not jealous. (Some people are jealous.)
(c) Rarely is a rich man not worried. (Some rich (men) are worried.)
(iii) A positive sentence with an exception which is not definite, is reduced to I-type proposition.

\section*{Examples:}
(a) All students except three have passed.
(Some students have passed.)
(b) All students except a few are present. (Some students are present.)

Some O-type propositions not beginning with "Some...not"
(i) All negative propositions beginning with words such as 'all', 'every', 'any', 'each' etc are to be reduced to O-type propositions.

\section*{Examples:}
(a) All men are not rich. (Some men are not rich.)
(b) Every one is not present. (Some are not present.)
(c) All that glitters is not gold. (Some glittering objects are not gold.)
(ii) Negative propositions with words as 'most', 'a few', 'mostly', 'generally', 'almost', 'frequently' are to be reduced to the O-type.
Examples:
(a) Girls are usually not feminine.
(Some girls are not feminine.)
(b) Students are not frequently short-tempered.
(Some students are not short-tempered.)
(c) Almost all the books have not been sold. (Some books have not been sold.)
(d) Most of the paper is not handmade. (Some (of the) paper is not handmade.)
(iii) Positive propositions with beginning words such as few', 'seldom', 'hardly'scarcely','rarely', 'little'etc are to be reduced to the O-type.
Examples:
(a) Few men are corruptible.
(Some men are not corruptible.)
(b) Seldom are people jealous.
(Some people are not jealous.)
(c) Rarely is a rich man worried. (Some rich men are not worried.)
(iv) A negative sentence with an exception, which is not definite, is to be reduced to the \(\boldsymbol{O}\)-type.

\section*{Examples:}
(a) No students except two have passed. (Some students have not passed.)
(b) No students except a few are absent. (Some students are not absent.)

\section*{Exercise-1}

Directions: In each question below are given two statements followed by two conclusions numbered I and II. You have take the two given statements to be true even if they seem to be at variance with commonly known facts. Read the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

Give answer
1) If only conclusion I follows.
2) if only conclusion II follows.
3) if either I or II follows.
4) if neither I nor II follows.
5) if both I and II follow.
1. Statements: All leaders are good team workers.

All good team workers are good orators.
Conclusions: I. Some good team workers are leaders.
II. All good orators are leaders.
2. Statements: All terrorists are human. All humans are bad.
Conclusions: I. All terrorists are bad. II. No human can be a terrorist.
3. Statements: Some teachers are followers. Some followers are famous.
Conclusions: I. Some teachers are famous. II. Some followers are teachers.
4. Statements: Ship was overturned. Captain was not traced.
Conclusions: I. Captain died in the accident. II. Captain is alive.
5. Statements: Some dedicated souls are angels. All social workers are angels.
Conclusions: I. Some dedicated souls are social workers.
II. Some social workers are dedicated souls.
6. Statements: a. All huts are palaces.
b. All palaces are houses.

Conclusions: I. Some houses are huts.
II. Some houses are palaces.
7. Statements: a. Some books are pencils.
b. Class is a book.

Conclusions: I. Some pencils are books.
II. No pencil is book.
8. Statements: a. All parrots are ducks.
b. All ducks are hens.

Conclusions: I. All parrots are hens. II. All ducks are parrots.
9. Statements: a. Some thoughts are brights.
b. Some brights are days.

Conclusions: I. All days are either brights or thoughts.
II. Some days are brights.
10. Statements: a. All articles are coats.
b. Some coats are tables.

Conclusions: I. Some articles are tables.
II. Some tables are articles.
11. Statements: Some pins are clips. Some clips are pens.
Conclusions: I. Some pins are pens. II. No pin is a pen.
(12-14): Statements: All D's are A's. All A's are C's.
12. Conclusions: I. Some C's are D's.
II. Some A's are D's.
13. Conclusions: I. All D's are C's.
II. Some D's are not A's.
14. Conclusions: I. All A's are D's.
II. All C's are A's.
(15-16): Statements: All doors are windows.
Some windows are clips.
15. Conclusions: I. Some clips are doors.
II. Some windows are doors.
16. Conclusions: I. Some clips, if they are doors, they are also windows.
II. All clips which are not windows are also not doors.
(17-18): Statements: No shoe is a chappal.
Some chappals are sandals.
17. Conclusions: I. Some sandals are not chappals.
II. Sandals which are not chappals are shoes.
18. Conclusions: I. No sandal is a shoe.
II. Sandals which are chappals are not shoes.
19. Statements: Some paints are red.

All red which are paints are yellow.
Conclusions: I. Some paints are yellow.
II. Some yellow are red.
20. Statements: All seats are hot.

All belts are hot.
Conclusions: I. Some seats are belts.
II. All hot are either seats or belts.
(21-22): Statements: All buildings are houses. No house is an apartment. All apartments are flats.
21. Conclusions: I. No flat is a house.
II. No building is an apartment.
22. Conclusions: I. All buildings being flats is a possibility.
II. All apartments being building is a possibility.
(23-24): Statements: Some oceans are seas. All oceans are rivers.
No river is a canal.
23. Conclusions: I. All rivers can never be oceans.
II. All canals being oceans is a possibility.
24. Conclusions: I. No ocean is a canal.
II. At least some seas are rivers.
(25-26): Statements: No day is night.
All nights are noon.
No noon is an evening.
25. Conclusions: I. No day is noon.
II. No day is an evening.
26. Conclusions: I. No evenings are nights.
II. All days being noon is a possibility.
(27-28): Statements: Some papers are boards. No board is a card.
27. Conclusions: I. No card is a paper.
II. Some papers are cards.
28. Conclusions: I. All cards being papers is a possibility.
II. All boards being papers is a possibility.
\(\left.\begin{array}{l}\text { (29-30) Statements: } \begin{array}{l}\text { Some institutes are banks. } \\ \text { All institutes are academies. } \\ \text { All academies are schools. }\end{array} \\ \text { 29. Conclusions: I. Some institutes are not schools. } \\ \text { II. All academies being banks is a } \\ \text { possibility. }\end{array}\right\}\)
\(\left.\left.\begin{array}{l}\text { 38. Statements: } \begin{array}{l}\text { Some mails are chats. } \\ \text { All updates are chats. }\end{array} \text { Conclusions: I. All mails being updates is a } \\ \text { possibility. } \\ \text { II. No update is a mail. }\end{array}\right\} \begin{array}{l}\text { (39-40): Statements: } \begin{array}{l}\text { No stone is metal. } \\ \text { Some metals are papers. } \\ \text { All papers are glass. }\end{array} \\ \text { 39. Conclusions: I. No glass is metal. } \\ \text { II. At least some glasses are metals. }\end{array}\right\}\)
1) All follow
2) None follows
3) Only III follows
4) Only I and II follow
5) None of these
4. Statements: a. No pentagrams are pentagons.
b. All pentagons are cubes.

Conclusions: I. Some cubes are not pentagons.
II. Some cubes are not pentagrams.
III. Some pentagrams are not cubes.
1) All follow
2) Only II follows
3) Only III follows
4) Only II and III follow
5) None of these
5. Statements: a. No horses are cats.
b. Some cats are rats.

Conclusions: I. Some rats are horses.
II. Some rats are not horses.
III. Some cats are not horses.
1) Only II and III follow
2) Either I or II and III follow
3) Only I and III follow
4) Only III follow
5) None of these
6. Statements: a. All tables are boxes.
b. Some boxes are windows.

Conclusions: I. Some tables are windows.
II. All boxes are tables.
III. No window is table.
1) None follows
2) Only either I or III follows
3) Only either II or III follows
4) Only I and II follow
5) None of these
7. Statements: a. No room is tiger.
b. All tigers are goats.

Conclusions:I. Some goats are rooms.
II. All goats are rooms.
III. Some goats are tigers.
1) None follows
2) Only either II or III follows
3) Only either I or III follows
4) Only II follows
5) None of these
8. Statements: a. Some cars are roads.
b. Some roads are buses.

Conclusions: I. Some roads are cars.
II. Some buses are cars.
III. Some buses are roads.
1) All follow
2) Only I and II follow
3) Only II and III follow 4) Only I and III follow
5) None of these
9. Statements: a. Some men are lions.
b. All foxes are lions.

Conclusions: I. Some foxes are men.
II. Some lions are men.
III. All lions are foxes.
1) All follow
2) Only I and II follow
3) Only II follows
4) Only III follows
5) None follows
10. Statements: a. All birds are flowers.
b. All flowers are trees.

Conclusions: I. Some trees are birds.
II. Some flowers are birds.
III. All birds are trees.
1) All follow
2) Only I and II follow
3) Only I and III follow
5) None follows
11. Statements: a. All bulbs are tables.
b. Some bulbs are pots.

Conclusions: I. All pots are tables.
II. No pot is table.
III. Some pots are tables.
1) Only I
2) Only II
3) Only III
5) None of these
12. Statements: a. All rats are bells.
b. All bells are cars.

Conclusions: I. All bells are rats.
II. Some cars are neither bells nor rats.
III. No car is rat.
1) Only I
2) Only II
3) Only III
4) Only II and III
5) None follows
13. Statements: a. All roads are trees.
b. No tree is soap.

Conclusions: I. No soap is road.
II. Some trees are roads.
III. No road is soap.
1) Only I
2) Only II
3) Only III
4) None follows 5) All follow
14. Statements: a. Some hotels are bricks.
b. All bananas are bricks.

Conclusions:I. Some bananas are hotels.
II. Some bricks are hotels.
III. No banana is hotel.
1) Only I and II
2) Only II and III
3) Only I follows
4) Only either I or III and II follow
5) All follow
15. Statements: a. Some books are lamps.
b. Some lamps are rods.

Conclusions: I. Some books are rods.
II. No rod is either book or lamp.
III. All rods are lamps
1) Only either I or II follows
2) Only I and III follow
3) Only II and III follow
4) None follows
5) All follow

Directions (8. 16-25): In each question below, there are two statements followed by four conclusions numbered I, II, III and IV. You have to take the given statements to be true even if they seem to be at variance with commonly known facts and then decide which of the given conclusions logically follow(s) from the given statements.
16. Statements: All birds are books.

All books are quarters.
Conclusions: I. All birds are quarters.
II. Some quarters are birds.
III. Some quarters are books.
IV. Some books are birds.
1) I, II and III follow 2) II, III and IV follow
3) I, III and IV follow
4) I, II and IV follow
5) All follow
17. Statements: Some books are novels

All novels are dishes.
Conclusions: I. Some books are dishes.
II. Some books are not dishes.
III. Some dishes are novels.
IV. Some dishes are not novels.
1) Either I or II follows
2) Either III or IV follows
3) Either I or II, and III or IV follow
4) I and III follow
5) Can't say
18. Statements: Some desks are pens.

No pen is a paper.
Conclusions:I. Some desks are papers.
II. Some desks are not papers.
III. No desk is paper.
IV. No paper is a pen.
1) Only II and IV follow 2) Either I or II follows
3) Either I or III follows 4) Only II and III follow
5) Only II, III and IV follow
19. Statements: All boys are girls.

No books are boys.
Conclusions: I. Some books are girls.
II. Some books are not girls.
III. Some girls are books.
IV. Some girls are not books.
1) Either I or II follows
2) Either III or IV follows
3) Only II and IV follow
4) Either I or II, and IV follow
5) Either III or IV, and II follow
20. Statements: All books are pens.

All books are tigers.
Conclusions: I. Some pens are books.
II. Some pens are tigers.
III. Some tigers are pens.
IV. Some pens are not tigers.
1) Only I and III follow
2) Only II and III follow
3) Only I follows
4) I, II and III follow
5) I and either II or IV follow
21. Statements: All spoons are bowls. Some bowls are plates.
Conclusions:I. Some spoons are plates.
II. Some bowls are spoons.
III. Some plates are spoons.
IV. All bowls are spoons.

1) Only I follows
2) Only II follows
3) Only II and III follow 4) Only I and II follow
5) None of these
22. Statements: Some dogs are cats.

No cat is a cow.
Conclusions: I. Some cats are dogs.
II. Some cows are dogs.
III. No dog is a cow.
IV. Some cats are not dogs.
1) Only I and II follow
2) Only II follows
3) Only III and IV follow
4) Only III follows
5) None of these
23. Statements: All bats are flies.

All rats are bats.
Conclusions: I. All flies are rats.
II. All bats are rats.
III. All rats are flies.
IV. Some flies are not bats.
1) Only I and III follow
2) Only III and IV follow
3) Only III and IV follow
4) Only II and III follow
5) None of these
24. Statements: All cups are saucers.

All pots are cups.
Conclusions: I. All pots are saucers.
II. All saucers are cups.
III. Some cups are pots.
IV. Some saucers are pots.
1) Only I and III follow
2) Only II and IV follow
3) Only I, III and IV follow
4) All follow
5) None of these
25. Statements: Some boats are buses.

All trains are buses.
Conclusions: I. No train is a boat.
II. All buses are trains.
III. Some buses are boats.
IV. Some trains are boats.
1) Either I or IV and III follow
2) Only IV follows
3) Only I and III follow
4) Only III and IV follow
5) None of these

\section*{Exercise-3}

Directions: In each question below, there are three statements followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts and then decide which of the given conclusions logically follow(s) from the given statements. Give answer
1) if only conclusion I follows
2) if only conclusion II follows
3) if either I or II follows
4) if neither I nor II follows
5) if both I and II follow
1. Statements: Some pins are forks.

All forks are keys.
No key is lock.
Conclusions: I. Some locks are pins.
II. No lock is a pin.
2. Statements: Some shirts are trousers.

Some trousers are jackets. All jackets are shawls.
Conclusions: I. Some shawls are shirts. II. Some jackets are shirts.
3. Statements: Some leaves are plants. Some plants are trees. Some trees are fruits.
Conclusions: I. Some fruits are trees. II. Some trees are plants.
4. Statements: Some rats are dogs. Some dogs are horses. Some horses are camels.
Conclusions: I. Some horses are rats. II. Some camels are horses.
5. Statements: Some books are dictionaries. Some dictionaries are files.
```

Some files are papers.
Conclusions: I. Some papers are files.
II. Some files are books.
6. Statements: Some stones are rocks.
All rocks are clouds.
All clouds are rains.
Conclusions: I. Some rains are stones.
II. Some clouds are rocks.
7. Statements: Some keys are holes
All holes are folders.
Some folders are stands.
Conclusions: I. Some stands are keys.
II. Some stands are holes.
8. Statement: All books are magazines.
Some magazines are notebooks.
Some notebooks are papers.
Conclusions: I. Some books are notebooks.
II. Some magazines are papers.
9. Statements: Some pearls are stones.
All stones are bricks.
All bricks are walls.
Conclusions: I. Some pearls are bricks.
II. Some pearls are walls.
10. Statements: Some apples are oranges.
Some oranges are grapes.
All grapes are bananas.
Conclusions: I. Some apples are bananas.
II. Some oranges are bananas.
11. Statements: All mobiles are phones.
All phones are computers.
All computers are scanners.
Conclusions: I. All mobiles are computers.
II. All phones are scanners.
12. Statements: Some boxes are bags.
All bags are trunks.
All trunks are drawers.
II. All trunks are bags.
All cars are buses.
Some buses are scooters.
No scooter is a train.
Conclusions: I. No bus is a train.
II. Some buses are trains.
14. Statements: Some chairs are wheels.
Some wheels are sofa sets.
All sofa sets are cupboards.
Conclusions: I. Some wheels are cupboards.
II. Some chairs are sofa sets.
15. Statements: Some coins are notes.
All notes are cards.
All cards are plastics.
Conclusions: I. Some coins are cards.
II. All notes are plastics.
16. Statements: Some desks are tents. Some tents are rivers. All rivers are ponds.
Conclusions: I. Some ponds are tents.
II. Some ponds are desks.
17. Statements: All chair are pens.
Some pens are knives. All knives are rats.
Conclusions: I. Some rats are chairs.
II. Some rats are pens.
18. Statements: Some forests are huts.
Some huts are walls.
Some walls are nets.

```
\begin{tabular}{|c|c|c|}
\hline 19. & Conclusions: & \begin{tabular}{l}
I. Some nets are forests. \\
II. Some nets are huts. \\
All tables are windows. \\
All windows are rooms. \\
All rooms are buses.
\end{tabular} \\
\hline & Conclusions: & \begin{tabular}{l}
I. Some buses are tables. \\
II. Some rooms are tables.
\end{tabular} \\
\hline 20. & Statements: & Some trees are boxes. All boxes are bricks. All bricks are dogs. \\
\hline & Conclusions: & \begin{tabular}{l}
I. Some dogs are trees. \\
II. Some bricks are trees.
\end{tabular} \\
\hline 21. & Statements: & All goats are flowers. No flower is branch. Some branches are roots. \\
\hline & Conclusions: & \begin{tabular}{l}
I. Some roots are goats. \\
II. No root is goat.
\end{tabular} \\
\hline 22. & Statements: & \begin{tabular}{l}
All pots are rings. \\
All bangles are rings. All rings are paints.
\end{tabular} \\
\hline & Conclusions: & \begin{tabular}{l}
I. Some paints are pots. \\
II. Some bangles are paints.
\end{tabular} \\
\hline 23. & Statements: & \begin{tabular}{l}
All benches are cots. \\
No cot is lamp. \\
Some lamps are candles.
\end{tabular} \\
\hline & Conclusions: & \begin{tabular}{l}
I. Some cots are benches. \\
II. Some candles are cots.
\end{tabular} \\
\hline 24. & Statements: & \begin{tabular}{l}
Some cats are dogs. All dogs are goats. \\
All goats are walls.
\end{tabular} \\
\hline & Conclusions: & \begin{tabular}{l}
I. Some walls are dogs. \\
II. Some walls are cats.
\end{tabular} \\
\hline 25. & Statements: & Some buildings are sofas. Some sofas are benches. Some benches are tables. \\
\hline 26. & Conclusions: & \begin{tabular}{l}
I. Some tables are sofas. \\
II. No table is sofa. \\
All rats are bats. Some bats are desks. All desks are chairs.
\end{tabular} \\
\hline & Conclusions: & \begin{tabular}{l}
I. Some desks are rats. \\
II. Some chairs are rats.
\end{tabular} \\
\hline 27. & Statements: & Some roads are ponds. All ponds are stores. Some stores are bags. \\
\hline & Conclusions: & \begin{tabular}{l}
I. Some bags are ponds. \\
II. Some stores are roads.
\end{tabular} \\
\hline 28. & Statements: & No table is wood. Some woods are chairs. All chairs are stones. \\
\hline & Conclusions: & \begin{tabular}{l}
I. No stone is table. \\
II. Some stones are woods.
\end{tabular} \\
\hline 29. & Statements: & All letters are black. All black are blue. No blue is green. \\
\hline & Conclusions: & \begin{tabular}{l}
I. No letter is green. \\
II. Most blue are black.
\end{tabular} \\
\hline 30. & Statements: & Some fruits are mangoes. Some mangoes are red. All red are vegetables. \\
\hline & Conclusions: & \begin{tabular}{l}
I. No fruit is red. \\
II. Some fruits are red.
\end{tabular} \\
\hline \multirow[t]{3}{*}{31.} & Statements: & Some eyes are ears. \\
\hline & & Some ears are hands. \\
\hline & Conclusions: & \begin{tabular}{l}
I. No hand is an eye. \\
II. Some eyes are hands.
\end{tabular} \\
\hline
\end{tabular}

Some roads are ponds.
All ponds are stores.
Some stores are bags.
II. Some stores are roads.

Some woods are chairs.
All chairs are stones.
II. Some stones are woods.

All letters are black.
All black are blue.
No blue is green.
II. Most blue are black.

Some fruits are mangoes.
All mangoes are
I. No fruit is red.
II. Some fruits are red.

Some ears are hands.
II. Some eyes are hands.
\(\left.\begin{array}{ll}\text { 32. Statements: } & \begin{array}{l}\text { Some books are pens. } \\ \text { Some pens are pencils. }\end{array} \\ \text { Some pencils are buttons. }\end{array}\right\}\)

Conclusions: I. Some waste which is white is water.
II. Some water is neither waste nor white.
38. Statements: All keys are locks.

No lock is a door.
All doors are windows.
Conclusions: I. No key is a door.
II. Some windows are locks.
39. Statements: All districts are cities.

All states are cities.
Some cities are countries.
Conclusions: I. Some states are districts.
II. Some countries are states.
40. Statements: All books are pages.

All libraries are books.
All words are pages.
Conclusions: I. All words are books.
II. All libraries are pages.
41. Statements: All ships are aeroplanes.

All trucks are ships.
All cars are trucks.
Conclusions: I. Some ships are not cars.
II. All cars are aeroplanes.

Some clouds are ashes.
Some ashes are particles.
All particles are elements.
Conclusions: I. No particle is a cloud.
II. Some elements are ashes.

\section*{Exercise-4}

Directions: In each question below are given three statements followed by three conclusions numbered I, II and III. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements, disregarding commonly known facts.
1. Statements: a. Some teachers are professors.
b. Some professors are readers. c. All readers are rectors.

Conclusions:I. Some readers are teachers. II. Some rectors are teachers. III. All rectors are readers.
1) None follows
2) Only I follows
3) Only II follows
4) Only III follows
5) All follow
2. Statements: a. Some papayas are guavas.
b. Some guavas are carrots.
c. Some carrots are mangoes.

Conclusions:I. Some mangoes are papayas.
II. Some carrots are papayas.
III. No papaya is a mango.
1) Only either I or II follows
2) Only either I or III follows
3) Only II follows
4) Only III follows
5) None of these
3. Statements: a. All bottles are glasses.
b. All drums are bottles.
c. Some cups are bottles.

Conclusions: I. Some glasses are cups. II. All drums are glasses. III. Some bottles are drums.
1) None follows
2) Only I \& II follow
3) Only II \& III follow
4) Only I \& III follow
5) All follow
4. Statements: a. All tablas are sitars.
b. All sitars are harmoniums.
c. All harmoniums are violins.

Conclusions:I. Some violins are tablas.
II. Some violins are sitars.
III. Some harmoniums are sitars.
1) All follow
2) Only II follows
3) Only I follows
4) Only I \& II follow
5) None follows
5. Statements: a. Some stations are ports.
b. All shops are stores.
c. No port is a store.

Conclusions:I. Some stations are shops.
II. Some stations are stores.
III. No shop is a port.
1) Only I follows
2) Only II follows
3) Only III follows
4) None follows
5) None of these
6. Statements: a. All halls are tyres.
b. Some tyres are wheels.
c. All wheels are cars.

Conclusions:I. Some cars are wheels.
II. Some cars are tyres.
III. Some wheels are halls.
1) None follows
2) Only I follows
3) Only I and II follow
4) Only III follows
7. Statements: a. Some blades are hammers.
b. Some hammers are knives.
c. Some knives are axes.

Conclusions: I. Some axes are hammers.
II. Some knives are blades.
III. Some axes are blades.
1) None follows
2) Only I follows
3) Only II follows
4) Only III follows
5) None of these
8. Statements: a. All dolls are windows.
b. All bottles are windows.
c. All cars are bottles.

Conclusions:I. All cars are windows.
II. Some cars are dolls.
III. Some windows are cars.
1) Only I and II follow
2) Only II and III follow
3) Only I and III follow
4) All follow
5) None of these
9. Statements: a. Some benches are beads.
b. All beads are flowers.
c. No tree is a flower.

Conclusions: I. Some trees are benches.
II. Some trees are beads.
III. No tree is a bead.
1) Only I follows
2) Only either I or II follows
3) Only either II or III follows
4) Only III follows
5) None of these
10. Statements: a. All breads are tables.
b. Some tables are brushes.
c. All brushes are paints.

Conclusions: I. Some paints are breads.
II. Some brushes are breads.
III. Some paints are tables.
1) None follows
2) Only II follows
3) Only III follows
4) Only I and II follow
5) Only II and III follow
11. Statements: a. Some pictures are frames.
b. Some frames are idols.
c. All idols are curtains.

Conclusions: I. Some curtains are pictures.
II. Some curtains are frames.
III. Some idols are frames.
1) Only I and II follow
2) Only II and III follow
3) Only I and III follow
4) All follow
5) None of these
12. Statements: Some cards are files.

Some files are ink-pots.
Some ink-pots are pads.
Conclusions: I. Some ink-pots are cards.
II. Some cards are pads.
III. Some pads are files.
\(\begin{array}{ll}\text { 1) None follows } & \text { 2) Only I follows } \\ \text { 3) Only II follows } & \text { 4) Only III follows }\end{array}\)
5) All follow
13. Statements: Some keys are locks. All locks are doors.
Some doors are windows.
Conclusions: I. All keys are locks.
II. Some doors are locks.
III. No window is a key.
1) Only I follows
2) Only II follows
3) Only either I or III and II follow
4) Only either I or III follows
5) None of these
14. Statements: All bananas are apples.

Some apples are oranges.
All oranges are grapes.
Conclusions:I. Some grapes are bananas.
II. Some grapes are apples.
III. Some oranges are bananas.
\begin{tabular}{ll} 
1) None follows & 2) Only I follows \\
3) Only II follows & 4) Only I and II follow \\
5) Only II and III follow &
\end{tabular}
15. Statements: Some tables are chairs.

All chairs are benches.
All benches are desks.
Conclusions: I. Some desks are tables.
II. Some benches are tables.
III. Some desks are chairs.
1) Only I follows 2) Only II follows
3) Only III follows
4) Only II and III follow
5) All follow
16. Statements: All rats are cats.

No cow is cat.
All dogs are cows.
Conclusions: I. No dog is rat.
II. No dog is cat.
III. No cow is rat.
\begin{tabular}{ll} 
1) None follows & 2) Only III follows \\
3) Only I and II follow & 4) Only II and III follow \\
5) All follow &
\end{tabular}
17. Statements: Some blades are papers.

Some papers are books.
Some books are pens.
Conclusions: I. Some pens are papers.
II. Some books are blades.
III. Some pens are blades.
1) Only I follows
2) Only II follows
3) Only III follows
4) None follows
5) Only II and III follow
18. Statements: Some pencils are marbles.

All marbles are buses.
Some buses are trucks.
Conclusions:I. Some trucks are pencils.
II. Some buses are pencils.
III. No truck is pencil.
1) Only I follows
2) Only II follows
3) Only either I or III and II follow
4) Only either I or III follows
5) None of these
19. Statements: Some trees are jungles.

Some jungles are flowers.
All flowers are streets.
Conclusions:I. Some streets are jungles.
II. Some streets are trees.
III. Some flowers are trees.
1) Only I follows
2) Only II follows
3) Only either I or III and II follow
4) Only I and II follow
5) None of these
20. Statements: All desks are tables.

All tables are chairs.
Some chairs are sofas.

Conclusions: I. Some sofas are desks.
II. Some chairs are desks.
III. Some tables are desks.
1) Only I and II follow 2) Only II and III follow
3) Only I and III follow 4) All follow
5) None of these
21. Statements: Some cycles are bikes.

No bike is flower.
All flowers are goats.
Conclusions: I. No goat is cycle.
II. Some flowers are cycles.
III. Some goats are bikes.
\begin{tabular}{ll} 
1) None follows & 2) Only I follows \\
3) Only II follows & 4) Only III follows \\
5) Only II and III follow &
\end{tabular}
22. Statements: All rivers are hills.

All hills are rocks.
Some rocks are sticks.
Conclusions: I. Some sticks are hills.
II. Some sticks are rivers.
III. Some rocks are rivers.
1) None follows
2) Only I follows
3) Only II follows
4) Only III follows
5) Only II and III follow
23. Statements: All tyres are cars.

All wheels are cars.
All cars are trains.
Conclusions: I. All tyres are trains.
II. Some trains are wheels.
III. Some trains are cars.
1) Only I follows
2) Only I and II follow
3) Only I and III follow
4) Only II and III follow
5) All follow
24. Statements:

All pins are rods.
Some rods are chains.
All chains are hammers.
Conclusions: I. Some pins are hammers.
II. Some hammers are rods.
III. No pin is hammer.
1) Only I follows
2) Only II follows
3) Only III follows
4) Only either I or III and II follow
5) None of these
25. Statements: Some books are papers.

Some papers are desks.
Some desks are chairs.
Conclusions:I. Some books are desks.
II. Some papers are chairs.
III. Some books are chairs.
1) None follows
2) Only I follows
3) Only II follows
4) Only III follows
5) Only I and II follow
26. Statements: Some pots are buckets.

All buckets are tubs.
All tubs are drums.
Conclusions: I. Some drums are pots.
II. All tubs are buckets.
III. Some drums are buckets.
1) Only I and II follow 2) Only I and III follow
3) Only II and III follow 4) All follow
5) None of these
27. Statements: All pins are bags.

All chalks are bags.
All needles are bags.

Conclusions: I. Some needles are pins.
II. Some chalks are needles.
III. No needle is pin.
1) Only I follows
2) Only III follows
3) Only either I or III follows
4) Only either I or III and II follow
5) None of these
28. Statements: Some buses are trucks. Some trucks are boats. No boat is jeep.
Conclusions: I. Some jeeps are buses.
II. Some boats are buses. III. Some jeeps are trucks.
1) None follows 2) Only I follows
3) Only II follows 4) Only III follows
5) Only II and III follow
29. Statements: All flowers are trees.

All trees are jungles.
No jungle is hill.
Conclusions: I. No flower is hill.
II. No tree is hill.
III. Some jungles are flowers.
1) None follows
2) Only I and II follow
3) Only I and III follow
4) Only II and III follow
5) All follow
30. Statements: All tables are sofas.

All sofas are beds.
All beds are mats.
Conclusions: I. Some mats are sofas.
II. Some beds are tables.
III. Some mats are tables.
1) Only I and II follow 2) Only II follows
3) Only II and III follow 4) Only I and III follow
5) All follow
31. Statements: Some desks are chairs.

Some chairs are pens.
Some pens are drawers.
Conclusions: I. Some drawers are desks.
II. Some drawers are chairs.
III. No drawer is chair.
1) None follows
2) Only II follow
3) Only III follows
4) Only either II or III follows
5) Only I and either II or III follow
32. Statements: All flowers are trees.

