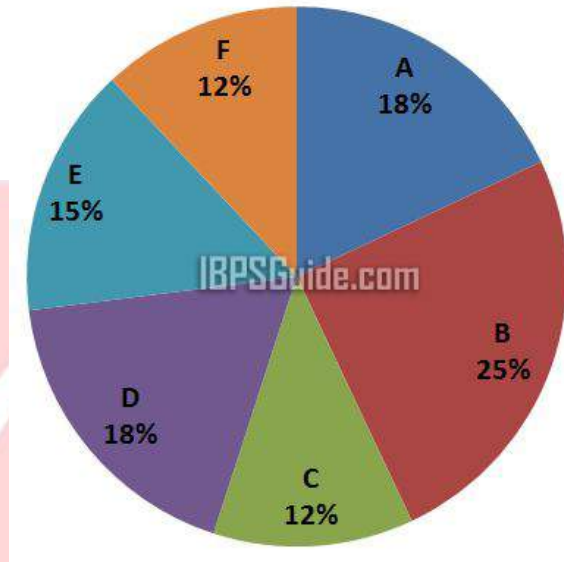## Questions (Set- 1 to 10)

DI Set – 1:

Direction(1-5): Study the pie chart and answer the questions:

Distribution of toal number of candidate
who appeared for a competitive exam from
6 different states

Total number of appeared candidate = 3600
Total number of qualified candidates = 2400

1). If the number of male qualified candidates from state A is 264 and ratio of unqualified male to unqualified female is 2:1then what is the ratio of unqualified to qualified female from state A?
a) 2:23 b) 7:27   c) 23:27   d) 1:27   e) None of these

2). What is the ratio of average number of candidates who could not qualify in the competitive exam from state C, D and F to average number of qualified candidates from other states?
a) 14 :51   b) 29:12   c) 13:24   d) 15:41   e) 16:51

3). What is the central angle corresponding to number of unqualified candidates from state B and C?
a) 102.4°   b) 123°   c) 169.2°   d) 96.6°   e) None of these

4). What percent more is total number of qualified candidates from state A and D together and those who could not qualify in the competitive exam from the same state together?
a) 200%   b) 125%   c) 600%   d) 500%   e) 400%

5). Total number of qualified candidates from states D and F together is what percent more than the number of appeared candidates from state A?
a) 36 (2/3)%   b) 33(1/3)%   c) 27(1/3)%   d) 42 (2/3)%   e) None of these

DI Set – 2:

Direction(6-10): Study the following table carefully and answer the question.

Coaching institutes	Total number of students who have enrolled for the coaching institute.	Percentage of students who have enrolled for the given coaching institute from different schools.			
		P	Q	R	S
A	80	25	20	35	20
B	100	24	30	18	28
C	250	28	24	32	16
D	200	10	20	25	45
E	180	15	30	25	30

6). What is the respective ratio between total number of students who have enrolled for coaching institutes A and C together from school P and total number of students who have enrolled for the same coaching institutes together from school Q?
(a) 44:35 (b) 75:32 (c) 34:75 (d) 45:38 (e) None of these

7). In coaching institutes E, 40% are females. If 20% of the total females are from school Q, what is the difference in number of Female students from school P, S and R who has enrolled from coaching institute E to school Q?
(a) 18   (b) 40 (c) 13   (d) 35   (e) None of these

8). What is the average number of students have enrolled in coaching institutes A, C, E and D from school P, R, Q, and S respectively?
(a) 45   (b) 61   (c) 51/2   (d) 23/2   (e) None of these

9). What percentage is the total number of students who have enrolled from coaching institute A from schools P and S together and the total number of students who have enrolled for coaching institute C from the same school together?
(a) 34.67% (b) 78.32%   (c) 45.51% (d) 56.32% (e) None of these

10). In coaching institute B, the total number of students who have enrolled from schools P and R together is what percent less than the total number of students from schools Q and S together?
(a) 72.41%   (b) 45.23%   (c) 27.58%   (d) 40.23%   (e) None of these

DI Set – 3:

Direction(11-15): Study the following table carefully and answer the question.

Publishing house	Number of books published	Ratio of academic and non-academic books	Percentage of books distributed	Number of distributors in publishing house
A	28200	7:3	81	17
B	32200	5:9	74	23
C	29700	6:5	92	18
D	31200	8:5	86	24
E	33800	7:6	79	25
F	35700	11:6	82	21
G	37800	5:13	89	24

11. What is the difference between the number of academic books published by publishing house A and D?
(a) 450 (b) 640 (c) 540 (d) 504 (e) None of these

12. How many books were given to each distributor by publisher E if each publisher gets equal number of books?
(a) 1806 (b) 1068 (c) 1608 (d) 1308 (e) None of these

13. What is the average number of non-academic books published by publishers F and G?
(a) 18750 (b) 18850 (c) 19950 (d) 18950 (e) 19990

14. If the total number of books published by publishers D, E and F is increased by 30% and the total number of books published by remaining publishers be decreased by 20%, what will be the new average of books published by all the publishers?
(a) 33418 (b) 33318 (c) 32518 (d) 33618 (e) None of these

15. What is the total number of books distributed by publishers C and E?
(a) 26702 (b) 27324 (c) 55026 (d) 54026 (e) None of these

DI Set – 4:

Directions(16-20): Study the following table which shows the data of different PSUs which interviewed a certain number of candidates on different days and answer the following questions:

	ONGC	BHEL	BEL	NTPC	NALCO
MONDAY	25	-	-	28	45
TUESDAY	30	25	-	36	-
WEDNESDAY	15	-	45	20	-
THURSDAY	-	18	32	-	25
FRIDAY	20	30	10	-	30
SATURDAY	-	20	-	10	35
Total	134	-	171	134	-

The number of candidates interviewed on Thursday by ONGC is 50% more than the number of candidates interviewed by BHEL and is 2 more than the number of candidates interviewed by NTPC on the same day. BEL interviewed same number of people on Monday and Saturday which is 10% less than the number of people it interviewed on Tuesday. The total number of candidates interviewed by BHEL and NALCO on Wednesday was equal. Total number of candidates interviewed by NALCO on Wednesday was 20% more than the candidates interviewed by NTPC on Friday. Total number of candidates interviewed by BHEL on Monday is 5 more than the number of candidates interviewed by NALCO on Tuesday.