Some trees are houses.
All houses are wheels.
Conclusions: I. Some wheels are trees.
II. Some trees are flowers.
III. Some wheels are flowers.
1) Only I and II follow
2) Only I and III follow
3) Only II and III follow
4) All I, II and III follow
5) None of these
33. Statements: All windows are doors. All buildings are doors. All doors are boats.
Conclusions: I. All windows are boats.
II. All buildings are boats.
III. Some boats are doors.
1) Only I and II follow 2) Only I and III follow
3) Only II and III follow
4) All follow
5) None of these
34. Statements: Some radios are telephones.

All telephones are mirrors.
All mirrors are desks.
Conclusions: I. Some radios are desks.
II. Some radios are mirrors.
III. Some desks are telephones.
1) Only I and II follow 2) Only I and III follow
3) Only II and III follow 4) All follow
5) None of these
35. Statements: All furniture are jungles. No jungle is road. Some roads are hills.
Conclusions: I. Some roads are furniture.
II. Some jungles are furniture.
III. Some hills are jungles.
1) Only I follows
2) Only II follows
3) Only III follows
4) Only I and II follow
5) None of these
36. Statements: All bricks are stones.

Some stones are rocks.
All rocks are mountains.
Conclusions: I. Some mountains are stones.
II. Some mountains are bricks.
III. Some stones are bricks.
1) Only I follows 2) Only III follows
3) Only I and III follow
4) All follow
5) None of these
37. Statements: Some bags are plates. Some plates are chairs.
All chairs are tables.
Conclusions: I. Some tables are plates.
II. Some chairs are bags.
III. No chair is bag.
1) Only I follows
2) Only either II or III follows
3) Only I and either II or III follow
4) Only III follows
5) None of these
38. Statements: All desks are rooms. Some rooms are halls. All halls are leaves.
Conclusions: I. Some leaves are desks.
II. Some halls are desks.
III. Some leaves are rooms.
1) None follows 2) Only I follows
3) Only II follows
4) Only III follows
5) Only II and III follow
39. Statements: All buildings are mirrors. Some mirrors are pens.
No pen is paper.
Conclusions: I. Some papers are buildings.
II. Some pens are buildings.
III. Some papers are mirrors.
1) None follows
2) Only I follows
3) Only II follows
4) Only III follows
5) Only II and III follow
40. Statements: Some books are trees.

All trees are roads.
All roads are wheels.
Conclusions: I. Some wheels are books.
II. Some roads are books.
III. Some wheels are trees.
1) Only I and II follow
2) Only II \& III follow
3) Only I and III follow
4) All follow
5) None of these
41. Statements: All stones are rivers.

All rivers are cars.
Some cars are trains.
Conclusions: I. Some trains are stones.
II. Some cars are stones.
III. Some trains are rivers.
1) None follows
2) Only I follows
3) Only II follows
4) Only III follows
5) Only II and III follow
42. Statements: All stamps are packets. Some packets are buckets. All buckets are tubes.
Conclusions: I. Some tubes are stamps.
II. Some buckets are stamps.
III. Some tubes are packets.
1) None follows
2) Only I follows
3) Only II follows
4) Only III follow
5) Only II and III follow
43. Statements: Some doors are windows.

Some windows are lamps.
All lamps are candles.
Conclusions:I. Some candles are doors.
II. Some candles are windows.
III. Some lamps are doors.
1) Only I follows 2) Only II follows
3) Only III follows
4) Only I and II follow
5) None of these
44. Statements: Some towns are villages.

Some villages are lanes.
Some lanes are hamlets.
Conclusions:I. Some hamlets are villages.
II. Some lanes are towns.
III. Some hamlets are towns.
1) None follows 2) Only I follows
3) Only II follows
4) Only III follows
5) Only I and II follow
45. Statements: Some rivers are hills.

No hill is taxi.
All taxis are buses.
Conclusions: I. Some buses are rivers.
II. Some taxis are rivers.
III. No bus is river.
1) None follows
2) Only I follows
3) Only III follows
4) Only II follows
5) Only either I or III follows
46. Statements: All machines are crowns.

All crowns are tablets.
Some tablets are bottles.
Conclusions: I. Some bottles are crowns.
II. Some tablets are machines.
III. Some bottles are machines.
1) Only I follows 2) Only II follows
3) Only III follows
4) Only II and III follow
5) None of these
47. Statements: All rooms are hotels.

All hotels are buildings.
All buildings are mountains.
Conclusions:I. Some mountains are hotels.
II. Some buildings are rooms.
III. Some mountains are rooms.
1) Only I and II follow
2) Only I and III follow
3) Only II and III follow
4) All I, II and III follow
5) None of these

\section*{Exercise-5}

Directions: In each of the questions below are given four statements (a), (b), (c) and (d) followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts. Give answer
1) if only Conclusion I follows.
2) if only Conclusion II follows.
3) if either Conclusion I or II follows.
4) if neither Conclusion I nor II follows.
5) if both Conclusions I and II follow.
1. Statements: a. All flowers are buses.
b. Some buses are cats.
c. All cats are tigers.

Conclusions: I. Some tigers are buses.
II. Some tigers are flowers.
III. Some cats are flowers.
IV. Some buses are tigers.
1) None follows 2) Only I and II follow
3) Only III and IV follow 4) Only I and IV follow
5) Only II and III follow
2. Statements: a. All fans are rooms.
b. No room is green.
c. Some windows are green.

Conclusions:I. Some windows are fans.
II. Some windows are rooms.
III. Some fans are green.
IV. No green is fan.
\begin{tabular}{ll} 
1) Only I follows & 2) Only III follows \\
3) Only IV follows & 4) Only II and IV follow \\
5) All follow &
\end{tabular}
3. Statements: a. Some tablets are rains.
b. All dogs are rains.
c. All rains are chairs.

Conclusions: I. Some chairs are tablets.
II. All dogs are chairs.
III. Some tablets are dogs.
IV. Some tablets are chairs.
1) All follow
2) Only I, II and III follow
3) Only II, III and IV follow
4) Only III and IV follow
5) None of these
4. Statements: a. No man is sky.
b. No sky is road.
c. Some men are roads.

Conclusions:I. No road is man.
II. No road is sky.
III. Some skies are men.
IV. All roads are men.
1) None follows 2) Only I follows
3) Only I and III follow 4) Only II and III follow
5) None of these
5. Statements: a. Some candles are houses.
b. Some houses are trains.
c. Some trains are roads.

Conclusions: I. Some roads are candles.
II. Some trains are candles.
III. Some roads are houses.
IV. Some candles are roads.
1) None follows
2) All follow
4) Only II and III follow
3) Only I and II follow
5) Only III and IV follow
6. Statements: a. No tree is fruit.
b. All fruits are stones.
c. All stones are rains.

Conclusions: I. No stone is tree.
II. No rain is tree.
III. Some rains are fruits.
IV. Some rains are trees.
1) None follows
2) Only either II or IV and III follow
3) Only either II or III and I follow
4) All follow
5) None of these
7. Statements: a. All books are stars.
b. Some stars are windows.
c. All windows are hills.

Conclusions:I. Some windows are books.
II. Some hills are stars.
III. Some hills are books.
IV. Some stars are books.
1) None follows
2) Only I and III follow
3) All follow
4) Only II and IV follow
5) None of these
8. Statements: a. Some cats are rats.
b. All rats are bats.
c. Some bats are jungles.

Conclusions:I. Some jungles are cats.
II. Some bats are cats.
III. Some jungles are rats.
IV. No jungles is cat.
1) None follows
2) Only III follows
3) Only either I or IV and III follow
4) Only either I or IV and II follow
5) None of these
9. Statements: a. All flowers are clouds.
b. No cloud is sky.
c. All skies are tigers.

Conclusions:I. Some clouds are flowers.
II. All clouds are flowers.
III. Some tigers are skies.
IV. All tigers are skies.
1) Only II and IV follow
2) Only either I or II follows
3) Only either III or IV follows
4) All follow
5) None of these
10. Statements: a. Some dogs are rats.
b. All rats are trees.
c. Some trees are not dogs.

Conclusions: I. Some trees are dogs.
II. All dogs are trees.
III. All rats are dogs.
IV. All trees are dogs.
1) None follows
2) Only I follows
3) Only I and II follow
4) Only II and III follow
5) All follow
11. Statements: a. Some boys are rains.
b. All rains are clouds.
c. Some clouds are cars.

Conclusions: I. Some clouds are boys.
II. Some cars are boys.
III. Some cars are rains.
IV. Some rains are boys.
1) None follows
2) Only IV follows
3) Only I follows
4) Both I and IV follow
5) All follow
12. Statements: a. All bricks are flowers.
b. Some houses are flowers.
c. All pens are houses.

Conclusions:I. Some houses are bricks.
II. Some pens are flowers.
III. Some flowers are bricks.
IV. No pen is flower.
1) Only either II or IV and III follow
2) Only either II or IV and I follow
3) Only either I or II and IV follow
4) None follows
5) All follow
13. Statements: a. All lions are ducks.
b. No duck is a horse.
c. All horses are fruits.

Conclusions: I. No lion is a horse.
II. Some fruits are horses.
III. Some ducks are lions.
IV. Some lions are horses.
1) All follows
2) Only either I or II and both III and IV follow
3) Only either I or IV and both II and III follow
4) Only either I or IV and II follow
5) None of these
14. Statements: a. Some mountains are rivers.
b. Some rivers are roads.
c. Some roads are windows.

Conclusions:I. Some windows are roads.
II. Some rivers are mountains.
III. Some roads are mountains.
IV. Some windows are rivers.
1) All follow
2) Only I and II follow
3) Only III and IV follow 4) Only I and IV follow
5) None follows
15. Statements: a. All benches are trees.
b. All trees are flowers.
c. All flowers are fruits.

Conclusions: I. All fruits are benches.
II. All trees are fruits.
III. Some fruits are flowers.
IV. Some flowers are benches.
1) All follow
2) Only II, III and IV follow
3) Only III and IV follow 4) Only II and III follow
5) None of these
16. Statements: a. Some trains are radios.
b. Some radios are waters.
c. All tigers are waters.

Conclusions: I. Some trains are tigers.
II. Some trains are waters.
III. No water is train. IV. All waters are tigers.
1) None follows
2) Both II and III follow
3) Only either II or III follows
4) Only either I or III follows
5) Only either I or IV follows
17. Statements: a. Some buses are rivers.
b. All rivers are mountains.
c. Some roads are mountains.

Conclusions: I. Some mountains are buses.
II. Some roads are buses.
III. Some roads are rivers.
IV. Some mountains are roads.
1) None follows
2) Only I and II follow
3) Only III and IV follow
4) Only I and IV follow
5) All follow
18. Statements: a. All lions are jungles.
b. Some jungles are rabbits.
c. All rabbits are elephants.

Conclusions: I. Some rabbits are lions.
II. Some elephants are jungles.
III. Some elephants are lions.
IV. Some elephants are rabbits.
1) Only I and III follow 2) Only I and II follow
3) Only II and III follow 4) Only III and IV follow
5) None of these
19. Statements: a. All books are pens.
b. No pens are houses.
c. All houses are doors.

Conclusions: I. No books are houses.
II. No books are doors.
III. Some doors are pens.
IV. Some houses are books.
1) Only I follows
2) Only I and II follow
3) Only II and III follow
4) Only III and IV follow
5) None of these
20. Statements: a. Some fruits are flowers.
b. No flower is a boat.
c. All boats are rivers.

Conclusions: I. Some fruits are rivers.
II. Some rivers are boats.
III. Some rivers are fruits.
IV. Some flowers are fruits.
1) All of the above
2) II and IV only
3) I and III only
5) None of these
21. Statements: a. Some buses are horses.
b. All horses are goats.
c. All goats are dogs.

Conclusions: I. Some dogs are buses.
II. Some dogs are horses.
III. Some dogs are goats.
IV. Some buses are goats.
1) None of the above
2) I and II only 3) II and III only
4) III and IV only 5) All of the above
22. Statements: a. Some chairs are buildings.
b. All buildings are vehicles.
c. Some vehicles are trucks.

Conclusions: I. Some chairs are trucks.
II. Some chairs are vehicles.
III. Some vehicles are buildings.
IV. No truck is a chair.
1) None of the above
2) II and III only
3) Either only I or II and III and IV
4) Either only I or IV and II and III
5) All of the above
23. Statements: a. All doors are windows.
b. All houses are windows.
c. Some windows are soaps.

Conclusions: I. Some doors are houses.
II. Some houses are soaps.
III. Some soaps are doors.
IV. All soaps are windows.
1) None of the above
2) I only
3) I and III only
4) II and IV only
5) All of the above
24. Statements: a. Some cruel animals are papers.
b. No paper is tree.
c. All trees are ways.

Conclusions: I. No cruel animal is tree.
II. Some ways are trees.
III. Some papers are cruel animals.
IV. Some cruel animals are trees.
1) I and II only
2) II, III and IV only
3) Only either I or IV and III
4) I, II and III only
5) None of these
25. Statements: a. All buildings are windows.
b. No toy is building.
c. Some tigers are toys.

Conclusions:I. Some tigers are buildings.
II. Some windows are tigers.
III. All toys are tigers.
IV. Some windows are toys.
1) All follow
2) None follows
3) Only I and II follow
4) Only III and IV follow
5) Only I and III follow
26. Statements: a. No house is a school.
b. All colleges are schools.
c. All schools are teachers.

Conclusions: I. No house is a teacher.
II. All colleges are teachers.
III. Some teachers are not houses.
IV. No college is a house.
1) Only II, III and IV follow
2) Only either I or IV follows
3) Only either I or IV and III follow
4) None follows
5) All follow
27. Statements:
a. Some towers are flowers.
b. All flowers are cats.
c. Some cats are dogs.

Conclusions: I. Some dogs are flowers.
II. Some cats are flowers.
III. Some cats are towers.
IV. Some dogs are towers.
1) All follow
2) Only II follows
3) Only III follows
4) Only either III or IV follows
5) None of these
28. Statements: a. All forests are towns.
b. All towns are villages.
c. All cities are villages.

Conclusions: I. Some villages are towns.
II. Some cities are towns.
III. Some cities are forests.
IV. Some villages are forests.
1) None follows 2) Only I and II follow
3) Only I and III follow 4) Only I and IV follow
5) All follow
29. Statements: a. Some goats are roads.
b. Some wheels are roads.
c. All boats are goats.

Conclusions:I. Some boats are roads.
II. All goats are boats.
III. Some boats are wheels.
IV. Some wheels are goats.
1) None follows
2) Only I and II follow
3) Only III and IV follow
4) Only I and III follow
5) All follow
30. Statements: All players are spectators.

Some spectators are theatres.
Some theatres are dramas.
Conclusions: I. Some dramas are spectators.
II. Some players are dramas.
III. Some theatres are players.
IV. All spectators are players.
1) Only II follows 2) None follows
3) Only II and IV follow 4) Only I and III follow
5) All follow
31. Statements: a. Some hills are rivers.
b. Some rivers are deserts.
c. All deserts are roads.

Conclusions: I. Some roads are rivers.
II. Some roads are hills.
III. Some deserts are hills.
1) None follows
2) Only I follows
3) Only II and III follow
4) Only I and II follow
5) All follow
32. Statements: a. Some chairs are flowers.
b. All flowers are trees.
c. Some trees are leaves.

Conclusions: I. Some trees are chairs.
II. Some leaves are flowers.
III. No chair is a leaf.
1) None follows 2) Only I follows
3) Only II follows
4) Only I and III follow
5) All follow
33. Statements: a. All buildings are mountains.
b. All glasses are mountains.
c. Some mountains are windows.

Conclusions:I. Some windows are glasses.
II. Some buildings are windows.
III. Some mountains are glasses.
1) Only I follows 2) Only II follows
3) Only III follows
4) None follows
4) All follow
34. Statements: a. Some houses are tables.
b. Some tables are gardens.
c. All lanterns are gardens.

Conclusions: I. Some lanterns are tables.
II. Some gardens are houses.
III. Some lanterns are houses.
1) None follows
2) Only I follows
3) Only II follows
4) Only III follows
5) All follow
35. Statements: a. All trains are buses.
b. No room is a bus.
c. All boats are rooms.

Conclusions: I. No boat is a train.
II. No bus is a boat.
III. No train is a room.
1) None follows 2) Only I and II follow
3) Only II and III follow
4) Only I and III follow
5) All follow
36. Statements: a. Some boxes are cranes.
b. Some cranes are hills.
c. All hills are windows.

Conclusions: I. Some windows are boxes.
II. Some windows are cranes.
III. Some hills are boxes.
IV. Some cranes are windows.
1) None follows
2) Only II follows
3) Only IV follows
5) Only I and III follow
4) Only II and IV follow
37. Statements: a. Some boats are pictures.
b. All pictures are rats.
c. Some rats are mountains.

Conclusions:I. All pictures are mountains.
II. Some rats are boats.
III. Some boats are mountains.
IV. Some mountains are pictures.
1) Only I and II follow 2) Only II follows
3) Only III follows
4) Only III and IV follow
5) None of these
38. Statements: a. All buildings are rains.
b. All papers are buildings.
c. All dogs are papers.

Conclusions: I. All dogs are rains.
II. Some papers are rains.
III. Some rains are buildings.
IV. Some rains are papers.
1) All follow
2) Only I, II and III follow
3) Only II and III follow
4) Only I and II follow
5) None of these
39. Statements: a. All pens are houses.
b. Some desks are houses.
c. All pencils are desks.

Conclusions: I. Some pencils are houses.
II. Some desks are pencils.
III. Some pencils are pens.
IV. No desk is a pencil.
1) All follow
2) Only either II or IV follows
3) Only either II or III follows
4) Only I and III follow
5) None of these
40. Statements: a. Some trains are roads.
b. No road is jungle.
c. All flowers are jungles.

Conclusions: I. Some trains are flowers.
II. Some trains are jungles.
III. Some flowers are trains.
IV. No road is a flower.
1) All follow
2) Only III follows
3) Only IV follows
4) Only II follows
5) None follows
41. Statements: a. Some tables are trees.
b. Some trees are flowers.
c. All flowers are jungles.

Conclusions:I. Some jungles are tables.
II. Some trees are jungles.
III. Some flowers are tables.
IV. All jungles are flowers.
1) Only II follows 2) Only I and II follow
3) Only II and III follow 4) Only III follows
5) None of these
42. Statements: a. All benches are desks.
b. Some desks are roads.
c. All roads are pillars.

Conclusions:I. Some pillars are benches.
II. Some pillars are desks.
III. Some roads are benches.
IV. No pillar is a bench.
1) None follows
2) Only either I or IV follows
3) Only either I or IV and II follow
4) Only either I or IV and III follow
5) All follow
43. Statements: a. All houses are pens.
b. All windows are pens.
c. All pens are boards.

Conclusions: I. All houses are boards.
II. All windows are boards.
III. Some boards are houses.
IV. Some boards are windows.
1) None follows 2) Only I and II follow
3) Only II and III follow 4) Only III and IV follow 5) All follow
44. Statements: a. Some trucks are trains.
b. No book is a train.
c. Some trains are fruits.

Conclusions:I. Some trucks are books.
II. Some fruits are books.
III. Some fruits are trucks.
IV. Some trains are either trucks or fruits.
\begin{tabular}{lll} 
1) Only I follows & 2) & Only II follows \\
3) Only I and II follow & 4) Only III and IV follow \\
5) None of these & &
\end{tabular}
45. Statements: a. All papers are knives.
b. All shirts are trousers.
c. Some knives are trousers.

Conclusions: I. Some shirts are knives.
II. Some trousers are papers.
III. Some shirts are papers.
IV. No paper is trousers.
1) Only I follows
2) Only either II or IV follows
3) Only III follows
4) Only I, II and III follow
5) None of these
46. Statements: Some desks are mirrors. Some mirrors are combs. Some combs are pins.
Conclusions: I. Some pins are desks.
II. Some combs are desks.
III. Some pins are mirrors.
IV. Some pins are either desks or mirrors.
\(\begin{array}{ll}\text { 1) None follows } & \text { 2) Only II follows } \\ \text { 3) Only I follows } & \text { 4) Only IV follows }\end{array}\)
5) Only 1 follows
5) Only III follows
47. Statements: All blades are hammers.

All hammers are rods.
All rods are buckets.
Conclusions: I. Some buckets are hammers.
II. Some rods are blades.
III. All hammers are buckets.
IV. All blades are rods.
1) Only I and II follow
2) Only II and III follow
3) Only I, II and III follow
4) Only II, III and IV follow
5) All follow
48. Statements: All trees are chairs.

No chair is flower.
Some flowers are bangles.
Conclusions: I. No tree is bangle.
II. No chair is bangle.
III. Some flowers are trees.
IV. Some bangles are trees.
1) None follows
2) Only either I or IV follows
3) Only either II or III follows
4) Only I and II follow
5) Only III and IV follow
49. Statements: All rocks are balls.

Some balls are rings.
All rings are stones.
Conclusions:I. Some stones are rocks.
II. Some rings are rocks.
III. Some balls are rocks.
IV. No stone is rock.
1) Only I and III follow
2) Only III and IV follows
3) Only either I or IV and III follow
4) Only either I or IV follows
5) None of these
50. Statements: All books are papers.

All pencils are papers.
All tables are papers.
Conclusions: I. Some books are pencils.
II. Some pencils are tables.
III. Some tables are books.
IV. Some papers are tables,
1) Only I follows
2) Only III follows
3) Only III follows
4) Only IV follows
5) None of these

\section*{Exercise-6}

Directions: In each of the questions below are given four statements (a), (b), (c) and (d) followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts. Give answer
1) if only Conclusion I follows.
2) if only Conclusion II follows.
3) if either Conclusion I or II follows.
4) if neither Conclusion I nor II follows.
5) if both Conclusions I and II follow.
1. Statements: a. Some shops are markets.
b. Some markets are huts.
c. Some huts are rooms.
d. Some rooms are buildings.

Conclusions: I. Some buildings are huts.
II. Some rooms are markets.
2. Statements: a. All cakes are breads.
b. Some breads are fruits.
c. Some fruits are biscuits.
d. All biscuits are snacks.

Conclusions: I. Some snacks are fruits.
II. Some cakes are fruits.
3. Statements: a. All beads are rings.
b. All poles are rings.
c. All rings are bangles.
d. All glasses are bangles.

Conclusions: I. Some bangles are beads.
II. Some rings are poles.
4. Statements: a. All vegetables are plants.
b. No plant is flower.
c. Some flowers are jungles.
d. All jungles are trees.

Conclusions: I. Some trees are plants.
II. No plant is tree.
5. Statements: a. Some knives are hammers.
b. All hammers are poles.
c. All poles are sticks.
d. Some sticks are pencils.

Conclusions: I. Some hammers are pencils.
II. Some sticks are knives.
6. Statements: a. All books are pens.
b. Some pens are desks.
c. Some desks are chairs.
d. Some chairs are tables.

Conclusions: I. Some tables are desks.
II. Some chairs are pens.
7. Statements: Some pins are magnets.

Some magnets are scales.
Some scales are trucks.
All trucks are buses.
Conclusions: I. Some trucks are pins.
II. No truck is pin.
8. Statements: All jungles are trees.

All trees are roads.
All roads are houses.
All houses are buildings.
Conclusions:
I. All trees are houses.
II. Some buildings are roads.
9. Statements: All tablets are packets.

No packet is bag.
Some bags are toys.
All toys are puppets.
Conclusions: I. Some puppets are tablets.
II. Some puppets are bags.
10. Statements: Some desks are tables. Some tables are chairs.
Some chairs are benches.
Son benches are cots.
Conclusions: I. Some chairs are desks.
II. Some cots are tables.
11. Statements: All bangles are rings.

All rings are bracelets.
Some bracelets are jewels.
Some jewels are stones.
Conclusions: I. Some stones are bangles.
II. Some jewels are rings.
12. Statements: All trousers are pants.

Some pants are shirts.
All shirts are buttons.
Some buttons are threads.
Conclusions: I. Some threads are pants.
II. Some buttons are trousers.
13. Statements: Some schools are colleges. Some colleges are universities.
All universities are institutes.
All institutes are classes.
Conclusions: I. Some colleges are classes.
II. All universities are classes.
\(\left.\begin{array}{ll}\text { 14. Statements: } & \begin{array}{l}\text { Some umbrellas are raincoats. } \\ \text { All raincoats are shirts. } \\ \text { No shirt is a blazer. } \\ \text { Some blazers are suits. }\end{array} \\ \text { 15. Statements: } & \begin{array}{l}\text { I. Some shirts are umbrellas. } \\ \text { II. Some suits are raincoats. } \\ \text { Some computers are boards. } \\ \text { Some boards are chalks. }\end{array} \\ \text { All chalks are bulbs. } \\ \text { No bulb is tubelight. }\end{array}\right\}\)

\section*{Exercise-7}

Directions: In each of the questions below are given four statements followed by three conclusions numbered I, II and III. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.
1. Statements: a. All clouds are storms.
b. Some storms are cyclones.
c. All cyclones are thunders.
d. Some thunders are lightning.

Conclusions:I. Some lightnings are cyclones.
II. No lightning is a cyclone.
III. Some cyclones are clouds.
1) Only I follows
2) Only II follows
3) Only III follows
4) Only either I or II follows
5) None of these
2. Statements: a. Some pins are needles.
b. Some needles are handles.
c. Some handles are locks.
d. Some locks are keys.

Conclusions:I. Some keys are handles.
II. Some handles are pins.
III. Some pins are keys.
1) None follows 2) Only I and II follow
3) Only II and III follow 4) Only I and III follow
5) All follow
3. Statements: a. All hills are mountains.
b. All mountains are dams.
c. Some dams are rivers.
d. All rivers are lakes.

Conclusions:I. Some hills are lakes.
II. Some dams are lakes.
III. Some dams are hills.
1) Only I and II follow 2) Only II and III follow
3) Only I and III follow 4) All follow
5) None of these
4. Statements: a. Some receipts are challans.
b. Some challans are papers.
c. Some papers are books.
d. All books are files.

Conclusions: I. Some papers are files.
II. Some books are receipts.
III. No book is a receipt.
1) Only I follows
2) Only I and II follow
3) Only I and either II or III follow
4) Only I and III follow
5) None of these
5. Statements: a. All bottles are jars.
b. All jars are containers.
c. All containers are lids.
d. All lids are caps.

Conclusions:I. All bottles are lids.
II. All containers are jars.
III. Some lids are jars.
1) Only I and II follow 2) Only II and III follow
3) Only I and III follow 4) None follows
5) All follow
6. Statements: a. Some leaves are flowers.
b. No flower is fruit.
c. Some fruits are branches.
d. Some branches are stems.

Conclusions: I. Some leaves are stems.
II. All leaves are either stems or fruits.
III. All stems are either branches or fruits.
1) Only I follows
2) Only II \& III follow
3) Only III follows
4) All follow
5) None follows
7. Statements: a. All lions are tigers.
b. All tigers are leopards.
c. Some leopards are wolves.
d. No wolf is elephant.

Conclusions:I. No elephant is lion.
II. Some wolves are lions.
III. Some leopards are lions.
1) Only I follows
2) Only II follows
3) Only III follows
4) Only I \& II follow
5) All follow
8. Statements: a. Some caps are umbrellas.
b. Some umbrellas are raincoats.
c. All raincoats are trousers.
d. All trousers are jackets.

Conclusions: I. Some raincoats are caps.
II. Some trousers are umbrellas.
III. All raincoats are jackets.
1) None follows
2) Only I \& II follow
3) Only II \& III follow
4) Only I \& III follow
5) None of these
9. Statements: a. Some fans are coolers.
b. Some coolers are machines.
c. Some machines are computers.
d. All computers are televisions.

Conclusions: I. Some televisions are machines.
II. Some machines are fans.
III. No machine is a fan.
1) None follows
2) Only I follows
3) Only either II or III follows
4) Only I and either II or III follow
5) All follow
10. Statements: a. All keys are staplers.
b. All staplers are blades.
c. Some blades are erasers.
d. Some erasers are sharpeners.

Conclusions: I. Some sharpeners are keys.
II. All keys are blades.
III. Some erasers are keys.
1) Only I \& II follow
2) Only I follow
3) Only II follows
4) All follow
5) None of these
11. Statements: All grapes are plums.

All plums are oranges.
Some oranges are apples.
Some apples are guavas.
Conclusions:I. Some oranges are grapes.
II. Some guavas are oranges.
III. Some apples are plums.
1) Only I follows
2) Only I \& II follow
3) Only I \& III follow
4) All I, II \& III follow
5) None of these
12. Statements: Some pets are dogs.

Some dogs are cats.
Some dogs are rats.
No rat is goat.
Conclusions: I. Some cats are rats.
II. No cat is rat.
III. No goat is dog.
1) None follows
2) Only I follows
3) Only II follows
4) Only III follows
5) Only either I or II follows
13. Statements: Some roses are jasmines. Some jasmines are lilies.
All lilies are marigolds.
All marigolds are sunflowers.
Conclusions: I. All lilies are sunflowers.
II. Some jasmines are marigolds.
III. Some jasmines are sunflowers.
1) All follow
2) Only I follows
3) Only II \& III follow
4) Only I \& II follow
5) None of these
14. Statements: Some flats are houses.

Some houses are bungalows.
No bungalow is hotel.
All hotels are restaurants.
Conclusions: I. No bungalow is restaurant.
II. Some houses are hotels.
III. Some restaurants are hotels.
1) Only I follows 2) Only III follows
3) Only II \& III follow
4) None follows
5) None of these
15. Statements: Some lemons are chillies.

No chilly is brinjal.
All brinjals are sweets.
Some sweets are desserts.
Conclusions: I. No chilly is sweet.
II. Some lemons are desserts.
III. Some brinjals are desserts.
1) Only I follows
2) Only II follows
3) Only III follows
4) None follows
5) None of these
16. Statements: Some pens are sticks.

Some sticks are canes.
All canes are scales.
No scale is weight.
Conclusions: I. Some sticks are scales.
II. No stick is scale.
III. No cane is weight.
1) Only either I or II follows
2) Only I \& III follow
3) Only either I or II and III follow
4) All I, II \& III follow
5) None of these
17. Statements: Some folders are boxes.

Some boxes are bags.
All bags are containers.
Some bags are sacks.
Conclusions:I. No folder is bag.
II. Some boxes are containers.
III. Some sacks are containers.
1) Only I \& II follow
2) Only II \& III follow
3) Only I \& III follow

4) All follow
5) None follows
18. Statements: Some insects are pests.

All pests are birds.
No bird is amphibian.
All amphibians are animals.
Conclusions: I. No animal is bird.
II. Some insects are birds.
III. No pests are amphibians.
1) Only I follows
2) Only II follows
3) Only III follows
4) Only II \& III follow
5) None of these
19. Statements: Some paints are colours. All colours are solutions. Some solutions are liquids.
All liquids are solids.
Conclusions: I. Some paints are solutions.
II. Some colours are liquids.
III. Some solutions are solids.
1) Only I \& II follow 2) Only II \& III follow
3) All I, II \& III follow
4) None follows
5) None these
20. Statements: All locks are keys.

All keys are doors. Some doors are windows. Some windows are floors.
Conclusions: I. Some keys are windows.
II. No floor is door.
III. No lock is window.
1) None follows
2) Only I follows
3) Only I \& II follow
4) Only III follows
5) None of these
21. Statements: All books are novels. Some novels are poems. Some poems are stories. No story is a movie.
Conclusions: I. Some books are poems.
II. Some movies are novels.
III. No movie is a novel.
1) Only I follows
2) Only I \& II follow
3) Only either II or III follows
4) None follows
5) None of these
22. Statements: Some bags are suits. All suits are trousers. Some trousers are shirts. All shirts are coats.
Conclusions: I. Some trousers are coats.
III. Some bags are trousers.
III. Some suits are coats.
1) Only I \& II follow
2) Only I follows
3) Only II \& III follow
4) All follow
5) None of these
23. Statements: All flowers are fruits. No fruit is juice. Some juices are proteins.
All proteins are vitamins.
Conclusions: I. Some vitamins are fruits.
II. Some juices are vitamins.
III. No flower is juice.
1) Only I \& II follow 2) Only I \& III follow
3) Only I, II \& III follow 4) Only II \& III follow
5) None of these
24. Statements: Some towers are pillars.

Some pillars are buildings.
All buildings are flats.
No flat is house.
Conclusions: I. No building is house.
II. Some towers are houses.
III. Some towers are flats.
1) None follows
2) Only I follows
3) Only II \& III follow
4) All follow
5) None of these
25. Statements: All cups are bowls.

All bowls are trays.
Some trays are plates.
No plate is spoon.
Conclusions: I. Some bowls are plates.
II. Some cups are spoons.
III. No cup is spoon.
1) Only I follows
2) Only II follows
3) Only II \& III follow
4) All follow
5) None of these
26. Statements: Some shoes are socks.

All socks are towels.
All towels are bedsheets.
No bedsheet is blanket.
Conclusions: I. No towel is blanket.
II. Some shoes are towels.
III. Some shoes are bedsheets.
1) Only I \& II follow 2) Only II \& III follow
3) Only I \& III follow
4) All follow
5) None of these
27. Statements: Some fruits are flowers. Some flowers are buds.
No bud is leaf.
All leaves are plants.
Conclusions: I. No plant is bud.
II. Some plants are flowers.
III. Some buds are fruits.
1) None follows
2) Only I follows
3) Only II \& III follow
4) Only III follows
5) None of these
28. Statements: Some pearls are gems.

Some gems are diamonds.
All diamonds are rings.
All rings are bangles.
Conclusions: I. Some bangles are rings.
II. All rings are diamonds.
III. All diamonds are bangles.
1) Only I follows
2) Only I \& II follow
3) Only I \& III follow
4) All follow
5) None of these
29. Statements: All chairs are tables.

All tables are telephones.
All telephones are cell phones.
No cell phone is computer.
Conclusions: I. All cell phones are tables.
II. Some chairs are computers.
III. No chair is computer.
1) Only I follows
2) Only II follows
3) Only III follows
4) Only either II or III follows
5) None of these
30. Statements: Some rocks are hills.

All hills are mountains.
All mountains are rivers.
No river is canal.
Conclusions:I. All rocks are rivers.
II. Some hills are canals.
III. Some rivers are canals.
1) Only I follows
2) Only II \& III follow
3) Only I \& III follow
4) Only II follows
5) None follows
31. Statements: Some plates are spoons.

All spoons are forks.
All forks are bowls.
Some bowls are utensils.
Conclusions: I. Some plates are bowls.
II. All spoons are bowls.
III. Some forks are utensils.
1) Only I follows
2) Only II follows
3) Only I and III follow
4) Only I and II follow
5) None of these
32. Statements: Some books are files.

All files are discs.
Some discs are boards.
All boards are keys.
Conclusions:I. Some books are keys.
II. No book is key.
III. Some discs are keys.
1) Only III follows
2) Only I and III follow
3) Either I or II and III follow
4) All follow
5) None of these
33. Statements: All buses are trains.

Some trains are cars.
No car is scooter.
All scooters are jeeps.
Conclusions:I. Some cars are buses.
II. All jeeps are scooters.
III. No jeep is train.
1) Only I follows
2) Only II follows
3) Only III follows
4) Only either I or III follows
5) None follows
34. Statements: All curtains are pillows.

No pillow is mattress.
Some mattresses are beds.
All beds are sofas.
Conclusions:I. No bed is pillow.
II. Some mattresses are sofas.
III. Some beds are pillows.
1) Only either I or III follows
2) Only II follows
3) Only II and either I or III follow
4) Only I and II follow
5) All follow
35. Statements: Some pulses are grains. Some grains are sprouts.
All sprouts are nuts.
No fruit is nut.
Conclusions:I. Some nuts are pulses.
II. Some nuts are grains.
III. No fruit is sprout.
1) Only II and III follow
2) Only I and II follow
3) Only either I or II follows
4) None follows
5) None of these
36. Statements: Some tyres are ropes.

Some ropes are tents.
Some tents are walls.
Some walls are buildings.
Conclusions:I. Some buildings are ropes.
II. Some walls are ropes.
III. Some tents are tyres.
1) None follows
2) Only I follows
3) Only II follows
4) Only III follows
5) Only I and II follow
37. Statements: Some beads are rings.

Some rings are bangles.
All bangles are clothes.
All clothes are boxes.
Conclusions: I. Some boxes are bangles.
II. Some clothes are rings.
III. Some bangles are beads.
1) None follows
2) Only I follows
3) Only II follows
4) Only III follows
5) Only I and II follow
38. Statements: All chairs are fires. Some fires are winds.
All winds are nets.
Some nets are clocks.
Conclusions: I. Some clocks are winds.
II. Some nets are fires.
III. Some winds are chairs.
1) None follows
2) Only I follows
3) Only II follows
4) Only III follows
5) Only II and III follow
39. Statements: All desks are pillars.

All pillars are circles. Some circles are squares.
Some squares are rectangles.
Conclusions: I. Some rectangles are pillars.
II. Some circles are desks.
III. Some squares are desks.
1) None follows
2) Only I follows
3) Only II follows
4) Only III follows
5) Only I and II follow
40. Statements: All sticks are hammers.

No hammer is dress.
Some dresses are doors.
All doors are cots.
Conclusions: I. Some cots are hammers
II. No cot is hammer.
III. Some dresses are sticks.
1) Only I follows
2) Only II follows
3) Only III follows
4) Only either I or II follows
5) Only either I or II and III follow
41. Statements: Some plates are knives.

All knives are chains.
Some chains are wheels.
All wheels are poles.
Conclusions: I. Some poles are chains.
II. Some wheels are knives.
III. Some chains are plates.
1) Only I and II follow
2) Only I and III follow
3) Only II and III follow
4) All I, II and III follow
5) None of these

\section*{Exercise-8}

Directions: In each question below, there are four statements followed by four conclusions numbered I, II, III and IV. You have to take the given statements to be true even if they seem to be at variance with commonly known facts and then decide which of the given conclusions logically follow(s) from the given statements.
1. Statements: a. All calculators are computers.
b. No computers are televisions.
c. No televisions are radios.
d. No radios are transistors.

Conclusions: I. No calculators are televisions.
II. No calculators are radios.
III. No televisions are transistors.
IV. No computers are radios.
1) None follows except I
2) None follows except II
3) None follows except III
4) All follow
5) None follows
2. Statements: a. All glasses are frames.
b. No frames are metals.
c. Some metals are blocks.
d. Some blocks are not baskets.

Conclusions:I. Some blocks are not glasses.
II. Some baskets are not blocks.
III. All baskets are blocks.
IV. Some glasses are not blocks.
1) Only I follows
2) Only I and II follow
3) Only either II or III along with I follow
4) All follow
5) None of these
3. Statements: a. All buses are cars.
b. Some buses are not motorcycles.
c. No motorcycles are scooters.
d. All scooters are tempos.

Conclusions: I. Some tempos are not cars.
II. Some tempos are not motorcycles.
III. No cars are tempos.
IV. Some cars are not motorcycles.
1) Only IV follows
2) Only II follows
3) Only II and IV follow
4) Only I and II follow
5) None of these
4. Statements: a. All doors are windows.
b. No windows are chairs.
c. All chairs are tables.
d. No tables are bottles.

Conclusions:I. All windows are doors.
II. Some tables are chairs.
III. Some tables are not doors.
IV. No doors are bottles.
1) Only II follows
2) Only I follows
3) Only I, II and III follow
4) None follows
5) None of these
5. Statements: a. Some books are pens.
b. All pens are pencils.
c. No pencils are copies.
d. Some copies are not calculators.

Conclusions: I. Some books are not calculators.
II. No books are copies.
III. No pens are copies.
IV. Some pencils are not copies.
1) Only III follows 2) Only IV follows
3) Only III and IV follow 4) All follow
5) None of these
6. Statements: a. All books are tables.
b. All books are chairs.
c. No copies are chairs.
d. All chairs are stools.

Conclusions: I. Some copies are tables.
II. All books are stools.
III. Some stools are not tables.
IV. All tables are stools.
1) Only II follows
2) Only II and IV follow
3) All follow except III
4) None follows
5) None of these
7. Statements: a. No cops are police.
b. All police are humans.
c. All humans are politicians.
d. No politicians are doctors.

Conclusions: I. Only politicians are police.
II. Only police are politicians.
III. No humans are cops.
IV. Some cops are not humans.
1) All follow
2) Only I follows
3) Only II follows
4) None follows
5) None of these
8. Statements: a. All jugs are slates.
b. All tumblers are slates.
c. No slates are pots.
d. All pots are cauldrons.

Conclusions:I. Some cauldrons are jugs.
II. Some cauldrons are not tumblers.
III. Some cauldrons are tumblers.
IV. No cauldrons are tumblers.
1) Only II follows
2) Either III or IV and either I or II follow
3) Either III or IV along with II follow
4) None follows
5) None of these
9. Statements: a. All militants are commandos.
b. All commandos are police.
c. No police are journalists.
d. Some journalists are politicians.

Conclusions: I. All police are militants.
II. All police are commandos.
III. No journalists are militants.
IV. Some militants are not politicians.
1) Only I and III follow
2) Only II and III follow
3) Only I, II and III follow
4) None follows
5) None of these
10. Statements: a. Some hotels are bricks.
b. All bananas are bricks.
c. No apples are bricks.
d. Some copies are bricks.

Conclusions: I. Some hotels are apples.
II. Some hotels are not apples.
III. No bananas are apples.
IV. Some apples are not copies.
1) Either I or II and III follow
2) Only II and III follow
3) Only II follows
4) Only III follows
5) None of these
11. Statements: a. No books are pens.
b. All copies are books.
c. All books are telephones.
d. No radios are telephones.

Conclusions: I. Some pens are not copies.
II. Some copies are neither books nor telephones.
III. Some telephones are neither copies nor books.
IV. Some copies are not radios.
1) Only I follows 2) Only IV follows
3) Only I and IV follow 4) All follow
5) None of these
12. Statements: a. Some dogs bark.
b. All dogs bite.
c. All lions bite.

d. Those animals who bark are not dangerous.
Conclusions: I. Even those dogs who do not bark bite.
II. Those dogs who do not bark, do not necessarily bite.
III. All those dogs which are of white colour, bite.
IV. Some dogs are lions.
1) Only II and III follow
2) Only II follows
3) Only III follows
4) Only I and III follow
5) None of these
13. Statements:
a. Some soldiers are famous.
b. Some soldiers are intelligent.
c. All soldiers are honest.
d. All honest and famous persons are kind-hearted.
Conclusions:I. Some soldiers are either famous or intelligent.
II. Some soldiers are neither famous nor intelligent.
III. All intelligent persons are kindhearted.
IV. Some intelligent persons are not kind-hearted.
1) All follow
2) Only I and II follow
3) Only I, II and III follow
4) Only either I or II follows
5) None of these
14. Statements: a. Some rats are cats.
b. All cats are dogs.
c. No dog is a horse.
d. All horses are bulls.

Conclusions:I. No dog is a bull.
II. Some dogs are bulls.
III. Some dogs are rats.
IV. Some bulls are rats.
1) None follows
2) All follow
3) Only either I or II and III follow
4) Only I and III follow
5) Only I, II and III follow
15. Statements: a. Some umbrellas are sticks.
b. Some sticks are balls.
c. Some balls are bats.
d. All bats are guns.

Conclusions:I. Some balls are umbrellas.
II. Some guns are bats.
III. Some sticks are guns.
IV. Some balls are guns.
1) Only I, II and IV follow
2) Only II and IV follow
3) Only II, III and IV follow
4) Only I, II and III follow
5) None of these
16. Statements: a. Some books are notebooks.
b. Some notebooks are dictionaries.
c. Some dictionaries are files.
d. All files are envelopes.

Conclusions:I. Some envelopes are notebooks.
II. Some files are books.
III. Some books are dictionaries.
IV. No book is an envelope.
1) None follows
2) Only I, II and III follow
3) Only II and III follow
4) Only III and IV follow
5) None of these
17. Statements: a. Some keys are chains.
b. All chains are locks.
c. All locks are numbers.
d. No number is a digit.

Conclusions: I. Some keys are numbers.
II. All chains are numbers.
III. Some locks are keys.
IV. No digit is a chain.
1) Only I and II follow
2) Only I, II and III follow
3) Only II and III follow
4) Only II, III and IV follow
5) All follow
18. Statements: a. Some floppies are CDs.
b. Some CDs are keyboards.
c. Some keyboards are computers.
d. Some computers are monitors.

Conclusions:I. Some monitors are floppies.
II. No floppy is a monitor.
III. Some computers are CDs.
IV. Some keyboards are floppies.
1) Only I follows
2) Only I, III and IV follow
3) Only II follows
4) Only either I or II follows
5) None of these
19. Statements: a. All books are pins.
b. Some pins are tablets.
c. All tablets are needles.
d. Some needles are threads.

Conclusions: I. Some needles are pins.
II. Some pins are books.
III. Some threads are needles.
IV. Some needles are tablets.
1) None follows
2) Only I and II follow
3) Only I, II and III follow
4) Only II, III and IV follow
5) All follow
20. Statements: a. All jungles are bins.
b. All bins are petals.
c. No petal is root.
d. All roots are flowers.

Conclusions: I. No flower is bin.
II. No jungle is root.
III. All jungles are petals.
IV. All flowers are roots.
1) Only I and II follow
2) Only II and III follow
3) Only I, II and III follow
4) All follow
5) None of these
21. Statements: a. All poles are fans.
b. All fans are stands.
c. Some stands are pens.
d. Some pens are boxes.

Conclusions: I. Some boxes are poles.
II. Some fans are boxes.
III. Some pens are poles.
IV. Some pens are fans.
\(\begin{array}{ll}\text { 1) None follows } & \text { 2) Only I and II follow }\end{array}\)
3) Only II and IV follow 4) Only III and IV follow
5) Only I, II and IV follow
22. Statements: a. Some scales are weights.
b. All weights are metals.
c. Some metals are rings.
d. All rings are bands.

Conclusions:I. Some bands are scales.
II. Some weights are bands.
III. Some rings are scales.
IV. Some metals are scales.
1) Only I and III follow 2) Only I and II follow
3) Only II and III follow 4) Only II and IV follow
5) None of these
23. Statements:
a. Some houses are beads.
b. Some beads are cycles.
c. Some cycles are tubes.
d. Some tubes are rains.

Conclusions:I. Some tubes are beads.
II. Some cycles are houses.
III. No bead is tube.
IV. Some rains are cycles.
1) Only I follows
2) Only either I or III follows
3) Only I and II follow
4) Only either I or III and IV follow
5) None of these
24. Statements: All stones are pearls.

Some pearls are shells.
Some shells are boxes.
No box is container.
Conclusions: I. Some stones are shells.
II. No pearl is container.
III. No shell is container.
IV. Some pearls are containers.
1) Only II follows
2) Only II \& III follow
3) Only either II or IV follows
4) Only III follows
5) None follows
25. Statements: Some schools are colleges.

Some colleges are hostels.
No hostel is office.
All offices are institutes.

Conclusions: I. No hostel is institute.
II. Some hostels are schools.
III. Some hostels are institutes.
IV. Some offices are colleges.
1) Only I follows
2) Only II \& III follow
3) Only IV follows
4) Only either I or III follows
5) None of these
26. Statements: Some pins are needles.

Some threads are needles.
All needles are nails.
All nails are hammers.
Conclusions: I. Some pins are hammers.
II. Some threads are nails.
III. Some pins are threads.
IV. No pin is thread.
1) Only I, II and either III or IV follow
2) Only III \& IV follow
3) Only I \& II follow
4) All follow
5) None of these
27. Statements: Some chairs are rooms.

No room is sofa.
All sofas are tables.
Some tables are desks.
Conclusions: I. Some sofas are desks.
II. No room is table.
III. Some chairs are tables.
IV. No desk is room.
1) None follows
2) Only I follows
3) Only either II or III follows
4) Only III and IV follow
5) All follow
28. Statements: Some rings are chains.

All chains are bangles.
All bracelets are bangles.
Some bangles are pendants.
Conclusions: I. Some rings are bangles.
II. Some chains are pendants.
III. Some bracelets are rings.
IV. No pendant is ring.
1) None follows
2) Only I follows
3) Only II \& III follow
4) Only IV follows
5) None of these
29. Statements: Some jeeps are trains.

All trains are buses.
Some boats are jeeps.
Some scooters are buses.
Conclusions: I. Some scooters are trains.
II. Some boats are buses.
III. Some jeeps are scooters.
IV. All buses are trains.
1) None follows
2) Only IV follows
3) Only II and IV follow
4) Only III follows
5) None of these
30. Statements: All teachers are engineers.

All engineers are cooks.
Some cooks are merchants.
All merchants are poets.
Conclusions: I. Some cooks are teachers.
II. Some merchants are engineers.
III. All cooks are engineers.
IV. Some cooks are poets.
1) None follows
2) Only I follows
3) Only II and IV follow
4) Only I and IV follow
5) None of these :
31. Statements: Some tools are hammers.

Some hammers are nails.
All nails are screws.
All screws are nuts.
Conclusions:I. All nuts are screws.
II. Some nuts are tools.
III. Some hammers are screws.
IV. All nuts are nails.
1) All follow
2) Only I follows
3) Only II follows
4) Only II and III follow
5) None of these
32. Statements: All pens are bags.

All bags are glasses.
No glass is a spoon.
All spoons are books.
Conclusions:I. Some glasses are pens.
II. Some books are bags.
III. No spoon is a pen.
IV. No bag is a book.
1) Only II and III follow
2) Only I, III and either II or IV follow
3) Either II or IV follows
4) All follow
5) None of these
33. Statements: All petals are flowers.

All thorns are flowers.
Some leaves are thorns.
Some stems are flowers.
Conclusions:I. Some petals are leaves.
II. All leaves are flowers.
III. Some stems are petals.
IV. No petal is a leaf.
1) None follows
2) Only II follows
3) Only II and either I or IV follow
4) Only either I or IV follows
5) None of these
34. Statements: All snakes are eagles.

Some eagles are rabbits
All rabbits are birds.
Some birds are animals.
Conclusions:I. Some animals are snakes.
II. Some birds are snakes.
III. Some birds are eagles.
IV. All birds are rabbits.
1) None follows
2) Only II follows
3) Only III follows
4) Both II and III follow
5) None of these
35. Statements: Some cameras are calculators.

Some calculators are diaries.
All notebooks are diaries.
All diaries are computers.
Conclusions:I. Some notebooks are calculators.
II. Some calculators are computers.
III. All notebooks are computers.
IV. Some diaries are cameras.
1) None follows 2) Only II follows
3) Only III follows
4) Both II and III follow
5) None of these
36. Statements: All planets are stars.

All stars are asteroids.
All asteroids are moons.
Some moons are rocks.

Conclusions:I. All asteroids are planets.
II. All asteroids are stars.
III. All moons are stars.
IV. Some rocks are stars.
1) None follows
2) Only I follows
3) Only II follows
4) Only either I or II follows
5) None of these
37. Statements: Some bats are toys.

Some toys are plastics.
Some plastics are mirrors.
No mirror is glass.
Conclusions: I. Some toys are mirrors.
II. Some plastics are glasses.
III. Some bats are mirrors.
IV. No glass is plastic.
1) Only III follows
2) Only either II or IV follows
3) Only either I or III follows
4) Only either III or IV follows
5) None of these
38. Statements: All graduates are advocates. Some advocates are judges. All judges are lawyers. Some lawyers are doctors.
Conclusions: I. Some doctors are advocates.
II. All graduates are judges.
III. Some doctors are graduates.
IV. Some lawyers are advocates.
1) None follows
2) Only I follows
3) Only II follows
4) Either III or IV follows
5) None of these
39. Statements: Some roses are flowers. Some flowers are buds. All buds are leaves. All leaves are plants.
Conclusions: I. Some plants are flowers.
II. Some roses are buds.
III. No leaves are roses.
IV. No roses are buds.
1) Only I follows
2) Only I \& II follow
3) Only I and either II or IV follow
4) Only either II or IV follows
5) None of these
40. Statements: Some books are journals. All journals are papers. Some papers are cards. All cards are boards.
Conclusions:I. Some papers are books.
II. Some papers are boards.
III. Some boards are journals.
IV. Some boards are books.
1) Only I \& II follow \(\quad\) 2) Only I follows
3) Only I, II \& III follow 4) All follow
5) None of these
41. Statements: Some grapes are apples.

Some apples are bananas.
All bananas are guavas.
No guava is pomegranate.
Conclusions:I. No grapes are pomegranates.
II. Some guavas are grapes.
III. Some guavas are apples.
IV. No bananas are pomegranates.
1) None follows
2) Only II \& III follow
3) Either I or III follows
4) Both III \& IV follow
5) None of these
42. Statements: Some doors are walls.

All walls are floors.
All floors are rooms.
Some rooms are windows.
Conclusions:I. All walls are rooms.
II. Some rooms are doors.
III. Some rooms are walls.
IV. Some floors are doors.
1) None follows 2) Only I \& II follow
3) Only II \& III follow 4) Only II, III \& IV follow
5) All follow
43. Statements: Some spoons are forks.

Some forks are bowls.
All bowls are plates.
Some plates are utensils.
Conclusions: I. Some utensils are forks.
II. Some plates are forks.
III. Some plates are spoons.
IV. Some utensils are spoons.
IV. Some utensils are spoons.
\begin{tabular}{ll} 
1) Only I follows & 2) Only II follows \\
3) Only I \& III follow & 4) Only II \& IV follow \\
5) None of these &
\end{tabular}
44. Statements: All chairs are tables.

All tables are desks.
Some desks are benches.
Some desks are sofas.
Conclusions: I. Some benches are sofas.
II. Some sofas are tables.
III. Some benches are tables.
IV. No chair is bench.
1) None follows
2) Only I \& II follow
3) Only II \& III follow
4) Only I, II \& III follow
5) None of these
45. Statements: Some sweets are chocolates.

Some chocolates are mints.
Some mints are food.
Some food is diet.
Conclusions: I. No sweets are diet.
II. No food is chocolates.
III. Some sweets are diet.
IV. Some sweets are food.
1) None follows
2) Either I or III follows
3) Only III \& IV follow
4) Only II \& III follow
5) None of these
46. Statements: Some doctors are lawyers.

All teachers are lawyers.
Some engineers are lawyers.
All engineers are businessmen.
Conclusions: I. Some teachers are doctors.
II. Some businessmen are lawyers.
III. Some businessmen are teachers.
IV. Some lawyers are teachers.
1) None follows 2) Only II follows
3) Only III follows
4) Only II and IV follow
5) None of these
47. Statements: All plastics are glasses.

Some sponges are glasses.
All sponges are clothes.
All clothes are liquids.
Conclusions: I. All liquids are sponges.
II. Some plastics are clothes.
III. All glasses are plastics.
IV. All liquids are clothes.
1) None follows
2) Only either II or IV follows
3) Only IV follows
4) Only III and IV follow
5) None of these
48. Statements: All sands are beaches. All shores are beaches. Some beaches are trees. All trees are hotels.
Conclusions: I. Some shores are hotels.
II. All beaches are shores.
III. Some beaches are hotels.
IV. Some sands are trees.
1) None follows
2) Only II follows
3) Only either I or III follows
4) Only IV follows
5) None of these
49. Statements: All parrots are pigeons. Some crows are pigeons. Some sparrows are crows. All sparrows are koels.
Conclusions: I. Some koels are crows. II. Some parrots are crows.
III. Some sparrows are pigeons.
IV. No crow is a parrot.
1) Only I follows
2) Only III follows
3) Only I and either II or IV follow
4) Only either I or III follows
5) None of these
50. Statements: All chairs are tables.

All tables are cushions.
Some cushions are trolleys.
All trolleys are lamps.
Conclusions: I. Some lamps are tables.
II. Some trolleys are chairs.
III. Some cushions are lamps.
IV. All chairs are cushions.
1) Only I follows
2) Only III and IV follow
3) Only either I or II follows
4) All follow
5) None of these
51. Statements: All dolls are toys.

Some toys are gems.
Some gems are boxes.
All boxes are sticks.
Conclusions: I. Some sticks are gems.
II. Some gems are dolls.
III. Some sticks are dolls.
IV. Some toys are dolls.
1) Only I follows
2) Only II follows
3) Only III and IV follow
4) Only I and IV follow
5) None of these
52. Statements: Some days are nights.

Some nights are weeks.
All weeks are months.
All months are years.
Conclusions: I. Some years are nights.
II. Some years are days.
III. Some months are nights.
IV. Some years are weeks.
1) Only I, II and III follow
2) Only I, III and IV follow
3) Only II, III and IV follow
4) All follow
5) None of these
53. Statements: Some doors are handles. All handles are pins. Some pins are threads. All threads are clothes.
Conclusions:I. Some clothes are pins. II. Some pins are doors.
III. Some clothes are handles.
IV. Some clothes are doors.
1) Only II and III follow
2) Only I, II and IV follow
3) Only II, III and IV follow
4) All follow
5) None of these
54. Statements: Some papers are lamps. Some lamps are bulbs. Some bulbs are tubes. Some tubes are walls.
Conclusions:I. Some walls are lamps.
II. Some bulbs are papers.
III. Some tubes are lamps.
IV. Some walls are papers.
1) Only I and II follow
2) Only III and IV follow
3) Only I, II and III follow
4) All follow
5) None follows
55. Statements: All roads are cars.

No car is tree.
Some trees are jungles.
All jungles are rivers.
Conclusions: I. Some rivers are roads.
II. Some jungles are roads.
III. Some cars are roads.
IV. No jungle is road.
1) None follows
2) Only either II or IV follows
3) Only either II or IV and III follow
4) Only III and IV follow
5) Only either II or IV and I and III follow
56. Statements: All belts are rollers.

Some rollers are wheels.
All wheels are mats.
Some mats are cars.
Conclusions: I. Some mats are rollers.
II. Some mats are belts.
III. Some cars are rollers.
IV. Some rollers are belts.
1) Only I and II follow
2) Only I, III and IV follow
3) Only I and IV follow
4) Only II, III and IV follow
5) None of these
57. Statements: Some tyres are rains.

Some rains are flowers.
All flowers are jungles.
All jungles are tubes.
Conclusions: I. Some jungles are tyres.
II. Some tubes are rains.
III. Some jungles are rains.
IV. Some tubes are flowers.
1) Only I, II and III follow
2) Only II, III and IV follow
3) Only I, III and IV follow
4) All follow
5) None of these
58. Statements: All desks are chairs.

All chairs are tables.
All tables are boxes.
All boxes are trunks.
Conclusions: I. Some trunks are tables.
II. All chairs are boxes.
III. Some boxes are desks.
IV. All desks are trunks.
1) Only I, II and III follow
2) Only I, II and IV follow
3) Only II, III and IV follow
4) All follow
5) None of these
59. Statements: Some birds are goats.

Some goats are horses.
Some horses are lions.
Some lions are tigers.
Conclusions: I. Some tigers are goats.
II. No tiger is goat.
III. Some lions are birds.
IV. No lion is bird.
1) Only either I or II follows
2) Only either III or IV follows
3) Only either I or II and either III or IV follow
4) Only I and III follow
5) None of these
60. Statements: All papers are bottles.

All bottles are cups.
Some cups are jugs.
Some jugs are plates.
Conclusions: I. Some plates are cups.
II. Some plates are bottles.
III. Some cups are papers.
IV. Some bottles are papers.
1) Only III and IV follow
2) Only I and II follow
3) Only I and III follow
4) Only II and IV follow
5) None of these
61. Statements: All bulbs are wires.

No wire is cable.
Some cables are brushes.
All brushes are paints.
Conclusions: I. Some paints are cables.
II. Some wires are bulbs.
III. Some brushes are wires.
IV. Some cables are bulbs.
1) None follows
2) Only I \& II follow
3) Only II follows
4) Only III follows
5) Only IV follows
62. Statements: All arrows are bows.

All bows are swords.
Some swords are daggers.
All daggers are knives.
Conclusions: I. All knives are bows.
II. Some swords are knives,.
III. All bows are arrows.
IV. All arrows are swords.
1) Only II follows
2) Only II and IV follow
3) Only III and IV follow 4) Only I and III follow
5) None of these
63. Statements: Some pianos are violins.

Some violins are drums.
All drums are guitars.
No guitar is a flute.
Conclusions: I. Some guitars are pianos.
II. Some drums are flutes.
III. Some pianos are drums. IV. No flute is a drum.
1) None follows
2) Only I follows
3) Only either II or IV follows
4) Only IV follows
5) None of these
64. Statements: Some stones are rocks.