16). The total number of candidates interviewed on Wednesday is what percent of the number of candidates interviewed on Saturday?
(a) 103.5% (b) 120.1% (c) 110.2% (d) 106.42% (e) None of these

17). The number of people interviewed by ONGC is what percent of the number of candidates interviewed by BEL?
(a) 79% (b) 78.36% (c) 75.25% (d) 76.89% (e) None of these

18). What is the difference between the number of candidates interviewed by BHEL and BEL on Monday?
(a) 15 (b) 8 (c) 14 (d) 10 (e) None of these

19). What is the total number of candidate interviewed by BHEL and NALCO?
(a) 148   (b) 134   (c) 160 (d) 190   (e) None of these

20). By what percent is the total number of candidates interviewed by NALCO more than that of the Candidates interviewed by NTPC?
(a) 38.06%   (b) 35.12%   (c) 42.26%   (d) 35.78%   (e) None of these

<u>DI Set – 5:</u>

Direction(21-25): study the following pie-chart and table and answer the given questions.
The following pie-chart shows the percentage number of students passed in matriculate examination from six different schools across the country in the year 2015. Also the bar graph shows the percentage of female students who passed their exam in 2015.
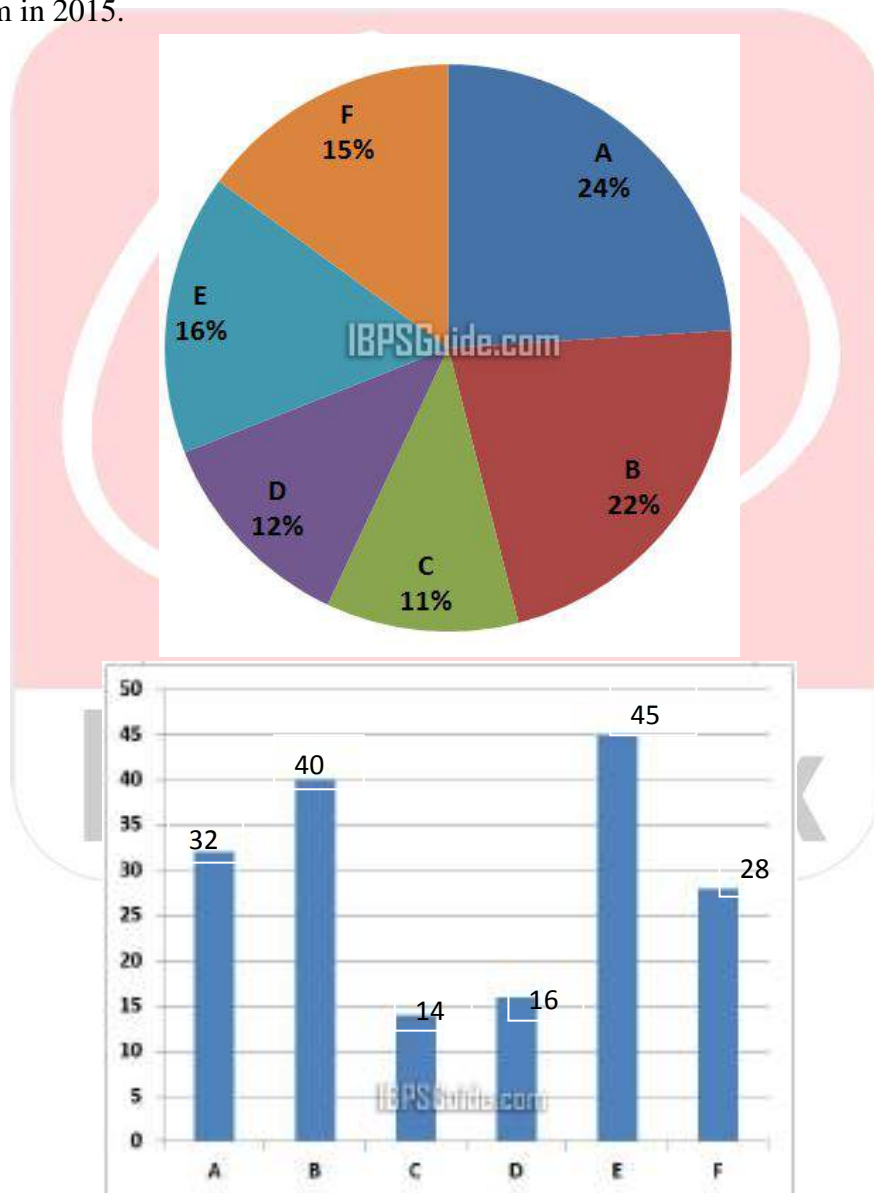
21). If in 2015, total number of female students from school F was 336, then how many male students passed the exam from school B?
(a) 1825 (b) 1342   (c) 1345   (d) 1056   (e) None of these

22). If total passed students from school D in 2015 was 2400, then what is the ratio of the numbers of female students who passed from school C to that of male students who passed from school F?
(a) 54:19 (b) 14:45 (c) 77:540 (d) 7:38 (e) None of these

23). If in the year 2016, there is an increase of 16% and 24% in the strength of passing students from school A and F respectively and the total number of passed students from school C in the year 2015 was 1650. What would be the total number os students who passed from school A and F in 2016?
(a) 7245 (b) 5862 (c) 7074 (d) 8746 (e) None of these

24). If the male students passed from school A in 2015 were 306. What was the total number of passed students from all schools together?
(a) 1875 (b) 1650 (c) 1550 (d) 1700 (e) None of these

25). If in 2015, the total number of students who passed the exam in all school E was 1750. What was the total number of male students from school E who passed the matriculation exam?
(a) 126 (b) 154 (c) 134 (d) 180 (e) None of these

DI Set – 6:

Direction(26-30): Refer to the following table and answer the given questions:

BATSMAN	NUMBER OF MATCHES PLAYED	AVERAGE RUNS SCORED	TOTAL BALL FACED	STRIKE RATE
M	22	56	-	-
N	18	-	-	153.6
O	-	45	900	110
P	-	36	-	84
Q	-	-	-	140
R	24	51	1368	-

NOTE:
- Strike rate = (total runs scored/total balls faced) * 100.
- All the given batsmen could bat in all the given matches played by them.

26). If the runs scored by R in last 3 matches of the tournament are not considered, his average runs scored in the tournament will decrease by 9, if the runs scored by R in the 21st and 22nd match are below are 140 and no two scores among these 3 scores are equal, what is the minimum possible runs scored by R in the 24th match?
a) 64 b) 85 c) 70 d) 60 e) 75

27). The respective ratio between total number of balls faced by O and that of Q in the tournament is 5:3. Total number of runs scored by Q in the tournament is what percent less than the total number of runs scored by O in the tournament?
a) 21 (3/11)% b) 25 (9/11)% c) 29 (1/11)% d) 27 (5/11)% e) 23 (7/11)%

28). Batsman M faced equal number of balls in the first 11 matches he played in the tournament and last 11 matches he played in the tournament. If his strike rate in first 11 matches and last 11 matches of the tournament are 83 and 72 respectively, what is the total number of balls faced by him in the tournament?
a) 1800 b) 1500 c) 1700 d) 1600 e) 1400

29). In the tournament, the total number of balls faced by batsman N is 402 less than the total number of runs scored by him. What is the average number of runs scored by batsman N in the tournament?
a) 32 b) 54 c) 64 d) 62 e) 71

30). What is the number of matches played by batsman O in the tournament?
a) 16 b) 28 c) 18 d) 22 e) 24

DI Set – 7:

Direction(31-35): Refer to the following table and answer the given questions:

City	Number of students enrolled		Number of students dropped out		Percentage of enrolled students (M+F) who got jobs
	Male (M)	Female (F)	Male (M)	Female (F)	
A	350	200	90	-	16%
B	270	210	33	32	-
C	-	-	52	20	-
D	-	-	-	-	60%
E	-	-	30	60	30%

Note:

• Number of students who completed the course = number of students enrolled – number of students dropped out

• Only those students who completed the course could appear for job placement.

31). In city A, 25% of students (M+F) who completed the course got job. What is the number of female students who dropped out of the course in the same city?
(a) 110 (b) 96 (c) 116 (d) 124 (e) 108

32). In city E, respective ratio of male and female students who enrolled for the course is 9:8 and male to female students who completed the course is 4:3. What is the number of students (M+F) who got job from the same city?
(a) 153 (b) 169 (c) 163 (d) 63 (e) 53

33). In city D, number of students (M+F) who dropped out is 3/11th of the number of students (M+F) who enrolled for the course. What percent of students (M+F) in city D, who completed the course, got job?
(a) 86.25 (b) 76.5 (c) 72.25 (d) 80.5 (e) 72.72

34). In city C, number of male students who completed the course is equal to number of female students who completed it. Only 96 students, i.e. 25% of the students (M+F) who enrolled for the course in the same city?
(a) 244 (b) 218 (c) 212 (d) 214 (e) 215

35). In the city B, if 40% of students (M+F) who completed the course, got job, how many students (M+F) got job in city B?
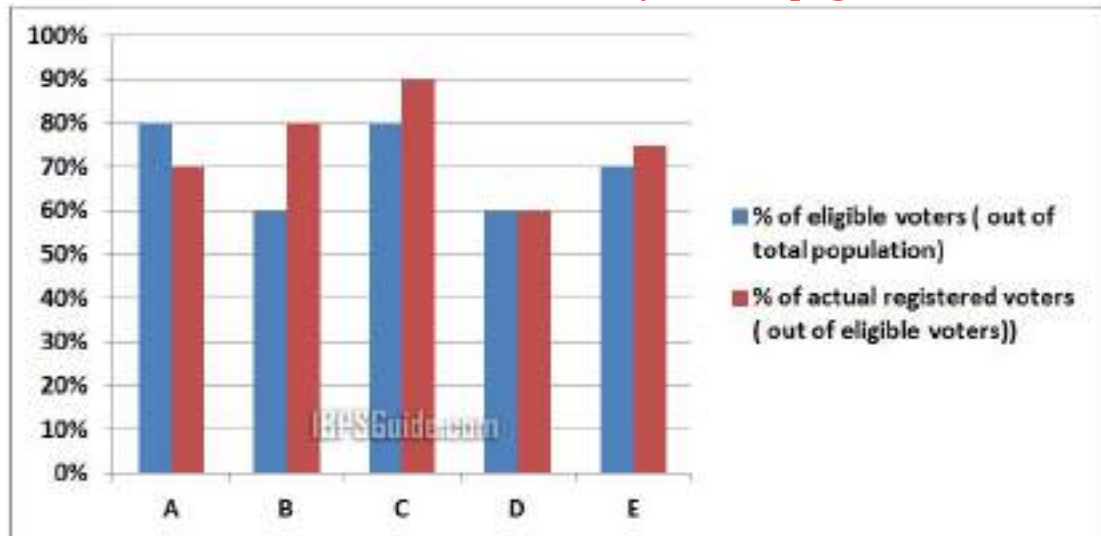(a) 160 (b) 154 (c) 162 (d) 166 (e) 127

DI Set – 8:

Directions (36-40): Study the graph and answer the given questions:
Data regarding voting behavior in five villages in block election in year 2014

36). In village D, the number of eligible voters grew by 20% from the year 2014 to 2015. Also in the year 2015, the number of actual registered voters was 75% of the total eligible voters the same year. The number of actual registered voters in village D in the year 2015 was what percent more than that of the same village in the year 2014?
(a) 40% (b) 0% (c) 20% (d) 25% (e) 30%

37). If the numbers of actual registered voters are equal in village D and E, what is the respective ratio between the total population of village D and that of village E?
(a) 35:24 (b) 41:30 (c) 35:32 (d) 36:25 (e) 24:25

38). In the village A, 75% of the actual registered voters were male registered voters and that of actual female registered voters was 1400, what was the total population of village A?
(a) 5000 (b) 7200 (c) 7500 (d) 6400 (e) 5200

39). In village B, the voter's turnout was 36% of the total population. The voter's turnout in village B was what percent of actual registered voters?
(a) 60% (b) 65% (c) 70% (d) 80% (e) 75%

40). Total population of village C was 12500 and the voter's turnout was 80% of the actual registered voters. What was the voters' turnout in village C?
(a) 7500 (b) 7200 (c) 6400 (d) 6000 (e) 8000

DI Set – 9:

Direction(41-45): Refer to the following line graph and answer the given questions:
The given line graph and the table shows the data about the income and expenditure of two companies S and T from year 2010 to 2015 in Rs. Crore.

Year	Income	Expenditure
2010	5:4	7:5
2011	7:6	5:3
2012	9:7	4:3
2013	4:5	3:4
2014	5:6	6:7
2015	7:8	7:9

Profit = income-expenditure

Profit%= profit/expenditure*100

41). What is the difference between the profit of company S and T over the year 2010, 2012 and 2014 together in crore?