All rocks are boulders. Some boulders are mountains. All hills are mountains.
Conclusions: I. Some stones are mountains.
II. Some hills are boulders.
III. Some boulders are stones.
IV. All mountains are hills.
\begin{tabular}{ll} 
1) None follows & 2) Only II follows \\
3) Only II and III follow & 4) Only III follows \\
5) None of these &
\end{tabular}
65. Statements: All plastics are glasses.

Some glasses are wood. Some woods are metals.
All metals are cloths.
Conclusions: I. Some cloths are woods.
II. Some woods are both cloths and glasses.
III. Some glasses are plastics.
IV. Some cloths are metals.
1) None follows
2) All follow
3) Only II and IV follow
4) Only I and II follow
5) None of these
66. Statements: Some airplanes are helicopters.

All helicopters are gliders.
All gliders are kites.
All kites are balloons.
Conclusions:I. Some helicopters are balloons.
II. All kites are airplanes.
III. All balloons are gliders.
IV. All helicopters are kites.
1) Only IV follows
2) Only either II or III follows
3) Only III follows
4) Only I follows
5) None of these
67. Statements: All kings are warriors.

All soldiers are warriors.
All sentries are warriors.
Some sentries are soldiers.
Conclusions: I. Some sentries are kings.
II. All warriors are soldiers.
III. Some warriors are sentries.
IV. Some soldiers are kings.
\(\begin{array}{ll}\text { 1) None follows } & \text { 2) Only I follows } \\ \text { 3) Only II follows } & \text { 4) Only II and III follow } \\ \text { 5) None of these } & \end{array}\)

\section*{Exercise-9}
1. 'All trees bear fruit'. 'Fruits of some trees are not good for human health'. If the two statements are assumed to be true, then which of the following statements is definitely true?
1) All fruits are not sweet and tasty.
2) Some fruits are healthy for some human beings.
3) Some trees do not bear fruits.
4) Human beings should eat fruits for remaining healthy.
5) None of these
2. 'Some books are papers' and 'All papers are phones'. If both these statements are true, then which of the following conclusions is definitely true?
1) No paper is book
2) All phones are papers
3) Some phones are books
4) Some papers are not books
5) None of these
3. If both the statements "All flowers are petals" and "Some petals are garlands" are true then which of the following statements definitely follows?
1) Some garlands are flowers
2) Some flowers are garlands
3) All petals are flowers
4) Some garlands are petals
5) None of these
4. "Some books are pens", "All pencils are erasers" and "Some pens are pencils". If all these statements are true, which of the following statements is definitely true?
1) Some pencils are books.
2) Some books are pencils.
3) No books are erasers.
4) Some erasers are pens.
5) None of these
5. If both the statements "All pens are erasers" and "Some erasers are pins" are true then which of the following statements is definitely true?
1) Some pins are pens.
2) All erasers are pens.
3) No pin is pen.
4) Some pens are pins.
5) None of these
6. If "Some papers are pens" and "Some pens are pencils", then which of the following conclusions can be drawn?
1) All papers are pencils
2) Some pens are papers
3) All pencils are papers
4) All papers are pencils
5) None of these
7. If both the statements "Some pens are files" and "All files are books" are true, then which of the following statements is definitely true?
1) All files are pens
2) No books is pen
3) All books are files
4) Some pens are books
5) None of these

Directions ( C .8 -11): These questions are based on six statements. For each question, two conclusions numbered I and II are given. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically and definitely follows from the given statements disregarding commonly known facts. Give answer
1) if only conclusion \(I\) follows.
2) if only conclusion II follows.
3) if either conclusion I or conclusion II follows.
4) if neither conclusion I nor conclusion II follows.
5) if both conclusions I and II follow.

Statements:
Some Necklaces are Bangles.
All Bangles are Ornaments.
Some Ornaments are Treasures.
No Treasure is a Picture.

All Colours are Pictures.
Some Pictures are Necklaces.
8. Conclusions:
I. All Treasures if they are also Bangles they are also necessarily Ornaments.
II. All Necklaces if they are also Colours they are also necessarily Pictures.
9. Conclusions:
I. All Ornaments which are Necklaces are necessarily Bangles.
II. No Colour is a Treasure.
10. Conclusions:
I. Some Colours are Necklaces.
II. Some Ornaments are Necklaces.
11. Conclusions:
I. Some Treasures are not Bangles.
II. Some Treasures that are Bangles are also Necklaces.

\section*{Answers and explanations}

\section*{Exercise-1}
1. 1; All leaders are good team workers + All good team workers are good orators \(=\mathrm{A}+\mathrm{A}=\mathrm{A}=\) All leaders are good orators. Hence Conclusion II doesnot follow. Again, All leaders are good team workers (A) \(\rightarrow\) conversion \(\rightarrow\) Some good team workers are leaders (I). Hence Conclusion I follows.
2. 1; All terrorists are human + All humans are bad \(=\) \(A+A=A=A l l\) terrorists are bad. Therefore, Conclusion I follows. From the statement 'All terrorists are human', 'All human are terrorists is a possibility' exists. Hence 'All human can be terrorists' is the conclusion. Therefore, conclusion II does not follow.
3. 2; Some teachers are followers + Some followers are famous \(=\) I + I = '-', ie no conclusion. Hence Conclusion I doesnot follow. Again, Some teachers are followers (I) \(\rightarrow\) conversion \(\rightarrow\) Some followers are teachers (I). Therefore Conclusion II follows.
4. 3; Apply the logic for "either I or II follows".
5. 4; Some dedicated souls are angels + Some angels are social workers (Conversion of 'All social workers are angles') = I + I = No conclusion. Therefore, neither conclusion I nor conclusion II follows.
6. 5; Statement (a) + statement (b) gives conclusion "All huts are houses" \([\because \mathrm{A}+\mathrm{A}=\mathrm{A}] \rightarrow\) on conversion \(\rightarrow\) "Some houses are huts". Hence, conclusion I follows. Conversion of statement (b) gives conlusion II. Hence, conclusion II also follows.
7. 1; Conclusion I can be obtained by conversion of statement (a). Hence, conclusion I follows. Conclusion II contradicts conclusion I. Hence, conclusion II does not follow.
8. 1; Statement (a) + statement (b) gives conclusion I \([\because \mathrm{A}+\mathrm{A}=\mathrm{A}]\). Hence, conclusion I follows. Conclusion II does not follow because conversion of statement (a) gives the conclusion "Some ducks are parrots".
9. 2; Conclusion II follows from conversion of statement (b). Conclusion I does not follow from statement (a) + statement (b) [ \(\because\) I + I = no conclusion].
10. 4; Statement (a) + statement (b) gives no conclusion [ \(\because \mathrm{A}+\mathrm{I}=\) no conclusion]. Hence, neither conclusion I nor conclusion II follows.
11. 3; Both the given statements are of I-type. I-type of statements can not be combined. Hence no conclusion follows. But, conclusions I and II form complementary pair. Therefore, either I or II follows.
(12-14): All D's are A's + All A's are C's \(=A+A=A=\) All D's are C's
12. 5; All D's are C's (A) \(\rightarrow\) conversion \(\rightarrow\) Some C's are D's. Hence conclusion I follows. Again, All D's are A's (A) \(\rightarrow\) conversion \(\rightarrow\) Some A's are D's (I). Hence conclusion II follows.
13. 1; Conclusion I is the above derived conclusion.
14. 4; Neither conclusion I nor conclusion II follows.
(15-16): All doors are windows + Some windows are clips \(=\mathrm{A}+\mathrm{I}=\) No conclusion.
15. 2; All doors are windows (A) \(\rightarrow\) conversion \(\rightarrow\) Some windows are doors (I). Hence conclusion II follows.
16. 1; See the part of given conclusion I, 'Some clips, if they are doors they are also windows' means 'if Some clips are doors', then some clips are also windows'. It is possible only when we have 'All doors are windows'. Because, Some clips are doors + All doors are windows = I + A = I = Some clips are windows. Hence conclusion I follows.
(17-18): No shoe is a chappal + Some chappals are sandals \(=\mathrm{E}+\mathrm{I}=\mathrm{O}^{*}=\) Some sandals are not shoes.
17. 4
18. 4
19. 5; Some paints are red + All red paints are yellow \(=\) \(\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some paints are yellow. Hence conclusion I follows. Again, All red (which are paints) are yellow (A) \(\rightarrow\) conversion \(\rightarrow\) Some yellow are red (I). Hence conclusion II follows.
20.4; All seats are hot + conversion of 'All belts are hot' \(=\) All seats are hot + Some hot are belts \(=\mathrm{A}+\mathrm{I}=\) No conclusion.

\section*{(21-22):}
21. 2; No house is an apartment + All apartments are flats \(=\mathrm{E}+\mathrm{A}=\mathrm{O}^{*}=\) Some flats are not houses. Therefore, conclusion I does not follow. All buildings are houses + No house is an apartment \(=\mathrm{A}+\mathrm{E}=\mathrm{E}=\mathrm{No}\) building is an apartment. Hence conclusion II follows.
22. 1; All buildings are houses + No house is an apartment + All apartments are flats \(=\mathrm{A}+\mathrm{E}+\mathrm{A}=(\mathrm{A}+\mathrm{E})+\mathrm{A}\) \(=\mathrm{E}+\mathrm{A}=\mathrm{O}^{*}=\) Some flats are not buildings.
Now, look at the conclusions, here we have to find possibilites. To find possibilites, we should draw all the possible venn-diagrams for the above derived conclusion, ie 'Some flats are not buildings' as given below:
Possibility I:

[Some flats are buildings.]
Possibility II:


Possibility III:

[No flats are buildings.]
Again, from Q.No. 21 , we have 'No building is an apartment' as a conclusion. From this, conclusion II cannot be possible.

\section*{(23-24):}
23. 4; Look at the conclusion \(I\), 'All rivers can never be oceans'. This is also a case of possibility.
All oceans are rivers (A) \(\rightarrow\) conversion \(\rightarrow\) Some rivers are oceans (I).
Now, draw all the possible venn-diagram for the above conclusion 'Some rivers are oceans'.

\section*{Possibility I:}

[Some rivers are not oceans.]

\section*{Possibility II:}

[All rivers are oceans.]
Hence, conclusion I does not follow.
Again, All oceans are rivers + No river is canal \(=\mathrm{A}\) \(+\mathrm{E}=\mathrm{E}=\) No ocean is canal. Therefore, conclusion II does not follow.
24. 1; All oceans are rivers + No river is a canal \(=A+E=\) \(\mathrm{E}=\) No ocean is a canal. Hence conclusion I follows. Again, conversion of "All oceans are rivers" + Some oceans are seas \(=\) Some rivers are oceans + Some oceans are seas \(=I+I=\) ' - ' ie No conclusion. Hence conclusion II doesnot follow.
(25-26):
25. 4; No day is night + All nights are noon \(=\mathrm{E}+\mathrm{A}=\mathrm{O}^{*}=\) Some noons are not days. Hence conclusion I doesnot follow. Similarly, conclusion II also doesnot follow.
26. 5; All nights are noons + No noon is an evening \(=A\) \(+\mathrm{E}=\mathrm{E}=\) No nights are evening \(\rightarrow\) conversion \(\rightarrow\) No evenings are nights. Hence conclusion I follows. Again, conclusion II is a case of possiblility. So we have to draw all possible venn-diagrams for the derived conclusion of \(\mathbf{Q}\).No. 25, ie 'Some noons are not days' as given below:
Possibility I:

[Some noons are days.]

\section*{Possibility II:}

[All days are noons.]
Hence, conclusion II follows.

\section*{Possibility III:}

[No noons are days.]
Therefore both conclusions I and II follow.

\section*{(27-28):}
27. 4; Some papers are boards + No board is a card \(=I+E\) \(=\mathrm{O}=\) Some papers are not cards. Hence neither conclusion I nor conclusion II follows.
28. 5; From G.No. 27, we have "Some papers are not cards" as a derived conclusion. Now, we draw all possible venn-diagrams for this conclusion as given below:
Possibility I:

[Some papers are cards.]
Possibility II:

[All cards are papers.]
Hence conclusion I follows.
Now, take the statement "Some papers are boards." Draw all possible venn-diagrams for this statement:

\section*{Possibility I:}

[Some papers are not boards.]

\section*{Possibility II:}

[All boards are papers.]
Hence conclusion II follows.
Therefore, conclusions I and II both follow.
(29-30):
29. 2; All institutes are academies + All academies are schools \(=A+A=A=\) All institutes are schools .

Hence conclusion I does not follow. Again, Some institutes are banks (I) \(\rightarrow\) conversion \(\rightarrow\) Some banks are institutes (I) + All institutes are academies \(=\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some banks are academies. Now, drawing all possible venn-diagrams for this conclusion, we have as given below:

\section*{Possibility I:}

[Some banks are not academies.]

\section*{Possibility II:}

[All banks are academies.]

\section*{Possibility III:}

[All academies are banks.]
Hence, conclusion II follows.
30. 2; Some institutes are banks (I) \(\rightarrow\) conversion \(\rightarrow\) Some banks are institutes + All institutes are academies + All academies are schools \(=I+A+\) \(A=(I+A)+A=I+A=I=\) Some banks are schools. By drawing venn-diagrams, we conclude that "All banks are schools" can be a possibility. Hence conclusion I doesnot follow. Again, All banks are institutes (because 'Any bank which is an institute' means 'All banks are institutes) + All institutes are academies + All academies are schools \(=A+A+A=A+A=A=\) All banks are schools. Hence, Conclusion II follows.
(31-32):
31. 1; All energies are forces + No force is torque + All torques are powers \(=\mathrm{A}+\mathrm{E}+\mathrm{A}=(\mathrm{A}+\mathrm{E})+\mathrm{A}=\mathrm{E}\) \(+A=O^{*}=\) Some powers are not energies. This does not rule out the possibility of conclusion I. See the illustration given below:
Possibility I:

[Some powers are energies.]

\section*{Possibility II:}

[All energies are powers.]
Hence conclusion I follows.
Again, No force is torque + All torques are powers \(=\mathrm{E}+\mathrm{A}=\mathrm{O}^{*}=\) Some powers are not forces. Now draw the all possible venn-diagram as given below:
Possibility I:

[Some powers are forces.]
Possibility II:

[All forces are powers.]
Possibility III:

[No power is force.] Clearly, possibility II is ruled out.
32. 2; Since, from spliting the conclusion 'All those powers if they are forces are also energies', we have, 'All powers are forces' and 'All powers are energies'. We have to derive the conclusion, 'All powers are energies' from the combination of statements 'All powers are forces' and 'All energies are forces'. All energies are forces + No force is a torque \(=\mathrm{A}+\mathrm{E}=\mathrm{E}=\) No energy is torque. Hence conclusion II follows. But conclusion I doesnot follow unless we have "All forces are energies."
33. 5; All circles are squares + Some squares are rectangles \(=A+I=\) '-', ie No conclusion. But there is some possibilities between circle and rectangle. These possibilities are as follows:
(a) All circles are rectangles.
(b) All rectangles are circles.

Therefore the conclusion II, ie All circles being rectangles is a possibility, follows.
Again, we have "Some squares are rectangles." Draw all possible venn-diagrams for this, as given below:

\section*{Possibility I:}

[Some squares are not rectangles.]

\section*{Possibility II:}

[All rectangles are squares.]
Hence possibility I cannot be ruled out.
34. 4; No gadget is a machine + All machines are computers \(=\mathrm{E}+\mathrm{A}=\mathrm{O}=\) Some computers are not gadget. This rules out the possibility of II. As for I, it may be true but we can't say so with certainty.
35. 2; All sketches are paintings + Some paintings are drawings \(=A+I=--\), ie No conclusion. Hence conclusion I does not follow. But some possible relationships between 'sketches' and 'drawings' exist. These are the possibilities as given below:
(a) All sketches are drawings.
(b) All drawing are sketches.
(c) Some sketches are drawings.
(d) Some drawings are sketches.

Therefore, conclusion II (Some sketches being drawings is a possibility) follows.
36. 2; All gliders are parachutes + No parachute is an airplane \(=\mathrm{A}+\mathrm{E}=\mathrm{E}=\) No glider is an airplane + All airplanes are helicopters \(=\mathrm{E}+\mathrm{A}=\mathrm{O}^{*}=\) Some helicopters are not gliders. Hence I does not follow. No parachute is an airplane + All airplanes are helicopter \(=\mathrm{E}+\mathrm{A}=\mathrm{O}^{*}=\) Some helicopters are not parachutes. That leaves us with the possibility of II.

Draw the all possible venn-diagrams for the above derived conclusion as given below:

\section*{Possibility I:}

[Some helicopters are parachutes.]

\section*{Possibility II:}

[All parachutes are helicopters.] Therefore this possibility exists.

\section*{Possibility III:}

[No helicopter is parachute.]
37. 5; I follows (see above). Again, we get Some helicopters are not gliders. That leaves us with the possibility of II.
38. 1; Since there is no negative statement, hence conclusion II doesnot follow. Again, we have the statements 'Some mails are chats' and 'Some chats are updates' [Converse of the given statement 'All updates are chats']. Now, we have the following possibilities from the above two statements:'All mails are chats' and 'All chats are updates' respectively. Therefore, All mails are chats + All chats are updates \(=\mathrm{A}+\mathrm{A}=\mathrm{A}=\) All mails are updates. Hence 'All mails being updates is a possibility', ie conclusion I follows.
39. 2; Some metals are papers + All papers are glasses \(=\) \(\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some metals are glasses. Therefore, conclusion I does not follow. Some metals are papers + All papers are glass = I + A = I = Some metals are glasses \(\rightarrow\) conversion \(\rightarrow\) Some glasses are metals (I).
'At least some glasses are metals’ implies 'Some glasses are metals'.
40. 1; No stone is metal + Some metals are glasses \(=\mathrm{E}+\) \(\mathrm{I}=\mathrm{O}^{*}=\) Some glasses are not stones. That still leaves us with the possibility in conclusion I. No stone is metal + Some metals are papers \(=\mathrm{E}+\mathrm{I}=\mathrm{O}^{*}=\) Some papers are not stones. Hence II does not follow.
41. 1; All squares are rings + All rings are circles \(=\mathrm{A}+\mathrm{A}\) \(=\mathrm{A}=\) All squares are circles \(\rightarrow\) conversion \(\rightarrow\) Some circles are squaqres. Hence conclusion II ('At least some circles are squares', ie 'Some circles are squares') follows. Again, No ellipse is a circle + Some circles are rings (converse of 'All rings are circles') \(=\mathrm{E}+\mathrm{I}=\mathrm{O}^{*}=\) Some rings are not ellipses. Now, draw the all possible venn-diagrams for the above conclusion as given below:

[Some rings are ellipses.]
We don't neet to draw other possibilities. Therefore, the possibility, ie conclusion I follows.
42. 4; No house is an apartment + Some apartments are bungalows (conversion of 'Some bungalows are apartments) \(=\mathrm{E}+\mathrm{I}=\mathrm{O}^{*}=\) Some bungalows are not houses. Therefore neither conclusion I nor conclusion II follows.
43. 2; Some gases are liquids + All liquids are water \(=\mathrm{I}+\) A = I = Some gases are water. Since this is a definite conclusion, no case of possibility exists in such cases.
Again, from the conclusion 'Some gases are water', conclusion 'All such gases which are not water can never be liquids' follows. Since we have been given 'All liquids are water'.
44. 2; All seconds are hours (A) \(\rightarrow\) conversion \(\rightarrow\) Some hours are seconds ( I ) + No second is a day \((\mathrm{E})=\mathrm{I}+\) \(\mathrm{E}=\mathrm{O}=\) Some hours are not days. Therefore conclusion I doesnot follow. Again, All minutes are seconds + All seconds are hours \(=\mathrm{A}+\mathrm{A}=\mathrm{A}=\) All minutes are hours \(\rightarrow\) conversion \(\rightarrow\) Some hours are minutes (I). Therefore, conclusion II follows.
45. 1; From the statement 'Some teachers are professors' there are possibilities that 'All teachers are professors' and 'All professors are teachers'. Similarly, from the statement 'Some lecturers are teachers' there is a possibility that 'All teachers are lecturers'. Again, All professors are teachers + All teachers are lecturers \(=\mathrm{A}+\mathrm{A}=\mathrm{A}=\) All professors are lecturers. Hence, All teachers and professors are lecturers is a possibility. But conclusion II doesnot follow.
46. 2; From the above, conclusion I doesnot follow. Again, from the above, we have the following possibilities: 'All lecturers are teachers' and 'All teachers are professors'. Now, All lecturers are teachers + All teachers are professors = A + A = A = All lecturers are professors. Therefore conclusion II, ie 'All lecturers being professors is a possibility' follows.

\section*{Exercise-2}
1. 5; Only I and II follow. Statement (a) + Statement (b) gives conclusion I \([\because A+E=E]\) Conclusion II follows directly from statement (a).
2. 1; Statement (a) + Statement (b) gives no conclusion \([\because\) I + I \(=\) No conclusion]. Hence, I does not follow. Conclusions II and III do not follow because if "Some A is B" it does not imply that "Some A is not B".
3. 3; Statement (a) + Statement (b) gives no conclusion \([\because \mathrm{E}+\mathrm{E}=\) No conclusion]. Hence, I and II do not follow. But conclusion III follows by conversion of statement (b).
4. 2; Conclusion I does not follow because an A-type statement (b) gives two I-type conclusions only. Statement (a) + Statement (b) gives conclusion II \(\left[\because \mathrm{E}+\mathrm{A}=\mathrm{O}^{*}\right]\). Hence, II follows but III does not follow.
5. 1; Statement (a) + Statement (b) gives conclusion II \([\because \mathrm{E}+\mathrm{I}=\mathrm{O}\) ]. Hence, conclusion II follows but conclusion I does not follow. Conclusion III follows from the conversion of statement (a).
6. 2; Statement (a) + Statement (b) gives no conclusion. \([\because A+I=\) No conclusion]. Hence, conclusion I and conclusion III do not follow independently.

But, conclusion I and conclusion III make a complementary pair (IE type). Hence, either I or III follows. Conclusion II does not follow because "All tables are boxes" gives only the following conclusions:
1. Some tables are boxes.
2. Some boxes are tables.
7. 5; Statement (a) + Statement (b) gives the conclusion "Some goats are not rooms" \(\left[\because \mathrm{E}+\mathrm{A}=\mathrm{O}^{*}\right]\). Thus, conclusions I and II do not follow. Conclusion III follows from statement (b).
8. 4; Statement (a) + Statement (b) gives no conclusion \([\because\) I + I = No conclusion]. Hence, conclusion II does not follow. Conclusion I follows from conversion of statement (a). On a similar basis, conclusion III also follows.
9. 3; Conversion of Statement (a) gives the conclusion "Some lions are men". Hence, conclusion II follows [say statement (c)]. Now, Statement (b) + Statement (c) gives no conclusion [ \(\because \mathrm{A}+\mathrm{I}=\mathrm{No}\) conclusion]. Therefore, conclusion I does not follow. Conclusion III does not follow because an A-type statement gives I-type conclusions.
10. 1; Conclusion III follows because Statement (a) + Statement (b) gives the conclusion "All birds are trees" \([\because \mathrm{A}+\mathrm{A}=\mathrm{A}]\). "All birds are trees" implies "Some trees are birds". Hence, conclusion I follows. Conclusion II follows from statement (a).
11. 3; Conversion of statement (b) + Statement (a) gives conclusion III [ \(\because \mathrm{I}+\mathrm{A}=\mathrm{I}]\). Hence, III follows but conclusions I and II do not follow.
12. 5; Statement (a) + Statement (b) gives the conclusion "All rats are cars" \([\because \mathrm{A}+\mathrm{A}=\mathrm{A}] \Rightarrow\) "Some cars are rats". Hence neither conclusion II nor conclusion III follows. Conclusion I does not follow from statement I since conversion of statement (a) will give the conclusion "Some bells are rats".
13. 5; Conversion of statement (a) gives conclusion II. Hence, conclusion II follows. Again statement (a) + statement (b) gives conclusion III [ \(\because \mathrm{A}+\mathrm{E}=\mathrm{E}]\). Hence, conclusion III follows. Conclusion I follows from conversion of conclusion III. Hence, All follow.
14. 4; Conclusion II follows from conversion of statement (a). Now, statement (b) + conversion of statement (a) gives no conclusion [ \(\because \mathrm{A}+\mathrm{I}=\mathrm{no}\) conclusion]. Hence, conclusions I and III do not follow. But conclusion I and conclusion III make an IE-type complementary pair. Hence either
conclusion I or conclusion III follows.
15. 4; Statement (a) + Statement (b) gives no conclusion \([\because I+I=\) no conclusion]. Therefore, conclusion I does not follow. Again conversion of statement (b) gives the conclusion "Some rods are lamps". Hence, conclusions II and III do not follow.
16. 5; \(\mathrm{A}+\mathrm{A}=\mathrm{A}\) gives conclusion I. Conclusion II follows from conclusion I itself. Conclusion III follows directly from the second statement while IV follows directly from the first.
17. 4; I + A = I gives conclusion I. Conclusion III follows directly from the second statement.
18. 1; \(\mathrm{I}+\mathrm{E}=\mathrm{O}\), hence conclusion II follows. Conclusion IV follows directly from the second statement by converting it.
19. 4; First change the order of the sentences to align them:
No books are boys. (Type E)
All boys are girls. (Type A)
Now, by the rule \(\mathrm{E}+\mathrm{A}=\mathrm{O}\) reversed, we have 'Some girls are not books' as a conclusion. Hence, IV follows. Further, conclusions I and II make a complementary pair; hence either of them must be true.
20.4; Conclusion I follows directly from the first statement (on conversion).
Further, conclusion I + second statement \(=\mathrm{I}+\mathrm{A}\) = \(\mathrm{I}=\) conclusion II. Conclusion III follows from conclusion II, on conversion.
21. 2; All spoons are bowls \(\rightarrow\) conversion \(\rightarrow\) Some bowls are spoons. Hence II follows. No other conclusion follows.
22. 5; Some dogs are cats (I) \(\rightarrow\) conversion \(\rightarrow\) Some cats are dogs (I). Hence only conclusion I follows.
23. 5; All rats are bats + All bats are flies \(=\mathrm{A}+\mathrm{A}=\mathrm{A}=\) All rats are flies. Hence conclusion III follows.
24. 3; All pots are cups + All cups are saucers \(=\mathrm{A}+\mathrm{A}=\) \(\mathrm{A}=\) All pots are saucers. Hence conclusion I follows. Again, All pots are cups (A) \(\rightarrow\) conversion \(\rightarrow\) Some cups are pots (I). Hence conclusion III follows. Conclusion IV is the converse of conclusion I. Hence, conclusions I, III and IV follow.
25. 1; Some boats are buses (I) \(\rightarrow\) conversion \(\rightarrow\) Some buses are boats (I). Hence conclusion III follows. Again, conclusion I and IV form E-I type of complementary pair. Hence 'either I or IV and III follow' is the correct answer.

\section*{Exercise-3}
1. 3; Some pins are forks + All forks are keys \(=\mathrm{I}+\mathrm{A}=\) \(\mathrm{I}=\) Some pins are keys + No key is lock \(=\mathrm{I}+\mathrm{E}=\) \(\mathrm{O}=\) Some pins are not locks. But I and II form a complementary I-E pair. Hence either I or II follows.
2. 4; Some shirts are trousers + Some trousers are jackets \(=\mathrm{I}+\mathrm{I}=\) No conclusion. Hence II does not follow and consequently I also cannot follow.
3. 5; Some trees are fruits (I) \(\rightarrow\) conversion \(\rightarrow\) Some fruits are trees (I). Hence conclusion I follows. Some plants are trees (I) \(\rightarrow\) conversion \(\rightarrow\) Some trees are plants. (I). Hence conclusion II follows.
4. 2; Some horses are camels (I) \(\rightarrow\) conversion \(\rightarrow\) Some
camels are horses (I). Hence conclusion II follows. But I-type statements can't be combined. Hence conclusion I does not follow.
5. 1; Some files are papers (I) \(\rightarrow\) conversion \(\rightarrow\) Some papers are files (I). Hence conclusion I follows. But II does not follow as I-type statements can't be combined.
6. 5; Some stones are rocks + All rocks are clouds \(=\) I \(+\mathrm{A}=\mathrm{I}=\) Some stones are clouds + All clouds are rains \(=\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some stones are rains \(\rightarrow\) conversion \(\rightarrow\) Some rains are stones (I). Hence conclusion I follows. Also, All rocks are clouds (A) \(\rightarrow\) conversion \(\rightarrow\) Some clouds are rocks (II).