(a) 21 (b) 14 (c) 25 (d) 17 (e) 18

42). In which year was the income of company T, second lowest?

(a) 2012 (b) 2013 (c) 2010 (d) 2014 (e) Cannot be determined

43). By what percent the profit of company S increased from 2011 to 2012?

(a) 89.9% (b) 567.1% (c) 462.5% (d) 435.1% (e) None of these

44). The profit percentage of company S in 2015 is approximately what percent of the profit percentage of company T in the same year?

(a) 56% (b) 123% (c) 132% (d) 161% (e) 171%

45). What is the profit of company T in 2011, 2013 and 2015 together in crore?

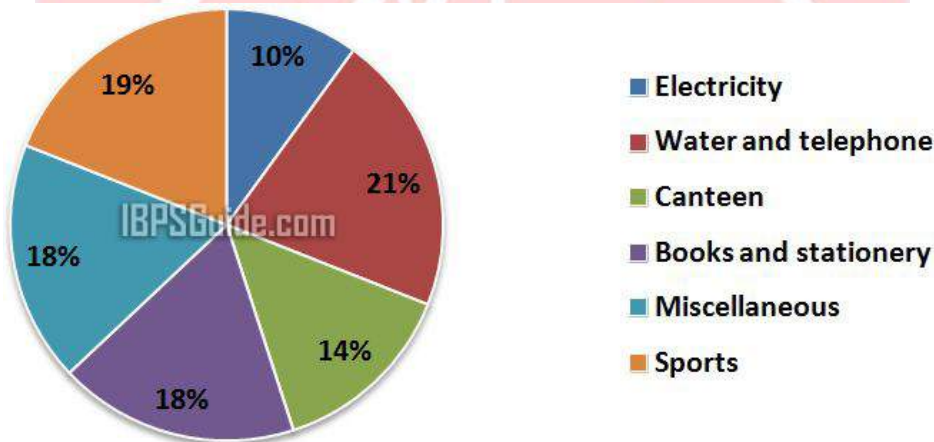(a) 267 (b) 245 (c) 312 (d) 276 (e) None of these

DI Set – 10:

Direction(46-50): Refer to the following pie-charts and answer the given questions:
The first pie-chart given below shows the break-up of amount budgeted by a government school for various expenditures in 2013. The second pie chart shows the break-up of funds utilized by the school in 2013.

- Electricity
- Water and Telephone bill
- Canteen
- Books and stationery
- Miscellaneous
- Sports
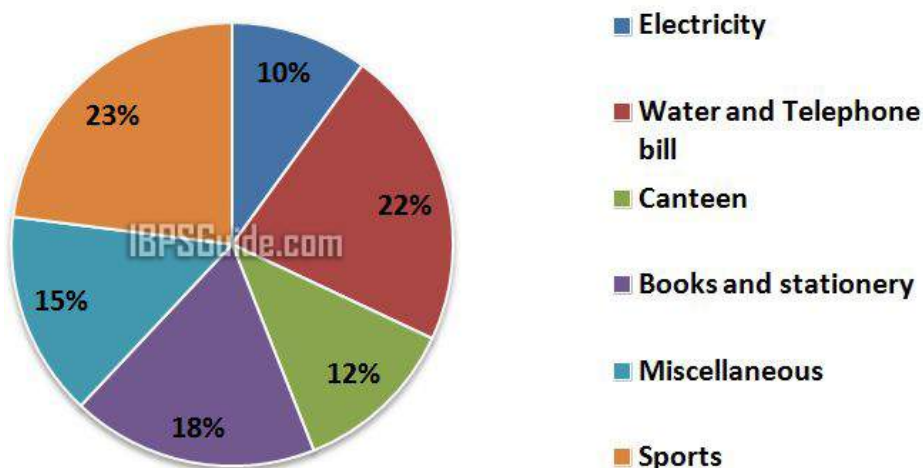
Pie-chart-1, amount budgeted = Rs. 57, 69,190

- Electricity
- Water and telephone
- Canteen
- Books and stationery
- Miscellaneous
- Sports

Pie-chart 2, funds utilized = Rs. 35, 09,190

46). What is the approximate ratio of the amount budgeted for Electricity and water and telephone to the funds utilized by Books and stationery, Miscellaneous expenditure and Sports?
(a) 1:1 (b) 1:3 (c) 2:1 (d) 1:1.2 (e) None of these

47). The total expenditure on miscellaneous, books and stationery and sports was closest to the total amount budgeted for?
(a) Sports (b) Sports and Electricity (c) Miscellaneous (d) Canteen (e) None of these

48). In how many of the given areas the amount budgeted have been fully utilized?
(a) Two (b) Three (c) All areas (d) None (e) Four

49). 70% of the total expenditure made on Books and stationery was for Books, the amount budgeted for the same was 65% books and stationery. What is the approximate difference between the amount budgeted and the actual expenditure on Books and stationery other than books?
(a) 1,45,231 (b) 1,73,963 (c) 1,56,700 (d) 2,00,002 (e) Cannot be determined

50). If there is an increase of 10% on allocation of funds on sports budgeted, then what percent are funds utilized by sports to new allotted budget for sports?

(a) 45.7% (b) 46% (c) 47% (d) 46.9% (e) None of these

Detailed Solutions for (Set- 1 to 10)

Solution (1-50):

The solution of 1 is-

States	Appeared (3600)	Qualified (2400)	Not qualified
A	18%=648	20%=480	168
B	25%=900	18%=432	468
C	12%=432	14%=336	96
D	18%=648	25%=600	48
E	15%=540	13%=312	228
F	12%=432	10%=240	192

1). (b), males qualified candidates =264, so female qualified candidate from state A is 480-264 = 216

Ratio of male to female in not qualified = 2:1, so female who did not qualify = 1/3*168 = 56,

Ratio = 56/216 = 7/27.

2). (a), average number of candidates who did not qualify from state C, D and F $= \frac{96+48+192}{3} = 112$

Average number of candidate who qualified from state A, B, and E $= \frac{480+432+312}{3} = 408$

So the ratio = 112/408 = 14/51

3). (c), percentage of State B and C in unqualified category $= \frac{468+96}{1200} * 100 = 47\%$

So central angle = 47*360/100 = 169.2°

4). (e), total number of qualified candidates from state A and D together = 480+600 = 1080

Percentage = (1080-216)/216 * 100 = 400%

5). (e), total number of qualified candidates from state D and F together = 600+240 = 840

Percentage = (840-648)/648*100 = 29.62%

The solution is- total students in each school as per the percentage given is

Coaching institutes	Schools			
	P	Q	R	S
A (80)	25%=20	20%=16	35%=28	20%=16
B (100)	24%=24	30%=30	18%=18	28%=28
C (250)	28%=70	24%=60	32%=80	16%=40
D (200)	10%=20	20%=40	25%=50	45%=90
E (180)	15%=27	30%=54	25%=45	30%=54

6). (d), total number of students who have enrolled for coaching institutes A and C together from school P = 20+70 = 90

Total number of students who have enrolled for the same institutes from school = 16+60 = 76

Ratio = 90:76 = 45:38

7). (b), female = 40%*180 = 72, 20% of female is from school Q = 14

Female from other school = 72-14 = 58

So the difference = 58-14 = 40

8). (b), average number of student $= \frac{20+80+54+90}{4} = 61$

9). (e), percentage $= \frac{20+16}{70+40} * 100 = 32\frac{8}{11}\%$

10). (c), percentage = (58-42)/58*100 = 27.58%

11). (c), academic books published by A = 28200/10 *7=19740, academic books published by D = 31200/13 * 8 = 19200

Required difference = 19740-19200 = 540

12). (b), number of books distributed by publisher E = 33800*79/100 = 26702

Number of books were given to each distributor by publisher Q = 26702/25 = 1068 (appox.)

13). (c), non-academic books published by F = 35700/17 *6 = 12600, none academic books published by G = 37800/18 *13 = 27300

Required average = (27300 + 12600)/2 = 19950

14). (b), total number of books published by P, Q, R = 31200+33800+35700= 100700, increased number of books = 100700/100 * 130 = 130910

Total number of books published by A, B, C, D, E, F, G, = 28200+32200+29700+37800 = 127900

Decreased number of books = 127900/100 * 80 = 102320

Required average = (130910+102320)/7 = 33318

15). (d), total numbers of books distributed by publishers C and E = 29700*92% + 33800*79% = 54026.

The solution is

The number of candidates interviewed on Thursday by ONGC = 27, number of candidates interviewed by NTPC on Thursday = 27-2 = 25

Number of candidates interviewed by NTPC on Friday = 134-119 = 15

Number of candidates interviewed by BEL on Tuesday = x

So no. of candidates interviewed by BEL = on Monday, Saturday = 0.9x

0.9x+x+45+32+10+0.9x = 171

2.8x=84

x= 30, 0.9x = 27

Total number of candidates interviewed by BHEL and Nalco on Wednesday = 1.2*15=18

The number of candidates interviewed by NALCO on Tuesday = y

25+y+5+27+28+45+30+25+30+36+y=315

Y = 32

The number of candidates interviewed by BHEL on Monday = 37

The filled table is

	ONGC	BHEL	BEL	NTPC	NALCO
MONDAY	25	37	27	28	45
TUESDAY	30	25	30	36	32
WEDNESDAY	15	18	45	20	18
THURSDAY	27	18	32	25	25
FRIDAY	20	30	10	15	30
SATURDAY	17	20	27	10	35
Total	134	148	171	134	185

16). (d), number of candidates interviewed on Wednesday = 116

Number of candidates interviewed on Saturday = 109

Required percentage = 116*100/109 = 106.42%

17). (b), required percentage = 134*100/171 = 78.36%

18). (d), required difference = 37-27 = 10

19). (e), total number of candidates = 148+185 = 333

20). (a), total number of candidates interviewed by NALCO = 185

So x*134/100 = 185, x = 138.06%.

It is more than candidates interviewed by NTPC = 38.06%

21). (d), let the total number of students who passed from school F be x, then 28% of x = 336 or x = 1200, now, let the total students passed from all school be y, then, 15% of y = 1200 or y =8000. Now total students passed from school B = 22% of 8000 =1760. Therefore number of male students passed from school B = 60% of 1760 = 1056.

22). (c), we can say, 12% of x = 2400(x = total number of passed students in all schools or, x= 20000. Number of female passed students from school C = 14% of 11% of 20000 = 308

Number of male passed students from school F = 72% of15% of 20000 = 2160.

Required ratio = 308:2160 = 77/540

23). (c), 11% of x = 1650(x = total number of passed students in all school or x = 15000. Total students passed from school F = 15% of 15000 = 2250, total students passed from school A = 24% of 15000 = 3600.

In the year 2016, total students passed from school A = 116% of 2250 = 2610, total students passed from school A = 124% of 3600 = 4464, total number of students passed in both school in 2008 = 2610+4464 = 7074

24). (a), it is given that, 68% of x = 306 (x = total number of A passed students) or x = 450, now, 24% of y = 450(y= total number of passed students in all schools or, y = 1875

25). (b), total number of students who passed from school E = 16% of 1750 = 280, number of male students who passed from school E = 55% of 280 = 154.

26). (a), total runs scored by R = 24*51 = 1224

Total runs scored by R in 21 matches = 21*(51-9) = 21*42 = 882 runs

Therefore runs scored by R in last # matches = 1224-882 = 342

So maximum runs scored by R in 22nd and 23rd matches = 139*2 = 278

So minimum possible runs scored by R in 24th match = 342-278 = 64

27). (e), total balls faced by O = 900

Therefore total balls faced by Q = 3/5 *900 = 540

Total runs of O = strike rate*total balls/100= 140*540 / 100 = 756

Therefore required % = (990-756)/990*100 = 23 7/11%

28). (d), total runs scored by batsman M in 22 matches = 22*56 = 1232

Now, total number of balls faced by batsman M in tournament $= \frac{2*total\ runs\ *100}{strike} rate\ of\ (first\ 11\ matches +$ $last\ 11\ matches = 2*1232*10083+7= 1600$

29). (c), let the average runs scored by N = x

Then $153.6 = \frac{18x}{18x-402} * 100 => x = 64$

30). (d), let, total matches played by batsman O = x

Now the strike rate = total runs scored*100/total faced off balls

110 = total runs scored*100/900, so total runs scored = 990

Now, total runs scored = total match played*average run

990   x*45, then x = 22, total matches played = 22.