Hence II follows.
7. 4; All holes are folders + Some folders are stands \(=\) \(\mathrm{A}+\mathrm{I}=\mathrm{No}\) conclusion. Hence neither I nor II follows.
8. 4; All books are magazines + Some magazines are notebooks \(=\mathrm{A}+\mathrm{I}=\) No conclusion. Hence I does not follow. Some magazines are notebooks + Some notebooks are papers \(=\mathrm{I}+\mathrm{I}=\) No conclusion. Hence II does not follow.
9. 5; Some pearls are stones + All stones are bricks \(=\) \(\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some pearls are bricks. Hence i follows. Again, Some pearls are bricks + All bricks are walls \(=\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some pearls are walls. Hence II follows.
10. 2; Some oranges are grapes + All grapes are bananas \(=I+A=I=\) Some oranges are bananas. Hence II follows. Again, Some apples are oranges + Some oranges are bananas \(=\mathrm{I}+\mathrm{I}=\) No conclusion. Hence I does not follow.
11. 5; All mobiles are phones + All phones are computers \(=\mathrm{A}+\mathrm{A}=\mathrm{A}=\) All mobiles are computers. Hence I
follows. All phones are computers + All computers are scanners \(=\mathrm{A}+\mathrm{A}=\mathrm{A}=\mathrm{All}\) phones are scanners. Hence II follows.
12. 1; All bags are trunks + All trunks are drawers \(=A\) \(+\mathrm{A}=\mathrm{A}=\) All bags are drawers. Hence I follows. All bags are trunks (A) \(\rightarrow\) conversion \(\rightarrow\) Some trunks are bags (I). Hence II does not follow.
13. 3; Some buses are scooters + No scooter is a train = \(\mathrm{I}+\mathrm{E}=\mathrm{O}=\) Some buses are not trains. From this I or II does not follow. However, they form an EI complementary pair. Hence either I or II must follow.
14. 1; Some wheels are sofa sets + All sofa sets are cupboards \(=I+A=I=\) Some wheels are cupboards. Hence I follows. Some chairs are wheels + Some wheels are sofa sets \(=\mathrm{I}+\mathrm{I}=\mathrm{No}\) conclusion. Hence II does not follow.
15. 5; Some coins are notes + All notes are cards \(=I+A\) \(=\mathrm{I}=\) Some coins are cards. Hence I follows. All notes are cards + All cards are plastics \(=\) All notes are plastics. Hence II follows.
16. 1; Some tents are rivers + All rivers are ponds \(=I+\) \(\mathrm{A}=\mathrm{I}=\) Some tents are ponds \(\rightarrow\) conversion \(\rightarrow\) Some ponds are tents (I). Hence I follows. But some desks are tents + Some tents are ponds \(=\) I \(+\mathrm{I}=\) No conclusion. Hence II does not follow.
17. 2; Some pens are knives + All knives are rats \(=\mathrm{I}+\) \(\mathrm{A}=\mathrm{I}=\) Some pens are rats \(\rightarrow\) conversion \(\rightarrow\) Some rats are pens (I). Hence II follows. But All chairs are pens + Some pens are rats \(=A+I=\) No conclusion. Hence I does not follow.
18. 4; I-type statements can't be combined.
19. 5; All tables are windows + All windows are rooms \(=\mathrm{A}+\mathrm{A}=\) All tables are rooms \(\rightarrow\) conversion \(\rightarrow\) Some rooms are tables. Hence II follows. Again, All tables are rooms + All rooms are buses \(=\mathrm{A}+\mathrm{A}\) \(=\) All tables are buses \(\rightarrow\) conversion \(\rightarrow\) Some buses are tables. Hence I follows.
20.5; Some trees are boxes + All boxes are bricks \(=I+\) \(\mathrm{A}=\mathrm{I}=\) Some trees are bricks \(\rightarrow\) conversion \(\rightarrow\) Some bricks are trees (I). Hence II follows. Again, Some trees are bricks + All bricks are dogs \(=\mathrm{I}+\mathrm{A}\) \(=\mathrm{I}=\) Some trees are dogs \(\rightarrow\) conversion \(\rightarrow\) Some dogs are trees (I). Hence I follows.
21. 3; All goats are flowers + No flower is branch \(=A+\)
\(\mathrm{E}=\mathrm{E}=\) No goat is branch + Some branches are roots \(=\mathrm{E}+\mathrm{I}=\mathrm{O}^{\star}=\) Some roots are not goats. Hence neither I nor II definitely follows. However, since the two form a complementary I-E pair, either of the two must follow.
22. 5; All pots are rings + All rings are paints \(=A+A=A\) \(=\) All pots are paints \(\rightarrow\) conversion \(\rightarrow\) Some paints are pots (I). Hence I follows. All bangles are rings + All rings are paints \(=\mathrm{A}+\mathrm{A}=\mathrm{A}=\) All bangles are paints \(\rightarrow\) implication \(\rightarrow\) Some bangles are paints (I). Hence II follows.
23. 1; All benches are cots \((\mathrm{A}) \rightarrow\) conversion \(\rightarrow\) Some cots are benches (I). Hence follows. No cot is lamp + some lamps are candles \(=\mathrm{E}+\mathrm{I}=\mathrm{O}=\) Some candles are not cots. Hence II does not follow.
24. 5; All dogs are goats + All goats are walls \(=\mathrm{A}+\mathrm{A}=\) \(\mathrm{A}=\) All dogs are walls \(\rightarrow\) conversion \(\rightarrow\) Some walls are dogs (I). Hence I follows. Some cats are dogs + All dogs are walls \(=I+A=I=\) Some cats are walls \(\rightarrow\) conversion \(\rightarrow\) Some walls are cats (I). Hence II follows.
25. 3; Some sofas are benches + Some benches are tables \(=\mathrm{I}+\mathrm{I}=\) No conclusion. Hence I and II do not follow by combination. However, since they make a complementary I-E pair, either I or II follows.
26. 4; All rats are bats + Some bats are desks \(=\mathrm{A}+\mathrm{I}=\) No conclusion. Hence I and subsequently II do not follow.
27. 2; All ponds are stores + Some stores are bags \(=A\) \(+\mathrm{I}=\) No conclusion. Hence I does not follow. Some roads are ponds + All ponds are stores \(=I\) \(+\mathrm{A}=\mathrm{I}=\) Some roads are stores \(\rightarrow\) conversion \(\rightarrow\) Some stores are roads (I). Hence II follows.
28. 2; Some woods are chairs + All chairs are stones \(=\) \(\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some woods are stones (I) \(\rightarrow\) conversion \(\rightarrow\) Some stones are woods (I). Hence II follows. No table is wood + Some woods are stones \(=\mathrm{E}+\) \(\mathrm{I}=\mathrm{O}=\) Some stones are not tables. Hence I does not follow.
29. 1; All letters are black + All black are blue + No blue is green \(=(A+A)+E=A+E=E=\) No letter is green. Hence I follows. But II can't be inferred from "All black are blue."
30. 3; Some fruits are mangoes + Some mangoes are red \(=I+I=\) No conclusion. However, either I or II follows as they form a complementary E-I pair.
31. 3
32. 4; I-type statements can't be combined.
33. 5; Some caps are shirts (I) \(\rightarrow\) conversion \(\rightarrow\) Some shirts are caps (I). Hence II follows. Again, from II and the second statement, I also follows.
34. 4; The given statements are of I-type and hence can't be combined.
35. 2; All Y are A (A) \(\rightarrow\) conversion \(\rightarrow\) Some A are Y (I). Hence \(I\) does not follow. All \(Y\) are \(A+\) All \(A\) are \(Z+\) All \(Z\) are \(X=(A+A)+A=A+A=A=A l l Y\) are \(X\). Hence II follows.
36. 4
37. 4
38. 1; All keys are locks + No lock is a door \(=\mathrm{A}+\mathrm{E}=\) \(\mathrm{E}=\) No key is a door. Hence I follows. No lock is a door + All doors are windows \(=\mathrm{E}+\mathrm{A}=\mathrm{O}=\) Some windows are not locks. Hence II does not follow.
39. 4; All districts are cities (A) \(\rightarrow\) conversion \(\rightarrow\) Some cities are districts (I). Now, All states are cities + Some cities are districts \(=A+I=\mathrm{No}\) conclusion. Hence I does not follow. All states are cities + Some cities are countries \(=A+I=\) No conclusion. Hence II does not follow.
40. 2; All books are pages (A) \(\rightarrow\) conversion \(\rightarrow\) Some pages are books (I). Now, All words are pages + Some pages are looks \(=\mathrm{A}+\mathrm{I}=\mathrm{No}\) conclusion. Hence I does not follow. All libraries are looks + All books are pages \(=\mathrm{A}+\mathrm{A}=\mathrm{A}=\) All libraries are pages. Hence II follows.
41. 2; All cars are trucks + All trucks are ships \(=A+A\) \(=\mathrm{A}=\) All cars are ships \(\rightarrow\) conversion \(\rightarrow\) Some ships are cars (I). Hence I does not follow. All cars are ships + All ships are aeroplanes \(=\mathrm{A}+\) \(\mathrm{A}=\mathrm{A}=\) All cars are aeroplanes. Hence II follows.
42. 2; Some clouds are ashes + Some ashes are particles \(=\mathrm{I}+\mathrm{I}=\) No conclusion. Hence I does not follow. Some ashes are particles + All particles are elements \(=\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some ashes are elements \(\rightarrow\) conversion \(\rightarrow\) Some elements are ashes (I). Hence II follows.

\section*{Exercise-4}
1. 1; Statement (a) + statement (b) gives no conclusion \([\because I+I=\) no conclusion]. Hence, conclusion I does not follow. Again, since statement (a) + statement (b) gives no conclusion, therefore we can't relate 'teachers' and 'rectors' either. Hence, conclusion II does not follow. Again, conversion of statement (c) gives conclusion "Some rectors are readers". Hence, conclusion III does not follow.
2. 2; Statement (a) + statement (b) gives no conclusion \([\because I+I=\) no conclusion]. Hence, conclusion II does not follow. Again, since statement (a) + statement (b) gives no conclusion, we can't relate 'papayas' and 'mangoes'. Hence, conclusions I and III do not follow. But these two conclusions make a complementary pair (IE-type). Hence, either conclusion I or conclusion III follows.
3. 5 ; Statement (b) + statement (a) gives conclusion II \([\because \mathrm{A}+\mathrm{A}=\mathrm{A}]\). Hence, conclusion II follows. Again, statement (c) + statement (a) gives conclusion "Some cups are glasses" [ \(\because \mathrm{I}+\mathrm{A}=\mathrm{I}]\). Now, conversion of "Some cups are glasses" gives conclusion I. Hence, conclusion I follows. Again, conversion of statement (b) gives conclusion III. Hence, conclusion III follows.
4. 1; Conversion of statement (b) gives conclusion III. Hence, conclusion III follows. Again, statement (b) + statement (c) gives conclusion "All sitars are violins" [ \(\because \mathrm{A}+\mathrm{A}=\mathrm{A}]\). Now, conversion of "All sitars are violins" gives conclusion II. Hence, conclusion II follows. Again, statement (a) + "All sitars are violins" gives conclusion "All tablas are violins". Again, conversion of "All tablas are violins" gives conclusion I. Hence, conclusion I follows.
5. 3; Statement (b) + conversion of statement (c) gives conclusion III \([\because \mathrm{A}+\mathrm{E}=\mathrm{E}]\). Hence, conclusion III follows. Statement (a) + statement (c) gives conclusion "Some stations are not stores" [ \(\because\) I + \(\mathrm{E}=\mathrm{O}\) ]. Hence, conclusion II does not follow. Again, "Some stations are not stores" + "All shops are stores" gives conclusion "Some stations are not shops". Hence conclusion I does not follow.
6. 3; Statement (a) + statement (b) gives no conclusion \([\because \mathrm{A}+\mathrm{I}=\) no conclusion]. Hence, conclusion III does not follow. Again, conversion of statement (c) gives conclusion I. Hence, conclusion I follows. Again, statement (b) + statement (c) gives the conclusion "Some tyres are cars" [ \(\because \mathrm{I}+\mathrm{A}=\mathrm{I}]\). Which, on conversion, gives conclusion II. Hence, conclusion II follows.
7. 1; Statement (b) + statement (c) gives no conclusion \([\because I+I=\) no conclusion]. Hence, conclusion I does not follow. Again, statement (a) + statement (b) gives no conclusion \([\because \mathrm{I}+\mathrm{I}=\) no conclusion]. Hence, conclusion II does not follow. Also, from all the three statements, no specific conclusion can be obtained for axes and blades. Hence, conclusion III does not follow.
8. 3; Statement (c) + statement (b) gives conclusion I \([\because A+A=A]\). Hence, conclusion I follows. Also, on conversion of conclusion I we get conclusion III. Hence, conclusion III follows. Again, conclusion I ("All cars are windows") + conversion of statement (a) gives no conclusion \([\because A+I=\) no conclusion]. Hence, conclusion II does not follow.
9. 4; Statement (b) + conversion of statement (c) gives the conclusion "No bead is a tree" \([\because \mathrm{A}+\mathrm{E}=\mathrm{E}]\). Which, on conversion, gives conclusion III. Hence, conclusion III follows. And hence, conclusion II does not follow. Again, statement (a) + "No bead is a tree" gives the conclusion "Some benches are not trees" [ \(\because \mathrm{I}+\mathrm{E}=\mathrm{O}]\). Hence, conclusion I does not follow.
10. 3; Statement (b) + statement (c) gives the conclusion "Some tables are paints" [ \(\because I+A=I]\). Which, on conversion, gives conclusion III. Hence, conclusion III follows. Again, statement (a) + "Some tables are paints" gives no conclusion [ \(\because\) \(\mathrm{A}+\mathrm{I}=\) no conclusion]. Hence, conclusion I does not follow. Again, statement (a) + statement (b) gives no conclusion \([\because \mathrm{A}+\mathrm{I}=\) no conclusion]. Hence, conclusion II does not follow.
11. 2; Conversion of statement (b) gives conclusion III. Hence, conclusion III follows. Again, statement (b) + statement (c) gives the conclusion "Some frames are curtains" [ \(\because \mathrm{I}+\mathrm{A}=\mathrm{I}\) ]. Which on conversion gives conclusion II. Hence, conclusion II follows. Again, statement (a) + "Some frames are curtains" gives no conclusion \([\because I+I=\) no conclusion]. Hence, conclusion I does not follow.
12. 1; I-type statements can't be combined.
13. 2; Conclusion I does not follow from the first statement. But II follows: All locks are doors (A) \(\rightarrow\) conversion \(\rightarrow\) Some doors are locks (I). Some keys are locks + All locks are doors \(=\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some keys are doors + Some doors are windows \(=\mathrm{I}+\mathrm{I}=\) No conclusion. Hence III does not follow.
14. 3; Some apples are oranges + All oranges are grapes \(=\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some apples are grapes. Hence conclusion II follows. But A \(+\mathrm{I}=\) No conclusion.

Hence I and III do not follow.
15. 5; Some tables are chairs + All chairs are benches \(=\) \(\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some tables are benches \(\rightarrow\) conversion \(\rightarrow\) Some benches are tables. Hence II follows. All chairs are benches + All benches are desks \(=\mathrm{A}+\) \(\mathrm{A}=\mathrm{A}=\) All chairs are desks \(\rightarrow\) conversion \(\rightarrow\) Some desks are chairs. Hence III follows. Now, Some tables are chairs + All chairs are desks \(=\mathrm{I}\) \(+\mathrm{A}=\mathrm{I}=\) Some tables are desks \(\rightarrow\) conversion \(\rightarrow\) Some desks are tables. Hence I follows.
16. 5; All dogs are cows + No cow is cat \(=\mathrm{A}+\mathrm{E}=\mathrm{E}=\) No dog is cat. Hence II follows.
No cow is cat ( E ) \(\rightarrow\) conversion \(\rightarrow\) No cat is cow (E). Now, All rats are cats + No cat is cow \(=\mathrm{A}+\mathrm{E}\) \(=\mathrm{E}=\) No rat is cow \(\rightarrow\) conversion \(\rightarrow\) No cow is rat. Hence III follows. Again, No dog is cat (E) \(\rightarrow\) conversion \(\rightarrow\) No cat is dog (E), Now, All rats are cats + No cat is \(\operatorname{dog}=A+E=E=\) No rat is \(\operatorname{dog} \rightarrow\) conversion \(\rightarrow\) No dog is rat. Hence I follows.
17. 4; I-type statements can't be combined.
18. 3; Some pencils are marbles + All marbles are buses \(=I+A=I=\) Some pencils are buses \(\rightarrow\) conversion \(\rightarrow\) some buses are pencils. Hence II follows. Some pencils are buses + Some buses are trucks \(=\mathrm{I}+\mathrm{I}\) \(=\) No conclusion. Hence I or III do not follow. But since they make an I-E complementary pair, either I or III follows.
19. 1; Some jungles are flowers + All flowers are streets \(=I+A=I=\) Some jungles are streets \(\rightarrow\) conversion \(\rightarrow\) Some streets are jungles (I). Hence I follows. Some trees are jungles + Some jungles are streets \(=\mathrm{I}+\mathrm{I}=\) No conclusion. Hence II does not follow. Nor can the first two statements be combined. Hence III does not follow.
20. 2; All desks are tables (A) \(\rightarrow\) conversion \(\rightarrow\) Some tables are desks (I). Hence III follows. All desks are tables + All tables are chairs \(=A+A=A=\) All desks are chairs \(\rightarrow\) conversion \(\rightarrow\) Some chairs are desks (I). Hence II follows. However, All desks are chairs + Some chairs are sofas \(=A+I=\) No conclusion. Hence I does not follow.
21. 1; Some cycles are bikes + No bike is flower \(=I+E\) \(=\mathrm{O}=\) Some cycles are not flowers. Hence II does not follow. Since O-type statement can't be combined, I does not follow. Again, No bike is flower + All flowers are goats \(=\mathrm{E}+\mathrm{A}=\mathrm{O}^{*}=\) Some goats are not bikes. Hence III does not follow.
22.4; All hills are rocks + Some rocks are sticks \(=\mathrm{A}+\) \(\mathrm{I}=\mathrm{No}\) conclusion. Hence I does not follow. All rivers are hills + All hills are rocks \(=\mathrm{A}+\mathrm{A}=\mathrm{A}=\) All rivers are rocks \(\rightarrow\) conversion \(\rightarrow\) Some rocks are rivers (I). Hence III follows. But All rivers are rocks + Some rocks are sticks \(=\mathrm{A}+\mathrm{I}=\mathrm{No}\) conclusion. Hence II does not follow.
23. 5; All cars are trains (A) \(\rightarrow\) conversion \(\rightarrow\) Some trains are cars (I). Hence III follows. All wheels are cars + All cars are trains \(=\mathrm{A}+\mathrm{A}=\mathrm{A}=\) All wheels are trains \(\rightarrow\) conversion \(\rightarrow\) Some trains are wheels (I). Hence II follows. All tyres are cars + All cars are trains \(=A+A=A=\) All tyres are trains. Hence I follows.
24. 4; All pins are rods + Some rods are chains \(=A+I\) \(=\) No conclusion. Hence I and III do not follow. However, the two form a complementary I-E pair. Hence either I or III follows. Some rods are
chains + All chains are hammers \(=\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some rods are hammers \(\rightarrow\) conversion \(\rightarrow\) Some hammers are rods (I). Hence II follows.
25. 1; I-type statements can't be combined.
26. 2; All buckets are tubs \((\mathrm{A}) \rightarrow\) conversion \(\Rightarrow\) Some tubs are buckets (I). Hence II does not follow. All buckets are tubs + All tubs are drums \(=\mathrm{A}+\mathrm{A}\) \(=\mathrm{A}=\) All buckets are drums \(\rightarrow\) conversion \(\rightarrow\) Some drums are buckets (I). Hence III follows. Some pots are buckets + All buckets are drums \(=\) \(\mathrm{I}+\mathrm{A}+\mathrm{i}=\) Some pots are drums \(\rightarrow\) conversion. Some drums are pots (I). Hence I follows.
27. 3; All pins are bags \((\mathrm{A}) \rightarrow\) conversion \(\rightarrow\) Some bags are pins (I). All needles are bags + Some bags are pins \(=\mathrm{A}+\mathrm{I}=\) No conclusion. Hence I and III do not follow by combination. However, since they form a complementary I-E pair, either I or III follows. Again, All chalks are bags + conversion of All needles are bags \(=A+I=\) No conclusion. Hence II does not follow.
28. 1; Some buses are trucks + Some trucks are boats \(=\) \(\mathrm{I}+\mathrm{I}=\) No conclusion. Hence II and consequently I do not follow. Some trucks are boats + No boat is jeep \(=\mathrm{I}+\mathrm{E}=\mathrm{O}=\) Some trucks are not jeeps. Hence III does not follow.
29. 5; All flowers are trees + All trees are jungles \(=A+\) \(\mathrm{A}=\mathrm{A}=\) All flowers are jungles \(\rightarrow\) conversion \(\rightarrow\) Some jungles are flowers (I). Hence III follows. All trees are jungles + No jungle is hill \(=\mathrm{A}+\mathrm{E}=\mathrm{E}=\) No tree is hill. Hence II follows. All flowers are trees + No tree is hill \(=\mathrm{A}+\mathrm{E}=\mathrm{E}=\) No flower is hill. Hence I follows.
30. 5; All sofas are beds + All beds are mats \(=A+A=\) A \(=\) All sofas are mats \(\rightarrow\) conversion \(\rightarrow\) Some mats are sofas (I). Hence I follows. All tables are sofas + All sofas are beds \(=\mathrm{A}+\mathrm{A}=\mathrm{A}=\) All tables are beds \(\rightarrow\) conversion \(\rightarrow\) some beds are tables (I). Hence II follows. All tables are beds + All beds are mats \(=\mathrm{A}+\mathrm{A}=\mathrm{A}=\) All tables are mats \(\rightarrow\) conversion \(\rightarrow\) Some mats are tables (I). Hence III follows.
31. 4; Since I-type statements can't be combined, no conclusion follows by combination. But II and III make a complementary I-E pair. Hence either II or III follows.
32. 1; Some trees are houses + All houses are wheels \(=I+A=I=\) Some trees are wheels \(\rightarrow\) conversion \(\rightarrow\) Some wheels are trees (I). Hence I follows. All flowers are trees (A) \(\rightarrow\) conversion \(\rightarrow\) Some trees are flowers (I). Hence II follows. But I and II can't be combined as they are I-type statements. Hence III does not follow.
33. 4; All windows are doors + All doors are boats \(=A\) \(+\mathrm{A}=\mathrm{A}=\) All windows are boats. Hence I follows. All buildings are doors + All doors are boats \(=\mathrm{A}\) \(+\mathrm{A}=\mathrm{A}=\) All buildings are boats. Hence II follows. All doors are boats (A) \(\rightarrow\) conversion \(\rightarrow\) Some boats are doors (I). Hence III follows.
34. 4; Some radios are telephones + All telephones are mirrors \(=I+A=I=\) Some radios are mirrors. Hence II follows. Some radios are mirrors + All mirrors are desks \(=\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some radios are desks. Hence I follows. All telephones are mirrors + All mirrors are desks \(=\mathrm{A}+\mathrm{A}=\) All telephone are desks \(\rightarrow\) conversion \(\rightarrow\) Some desks are telephones (I). Hence III follows.
35. 2; All furniture are jungles + No jungle is road \(=A+\) \(\mathrm{E}=\mathrm{E}=\) No furniture is road \(\rightarrow\) conversion \(\rightarrow\) No road is furniture (E). Hence I does not follow. All furniture are jungles (A) \(\rightarrow\) conversion \(\rightarrow\) Some jungles are furniture (I). Hence II follows. No jungle is road + Some roads are hills \(=\mathrm{E}+\mathrm{I}=\mathrm{O}=\) Some hills are not jungles. Hence III does not follow.
36. 3; Some stones are rocks + All rocks are mountains \(=I+A=I=\) Some stones are mountains \(\rightarrow\) conversion \(\rightarrow\) Some mountains are stones (I). Hence I follows. All bricks are stones + Some stones are mountains \(=A+I=\) No conclusion. Hence II does not follow. All bricks are stones (A) \(\rightarrow\) conversion \(\rightarrow\) Some stones are bricks (I). Hence III follows.
37. 3; Some plates are chairs + All chairs are tables \(=\) \(\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some plates are tables \(\rightarrow\) conversion \(\rightarrow\) Some tables are plates (I). Hence I follows. Some bags are plates + Some plates are chairs \(=\) \(\mathrm{I}+\mathrm{I}=\) No conclusion. Hence II and III do not follow by combination. However, the two form a complementary I-E pair. Hence, either II or III follows.
38. 4; Some rooms are halls + All halls are leaves \(=I+A\) \(=\mathrm{I}=\) Some rooms are leaves \(\rightarrow\) conversion \(\rightarrow\) Some leaves are rooms (I). Hence III follows. All desks are rooms + Some rooms are halls \(=\mathrm{A}+\mathrm{I}=\mathrm{No}\) conclusion. Hence II and consequently I do not follow.
39. 1; Some mirrors are pens + No pen is paper \(=I+E\) \(=\mathrm{O}=\) Some mirrors are not papers. Hence III does not follow. All buildings are mirrors + Some mirrors are pens \(=\mathrm{A}+\mathrm{I}=\mathrm{No}\) conclusion. Hence II and consequently I do not follow.
40. 4; Some books are trees + All trees are roads \(=I+A\) \(=\mathrm{I}=\) Some books are roads \(\rightarrow\) conversion \(\rightarrow\) Some roads are books (I). Hence II follows. Some books are roads + All roads are wheels \(=I+A=I=\) Some books are wheels \(\rightarrow\) conversion \(\rightarrow\) Some wheels are books (I). Hence I follows. All trees are roads + All roads are wheels \(=A+A=A=\) All trees are wheels \(\rightarrow\) conversion \(\rightarrow\) Some
wheels are trees (I). Hence III follows.
41. 3; All stones are rivers + All rivers are cars \(=A+A\) \(=\mathrm{A}=\) All stones are cars \(\rightarrow\) conversion \(\rightarrow\) Some cars are stones (I). Hence II follows. All rivers are cars + Some cars are trains \(=A+I=\) No conclusion. Hence III and consequently I do not follow.
42. 4; Some packets are buckets + All buckets are tubes \(=\) \(\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some packets are tubes \(\rightarrow\) conversion \(\rightarrow\) Some tubes are packets. Hence III follows. All stamps are packets + Some packets are buckets = A \(+\mathrm{I}=\) No conclusion. Hence II and consequently I do not follow.
43. 2; Some doors are windows + Some windows are lamps \(=\mathrm{I}+\mathrm{I}=\) No conclusion. Hence III and and consequently I do not follow. Some windows are lamps + All lamps are candles \(=\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some windows are candles \(\rightarrow\) conversion \(\rightarrow\) Some candles are windows (I). Hence II follows.
44. 1; I-type statements can't be combined.
45. 5; Some rivers are hills + No hill is taxi \(=\mathrm{I}+\mathrm{E}=\mathrm{O}=\) Some rivers are not taxis. Hence II does not follow. Again, since O-type statement can't be combined, neither I nor III follows. But the two form a complementary I-E pair. Hence either I or III follows.
46. 2; All crowns are tablets + Some tablets are bottles \(=\mathrm{A}+\mathrm{I}=\) No conclusion. Hence I does not follow. Nor does III follow consequently. All machines are crowns + All crowns are tablets \(=\mathrm{A}+\mathrm{A}=\mathrm{A}\) \(=\) All machines are tablets \(\rightarrow\) conversion \(\rightarrow\) Some tablets are machines (I). Hence II follows.
47. 4; All hotels are buildings + All buildings are mountains \(=\mathrm{A}+\mathrm{A}=\mathrm{A}=\mathrm{All}\) hotels are mountains \(\rightarrow\) conversion \(\rightarrow\) Some mountains are hotels (I). Hence I follows. All rooms are hotels + All hotels are buildings \(=A+A=A=\) All rooms are buildings \(\rightarrow\) conversion \(\rightarrow\) Some buildings are rooms (I). Hence II follows. All rooms are buildings + All buildings are mountains \(=\mathrm{A}+\mathrm{A}\) \(=\mathrm{A}=\) All rooms are mountains \(\rightarrow\) conversion \(\rightarrow\) Some mountains are rooms (I). Hence III follows.

\section*{Exercise-5}
1. 4; Conclusion IV follows from statement (b) and statement (c). [ \(\because \mathrm{I}+\mathrm{A}=\mathrm{I}]\). Conclusion I follows from conversion of conclusion IV. Statement (a) and statement (b) give no conclusion \([\because \mathrm{A}+\mathrm{I}=\) no conclusion]. Therefore, conclusions II and III do not follow.
2. 3; Statement (a) + statement (b) gives the conclusion "No fans are green" [say (d)] [ \(\because \mathrm{A}+\mathrm{E}=\mathrm{E}]\). Now, conversion of statement (d) gives conclusion IV. Now statement (c) + conclusion IV gives the conclusion "Some windows are not fans". Hence, I does not follow. Conclusion III does not follow because conclusion IV follows.
Again, statement (b) + conversion of statement (c) gives the conclusion "Some windows are not rooms". Hence, conclusion II does not follow.
3. 5; Only I, II and IV follow.

Statement (a) + statement (c) gives conclusion IV \([\because I+A=I]\). Statement (b) + statement (c) gives
conclusion II \([\because \mathrm{A}+\mathrm{A}=\mathrm{A}]\). Now, statement (b) + conversion of statement (a) gives no conclusion. Hence, conclusion III does not follow. Conversion of conclusion IV gives conclusion I.
4. 5; Only II follows.