31). (e), let, female number of students dropped out = x

Then, according to the question, [(350-90)+(200-x)]*25/100 = (350+200)*16/100

Then on solving we get x= 108

32). (d), according to the question, [(9x-30) + (8x-60)] = 4x+3x

Or, 10x= 90

So x = 9

Therefore number of total students (male +female) = 3x+4x = 7x = 7*9 = 63

33). (e), let, total enrolled students (male + female) = x

Number of students dropped out (male + female) = 3x/11

Therefore number of students (male + female) who complete the course = x-3x/11 = 8x/11

Therefore the percentage of students (male + female) who completed the course and got job $= \frac{\frac{8x}{11}}{x} * 100\% = \frac{800}{11}\% = 72.72\%$

34). (a), let the number of enrolled male students from city C = x

And number of enrolled female students from city C = y

Percentage of number of students who got the job = number of students

$$25\% = 96 \implies 1\% = \frac{96}{25}$$

$$100\% = \frac{96}{25} * 100 = 384$$

Therefore number of total students (male + female) who complete the course = 384

Now, total number of enrolled students (male + female) = 384+52+20 = 456

According to the question, x+y = 456 and (x-52) = (y-20)

So equating both equation, we get x =244

Hence, number of enrolled male students from city C = 244

35). (e), total number of students (male + female) enrolled from city B = 270+210 = 480

Now, number of students who got the job = 480*40/100 = 192

But in these 192 students include the students also who dropped out.

Therefore required number of students (male + female) who got the job = 192-(33+32) = 127

36). (b), percentage of number of eligible voters in the village D, in the year 2015 = 60% + 20% = 80%

Number of actual voter registered in the year 2015 = 75%*80 = 60%

= 60-60/60 * 100 = 0%

37). (a), let the population of village D= x

And the population of village E = y

Now, according to the question,

$x * 60\% * 60\% = y * 70\% * 75\%$

On solving we get x/y = 35/24

38). (a), let the population of village A = x

Now according to the question,

$x * 80\% * 70\% * 75\% - x * 80\% * 70\% * 25\% = 1400$

Or, x*56/100 * ½ = 1400

On solving we get x = 5000

39). (a), let the total population of village B = x

Now according to the question, $x * 60\% * 80\% = 36\%$

Then on solving x =6/8

Now the percentage = 6/8*80% = 60%

40). (b), no of voters turnout in village $= 12500 * \frac{80}{100} * \frac{90}{100} * \frac{80}{100} = 7200$

The solution can be represented in tabular form as

Year	Income		Expenditure	
	S	T	S	T
2010	270	216	224	160
2011	336	288	320	192
2012	378	294	288	216
2013	208	260	126	168
2014	290	348	252	294
2015	392	448	287	369

41). (b), for company S, total profit = (270-224) + (378-288) + (290-252) = 46+90+38= 174 crore

For company T. total profit = (216-160) + (294-216) + (348-294) = 56+78+54 = 188 crore

Therefore required difference = 188-174 = Rs. 14 crore.

42). (b), referring to the table it is clear that in 3013 the income of company T is the second lowest i.e. 267 crore

43). (c), profit gained by compuany S in 2011 = 336-320 = Rs. 16

Profit gained by company S in 2012 = 378-288 = Rs. 90

Required % = (90-16)/16*100 = 462.5%

44). (e), PROFIT % OF COMPANY s IN 2015 = [(392-287)/287*100] = 36.58%

Profit % of company T in 2015 = [(448-369)/369*100] = 21.4%

Required % = 36.58/21.4 * 100 ~ 171%

45). (a), profit gained by company T in 2011 = (288-192) = Rs. 96

Profit gained by company T in 2013= (260-168) = Rs. 92

Profit gained by company T in 2015 = (448-369) = Rs. 79

Total profit = 96+92+79 = Rs. 267 crore

46). (a), amount budgeted for Electricity and water & telephone bills = 32/100 * Rs. 57,69,190 ~ 18, 46,141

Funds utilized by Books and stationery, miscellaneous expenditure and Sports = 55/100* Rs. 3509190 ≈19, 89,687

Required ratio = 18, 46,141/1930054 ~ 1:1

47). (b), expenditure on miscellaneous, books and stationery and sports = 55%* Rs. 35,09,190 ~ Rs. 19,30,000

Amount budgeted for sports and Electricity = 33% * Rs. 57, 69, 190 =~ Rs. 19, 40, 000. After making all combination this is closest to total expenditure on miscellaneous, books and stationery and sports.

48). (d), in the areas where the percentage of funds allocation is greater than or equal to percentage of funds utilization, there funds utilization is definitely more than funds utilization. Such areas are Electricity, water & telephone bill, Canteen and sports.

For books and stationery, funds allocation = 12% of Rs. 57, 69,190~ Rs. 6, 92,300

Funds utilized = 14% * Rs. 35, 09,190~Rs. 4, 91,290

For miscellaneous, funds allocation = 15% * Rs. 57, 69, 190~ Rs. 8, 65, 380

Funds utilized = 18% * Rs. 35, 09,190 = Rs. 6, 31, 650

Thus, for none of the areas the amount budgeted have been fully utilized.

49). (b), Amount budgeted for Books and stationery = 18%* 57, 69, 190 ~10, 38,454, Amount budgeted for books and stationery other than books = 35% of 10, 38, 454~3, 63,459. Total expenditure on Books and stationery = 18% of 35, 09,190 = 6, 31,654. Total expenditure on books and stationery other than Books = 30% * 6, 31,654 = 1, 89,496. Required difference = 3, 63,459-1, 89,496 = 1, 73,963.

50). (a), total amount budgeted for sports = 23% * 57,69,190 = 13,26,913.7

10%increase takes place so value = 14, 59,605.07

Now percent $= \frac{19\% * 35,09,190}{14,59,605.07} * 100 \approx 45.7\%$

Questions (Set- 11 to 20)

DI Set – 11:

Directions(51-55):Number of mobile phones manufactured by five different companies over the years is given below:

Mobile phones	Micromax	Lenovo	Sony	Samsung	Gionee
2012	515000	862000	495000	600000	785000
2013	480000	423000	755000	715000	747000
2014	624000	612000	650000	850000	812000
2015	786000	876000	794000	860500	921000
2016	892000	842000	750000	898000	850000