Statement (a) + statement (b) gives no conclusion \([\because\) \(\mathrm{E}+\mathrm{E}=\) no conclusion]. Hence, I does not follow. Note that I does not follow from statement (c) either. Conclusion II follows from conversion of statement (b). Conclusion III does not follow from statement (a). Conclusion IV does not follow from statement (c).
5. 1; Statement (a) + Statement (b) gives no conclusion \([\because \mathrm{I}+\mathrm{I}=\) no conclusion]. Hence, conclusion II does not follow. Conclusions I and IV do not follow because no conclusion can be obtained regarding candles and trains. Statement (b) + Statement (c) gives no conclusion \([\because I+I=\) no conclusion]. Hence, conclusion III does not follow.
6. 2; Statement (a) + Statement (b) gives the conclusion
"Some stones are not trees." \(\left[\because \mathrm{E}+\mathrm{A}=\mathrm{O}^{*}\right]\). Hence, conclusion I does not follow. Statement (b) + Statement (c) gives the conclusion "All fruits are rains". On conversions it gives conclusion III. Now, statement (a) + "All fruits are rains" gives the conclusion "Some rains are not trees" \([\because \mathrm{E}+\) \(\mathrm{A}=\mathrm{O}^{*}\). Conclusions II and IV do not follow but these two conclusions make a complementary pair (EI-type). Hence, either conclusion II or conclusion IV follows.
7. 4; Statement (a) + Statement (b) gives no conclusion \([\because\) \(\mathrm{A}+\mathrm{I}=\) no conclusion]. Hence, conclusion I does not follow. Statement (b) + Statement (c) gives the conclusion "Some stars are hills" [ \(\because \mathrm{I}+\mathrm{A}=\mathrm{I}]\). Conversion of "Some stars are hills" gives conclusion II. Conclusion III does not follow because statement (a) + statement (b) gives no conclusion. Conclusion IV follows from statement (a).
8. 4; Statement (a) + Statement (b) gives the conclusion "Some cats are bats" [ \(\because \mathrm{I}+\mathrm{A}=\mathrm{I}]\). "Some cats are bats" \(\rightarrow\) on conversion \(\rightarrow\) "Some bats are cats". Hence, conclusion II follows. Conclusion III does not follow because statement (b) + Statement (c) gives no conclusion \([\because \mathrm{A}+\mathrm{I}=\) no conclusion]. Conclusions I and IV do not follow because statement (b) + statement (c) gives no conclusions. But conclusions I and IV make a complementary pair (IE-type). Hence, either I or II follows.
9. 5; Only I and III follow. Conclusions I and III follow from statement (a) and statement (c) respectively [on conversion]. But conclusions II and IV do not follow because A-type statement can't be converted into A-type.
10. 2; Statement (a) + Statement (b) gives the conclusion "Some dogs are trees" \([\because I+A=I]\). Now conversion of "Some dogs are trees" gives conclusion I. Hence, I follows. But conclusions II and IV do not follow. Conversion of statement (a) gives the conclusion "Some rats are dogs". Hence, conclusion III does not follow.
11. 4; Statement (a) + Statement (b) gives the conclusion "Some boys are clouds \([\because \mathrm{I}+\mathrm{A}=\mathrm{I}] \rightarrow\) on conversion \(\rightarrow\) "Some clouds are boys". Hence, conclusion I follows. Now, "Some boys are clouds" + Statement (c) gives no conclusion [ \(\because \mathrm{I}+\mathrm{I}=\) no conclusion]. Hence, conclusion II does not follow. Statement (b) + statement (c) gives no conclusion [ \(\because \mathrm{A}+\mathrm{I}=\) no conclusion]. Hence, conclusion III does not follow. But conclusion IV follows from statement (a).
12. 1; Statement (a) + conversion of statement (b) ("Some flowers are houses") gives no conclusion \([\because \mathrm{A}+\mathrm{I}\) \(=\) no conclusion]. Hence, conclusion I does not follow. Statement (c) + Statement (b) gives no conclusion ( \(\because \mathrm{A}+\mathrm{I}=\) no conclusion). Hence, conclusions II and IV do not follow. But these two conclusions make a complementary pair (IEtype). Hence, either II or IV follows. Conclusion III follows from conversion of statement (a).
13. 5; Only I, II and III follow. Statement (a) + Statement (b) gives conclusion \(I[\because A+E=E]\). Hence, conclusion I follows but conclusion IV does not follow. Conclusion II follows from conversion of statement (c). Similarly, conclusion III follows from conversion of statement (a).
14. 2; Conversion of statement (c) gives conclusion I.

Similarly, conversion of statement (a) gives conclusion II. Statement (a) + Statement (b) gives no conclusion \([\because I+I=\) No conclusion]. Hence conclusion III does not follow. Similarly, statement (b) + statement (c) gives no conclusion \([\because I+I=\) No conclusion]. Therefore, conclusion IV does not follow.
15. 2; Statement (a) + Statement (b) gives conclusion "All benches are flowers" \([\because \mathrm{A}+\mathrm{A}=\mathrm{A}]-\) on conversion \(\rightarrow\) "Some flowers are benches". Hence, conclusion IV follows. Again, "All benches are flowers" + "All flowers are fruits" gives conclusion "All benches are fruits". Hence, I does not follow. Statement (b) + Statement (c) gives conclusion II \([\because \mathrm{A}+\mathrm{A}=\mathrm{A}]\). Conclusion III follows from Statement (c) [on conversion].
16. 3; Statement (a) + Statement (b) gives no conclusion \([\because I+I=\) no conclusion]. Therefore, conclusions II and III do not follow. But these two conclusions make complementary pair of IE-type. Therefore, either conclusion II or conclusion III follows. Since Statement (a) + Statement (b) gives no conclusion therefore "train" and "tiger" can't be related. Hence, conclusion I does not follow. "All tigers are waters" \(\rightarrow\) on conversion \(\rightarrow\) "Some waters are tigers". Hence, conclusion IV does not follow.
17. 4; Statement (a) + Statement (b) gives conclusion "Some buses are mountains" \([\because \mathrm{I}+\mathrm{A}=\mathrm{I}] \rightarrow\) on conversion \(\rightarrow\) "Some mountains are buses". Hence, conclusion I follows. Again, Some buses are mountains + Some mountains are roads gives no conclusion \([\because I+I=\) no conclusion]. Hence, conclusion II does not follow. Again, Statement (b) + "Some mountains are roads" gives no conclusioon \([\because \mathrm{A}+\mathrm{I}=\) no conclusion]. Hence, conclusion III does not follow. Conclusion IV follows from conversion of Statement (c).
18. 5; Only II and IV follow. Statement (a) + Statement (b) gives no conclusion \([\because \mathrm{A}+\mathrm{I}=\) no conclusion]. Therefore, conclusion I does not follow. Again, Statement (b) + Statement (c) gives the conclusion "Some jungles are elephants" \([\because I+A=I] \rightarrow\) on conversion \(\rightarrow\) "Some elephants are jungles". Hence, conclusion II follows. Conclusion III does not follow because Statement (a) + Statement (b) gives no conclusion. Again, All rabbits are elephants gives conclusion IV [on conversion].
19. 1; Statement (a) + Statement (b) gives the conclusion "No books are houses" [ \(\because \mathrm{A}+\mathrm{E}=\mathrm{E}]\). Hence, conclusion I follows but conclusion IV does not follow. Again, "No books are houses" + Statement (c) gives the conclusion "Some doors are not books" \(\left[\mathrm{E}+\mathrm{A}=\mathrm{O}^{*}\right]\). Hence, conclusion II does not follow. Again, Statement (b) + Statement (c) gives the conclusion "Some doors are not pens" \([\because \mathrm{E}+\mathrm{A}=\) O*]. Hence, Conclusion III does not follow.
20.2; Statement (a) + Statement (b) gives conclusion "Some fruits are not boats" \([\because \mathrm{I}+\mathrm{E}=\mathrm{O}]\). Again "Some fruits are not boats" + "All boats are river" gives no conclusion \([\because \mathrm{O}+\mathrm{A}=\) no conclusion]. Therefore, conclusions I and III do not follow. Conversion of statement (c) gives conclusion II. Similarly, conversion of statement (a) gives conclusion IV. Hence, only conclusions II and IV follow.
21. 5; Statement (a) + statement (b) gives conclusion IV \([\because I+A=I]\). Now, "Some buses are goats" + Statement (c) gives the conclusion "Some buses are dogs" \([\because \mathrm{I}+\mathrm{A}=\mathrm{I}] \rightarrow\) on conversion \(\rightarrow\) "Some dogs are buses". Hence, conclusion I follows. Statement (b) + Statement (c) gives the conclusion "All horses are dogs" \(\rightarrow\) on conversion \(\rightarrow\) "Some dogs are horses". Hence conclusion II follows. Conclusion III follows from conversion of statement (c).
22.4; Statement (a) + Statement (b) gives the conclusion "Some chairs are vehicles" [ \(\because \mathrm{I}+\mathrm{A}=\mathrm{I}]\). Hence, conclusion II follows. Again, "Some chairs are vehicles" + "Some vehicles are trucks" (c) gives no conclusion \([\because I+I=\) No conclusion]. Hence, neither conclusion I nor IV follows. But these two conclusions make a complementary pair (IEtype). Hence, either conclusion I or conclusion IV follows also. Conclusion III follows from the conversion of statement (b).
23. 1; Statement (a) + conversion of statement (b) gives no conclusion \([\because A+I=\) no conclusion]. Therefore, conclusion I does not follow. Similarly, statement (b) + statement (c) gives no conclusion \([\because A+I=\) no conclusion]. Hence, conclusion II does not follow. Again, statement (a) + statement (c) gives no conclusion. Therefore, conclusion III does not follow. Conclusion IV does not follow from conversion of statement (c). Thus, none follows.
24. 5; Either I or IV and II and III follow. Statement (a) + Statement (b) gives the conclusion "Some cruel animals are not trees". Hence, neither conclusion I nor conclusion IV follows. But these two conclusions make a complementary pair (EI-type). Hence, either conclusion I or conclusion IV follows. Conclusion II follows from conversion of statement (c). Conclusion III follows from conversion of statement (a).
25. 2; Statement (c) + statement (b) gives conclusion "Some tigers are not buildings" \([\because \mathrm{I}+\mathrm{E}=\mathrm{O}]\). Hence, I does not follow. Again "Some tigers are not buildings" + "All buildings are windows" gives no conclusion \([\because \mathrm{O}+\mathrm{A}=\) No conclusion]. Hence, conclusion II does not follow. Conversion of statement (c) gives conclusion "Some toys are tigers". Hence, conclusion III does not follow. Again, statement (b) + statement (a) gives conclusion "Some windows are not toys". Hence, conclusion IV does not follow. Thus, no conclusion follows.
26. 1; Statement (a) + statement (c) gives conclusion III \(\left[\because \mathrm{E}+\mathrm{A}=\mathrm{O}^{*}\right]\). Hence, conclusion III follows but conclusion I does not follow. Again, statement (b) + statement (c) gives conclusion II \([\because \mathrm{A}+\mathrm{A}=\) A]. Statement (b) + conversion of statement (a) gives conclusion IV \([\because \mathrm{A}+\mathrm{E}=\mathrm{E}]\).
27. 5; Only II and III follow.

Statement (a) + statement (b) gives conclusion "Some towers are cats" \([\because \mathrm{I}+\mathrm{A}=\mathrm{I}]\). Now, "Some towers are cats" \(\rightarrow\) on conversion \(\rightarrow\) "Some cats are towers". Hence, conclusion III follows. Again, conversion of statement (b) gives conclusion II. Conclusion I and IV do not follow, because statement (b) + statement (c) gives no conclusion \([\because \mathrm{A}+\mathrm{I}=\) no conclusion \(]\).
28. 4; Statement (a) + statement (b) gives conclusion "All forests are villages" \(\rightarrow\) on conversion \(\rightarrow\) "Some villages are forests". Hence, conclusion IV follows. Conversion of statement (b) gives conclusion I. Again, statement (b) + conversion of statement (c) gives no conclusion \([\because \mathrm{A}+\mathrm{I}=\) no conclusion]. Hence, conclusion II does not follow. "All forests are villages" + conversion of statement (c), ie "Some villages are cities", gives no conclusion \([\because \mathrm{A}+\mathrm{I}=\) no conclusion]. Hence, conclusion III does not follow.
29. 1; Statement (c) + statement (a) gives no conclusion \([\because \mathrm{A}+\mathrm{I}=\) no conclusion]. Hence, conclusions I and III do not follow. Conversion of statement (c) gives the conclusion "Some goats are boats". Hence, conclusion II does not follow. Again, statement (a) + conversion of statement (b) gives no conclusion \([\because I+I=\) no conclusion]. Hence, conclusion IV does not follow. Thus, no conclusion follows.
30. 2; Statement (b) + statement (c) gives no conclusion \([\because I+I=\) no conclusion]. Hence, conclusion I does not follow. Again, conversion of statement (a) gives "Some spectators are players". Hence, conclusion IV does not follow. Again, conversion of statement (b) + "Some spectators are players" gives no conclusion [ \(\because \mathrm{I}+\mathrm{I}=\) no conclusion]. Hence, conclusion III does not follow. Again, from all (a), (b) and (c), players and dramas can't be correlated. Hence conclusion II does not follow.
31. 2; Statement (b) + statement (c) gives "Some rivers are roads" \([\because I+A=I]\), conversion of which gives conclusion I. Hence, conclusion I follows. Again, statement (a) + "Some rivers are roads" gives no conclusion \([\because I+I=\) No conclusion]. Hence, conclusion II does not follow. Again, statement (a) + statement (b) gives no conclusion \([\because I+I=\) No conclusion]. Hence, conclusion III does not follow.
32. 2; Statement (a) + statement (b) gives "Some chairs are trees" \([\because I+A=I]\), which, on conversion, gives conclusion I. Hence, conclusion I follows. Again, statement (b) + statement (c) gives no conclusion \([\because A+I=\) no conclusion]. Hence, conclusion II does not follow. Again, "Some chairs are trees" + statement (c) gives no conclusion \([\because\) I \(+\mathrm{I}=\) no conclusion]. Hence, conclusion III does not follow.
33. 3; Statement (b) + statement (c) gives no conclusion \([\because \mathrm{A}+\mathrm{I}=\) no conclusion]. Hence, conclusion I does not follow. Again, statement (a) + statement (c) gives no conclusion \([\because \mathrm{A}+\mathrm{I}=\) no conclusion]. Hence, conclusion II does not follow. Conversion of statement (b) gives conclusion III. Hence, conclusion III follows.
34. 1; Statement (c) + conversion of statement (b) gives no conclusion \([\because A+I=\) no conclusion]. Hence, conclusion I does not follow. Again, statement (a) + statement (b) gives no conclusion \([\because \mathrm{I}+\mathrm{I}=\) no conclusion]. Hence, conclusion II does not follow. Again, from all the statements (a), (b) and (c), no specific relation between house and lantern can be established. Hence, conclusion III does not follow.
35. 5; Statement (a) + conversion of statement (b) gives
conclusion III \([\because \mathrm{A}+\mathrm{E}=\mathrm{E}]\). Hence, conclusion III follows. Again, statement (c) + conversion of conclusion III (No room is a train) gives conclusion \(I[\because A+E=E]\). Hence, conclusion I follows. Again, statement (c) + statement (b) gives "No boat is bus" \([\because \mathrm{A}+\mathrm{E}=\mathrm{E}]\), which, on conversion, gives conclusion II. Hence, conclusion II follows.
36. 4; Statement (a) + statement (b) gives no conclusion \([\because I+I=\) no conclusion \(]\). Hence, conclusion III does not follow. Again, statement (b) + statement (c) gives conclusion IV \([\because I+A=I]\). Hence, conclusion IV follows. Again, conversion of conclusion IV gives conclusion II. Hence, conclusion II follows. But we can't related 'boxes' and 'windows' because statement (a) + statement (b) gives no conclusion. Hence, conclusion I does not follow.
37. 2; Statement (a) + statement (b) gives conclusion "Some boats are rats" \(\rightarrow\) on conversion \(\rightarrow\) "Some rats are boats" [ \(\because \mathrm{I}+\mathrm{A}=\mathrm{I}]\). Hence, conclusion II follows. Again, statement (b) + statement (c) gives no conclusion \([\because \mathrm{A}+\mathrm{I}=\) no conclusion]. Hence, conclusion I and conclusion IV do not follow. We can't get any specific conclusion regarding 'boats and 'mountain's [ \(\because\) Statement (b) + statement (c) gives no conclusion]. Hence, conclusion III does not follow.
38. 1; Statement (b) + statement (a) gives conclusion "All papers are rain" \([\because \mathrm{A}+\mathrm{A}=\mathrm{A}]\). Hence, conclusion II follows. Conclusion IV can be obtained after conversion of conclusion II. Hence, conclusion IV follows. Again, statement (c) + statement (b) gives conclusion "All dogs are buildings" \([\because \mathrm{A}+\mathrm{A}=\mathrm{A}]\). Now, "All dogs are buildings" + "All buildings are rains" (statement (a)) gives conclusion I. Hence, conclusion I follows. Again, conversion of statement (a) gives conclusion III. Hence conclusion III follows.
39. 5; Only II follows

Statement (a) + conversion of statement (b) gives no conclusion \([\because A+I=\) no conclusion]. Hence, no specific conclusion can be obtained regarding 'pen' and 'desks'. Also, no specific conclusion can be obtained regarding 'pen' and 'pencil'. Hence, conclusion III does not follow. Again, statement (c) + statement (b) gives no conclusion \([\because \mathrm{A}+\mathrm{I}=\) no conclusion]. Hence, conclusion I does not follow. Again, conversion of statement (c) gives conclusion II. Hence, conclusion II follows but conclusion IV does not follow.
40. 3; Statement (a) + statement (b) gives conclusion "Some trains are not jungles" \([\because I+E=O]\). Hence, conclusion II does not follow. Now, statement (c) + conversion of statement (b) gives conclusion "No flowers are roads" \([\because \mathrm{A}+\mathrm{E}=\mathrm{E}] \rightarrow\) on conversion \(\rightarrow\) "No roads are flowers". Hence, conclusion IV follows. Again statement (a) + conclusion IV gives conclusion "Some trains are not flowers" \([\because \mathrm{I}+\mathrm{E}=\) O]. Hence, conclusion I and conclusion III do not follow.
41. 1; Statement (b) + statement (c) gives conclusion II [ \(\therefore\) I \(+\mathrm{A}=\mathrm{I}]\). Hence, conclusion II follows. Now, conversion of statement (c) gives "Some jungles are flowers" [ \(\because\) conversion of \(A=I]\). Hence, conclusion IV does not follow. Again, conversion
of conclusion II (Some trees are jungles) + conversion of statement (a) gives no conclusion \([\because I+I=\) no conclusion]. Hence, conclusion \(I\) does not follow. Again, conversion of statement (b) + conversion of statement (a) gives no conclusion \([\because I+I=\) no conclusion]. Hence, conclusion III does not follow.
42. 3; Statement (b) + statement (c) gives "Some desks are pillars" \([\because \mathrm{I}+\mathrm{A}=\mathrm{I}]\), which on conversion, gives conclusion II.
Hence, conclusion II follows. Now, statement (a) + statement (b) gives no conclusion [ \(\because \mathrm{A}+\mathrm{I}=\) no conclusion]. Hence, conclusion III does not follow. Again, statement (a) + "Some desks are pillars" gives no conclusion \([\because A+I=\) no conclusions]. Hence, neither conclusion I nor conclusion IV follows. But both conclusion I and conclusion IV together make a complementary pair [I-E type]. Hence, either conclusion I or conclusion IV follows.
43. 5; Statement (b) + statement (c) gives conclusion II \([\because \mathrm{A}+\mathrm{A}=\mathrm{A}]\), which, on conversion, gives conclusion IV. Hence, both conclusion II and conclusion IV follow. Again, statement (a) + statement (c) gives conclusion I [ \(\because \mathrm{A}+\mathrm{A}=\mathrm{A}]\), which, on conversion, gives conclusion III. Hence, both conclusion I and conclusion III follow.
44. 5; Only IV follows. Statement (a) + conversion of statement (b) gives "Some trucks are not books" \([\because \mathrm{I}+\mathrm{E}=\mathrm{O}]\). Hence, conclusion I does not follow. Again, statement (b) + statement (c) gives "Some fruits are not books" [ \(\because \mathrm{E}+\mathrm{I}=\mathrm{O}\) ]. Hence, conclusion II does not follow. Again, statement (a) + statement (c) gives no conclusion \([\because I+I=\) no conclusion]. Hence, conclusion III does not follow. Again, conclusion IV is obvious from the conclusion obtained after conversion of statement (a) and from (c).
45. 5; Statement (b) + conversion of statement (c) gives no conclusion [ \(\because \mathrm{A}+\mathrm{I}=\) no conclusion]. Hence, conclusion I does not follow. Again, statement (a) + statement (c) gives no conclusion \([\because \mathrm{A}+\mathrm{I}=\) no conclusion]. Hence, neither conclusion II nor conclusion IV follows. But they form a complementary pair. Again, with the above two results, no conclusion can be deduced regarding shirts and papers. Hence, conclusion III does not follow.
46. l; I-type statements can't be combined.
47. 5; All hammers are rods + All rods are buckets \(=\mathrm{A}\) \(+\mathrm{A}=\mathrm{A}=\) All hammers are buckets. Hence III follows. And I follows by converting III. Similarly, IV follows by combining the first two statements. While II follows by converting IV.
48. 2; All trees are chairs + No chair is flower \(=\mathrm{A}+\mathrm{E}\) \(=\mathrm{E}=\) No tree is flower \(\rightarrow\) conversion \(\rightarrow\) No flower is tree (E). Hence III does not follow. No chair is flower + Some flowers are bangles \(=\mathrm{E}+\mathrm{I}=\mathrm{O}^{*}=\) Some bangles are not chairs. Hence II does not follow. Again, No tree is flower + Some flowers are bangles \(=\mathrm{E}+\mathrm{I}=\mathrm{O}^{*}=\) Some bangles are not trees. This does not lead to I or IV.
However, these two conclusions form a complementary E-I pair. Hence either I or IV follows.
49. 3; All rocks are balls \((\mathrm{A}) \rightarrow\) conversion \(\rightarrow\) Some balls are rocks (I). Hence III follows. All rocks are balls + Some balls are rings \(=\mathrm{A}+\mathrm{I}=\) No conclusion. Hence II does not follow. Nor can we get a "rockstone" relationship (I or IV) as the route lies via "ring". However, I and IV form a complementary

I-E pair. Hence either I or IV follows.
50. 4; All books are papers + Some papers are pencils (conversion of All pencils are papers) \(=\mathrm{A}+\mathrm{I}=\) No conclusion. Hence I does not follow. Similarly, II and III also do not follow. But IV follows by converting the last statement.

\section*{Exercise-6}
1. 4; Some huts are rooms + Some rooms are buildings \(=\mathrm{I}+\mathrm{I}=\) No conclusion. Hence conclusion I does not follow.
Some markets are huts + Some huts are rooms \(=\) \(\mathrm{I}+\mathrm{I}=\) No conclusion. Hence II does not follow.
2. 1; Some fruits are biscuits + All biscuits are snacks \(=\) \(\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some fruits are snacks \(\rightarrow\) conversion \(\rightarrow\) Some snacks are fruits. Hence conclusion I follows. All cakes are breads + Some breads are fruits \(=\) A + \(\mathrm{I}=\) No conclusion. Hence II does not follow.
3. 5; All beads are rings + All rings are bangles \(=\mathrm{A}+\) \(\mathrm{A}=\mathrm{A}=\) All beads are bangles \(\rightarrow\) conversion \(\rightarrow\) Some bangles are beads. Hence conclusion I follows. All poles are rings (A) \(\rightarrow\) conversion \(\rightarrow\) Some rings are poles (I). Hence conclusion II follows.
4. 3; Some flowers are jungles + All jungles are trees \(=\) \(\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some flowers are trees. Now, No plant is flower + Some flowers are trees \(=\mathrm{E}+\mathrm{I}=\mathrm{O}^{*}=\) Some trees are not plants. From this neither I nor II can be concluded. But either I or II must follow because they make a complementary I-E type pair.
5. 2; All hammers are poles + All poles are sticks \(=\mathrm{A}\) \(+\mathrm{A}=\mathrm{A}=\) All hammers are sticks + Some sticks are pencils \(=A+I=\) No conclusion. Hence conclusion I does not follow. Again, Some knives are hammers + All hammers are sticks \(=I+A=\) \(\mathrm{I}=\) Some knives are sticks \(\rightarrow\) conversion \(\rightarrow\) Some sticks are knives. Hence II follows.
6. 4; Some desks are chairs + Some chairs are tables = \(I+I=\) No conclusion. Hence conclusion I does not follow. Some pens are desks + Some desks are chairs \(=I+I=\) No conclusion. Hence II does not follow.
7. 3; We can't establish a relationships between 'pins' and 'trucks' because I-type statements can't be combined. However, the two conclusions form a complementary I-E pair. Hence either I or II follows.
8. 5; All trees are roads + All roads are houses \(=\mathrm{A}+\mathrm{A}\) \(=\mathrm{A}=\) All trees are houses. Hence Conclusion I follows. All roads are houses + All houses are buildings \(=\mathrm{A}+\mathrm{A}=\mathrm{A}=\) All roads are buildings \(\rightarrow\) conversion \(\rightarrow\) Some buildings are roads (I-type). Hence Conclusion II follows.
9. 2; Some bags are toys + All toys are puppets \(=\mathrm{I}+\mathrm{A}\) \(=\) I \(=\) Some bags are puppets \(\rightarrow\) conversion \(\rightarrow\) Some puppets are bags (I-type). Hence Conclusion II follows. Now, All tablets are packets + No packet is bag \(=\mathrm{A}+\mathrm{E}=\mathrm{E}=\) No tablet is bag + Some bags are puppets (obtained earlier) \(=\mathrm{E}+\mathrm{I}=\) O* = Some puppets are not tablets. But Conclusion I can't be established.
10. 4; I-type statements can't be combined.
11. 4; All rings are bracelets + Some bracelets are jewels
\(=\mathrm{A}+\mathrm{I}=\mathrm{No}\) conclusion. Hence 'rings' and 'jewels' can't be connected. And when this can't be done, there is no chance of connecting 'stones' and 'bangles' as they can be connected only through 'ring-jewel' route.
12. 4; The middle two propositions can be combined as \(\mathrm{I}+\mathrm{A}=\mathrm{I}\). Hence, we get Some pants are buttons as a middle proposition. But this can't be combined with the last proposition as \(\mathrm{I}+\mathrm{I}=\) No conclusion. Hence Conclusion I does not follow. Similarly, the first proposition can't be combined with this either as \(\mathrm{A}+\mathrm{I}=\mathrm{No}\) conclusion. Hence Conclusion II does not follow.
13. 5; All universities are institutes + All institutes are classes \(=\mathrm{A}+\mathrm{A}=\mathrm{A}=\) All universities are classes. Hence II follows. Now, Some colleges are universities + All universities are classes \(=I+A\) \(=\mathrm{I}=\) Some colleges are classes. Hence I follows.
14. 1; Some umbrellas are raincoats + All raincoats are shirts \(=\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some umbrellas are shirts \(\rightarrow\) conversion \(\rightarrow\) Some shirts are umbrellas (I). Hence I follows. All raincoats are shirts + No shirt is a blazer + Some blazers are suits \(=(A+E)+I=E\) \(+\mathrm{I}=\mathrm{O}=\) Some suits are not raincoats. Hence II does not follow.
15. 2; Some computers are boards + Some boards are chalks \(=\mathrm{I}+\mathrm{I}=\) No conclusion. Hence I does not follow. All chalks are bulbs + No bulb is tubelight \(=\mathrm{A}+\mathrm{E}=\mathrm{E}=\) No chalk is a tubelight. Hence II follows.
16. 1; Some floors are tiles + All tiles are paints \(=I+A\) \(=\mathrm{I}=\) Some floors are paints. Hence I follows. All doors are floors + Some floors are tiles \(=\mathrm{A}+\mathrm{I}=\) No conclusion. Hence II does not follow.
17. 3; All flowers are fruits + Some fruits are nuts \(=A\) \(+\mathrm{I}=\) No conclusion. Hence I and II do not follow by combination. However, the two form an I-E complementary pair. Hence either I or II follows.
18. 4; All paintings are photographs + Some photographs are designs \(=\mathrm{A}+\mathrm{I}=\) No conclusion. Hence I does not follow. Some photographs are designs + Some designs are movies \(=\mathrm{I}+\mathrm{I}=\) No conclusion. Hence II does not follow.
19. 5; Some syrups are medicines + All medicines are powders \(=I+A=I=\) Some syrups are powders. Hence I follows. Some tablets are capsules + All capsules are syrups \(=I+A=I=\) Some tablets are syrups \(\rightarrow\) conversion \(\rightarrow\) Some syrups are tablets (I). Hence II follows.
20.2; All flats are buildings + Some buildings are bungalows \(=\mathrm{A}+\mathrm{I}=\) No conclusion. Hence I does not follow. Some buildings are bungalows + All bungalows are apartments \(=\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some buildings are apartments \(\rightarrow\) conversion \(\rightarrow\) Some apartments are buildings (I). Hence II follows.

\section*{Exercise-7}
1. 4; Statement (c) + statement (d) gives no conclusion \([\because \mathrm{A}+\mathrm{I}=\) no conclusion]. Therefore, conclusions I and II do not follow. But, since these two conclusions make a complementary pair (IE-type), either conclusion I or conclusion II follows. Again, statement (a) + statement (b) gives no conclusion \([\because A+I=\) no conclusion]. Hence, conclusion III does not follow.
2. 1; Note that \(I+I=\) no conclusions. Therefore, statement (a) + statement (b) gives no conclusion. Similarly, statement (b) + statement (c) gives no conclusion. Also, statement (c) + statement (d) gives no conclusion. Hence, no conclusion follows.
3. 2; Statement (a) + statement (b) gives conclusion "All hills are dams" \([\because \mathrm{A}+\mathrm{A}=\mathrm{A}]\). Conversion of "All hills are dams" gives conclusion III. Hence, conclusion III follows. Again, statement (c) + statement (d) gives conclusion II \([\because I+A=I]\). Hence, conclusion II follows. Again, "All hills are dams" + conclusion II gives no conclusion \([\because A+I=\) no conclusion \(]\). Hence, conclusion I does not follow.
4. 3; Statement (c) + statement (d) gives conclusion I \([\because I+A=I]\). Hence, conclusion I follows. Again, since statement (a) + statement (b) gives no conclusion, we can't get any specific relationship regarding 'receipt' and 'book'. Hence, neither conclusion II nor conclusion III follows. But, since these two conclusions make an IE-type complementary pair, either conclusion II or conclusion III follows.
5. 3; Statement (a) + statement (b) gives conclusion "All bottles are containers" \([\because \mathrm{A}+\mathrm{A}=\mathrm{A}]\). Again, "All bottles are containers" + statement (c) gives conclusion I \([\because A+A=A]\). Hence, conclusion \(I\) follows. Again, conversion of statement (b) gives conclusion "Some containers are jars". Hence, conclusion II does not follow. Again, statement (b) + statement (c) gives conclusion "All jars are lids" \([\because \mathrm{A}+\mathrm{A}=\mathrm{A}]\). Conclusion III is conversion of "All jars are lids". Hence, conclusion III follows.
6. 5; Statement (a) + statement (b) gives conclusion "Some leaves are not fruits" [ \(\because \mathrm{I}+\mathrm{E}=\mathrm{O}]\). From this conclusion II does not follow. Again, "Some leaves are not fruits" + statement (c) gives no conclusion \([\because \mathrm{O}+\mathrm{I}=\) no conclusion]. Hence, we can't relate 'leaves' and 'stems'. Thus conclusion I does not follow. Again, statement (c) + statement (d) gives no conclusion \([\because I+I=\) no conclusion]. Hence, conclusion III does not follow.
7. 3; Statement (a) + statement (b) gives conclusion "All lions are leopards" \([\because A+A=A]\). Now, conversion of "All lions are leopards" gives conclusion III. Hence, conclusion III follows. Again, "All lions are leopards" + statement (c) gives no conclusion \([\because A+I=\) no conclusion]. Hence, conclusion I and conclusion II do not follow.
8. 3; Statement (a) + statement (b) gives no conclusion \([\because I+I=\) no conclusion]. Hence, conclusion I does not follow.