Bar graph showing the percentage of mobile phones sold over the years
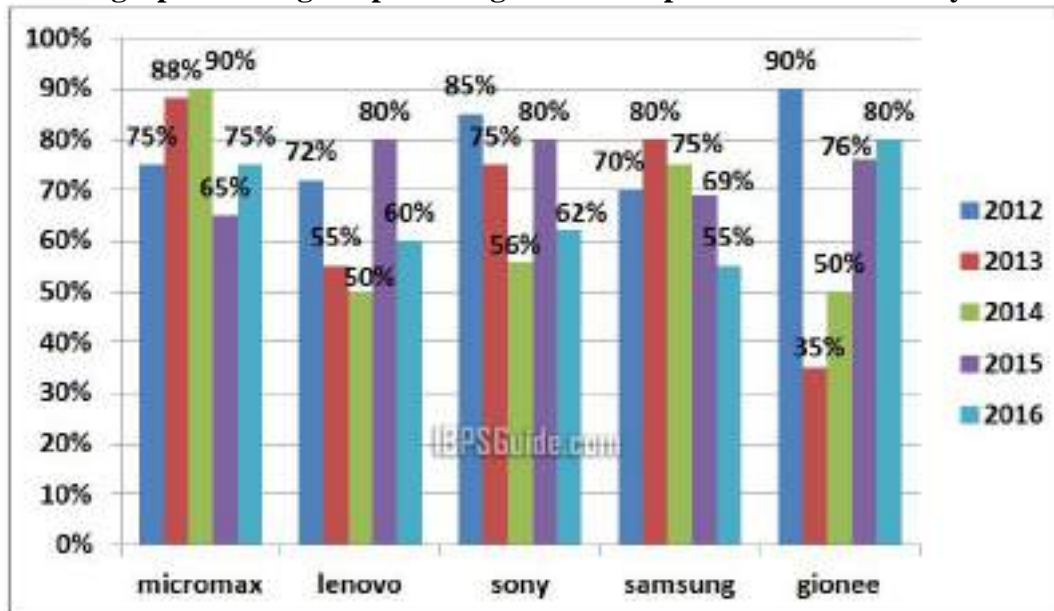
51). How many more mobile phones of Samsung company remains unsold in years 2014, 2015 as compared to combine unsold phones of Sony in the same years?
(a) 29992   (b) 34455   (c) 34754   (d) 45653   (e) None of these

52). What is the average number of mobile phones sold by Micromax in the following years?
(a) 673432   (b) 564230   (c) 600231   (d) 510045   (e) None of these

53). What is the difference between the mobile phones sold in year 2013 to unsold mobile phones in 2016 of all the companies?
(a) 313028   (b) 410000   (c) 345201   (d) 400031   (e) None of these

54). What is the percentage increase of sales of mobile phones of Sony and Lenovo in year 2015 with respect to previous year?
(a) 99.9%   (b) 97%   (c) 99.4%   (d) 111%   (e) None of these

55). What is the difference between the average numbers of mobile phones sold in 2012 to average number of mobile phones sold in 2014?
(a) 59080   (b) 45670   (c) 55808   (d) 67089   (e) None of these

DI Set – 12:

Directions (56-60):

Players	Number of matches played	Average runs scored	Total balls faced	Strike rate
Virat kohli	20	-	1500	-
Rohit Sharma	-	90	-	90
Yuvraj Singh	25	70	1200	-
M.S.Dhoni	-	-	900	-
Suresh Raina	20	-	-	128

Given: total runs scored = number of matches played*average runs scored

Strike rate = (total runs scored * 100)/total ball faced

56). What is the total number of matches played by all players if total ball faced by Rohit is half of the ball faced by Virat and M.S.Dhoni together?
(a) 18   (b) 12   (c) 15   (d) 25   (e) None of these

57). What is the ratio of strike rate of Yuvraj Singh and Virat kohli together to M.S.Dhoni and Suresh Raina together?
(a) 23:24   (b) 24:29   (c) 8:11   (d) Data inadequate   (e) None of these

58). If average runs scored by Dhoni are 75 and matches played were 4/5 of Yuvraj, then what will by the strike rate of Virat if it is 3/5 of strike rate of Dhoni?
(a) 166.67   (b) 112.47   (c) 101.67   (d) 100   (e) None of these

59). If average runs scored by Suresh is 80 then what will be total balls faced by him?
(a) 2000   (b) 1500   (c) 1250   (d) 1450   (e) None of these

60). What is the total numbers of ball faced by Rohit and Suresh together if it is known that ball faced by Rohit is 4/5 of Suresh and matches played by him is 5/4 of Suresh?
(a) 5635   (b) 5675   (c) 4955   (d) 4445   (e) None of these

DI Set – 13:

Directions(61-65):

The following table shows the population of a locality from 2011 to 2016. Study the information given in the table with some missing data and answer the given questions:

Year	Men	Women	Children	Total	Increase(+)/decrease(-) over the preceding year
2011	65104	60387	-	146947	-
2012	70391	62516	-	-	+11630
2013	-	63143	20314	153922	-4655
2014	69395	-	21560	-	-5337
2015	71274	65935	23789	160998	-
2016	-	45000	-	-	-5500

61). What is the approximate average population of men in the year 2011 to 2015?
(a) 45600   (b) 69326   (c) 72057   (d) 56879   (e) None of these

62). What is the approximate % difference between the total population of children in the year 2012 to 2014 and the total population of women in the year 2013 to 2015 with respect to later part?
(a) 50%   (b) 67%   (c) 64%   (d) 45%   (e) None of these

63). What is the percentage increase of men in 2016 from 2011, if total children in 2016 are half of that it is in 2014?

(a) 53.16%   (b) 49.78%   (c) 57.24%   (d) 56%   (e) None of these

64). What is the difference between the average number of men and women of all the years if men in 2016 are double that of children in the same year?

(a) 10112   (b) 9992   (c) 9807   (d) 10670   (e) 10947
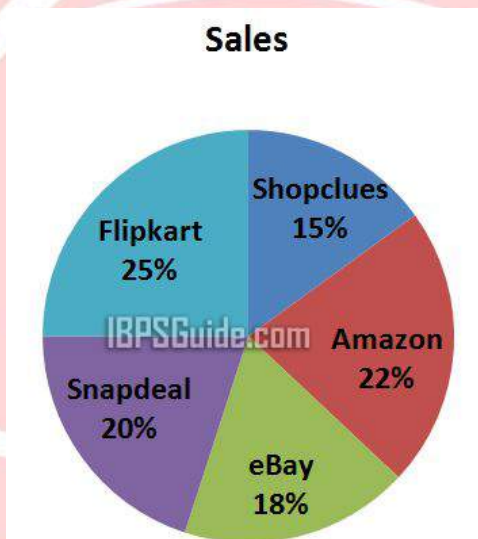
65). What is the approximate percentage of women and children together in 2012 with respect to men and women in 2015?