Again, statement (b) + statement (c) gives the conclusion "Some umbrellas are trousers" [ \(\because\) I + A = I] Now, the conversion of "Some umbrellas are trousers" gives conclusion II. Hence, conclusion II follows.
Again statement (c) + statement (d) gives conclusion III \([\because \mathrm{A}+\mathrm{A}=\mathrm{A}]\). Hence, conclusion III follows.
9. 4; Statement (c) + statement (d) gives conclusion "Some machines are televisions" [ \(\because \mathrm{I}+\mathrm{A}=\mathrm{I}]\). Now, conversion of "Some machines are televisions" gives conclusion I. Hence conclusion I follows.
Again, statement (a) + statement (b) gives no conclusion \([\because I+I=\) no conclusion]. Hence, conclusions II and III do not follow. But look at the conclusions II and III carefully. These two conclusions make a complementary pair. Hence, either conclusion II or conclusion III follows.
10. 3; Statement (a) + statement (b) gives conclusion II \([\because A+A=A]\). Hence, conclusion II follows. Since statement (b) + statement (c) gives no conclusion, we can't relate 'keys' and 'sharpeners' \([\because A+I=\) no conclusion]. Hence, conclusion I does not follow.
Again, conclusion II and statement (c) gives no conclusion \([\because A+I=\) no conclusion]. Thus conclusion III does not follow.
11. 1; All grapes are plums + All plums are oranges \(=A\) \(+\mathrm{A}=\mathrm{A}=\) All grapes are oranges \(\rightarrow\) conversion \(\rightarrow\) Some oranges are grapes. Hence conclusion I follows. But the last two statements are of I-type and do not lead to any results here. Hence II and III do not follow.
12. 5; Some dogs are cats \(\rightarrow\) conversion \(\rightarrow\) Some cats are dogs + Some dogs are rats \(=\mathrm{I}+\mathrm{I}=\mathrm{No}\) conclusion. Hence I and II do not follow. However, since they make a complementary I-E pair, either I or II follows. Again, Some dogs are rats + No rat is goat \(=\mathrm{I}+\mathrm{E}=\mathrm{O}=\) Some dogs are not goats. But III does not follow.
13. 1; All lilies are marigolds + All marigolds are sunflowers \(=A+A=\) All lilies are sunflowers. Hence conclusion I follows. Some jasmines are lilies + All lilies are marigolds \(=\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some jasmines are marigolds. Hence conclusion II follows. Again, Some jasmines are marigolds + All marigolds are sunflowers \(=\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some jasmines are sunflowers. Hence III follows.
14. 2; No bungalow is hotel + All hotels are restaurants \(=\mathrm{E}+\mathrm{A}=\mathrm{O}^{*}=\) Some restaurants are not bungalows. Hence I does not follow. Some houses are bungalows + No bungalow is hotel \(=\mathrm{I}+\mathrm{E}=\mathrm{O}\) \(=\) Some houses are not hotels. Hence II does not follow. All hotels are restaurants (A) \(\rightarrow\) conversion \(\rightarrow\) Some restaurants are hotels (I). Hence III follows.
15. 4; No chilly is brinjal + All brinjals are sweets \(=\mathrm{E}+\) \(\mathrm{A}=\mathrm{O}^{*}=\) Some sweets are not chillies. Hence I does not follow. All brinjals are sweets + Some sweets are desserts \(=A+I=\) No conclusion. Hence III and consequently II do not follow.
16. 2; Some sticks are canes + All canes are scales \(=\mathrm{I}+\) A \(=\mathrm{I}=\) Some sticks are scales. Hence conclusion I follows but II does not. Again, All canes are scales + No scale is weight \(=A+E=E=\) No cane is weight. Hence III follows.
17. 2; Some folders are boxes + Some boxes are bags \(=\mathrm{I}\) \(+\mathrm{I}=\mathrm{No}\) conclusion. Hence conclusion I does not follow. Some boxes are bags + All bags are containers \(=\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some boxes are containers. Hence II follows. Some bags are sacks (I) \(\rightarrow\) conversion \(\rightarrow\) I \(\rightarrow\) Some sacks are bags + All bags are containers \(=I+A=I=\) Some sacks are containers. Hence III follows.
18. 4; No bird is amphibian + All amphibians are animals \(=\mathrm{E}+\mathrm{A}=\mathrm{O}^{*}=\) Some animals are not birds. Hence conclusion I does not follow. Some insects are pests + All pests are birds \(=\mathrm{I}+\mathrm{A}=\mathrm{I}\) \(=\) Some insects are birds. Hence II follows. All pests are birds + No bird is amphibian \(=\mathrm{A}+\mathrm{E}=\) \(\mathrm{E}=\) No pests are amphibians. Hence III follows.
19. 5; Some paints are colours + All colours are solutions \(=\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some paints are solutions. Hence conclusion I follows.
All colours are solutions + Some solutions are liquids \(=\mathrm{A}+\mathrm{I}=\) No conclusion. Hence II does not follow. Some solutions are liquids + All liquids are solids \(=\mathrm{I}+\mathrm{A}=\) Some solutions are solids. Hence III follows.
20.5; All keys are doors + Some doors are windows \(=A\) \(+\mathrm{I}=\) No conclusion. Hence conclusion I does not follow. But there are two possibilities: (i) either some keys are windows (conclusion I) or (ii) No keys are windows (in which case conclusion III can be obtained). Hence either I or III follows. However, II can't be obtained.
21. 3; All books are novels + Some novels are poems = \(\mathrm{A}+\mathrm{I}=\) No conclusion. Hence conclusion I does not follow. Some novels are poems + . Some poems are stories \(=I+I=\) No conclusion. Hence II and III do not follow. But they make a complementary I-E pair. Hence either II or III follows.
22. 1; Some trousers are shirts + All shirts are coats \(=I\) \(+A=I=\) Some trousers are coats. Hence conclusion I follows. Some bags are suits + All suits are trousers \(=\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some bags are trousers. Hence II follows. All suits are trousers + Some trousers are shirts \(=\mathrm{A}+\mathrm{I}=\) No conclusion. Hence III does not follow.
23. 4; All flowers are fruits + No fruit is juice \(=\mathrm{A}+\mathrm{E}=\) \(\mathrm{E}=\) No flower is juice. Hence III follows. Some juices are proteins + All proteins are vitamins \(=\mathrm{I}\) \(+\mathrm{A}=\mathrm{I}=\) Some juices are vitamins. Hence II follows. No fruit is juice + Some juices are vitamins \(=\mathrm{E}+\mathrm{I}=\mathrm{O}^{*}=\) Some vitamins are not fruits. Hence conclusion I does not follow.
24. 2; All buildings are flats + No flat is house \(=\mathrm{A}+\mathrm{E}\) \(=\mathrm{E}=\) No building is house. Hence conclusion I follows. Some towers are pillars + Some pillars are buildings \(=\mathrm{I}+\mathrm{I}=\) No conclusion. Hence neither II nor III follows.
25. 5; All bowls are trays + Some trays are plates \(=\) A + I = No conclusion. And if these two statements can't be combined, we can't relates 'cups' and 'spoons' either. Hence none follows by combination. But conclusions II and III form a complementary I-E pair. Hence either II or III follows.
26. 4; All towels are bedsheets + No bedsheets is blanket \(=\mathrm{A}+\mathrm{E}=\mathrm{E}=\) No towel is blanket. Hence I follows. Some shoes are socks + All socks are towels \(=\mathrm{I}+\) \(\mathrm{A}=\mathrm{I}=\) Some shoes are towels. Hence II follows. Some shoes are towels + All towels are bedsheets \(=\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some shoes are bedsheets. Hence III follows.
27. 1; No bud is leaf + All leaves are plants \(=\mathrm{E}+\mathrm{A}=\) \(\mathrm{O}^{*}=\) Some plants are not buds. Hence I does not follow. Nor can II follow. Some fruits are flowers + Somes flowers are buds \(=\mathrm{I}+\mathrm{I}=\mathrm{No}\) conclusion. Hence III does not follow.
28. 3; All rings are bangles (A) \(\rightarrow\) conversion. \(\rightarrow\) Some bangles are rings (I). Hence I follows. All diamonds are rings (A) \(\rightarrow\) conversion \(\rightarrow\) Some rings are diamonds (I). Hence II does not follow. All diamonds are rings + All rings are bangles \(=\) \(\mathrm{A}+\mathrm{A}=\mathrm{A}=\) All diamonds are bangles. Hence III follows.
29. 3; All tables are telephones + All telephones are cellphones \(=\mathrm{A}+\mathrm{A}=\mathrm{A}=\) All tables are cell phones \(\rightarrow\) conversion \(\rightarrow\) Some cell phones are tables (I). Hence I does not follow. All chairs are tables + All tables are telephones + All telephones are cell phones + No cell phone is computer \(=(\mathrm{A}+\) \(\mathrm{A})+\mathrm{A}+\mathrm{E}=(\mathrm{A}+\mathrm{A})+\mathrm{E}=\mathrm{A}+\mathrm{E}=\mathrm{E}=\) No chair is computer. Hence III follows while II does not.
30. 5; Some rocks are hills + All hills are mountains + All mountains are rivers \(=(I+A)+A=I+A=I=\) Some rocks are rivers. Hence I does not follow. Since the only statement containing 'canal' is a negative type, no positive inference with 'canal' can be true. Hence neither II nor III follows.
31. 4; Some plates are spoons + All spoons are forks + All forks are bowls \(=(I+A)+A=I+A=I=\) Some plates are bowls. Hence I follows. All spoons are forks + All forks are bowls \(=A+A=A=\) All spoons are bowls. Hence II follows. However, All forks are bowls + Some bowls are utensils \(=\) A + \(\mathrm{I}=\) No conclusion. Hence III does not follow.
32. 3; Some discs are boards + All boards are keys \(=\mathrm{I}+\) \(\mathrm{A}=\mathrm{I}=\) Some discs are keys. Hence III follows. Some books are files + All files are discs \(=\mathrm{I}+\mathrm{A}=\) \(\mathrm{I}=\) Some books are discs + Some discs are keys \(=\) \(\mathrm{I}+\mathrm{I}=\) No conclusion. Hence I and II do not follow. But they form an I-E complementary pair. Hence either I or II follows.
33. 5; All buses are trains + Some trains are cars \(=A+\) \(\mathrm{I}=\) No conclusion. Hence I does not follow. Again, All scooters are jeeps (A) \(\rightarrow\) conversion \(\rightarrow\) Some jeeps are scooters (I). Hence II does not follow. Also, Some trains are cars + No car is scooter + All scooters are jeeps \(=(I+E)+A=O+A=\) No conclusion. Hence III does not follow.
34. 3; Some mattresses are beds + All beds are sofas \(=I\) \(+\mathrm{A}=\mathrm{I}=\) Some mattresses are sofas. Hence II follows. No pillow is mattress + Some mattresses are beds \(=\mathrm{E}+\mathrm{I}=\mathrm{O}^{*}=\) Some beds are not pillows. Hence neither I nor III follows by combining. But the two form an I-E complementary pair. Hence either I or III follows.
35. 1; Some grains are sprouts + All sprouts are nuts \(=\) \(\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some grains are nuts \(\rightarrow\) conversion \(\rightarrow\) Some nuts are grains (I). Hence II follows. Some pulses are grains + Some grains are nuts \(=I+I=\) No conclusion. Hence I does not follow. All
sprouts are nuts + (conversion of No fruit is nut \(=\) ) No nut is fruit \(=\mathrm{A}+\mathrm{E}=\mathrm{E}=\) No sprout is fruit (E) \(\rightarrow\) conversion \(\rightarrow\) No fruit is sporut (E). Hence III follows.
36. 1; I-type statements can't be combined.
37. 5; All bangles are clothes + All clothes are boxes \(=\) \(\mathrm{A}+\mathrm{A}=\) All bangles are boxes \(\rightarrow\) conversion \(\rightarrow\) Some boxes are bangles (I). Hence I follows. Some rings are bangles + All bangles are clothes \(=\mathrm{I}+\) \(\mathrm{A}=\mathrm{I}=\) Some rings are clothes \(\rightarrow\) conversion \(\rightarrow\) Some clothes are rings (I). Hence II follows. Some beads are rings + Some rings are bangles \(=I+I\) \(=\) No conclusion. Hence III does not follow.
38. 3; All winds are nets + Some nets are clocks \(=\mathrm{A}+\) \(\mathrm{I}=\mathrm{No}\) conclusion. Hence I does not follow. Some fires are winds + All winds are nets \(=I+A=I\) \(=\) Some fires are nets \(\rightarrow\) conversion \(\rightarrow\) Some nets are fires (I). Hence II follows. All chairs are fires + Some fires are winds \(=\mathrm{A}+\mathrm{I}=\) No conclusion. Hence III does not follow.
39. 3; All pillars are circles + Some circles are squares \(=A+I=\) No conclusion. Hence neither I nor III
follows. All desks are pillars + All pillars are circles \(=A+A=A=\) All desks are circles \(\rightarrow\) conversion \(\rightarrow\) Some circles are desks (I). Hence II follows.
40. 4; Some dresses are doors + All doors are cots \(=\mathrm{I}+\) A \(=\mathrm{I}=\) Some dresses are cots.
Now, No hammer is dress + Some dresses are cots \(=\mathrm{E}+\mathrm{I}=\mathrm{O}=\) Some cots are not hammers. However, I and II form a complementary I-E pair. Hence either I or II follows. All sticks are hammers
+ No hammer is dress \(=\mathrm{A}+\mathrm{E}=\mathrm{E}=\) No stick is dress \(\rightarrow\) conversion \(\rightarrow\) No dress is stick. Hence III does not follow.
41. 2; Some chains are wheels + All wheels are poles \(=I+A=I=\) Some chains are poles \(\rightarrow\) conversion \(\rightarrow\) Some poles are chains (I). Hence I follows. All knives are chains + Some chains are wheels \(=\mathrm{A}+\mathrm{I}=\) No conclusion. Hence II does not follow. Some plates are knives + All knives are chains \(=I+A=I=\) Some plates are chains \(\rightarrow\) conversion \(\rightarrow\) Some chains are plates (I). Hence III follows.

\section*{Exercise-8}
1. 1; a (A-type) +b (E-type) gives conclusion \(\mathrm{I}(\because \mathrm{A}+\mathrm{E}=\mathrm{E})\)
2. 3; a (A-type) + b (E-type) gives the conclusion "No glasses are metals." Again "No glasses are metals" + statement (c) gives conclusion I. \(\left[\because \mathrm{E}+\mathrm{I}=\mathrm{O}^{*}\right]\). II and III make a complementary pair of O-A type.
3. 2; Statement \(c(E-t y p e)+\) statement \(d(A-t y p e)=\) conclusion II (O* type).
4. 5; Only II and III follow.
5. 3; (b) + (c) \(=A+E=E=\) No pens are copies. Hence III follows. IV follows as an implication of (c).
6. 1; Statement (b) + Statement (d) gives conclusion II \([\because A+A=A]\).
7. 4; (b) \(+(\mathrm{c})=\mathrm{A}+\mathrm{A}=\) All police are politicians. But this can't be interpreted as either I or II. (Note: If "Only politicians are police", then "All police are politicians" is true. But not vice versa.) Again, (a) \(+(b)=E+A=O^{*}=\) Some humans are not cops. Hence III and IV do not follow.
8. 3; Statement (b) + statement (c) gives conclusion "No tumblers are pots". [ \(\because \mathrm{A}+\mathrm{E}=\mathrm{E}]\). Now, "No tumblers are pots" + statement (d) gives conclusion II. \(\left[\because \mathrm{E}+\mathrm{A}=\mathrm{O}^{*}\right]\). Again conclusion III and IV make I-E type pair. Hence, either III or IV also follows.
9. 5; Only III follows.

Statement (a) + statement (b) gives "All militants are police" \([\because A+A=A]\). Since conversion of \(A-\) type statement gives I-type, I does not follow. On the same basis, statement (b) can't lead to II. Conclusion III follows from "All militants are police" and "No police are journalists" ( \(\because \mathrm{A}+\mathrm{E}=\) E). Now, conclusion III + statement (d) gives "Some politicians are not militants" \(\left[\because \mathrm{E}+\mathrm{I}=\mathrm{O}^{*}\right]\). Hence, IV does not follow.
10. 2; Statement (a) + conversion of statement (c) gives conclusion II \([\because \mathrm{I}+\mathrm{E}=\mathrm{O}]\).
And I does not follow. Statement (b) + conversion
of statement (c) gives conclusion III \([\because \mathrm{A}+\mathrm{E}=\mathrm{E}]\). Statement (c) + conversion of statement (d) \([\because E+\) \(\mathrm{I}=\mathrm{O}^{*}\) ]. Hence, IV does not follow.
11. 3; Statement (b) + Statement (a) gives "No pens are copies" \([\because \mathrm{A}+\mathrm{E}=\mathrm{E}]\). Hence I follows. Statement (b) + statement (c) gives "All copies are telephones". Hence, conclusions II does not follow. III also can't be concluded. Again "All copies are telephones" + conversion of statement (d) gives "No copies are radios" \([\because \mathrm{A}+\mathrm{E}=\mathrm{E}]\). Hence, IV follows from this result.
12. 4; We have been given "All dogs bite". Here the word 'All dogs' include both the types of dogs, ie those dogs who bark and those who do not bark. Hence, I follows. Conclusion II is false. Conclusion III follows from statement (b) since the words "All dogs" include dogs of different colours. Statement (b) + conversion of (c) gives no conclusion. Hence, IV does not follow.
13. 5; Either I or II and either III or IV follow. Statement (a) + Statement (b) gives no conclusion \([\because I+I=\) No conclusion]. Now look at conclusions I and II. Both the conclusions make a complementary pair (I-O type). Hence, either I or II follows.
Again from conversion of statement (b) we get "Some intelligent persons are soldiers". Now from "Some intelligent persons are soldiers" + statement (c), we get, "Some intelligent persons are honest". Now, "Some intelligent persons are honest" + Statement (d) gives us "Some intelligent persons are kind hearted". But, III and IV also make a complementary pair.
14. 3; Statement (a) + statement (b) gives conclusion "Some rats are dogs" \([\because I+A=I]\). Now, converted form of "Some rats are dogs" gives conclusion III. Hence, conclusion III follows. Again, statement (c) + statement (d) gives conclusion "Some bulls are not dogs" \(\left[\because \mathrm{E}+\mathrm{A}=\mathrm{O}^{*}\right]\). Therefore,
conclusions I and II do not follow. But, these two conclusions make a complementary pair. Hence, either conclusion I or conclusion II follows. Now, look at the options given. We do not need extra work. Hence, 3) is our answer.
15. 2; Statement (a) + statement (b) gives no conclusion \([\because I+I=\) no conclusion]. Hence, conclusion I does not follow. Again, conversion of statement (d) gives conclusion II. Hence, conclusion II follows. Again, statement (c) + statement (d) gives conclusion IV [ \(\because\) I \(+\mathrm{A}=\mathrm{I}]\). Hence, conclusion IV follows. Since, statement (b) + statement (c) gives no conclusion \([\because I+I=\) no conclusion], therefore we can't relate 'sticks' and 'guns'. Hence, conclusion III does not follow.
16. 1; Statement (a) + statement (b) gives no conclusion \([\because\) I \(+\mathrm{I}=\) no conclusion \(]\). Hence, conclusion III does not follow. Similarly, statement (b) + statement (c) gives no conclusion. Therefore, conclusions, I, II and IV do not follow.
17. 5; Statement (a) + statement (b) gives conclusion "Some keys are locks" [ \(\because\) I \(+\mathrm{A}=\mathrm{I}]\). Now, conversion of "Some keys are locks" gives conclusion III. Hence, conclusion III follows. Statement (b) + statement (c) gives conclusion II \([\because \mathrm{A}+\mathrm{A}=\mathrm{A}]\). Hence, conclusion II follows. Again, "Some keys are locks" + statement (c) gives conclusion I \([\because \mathrm{I}+\mathrm{A}=\mathrm{I}]\). Hence, conclusion I follows. Again, conclusion II + statement (d) gives conclusion "No chain is a digit". Now, conversion of "No chain is a digit" gives conclusion "No digit is a chain". Hence, conclusion IV follows.
18. 4; \(\because \mathrm{I}+\mathrm{I}=\) no conclusion, therefore, no conclusion follows. Again, since the conclusions I and II make a complementary pair (IE-type). Hence, either conclusion I or conclusion II follows.
19. 5; Statement (b) + statement (c) gives conclusion "Some pins are needles" [ \(\because \mathrm{I}+\mathrm{A}=\mathrm{I}]\). Now, on conversion "Some pins are needles gives conclusion I. Hence, conclusion I follows. Conclusion II follows from conversion of statement (a). Conversion of statement (d) gives conclusion III. Again, conclusion IV follows from conversion of statement (c). Thus, all conclusions follow.
20.2; Statement (a) + statement (b) gives conclusion III \([\because \mathrm{A}+\mathrm{A}=\mathrm{A}]\). Hence, conclusion III follows. Again, conclusion III + statement (c) gives conclusion II \([\because\) A \(+\mathrm{E}=\mathrm{E}]\). Hence, conclusion II follows. Note that statement (b) + statement (c) gives conclusion "No bins are roots" \([\because \mathrm{A}+\mathrm{E}=\) E]. Again, "No bins are roots" + statement (d) gives conclusion "Some flowers are not bins" [ \(\because \mathrm{E}+\mathrm{A}\) \(=\) O*]. Hence, conclusion I does not follow. Since \(^{*}\) conversion of statement (d) gives conclusion "Some flowers are roots", hence conclusion IV does not follow.
21. 1; Statement (a) + statement (b) gives conclusion "All poles are stands" \([\because \mathrm{A}+\mathrm{A}=\mathrm{A}]\). Now, "All poles are stands" + statement (c) gives no conclusion \([\because A+I=\) no conclusion]. Hence, conclusion III does not follow. Again, conclusion IV does not follow because statement (b) + statement (c) gives no conclusion \([\because \mathrm{A}+\mathrm{I}=\) no conclusion]. Since
statement (c) + statement (d) gives no conclusion [ \(\because\) I \(+\mathrm{I}=\) no conclusion], therefore, we can't relate 'boxes' and 'poles'. Hence, conclusion I does not follow. Again, since statement (b) + statement (c) gives no conclusion, we can't relate 'fans' and 'boxes'. Hence, conclusion II does not follow.
22.5; Only IV follows

Statement (a) + statement (b) gives conclusion "Some scales are metals" [ \(\because \mathrm{I}+\mathrm{A}=\mathrm{I}]\). Hence, conclusion IV can be obtained after conversion of "Some scales are metals". Also, statement (b) + statement (c) gives no conclusion \([\because \mathrm{A}+\mathrm{I}=\) no conclusion]. Therefore, conclusions I, II and III do not follow.
23. 2; Note that I + I = no conclusion. Therefore, conclusions I, II, III and IV do not follow. But among these four conclusions, conclusion I and conclusion III make an I-E type complementary pair. Hence, either conclusion I or conclusion III follows.
24. 3; All stones are pearls + Some pearls are shells \(=\) \(\mathrm{A}+\mathrm{I}=\) No conclusion. Hence I does not follow. Some shells are boxes + No box is container = I + \(\mathrm{E}=\mathrm{O}=\) Some shells are not containers. Hence III does not follow. Again, Some pearls are shells + Some shells are not containers \(=\mathrm{I}+\mathrm{O}=\mathrm{No}\) conclusion. Hence II and IV do not follow by combination. However, since they form an E-I complementary pair, either of the two must follow.
25. 4; No hostel is office + All offices are institutes \(=\mathrm{E}+\) \(\mathrm{A}=\mathrm{O}^{\star}=\) Some institutes are not hostels. Hence neither I nor III follows by combination. However, they form an E-I complementary pair. Hence either I or III follows. II does not follow because I-type statements can't be combined. Some colleges are hostels + No hostel is office \(=\mathrm{I}+\mathrm{E}=\mathrm{O}=\) Some colleges are not offices. Hence IV does not follow.
26. 1; Some pins are needles + All needles are nails + All nails are hammers \(=(\mathrm{I}+\mathrm{A})+\mathrm{A}=\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some pins are hammers. Hence I follows. Some threads are needles + All needles are nails \(=\mathrm{I}+\) \(\mathrm{A}=\mathrm{I}=\) Some threads are nails. Hence II follows. Some threads are needles (I) \(\rightarrow\) conversion \(\rightarrow\) Some needles are threads (I). Now, Some pins are needles + Some needles are threads \(=I+I=\) No conclusion. Hence III and IV do not follow by combination. However, since they form an I-E complementary pair, either III or IV follows.
27. 1; All sofas are tables + Some tables are desks \(=\) A + I = No conclusion. Hence I and consequently IV do not follow. No room is sofa + All sofas are tables \(=\mathrm{E}+\mathrm{A}=\mathrm{O}^{\star}=\) Some tables are not rooms. Hence II does not follow. Consequently, III also can't follow.
28. 2; Some rings are chains + All chains are bangles \(=\) \(\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some rings are bangles. Hence I follows. All chains are bangles + Some bangles are pendants \(=\mathrm{A}+\mathrm{I}=\) No conclusion. Hence II does not follow. All bracelets are bangles (A) \(\rightarrow\) conversion \(\rightarrow\) Some bangles are bracelets (I). Now, Some rings are bangles + Some bangles are bracelets = I + I = No conclusion. Hence III does not follow. Again, Some rings are bangles + Some bangles are pendants \(=\mathrm{I}+\mathrm{I}=\) No conclusion. Hence IV does not follow.
29. 1; All trains are buses \(\rightarrow\) conversion \(\rightarrow\) Some buses
are trains (I). Hence IV does not follow. Now, Some scooters are buses + Some buses are trains \(=I+I=\) No conclusion. Hence \(I\) and consequently III do not follow. Some boats are jeeps + Some jeeps are trains + All trains are buses \(=\mathrm{I}+\mathrm{I}+\mathrm{A}=\) No conclusion. Hence II does not follow.
30. 4; All teachers are engineers + All engineers are cooks \(=\mathrm{A}+\mathrm{A}=\mathrm{A}=\mathrm{All}\) teachers are cooks \(\rightarrow\) conversion \(\rightarrow\) Some cooks are teachers (I). Hence I follows. All engineers are cooks + Some cooks are merchants \(=A+I=\) No conclusion. Hence II does not follow. All engineers are cooks (A) \(\rightarrow\) conversion \(\rightarrow\) Some cooks are engineers (I). Hence III does not follow. IV follows by combining the last two statements.
31. 5; All screws are nuts \((\mathrm{A}) \rightarrow\) conversion \(\rightarrow\) Some nuts are screws (I). Hence I does not follow. Some hammers are nails + All nails are screws \(=I+A=\) I = Some hammers are screws. Hence III follows. All nails are screws + All screws are nuts \(=\mathrm{A}+\mathrm{A}\) \(=\mathrm{A}=\) All nails are nuts \(\rightarrow\) conversion \(\rightarrow\) Some nuts are nails (I). Hence IV does not follow. II also can't be concluded when we combine all the statements.
32. 2; All pens are bags + All bags are glasses \(=A+A\) \(=\mathrm{A}=\) All pens are glasses \(\rightarrow\) Some glasses are pens (I). Hence I follows. All pens are glasses + No glass is a spoon \(=\mathrm{A}+\mathrm{E}=\mathrm{E}=\) No pen is a spoon \(\rightarrow\) conversion \(\rightarrow\) No spoon is a pen (E). Hence III follows. All bags are glasses + No glass is a spoon + All spoons are books \(=(\mathrm{A}+\mathrm{E})+\mathrm{A}=\) \(\mathrm{E}+\mathrm{A}=\mathrm{O}=\) Some books are not bags. Hence neither II nor IV follows by combination. However, since they make a complementary I-E pair, either II or IV follows.
33. 4; All petals are flowers + conversion of All thorns are flowers \(=\mathrm{A}+\mathrm{I}=\mathrm{No}\) conclusion. Hence I does not follow. Nor does IV follow. However, since they make a complementary I-E pair, either I or IV follows. Combining the last two statements, we get \(I+I=\) No conclusion. Hence II does not follow. Some stems are flowers + conversion of All petals are flowers \(=\mathrm{I}+\mathrm{I}=\) No conclusion. Hence III does not follow.
34. 3; IV does not follow by converting the third statement. Some eagles are rabbits + All rabbits are birds \(=\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some eagles are birds \(\rightarrow\) conversion \(\rightarrow\) Some birds are eagles. Hence III follows. All snakes are eagles + Some eagles are birds \(=\mathrm{A}+\mathrm{I}=\) No conclusion. Hence II and consequently I do not follow.
35. 4; All notebooks are diaries (A) \(\rightarrow\) conversion \(\rightarrow\) Some diaries are notebooks (I). Now, Some calculators are diaries + Some diaries are notebooks \(=\mathrm{I}+\mathrm{I}=\) No conclusion. Hence I does not follow. Some calculators are diaries + All diaries are computers \(=I+A=I=\) Some calculators are computers. Hence II follows. All notebooks are diaries + All diaries are computers \(=A+A=\) All notebooks are computers. Hence III follows. Some cameras are calculators + Some calculators are diaries \(=I+I=\) No conclusion. Hence IV does not follow.
36. 1; All planets are stars + All stars are asteroids \(=\) \(\mathrm{A}+\mathrm{A}=\mathrm{A}=\mathrm{All}\) planets are asteroids \(\rightarrow\) conversion \(\rightarrow\) Some asteroids are planets (I).

Hence I does not follow. Nor does II follow by converting the second statement. Again, All stars are asteroids + All asteroids are moons \(=\mathrm{A}+\mathrm{A}=\) A \(=\) All stars are moons \(\rightarrow\) conversion \(\rightarrow\) Some moons are stars (I). Hence III does not follow. Some moons are rocks (I) \(\rightarrow\) conversion \(\rightarrow\) Some rocks are moons (I) + Some moons are stars \(=\mathrm{I}+\) \(\mathrm{I}=\) No conclusion. Hence IV does not follow.
37. 2; I-type statements can't be combined among themselves. Hence I and III do not follow. Some plastics are mirrors + No mirror is glass \(=\mathrm{I}+\mathrm{E}\) \(=\mathrm{O}=\) Some plastics are not glasses. Hence II and IV do not follow. However, the two make a complementary I-E pair. Hence either II or IV follows.
38. 5; All graduates are advocates + Some advocates are judges \(=A+I=\) No conclusion. Hence II and consequently III do not follow. Some advocates are judges + All judges are lawyers \(=I+A=I=\) Some advocates are lawyers \(\rightarrow\) conversion \(\rightarrow\) Some lawyers are advocates. Hence IV follows. Some advocates are lawyers + Some lawyers are doctors \(=I+I=\) No conclusion. Hence I does not follow.
39. 3; Some flowers are buds + All buds are leaves + All leaves are plants \(=(I+A)+A=I+A=I=\) Some flowers are plants \(\rightarrow\) conversion \(\rightarrow\) Some plants are flowers (I). Hence I follows. Some roses are flowers + Some flowers are buds \(=\mathrm{I}+\mathrm{I}=\) No conclusion. Hence II and IV do not follow by combination. Nor can III follow. However, II and IV form a complementary I-E pair. Hence either II or IV follows.
40. 1; Some books are journals + All journals are papers \(=\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some books are papers \(\rightarrow\) conversion \(\rightarrow\) Some papers are books (I). Hence I follows. Some papers are cards + All cards are boards \(=I+A=I\) \(=\) Some papers are boards. Hence II follows. All journals are papers + Some papers are boards \(=\mathrm{A}\) \(+\mathrm{I}=\) No conclusion. Hence III does not follow. Some books are papers + Some papers are boards \(=\mathrm{I}+\mathrm{I}=\) No conclusion. Hence IV does not follow.
41. 4; Some grapes are apples + Some apples are bananas \(=I+I=\) No conclusion. So we can't move any further for 'grapes' and this rules out I and II. Some apples are bananas + All bananas are guavas \(=\mathrm{I}+\) \(\mathrm{A}=\mathrm{I}=\) Some apples are guavas \(\rightarrow\) conversion \(\rightarrow\) Some guavas are apples (I). Hence III follows. All bananas are guavas + No guava is pomegranate \(=\) \(\mathrm{A}+\mathrm{E}=\mathrm{E}=\) No bananas are pomegranates. Hence IV follows.
42. 5; All walls are floors + All floors are rooms \(=\mathrm{A}+\) \(A=A=\) All walls are rooms. Hence \(I\) follows. Some doors are walls + All walls are rooms \(=\mathrm{I}+\) \(\mathrm{A}=\mathrm{I}=\) Some doors are rooms \(\rightarrow\) conversion \(\rightarrow\) Some rooms are doors (I). Hence II follows. Conversion of I gives us III. Some doors are walls + All walls are floors \(=\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some doors are floors \(\rightarrow\) conversion \(\rightarrow\) Some floors are doors (I). Hence IV follows.
43. 2; Some forks are bowls + All bowls are plates \(=\mathrm{I}+\) \(\mathrm{A}=\mathrm{I}=\) Some forks are plates \(\rightarrow\) conversion \(\rightarrow\) Some plates are forks (I). Hence II follows. Some forks are plates + some plates are utensils \(=\mathrm{I}+\) \(\mathrm{I}=\) No conclusion. Hence I does not follow. Some spoons are forks + Some forks are plates \(=\mathrm{I}+\mathrm{I}\) \(=\) No conclusion. Hence III and IV do not follow.
44. 1; Some desks are benches \(\rightarrow\) (I) conversion \(\rightarrow\) Some benches are desks (I) + some desks are sofas \(=\) I \(+\mathrm{I}=\) No conclusion. Hence I does not follow. All tables are desks + Some desks are sofas \(=\mathrm{A}\) \(+\mathrm{I}=\) No conclusion. Hence II does not follow. All tables are desks + Some desks are benches \(=\) \(\mathrm{A}+\mathrm{I}=\) No conclusion. Hence III does not follow. For the same reason IV too does not follow.
45. 2; I-type statements can't be combined. However, I and III form a complementary E-I pair. Hence either I or III follows.
46. 4; All teachers are lawyers (A) \(\rightarrow\) conversion \(\rightarrow\) Some lawyers are teachers (I). Hence IV follows. Now, Some doctors are lawyers + Some lawyers are teachers \(=I+I=\) No conclusion. Hence I does not follow. Some engineers are lawyers (I) \(\rightarrow\) conversion \(\rightarrow\) Some lawyers are engineers + All engineers are businessmen \(=\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some lawyers are businessmen \(\rightarrow\) conversion \(\rightarrow\) Some businessmen are lawyers. Hence II follows. But, All teachers are lawyers + Some lawyers are businessmen \(=\mathrm{A}+\mathrm{I}=\) No conclusion. Hence III does not follow.
47. 1; All sponges are clothes + All clothes are liquids \(=\) \(A+A=\) All sponges are liquids \(\rightarrow\) conversion \(\rightarrow\) Some liquids are sponges (I). Hence I does not follow. All plastics are glasses + conversion of Some sponges are glasses \(=A+I=\) No conclusion. Hence II does not follow.
All plastics are glasses (A) \(\rightarrow\) conversion \(\rightarrow\) Some glasses are plastics (I). Hence III does not follow. All clothes are liquids (A) \(\rightarrow\) conversion \(\rightarrow\) Some liquids are clothes (I). Hence IV does not follow.
48. 5; Some beaches are trees + All trees are hotels \(=\mathrm{I}\) \(+\mathrm{A}=\mathrm{I}=\) Some beaches are hotels. Hence III follows. Now, All shores are beaches + Some beaches are hotels \(=A+I=\) No conclusion. Hence I does not follow. All shores are beaches (A) \(\rightarrow\) conversion \(\rightarrow\) Some beaches are shores (I). Hence II does not follow. All sands are beaches + Some beaches are trees \(=\mathrm{A}+\mathrm{I}=\) No conclusion. Hence IV does not follow.
49. 3; Some sparrows are crows + Some crows are pigeons \(=\mathrm{I}+\mathrm{I}=\) No conclusion. Hence III does not follow. Some crows are pigeons (I) \(\rightarrow\) conversion \(\rightarrow\) Some pigeons are crows (I). Now, All parrots are pigeons + Some pigeons are crows \(=\mathrm{A}+\mathrm{I}=\) No conclusion. Hence II does not follow. Nor does IV follow. However, conversion of II forms an I-E complementary pair with IV. Hence either II or IV follows. Some sparrows are crows (I) \(\rightarrow\) conversion \(\rightarrow\) Some crows are sparrows + All sparrows are koels \(=\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some crows are koels \(\rightarrow\) conversion \(\rightarrow\) Some koels are crows (I). Hence I.
50. 2; Some cushions are trolleys + All trolleys are lamps \(=\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some cushions are lamps. Hence III follows. All chairs are tables + All tables are cushions \(=A+A=A=\) All chairs are cushions. Hence IV follows. All tables are cushions + Some cushions are lamps \(=\mathrm{A}+\mathrm{I}=\) No conclusion. Hence I does not follow. All chairs are cushions + Some cushions are trolleys \(=\mathrm{A}+\mathrm{I}=\) No conclusion. Hence II does not follow.
51. 4; Some gems are boxes + All boxes are sticks \(=\mathrm{I}+\) \(\mathrm{A}=\mathrm{I}=\) Some gems are sticks \(\rightarrow\) conversion \(\rightarrow\)

Some sticks are gems (I). Hence I follows. All dolls are toys + Some toys are gems \(=\mathrm{A}+\mathrm{I}=\) No conclusion. Hence II and consequently III do not follow. All dolls are toys (A) \(\rightarrow\) conversion \(\rightarrow\) Some toys are dolls (I). Hence IV follows.
52. 2; Some nights are weeks + All weeks are months \(=\) \(\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some nights are months \(\rightarrow\) conversion \(\rightarrow\) Some months are nights (I). Hence III follows. Some nights are months + All months are years \(=\) \(\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some nights are years \(\rightarrow\) conversion \(\rightarrow\) Some years are nights (I). Hence I follows. All weeks are months + All months are years \(=\mathrm{A}+\mathrm{A}\) \(=\mathrm{A}=\) All weeks are years \(\rightarrow\) conversion \(\rightarrow\) Some years are weeks (I). Hence IV follows. Some days are nights + Some nights are years = I + I = No conclusion. Hence II does not follow.
53. 5; Some pins are threads + All threads are clothes \(=\) \(\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some pins are clothes \(\rightarrow\) conversion \(\rightarrow\) Some clothes are pins (I). Hence I follows. Some doors are handles + All handles are pins \(=I+A=\) I = Some doors are pins \(\rightarrow\) conversion \(\rightarrow\) Some pins are doors (I). Hence II follows. All handles are pins + Some pins are clothes \(=A+I=\) No conclusion. Hence III does not follow. Nor does IV follow consequently.
54. 5; I-type statements can't be combined.
55. 3; All roads are cars (A) \(\rightarrow\) conversion \(\rightarrow\) Some cars are roads (I). Hence III follows. All roads are cars + No car is tree \(=A+E=E=\) No road is tree + Some trees are jungles \(=\mathrm{E}+\mathrm{I}=\mathrm{O}=\) Some jungles are not roads. Hence either II or IV follows. Conclusion I can't be reached.
56. 3; Some rollers are wheels + All wheels are mats \(=\) \(\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some rollers are mats \(\rightarrow\) conversion \(\rightarrow\) Some mats are rollers (I). Hence I follows. Some rollers are mats + Some mats are cars \(=\mathrm{I}+\) I \(=\) No conclusion. Hence III does not follow. All belts are rollers (A) \(\rightarrow\) conversion \(\rightarrow\) Some rollers are belts (I). Hence IV follows. All belts are rollers + Some rollers are mats \(=A+I=\) No conclusion. Hence II does not follow.
57. 2; All flowers are jungles + All jungles are tubes \(=\) \(\mathrm{A}+\mathrm{A}=\mathrm{A}=\) All flowers are tubes \(\rightarrow\) conversion \(\rightarrow\) Some tubes are flowers (I). Hence IV follows. Some rains are flowers + All flowers are tubes \(=\) \(\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some rains are tubes \(\rightarrow\) conversion \(\rightarrow\) Some tubes are rains (I). Hence II follows. Some rains are flowers + All flowers are jungles \(=\mathrm{I}+\) \(A=I=\) Some rains are jungles \(\rightarrow\) conversion \(\rightarrow\) Some jungles are rains (I). Hence III follows. Some tyres are rains + Some rains are jungles \(=\) \(\mathrm{I}+\mathrm{I}=\) No conclusion. Hence I does not follow.
58. 4; All tables are boxes + All boxes are trunks \(=\mathrm{A}+\) \(\mathrm{A}=\mathrm{A}=\) All tables are trunks \(\rightarrow\) conversion \(\rightarrow\) Some trunks are tables (I). Hence I follows. All chairs are tables + All tables are boxes \(=A+A=\) \(\mathrm{A}=\) All chairs are boxes. Hence II follows. All desks are chairs + All chairs are boxes \(=\mathrm{A}+\mathrm{A}\) \(=\mathrm{A}=\) All desks are boxes \(\rightarrow\) conversion \(\rightarrow\) Some boxes are desks (I). Hence III follows. All desks are boxes + All boxes are trunks \(=\mathrm{A}+\mathrm{A}=\mathrm{A}=\) All desks are trunks. Hence IV follows.
59. 3; I-type statements can't be combined. However, I and II form a complementary I-E pair. So do III and IV. Hence, either I or II and either III or IV follow.
60. 1; Some cups are jugs + Some jugs are plates \(=I+\) \(\mathrm{I}=\) No conclusion. Hence I does not follow. Nor does II follow. All papers are bottles + All bottles are cups \(=\mathrm{A}+\mathrm{A}=\mathrm{A}=\) All papers are cups \(\rightarrow\) conversion \(\rightarrow\) Some cups are papers (I). Hence III follows. All papers are bottles (A) \(\rightarrow\) conversion \(\rightarrow\) Some bottles are papers (I). Hence IV follows.
61. 2; Some cables are brushes + All brushes are paints \(=\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some cables are paints \(\rightarrow\) conversion \(\rightarrow\) Some paints are cables (I). Hence I follows. All bulbs are wires (A) \(\rightarrow\) conversion \(\rightarrow\) Some wires are bulbs (I). Hence II follows. No wire is cable + Some cables are brushes \(=\mathrm{E}+\mathrm{I}=\mathrm{O}=\) Some brushes are not wires. Hence III does not follow. All bulbs are wires + No wire is cable \(=\) \(\mathrm{A}+\mathrm{E}=\mathrm{E}=\) No bulb is cable \(\rightarrow\) conversion \(\rightarrow\) No cable is bulb ( E ). Hence IV does not follow.
62. 2; Some swords are daggers + All daggers are knives \(=I+A=I=\) Some swords are knives. Hence II follows. All bows are swords + Some swords are knives \(=A+I=\) No conclusion. Hence I does not follow. All arrows are bows (A) \(\rightarrow\) conversion \(\rightarrow\) Some bows are arrows (I). Hence III does not follow. All arrows are bows + All bows are swords \(=\mathrm{A}+\mathrm{A}\) \(=A=\) All arrows are swords. Hence IV follows.
63. 4; Some pianos are violins + Some violins are drums \(=I+I=\) No conclusion. Hence III and consequently I do not follow. All drums are guitars + No guitar is a flute \(=A+E=E=\) No drum is a flute \(\rightarrow\) conversion \(\rightarrow\) No flute is a drum (E). Hence IV follows but II does not.
64. 4; Some stones are rocks + All rocks are boulders = I \(+\mathrm{A}=\mathrm{I}=\) Some stones are boulders \(\rightarrow\) conversion \(\rightarrow\) Some boulders are stones (I). Hence III follows.
boulders are mountains \(=\mathrm{I}+\mathrm{I}=\) No conclusion. Hence I does not follow. All hills are mountains (A) \(\rightarrow\) conversion \(\rightarrow\) Some mountains are hills (I). Hence IV does not follow. Some boulders are mountains + Some mountains are hills \(=\mathrm{I}+\mathrm{I}=\mathrm{No}\) conclusion. Hence II does not follow.
65. 5; Some woods are metals + All metals are cloths = I \(+\mathrm{A}=\mathrm{I}=\) Some woods are cloths \(\rightarrow\) conversion \(\rightarrow\) Some cloths are woods (I). Hence I follows. All plastics are glasses (A) \(\rightarrow\) conversion \(\rightarrow\) Some glasses are plastics (I). Hence III follows. All metals are cloths (A) \(\rightarrow\) conversion \(\rightarrow\) Some cloths are metals (I). Hence IV follows. But II can't be established.
66. 5; All helicopters are gliders + All gliders are kites \(=\mathrm{A}+\mathrm{A}=\mathrm{A}=\mathrm{All}\) helicopters are kites. Hence IV follows. All helicopters are kites + All kites are balloons \(=\mathrm{A}+\mathrm{A}=\mathrm{A}=\) All helicopters are balloons \(\rightarrow\) implication \(\rightarrow\) Some helicopters are balloons (I). Hence I follows. Some airplanes are helicopters + All helicopters are kites = I + A = I = Some airplanes are kites \(\rightarrow\) conversion \(\rightarrow\) Some kites are airplanes (I). Hence II does not follow. All gliders are kites + All kites are balloons \(=\mathrm{A}+\mathrm{A}=\mathrm{A}=\) All gliders are balloons \(\rightarrow\) conversion \(\rightarrow\) Some balloons are gliders (I). Hence III does not follow.
67. 5; All kings are warriors + conversion of (All sentries are warriors) \(=\mathrm{A}+\mathrm{I}=\) No conclusion. Hence I and IV do not follow. All soldiers are warriors (A) \(\rightarrow\) conversion \(\rightarrow\) Some warriors are soldiers (I). Hence II does not follow. Some sentries are soldiers + All soldiers are warriors \(=\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some sentries are warriors \(\rightarrow\) conversion \(\rightarrow\) Some warriors are sentries (I). Hence III follows.

However, Some stones are boulders + Some

\section*{Exercise-9}
1. 2; All trees bear fruit + Fruits of some trees are not good for human health \(=\) Some fruits are healthy for some human beings.
2. 3; Some books are papers + All papers are phones \(=\) \(\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some books are phones \(\rightarrow\) conversion \(\rightarrow\) Some phones are books (I).
3. 4; Some petals are garlands (I) \(\rightarrow\) conversion \(\rightarrow\) Some garlands are petals (I). Hence statement (4) definitely follows.
4. 4; Some pens are pencils + All pencils are erasers \(=\) Some pens are erasers \(\rightarrow\) conversion \(\rightarrow\) Some erasers are pens.
5. 5; All pens are erasers + Some erasers are pins \(=A\) \(+\mathrm{I}=\) '-',ie No conclusion. Hence (1), (3) and (4) are not true. Again, (2) is not the conversion of first statement.
6. 2; Some papers are pens (I) \(\rightarrow\) conversion \(\rightarrow\) Some pens are papers (I). Hence conclusion (2) follows.
7. 4; Some pens are files + All files are books \(=\mathrm{I}+\mathrm{A}=\) I = Some pens are books. Hence statement (4) definitely follows.
(8-11):
8. 5 ; I is correct since "All bangles are ornaments". II is correct since "All colours are pictures".
9. 2; I does not follow unless we have been given 'All necklaces are bangles'. But we have 'Some necklaces are bangles'. No treasure is a picture \(\rightarrow\) conversion \(\rightarrow\) No picture is a treasure. All colours are pictures + No picture is a treasure \(=\mathrm{A}+\mathrm{E}=\mathrm{E}=\) No colour is a treasure. Hence II follows.
10. 2; All colours are pictures + Some pictures are necklaces \(=A+I=\) No conclusion. Hence \(I\) does not follow. Some necklaces are bangles + All bangles are ornaments \(=I+A=I=\) Some necklaces are ornaments \(\rightarrow\) conversion \(\rightarrow\) Some ornaments are necklaces (I). Hence II follows.
11. 4; All bangles are ornaments + Some ornaments are treasures \(=A+I=\) ' - , ie No conclusion. Hence, conclusion I doesnot follow. Conclusion II doesnot follow unless we have been given 'All bangles are necklaces’. Hence II doesnot follow.

\section*{POSSIBILITY}

\section*{I.Immediate Possibility}

\section*{A-TYPE[All S are P]}
(i) All P are S
(ii) All \(S\) are \(P\)

E-TYPE[No S are P]
(i) No S are P

I-TYPE[Some S are P]
(i) All \(S\) are \(P\)
(ii) Some \(S\) are \(P\)
(iii) Some \(S\) are not \(P\)
(iv) All \(P\) are \(S\)
(v) Some \(P\) are not \(S\)

O-TYPE[Some S are not P]
(i) No \(S\) are \(P\)
(ii) Some S are P
(iii) Some S are not P
(iv) No \(P\) are \(S\)
(v) All \(P\) are \(S\)
(vi) Some \(P\) are \(S\)
(vii) Some P are not S

\section*{II.Mediate Possibility}
(1) \(\mathrm{A}+\mathrm{I}\)
(2) \(\mathrm{A}+\mathrm{O}\)
(3) \(\mathrm{E}+\mathrm{E}\)
(4) \(\mathrm{E}+\mathrm{O}\)
(5) I + I
(6) \(\mathrm{I}+\mathrm{O}\)
and similarly \(\mathrm{O}+\mathrm{A}, \mathrm{O}+\mathrm{E}, \mathrm{O}+\mathrm{I}, \mathrm{O}+\mathrm{O}\) also.
Suppose the aligned statements are like the given below(I am giving example only for A + I type):

All S are P
Some P are Q...........for other types do them yourself
From all the avobe types of aligned propositions,definite conclusions cannot be drawn,therefore, cases of possibilities exist.Following are the all standard cases of possibilities that exist for all the above combinations:
(i)All S are Q
\(\sim \sim \sim\)
(ii)Some S are Q
(iii)Some S are not Q
(iv)All \(Q\) are \(S\)
(v)Some Q are S
(vi)Some Q are not S


\section*{Syllogism: Possibilities}

Questions based on possibilities are often asked in various competitive exams. To solve syllogism questions on possibilities, following points should be kept in mind:
(1) When definite conclusions (either definitely true or definitely false) can be drawn from the given propositions, they are certainties. It is to be noted that conclusions can be drawn either by 'immediate inference' (implication or conversion) or by 'mediate inference' (combining pair of aligned propositions).
For example, take an A-type proposition as given below:
All \(S\) are \(P\)
For this statement, following are the definite conclusions:
(i) All S are P conversion \(\rightarrow\) Some P are S [Definitely True]
[Since, on conversion of A-Type statement, we obtain I-type of statement]
(ii) All S are \(\mathrm{P} \rightarrow\) implication \(\rightarrow\) Some S are P [Definitely True]
(iii) No \(S\) are \(P\) [Definitely False]
(iv) Some \(S\) are not \(P\) [Definitely False]

Therefore, the above drawn conclusions are cases of certainties.
(2) When definite conclusions cannot be drawn from the pair of aligned statements (mediate inference), cases of possibilities exist.
It should be noted that there are only six cases where
a conclusion can be drawn. These cases are as given below:
\(\mathrm{A}+\mathrm{A}=\mathrm{A}\)
\(A+E=E\)
\(\mathrm{E}+\mathrm{A}=\mathrm{O}^{*}\)
\(\mathrm{E}+\mathrm{I}=\mathrm{O}^{*}\)
\(\mathrm{I}+\mathrm{A}=\mathrm{I}\)
\(\mathrm{I}+\mathrm{E}=\mathrm{O}\)
Except the abovementioned cases, in all other cases, possibilities exist.
\(\mathrm{A}+\mathrm{I}=-\)
\(\mathrm{A}+\mathrm{O}=-\)
\(\mathrm{E}+\mathrm{E}=-\)
\(\mathrm{E}+\mathrm{O}=-\)
\(\mathrm{I}+\mathrm{I}=-\)
\(\mathrm{I}+\mathrm{O}=-\)
\(\mathrm{O}+[\mathrm{A}\) or E or I or O\(]=-\)
Note: ‘-' stands for 'No conclusion'.
Now, we analyse the different cases of possibilities in the following pages:

\section*{Immediate Possibilities}

\section*{A-Type [All S are \(P\) ]}
I. Implication

Conclusions:
(i) Some S are P [True]
(ii) Some S are not P [False]
(iii) NoS are P [False]

The above three conclusions are either definitely true or definitely false.
II. Conversion

We know that A-Type of statements can be converted to I-Type of statements. Therefore, All S are \(\mathrm{P} \rightarrow\) conversion \(\rightarrow\) Some P are S
Hence, 'Some \(P\) are \(S\) ' is a definite conclusion. But 'All P are \(S\) ' is a possibility.

\section*{E-Type [No S are P]}
I. Implication

Conclusions:
(i) All S are P [False]
(ii) Some S are P [False]
(iii) Some S are not P [True]

The above conclusions are either definitely true or definitely false.
II. Conversion

No S are \(\mathrm{P}(\mathrm{E}) \rightarrow\) conversion \(\rightarrow\) No P are \(\mathrm{S}(\mathrm{E})\). Therefore, 'No P are S' is a case of certainty.

\section*{I-Type [Some \(S\) are P]}
I. Implication

Conclusions:
(i) NoS are P [False]

The above conclusion is definitely false.
Cases of Possibilities:
(i) All S are P [Doubtful]
(ii) Some S are not P [Doubtful]

All the above statements are cases of possibilities.
II. Conversion

Some \(S\) are \(P(I) \rightarrow\) conversion \(\rightarrow\) Some \(P\) are \(S(I)\). The above statement is a definite conclusion obtained by conversion of the given I-Type of proposition. There are some possibilities related to I-type of statements as given below:
(i) All P are S
(ii) Some P are not S

\section*{O-Type [Some \(S\) are not \(P\) ]}
I. Implication Conclusions:
(i) All S are P [False]

The above conclusion is definitely false.
Cases of Possibility:
(i) No S are P [Doubtful]
(ii) Some S are P [Doubtful]

The above statements are cases of possibilities.
II. Conversion

We know that O-type of statements cannot be converted. Therefore, there can be no definite conclusion from the conversion of O-type of statements. However, the following possibilities exist:
(i) All P are S
(ii) No P are S
(iii) Some \(P\) are \(S\)
(iv) Some P are not S

Note: Here, for the cases of possibilities, we consider O-Type and \(\mathbf{O}^{*}\)-Type statements alike. For this reason we do not take up \(\mathbf{O}^{*}\)-Type as a separate case.
Summary
Cases of Possibility
A-Type [All S are P]
(i) All \(P\) are \(S\)

I-Type [Some \(S\) are \(P\) ]
(i) All S are P
(ii) Some S are not P
(iii) All \(P\) are \(S\)
(iv) Some \(P\) are not \(S\)

O-Type [Some \(S\) are not P]
(i) No \(S\) are \(P\)
(iii) All P are S
(ii) Some S are P
(v) Some P are S
(iv) No \(P\) are \(S\)
(vi) Some P are not S

Mediate Possibilities
When we have been given any of the following types of pair of aligned statements, cases of possibilities exist:
\(\mathrm{A}+\mathrm{I} ; \mathrm{A}+\mathrm{O} ; \mathrm{E}+\mathrm{E} ; \mathrm{E}+\mathrm{O} ; \mathrm{I}+\mathrm{I} ; \mathrm{I}+\mathrm{O} ; \mathrm{O}+[\mathrm{A}\) or E or I or O]
Suppose, we have the following propositions:
1. \(\mathrm{A}+\mathrm{I}\)

All S are \(\mathrm{P} \quad\) Some P are Q
2. \(\mathrm{A}+\mathrm{O}\)

All S are \(P \quad\) Some \(P\) are not \(Q\)
3. \(\mathbf{E}+\mathbf{E}\)

No S is \(\mathrm{P} \quad\) No P is Q
4. \(\mathbf{E}+\mathbf{O}\)

No S is \(\mathrm{P} \quad\) Some P are not Q
5. I+I

Some S are \(\mathrm{P} \quad\) Some P are Q
6. \(\mathrm{I}+\mathrm{O}\)

Some S are \(\mathrm{P} \quad\) Some P are not Q
Note: Similarly, we can write a pair of aligned statements for \(\mathrm{O}+\mathrm{A}, \mathrm{O}+\mathrm{E}, \mathrm{O}+\mathrm{I}\) and \(\mathrm{O}+\mathrm{O}\) also.

We know that from the above pairs of aligned statements, definite conclusions cannot be drawn. But some relationships between \(S\) and Q exist and we cannot say definitely that the relationships do exist. Therefore, cases of possibility arise. That is there are the possibilities that some relationships between \(S\) and Q exist. For any of the above pairs of aligned statements, following are the all standard cases of possibilities that exist between \(S\) and \(Q\).
(a) All S are Q
(b) Some \(S\) are \(Q\)
(c) Some \(S\) are not Q
(d) All \(Q\) are \(S\)
(e) Some \(Q\) are \(S\)
(f) Some Q are not S

\section*{'Either......or' Cases in Possibility}

We will try to understand the 'Either.....or' cases of possibility by examples as given below:
Ex. 1: Statements: Some P are Q.
All Q are R.
No R is S .

\section*{Conclusions:}
I. All \(S\) being \(P\) is a possibility.
II. All P being R is a possibility.

\section*{Explanation:}

Some P are \(\mathrm{Q}+\) All Q are \(\mathrm{R}+\) No R is \(\mathrm{S}=\mathrm{I}+\mathrm{A}+\mathrm{E}=(\mathrm{I}\) \(+\mathrm{A})+\mathrm{E}=\mathrm{I}+\mathrm{E}=\mathrm{O}=\) Some P are not S . From this \(\mathrm{O}-\) Type of conclusion there is a possibility of all S being P. Therefore, conclusion I follows. Again, Some P are \(\mathrm{Q}+\) All Q are \(\mathrm{R}=\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some P are R . From this conclusion, possibility of all P being R exists. Therefore, conclusion II follows. But if II is possible, I can't be possible. How? Then All Pare R + No R is S = \(\mathrm{A}+\mathrm{E}=\mathrm{E}=\mathrm{No} \mathrm{P}\) is S . Thus, both conclusions I and II can't follow simultaneously. Therefore, 'Either I or II follows' will be the correct answer.
Ex. 2: Statements: Some \(P\) are \(Q\).
All Q are R .
No \(R\) is \(S\).

\section*{Conclusions:}
I. All \(P\) being \(R\) is a possibility.
II. All \(S\) being \(P\) is a possibility.

Explanation:
Some P are \(\mathrm{Q}+\) All Q are \(\mathrm{R}=\mathrm{I}+\mathrm{A}=\mathrm{I}=\) Some P are \(\mathrm{R} \Rightarrow\) All \(P\) being \(R\) is a possibility. Therefore, conclusion I follows. Again, Some Pare Q + All Q are R + No R is S \(=\mathrm{I}+\mathrm{A}+\mathrm{E}=(\mathrm{I}+\mathrm{A})+\mathrm{E}=\mathrm{I}+\mathrm{E}=\mathrm{O}=\) Some P are not S \(\Rightarrow\) All S being P is a possibility. Therefore, conclusion II follows. But, conclusions I and II both cannot be true simultaneously. If I follows, All P are R + No R is \(\mathrm{S}=\mathrm{A}+\mathrm{E}=\mathrm{E}=\) No P is S. Hence II can't follow. Hence, 'Either I or II follows' will be the correct answer.```


[^0]:    Ex. 6: Statement:
    Love marriages mostly end in divorce.
    Valid Assumptions:
    I. Love marriages do take place.
    II. There are cases of divorce.

    Note: Above was an example where we assume
    existence of what is being talked about.)
    Ex. 7: Statement:
    The company will not go into profit unless a foreign-trained manager is brought.

    ## Valid Assumption:

    At present there are no foreign-trained managers in the company.
    Note: Above was an example where we assume non-existence of something whose absencc is being discussed.

    ## (b) Adjectives

    We know that an adjective is something which denotes a quality of the subject. Naturally then, if an adjective is attached (unconditionally) to any subject, it must be assumed that "the subject does have the quality as denoted by the adjective". For example:
    Ex. 8: Statement:
    The social nature of man leads to cooperation and coordination within the society.

    ## Valid Assumption:

    Man is social.