(a) 56.37%   (b) 45.12%   (c) 59.85%   (d) 64.27%   (e) None of these

DI Set – 14:

Directions (66-70):

In the year 2016 the total number of laptops (Lenovo and HP) sold by 5 online sites = 80000

Total number of Lenovo laptops sold by five online sites = 32000
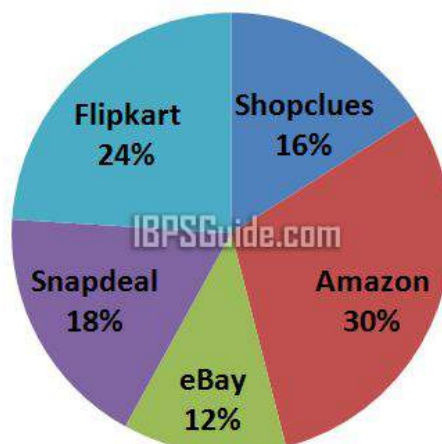
66). The total number of laptops Lenovo and HP both sold by Flipkart and eBay is what percent more than the total number of both laptops sold by Amazon and Snapdeal?
(a) 108%   (b) 188 1/3 %   (c) 105 2/3%   (d) 115 2/3%   (e) None of these

67). What is the difference between the corresponding angles of total laptops of both brands sold by Shopclues and eBay?
(a) 3°   (b) 10°   (c) 15°   (d) 12°   (e) None of these

68). What is the ratio of total number of laptops sold by HP by highest seller to lowest seller online site?
(a) 23:77   (b) 56:79   (c) 77:43   (d) 79:44   (e) None of these

69). If it is given that every year 10% increase takes place in the sale of both laptops by Snapdeal, then what will be its percent increase or decrease of Snapdeal next ear sale with respect to Flipkart sales of both laptops?
(a) -15%   (b) +25%   (c) +10%   (d) -12%   (e) None of these

70). What is the ratio of average number of laptops (HP) sold by Amazon, eBay and Flipkart to average number of laptops (Lenovo) sold by Shopclues, Snapdeal and eBay?
(a) 193:92   (b) 123:91   (c) 92:193   (d) 91:193   (e) None of these

DI Set – 15:

Directions (71-75):

Number of candidate (in thousand) who appeared for RRB exam from 6 different cities
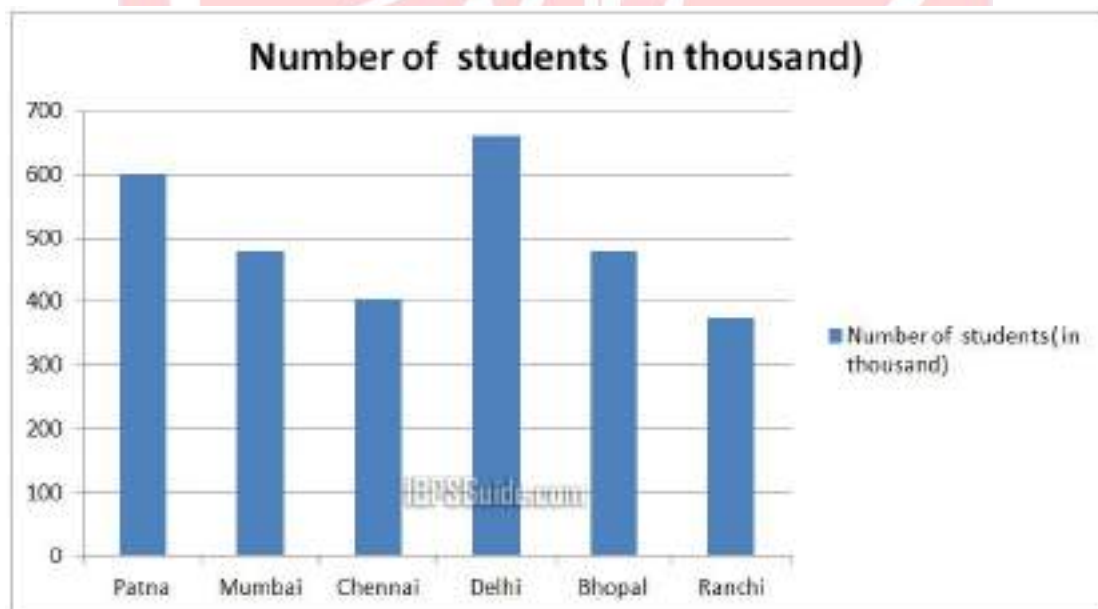
Percentages of female candidates from various cities among total female candidates are.

Female candidates are 40% of the total candidates.
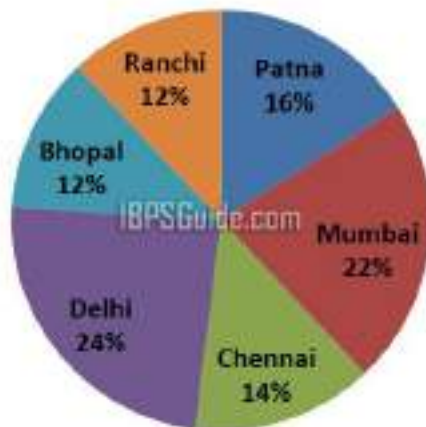
71). The average percentage marks obtained by the candidates from Bhopal was 40% of the maximum marks (maximum marks = 100) and the same for Chennai was 55%. Find the ratio of the average marks obtained by the candidates of these two cities?
(a) 11:8   (b) 8:11   (c) 12:11   (d) 8:9   (e) None of these

72). By what fraction was the total number of candidates from Delhi who appeared for RRB exam more than that of those who appeared for the same exam from Patna?
(a) 1/8   (b) 1/9   (c) 1/11   (d) 1/12   (e) 1/10

73). What is the ratio of the total number of candidates who appeared from Delhi, Mumbai and Chennai to the total number of female candidates who appeared from Ranchi, Patna and Bhopal?
(a) 32:97   (b) 97:99   (c) 46:49   (d) 32:103   (e) None of these

74). The number of female candidates from Mumbai is what percent of the total number of candidates from Ranchi?
(a) 70.4%   (b) 72.6%   (c) 71.5%   (d) 72.4%   (e) None of these

75). What is the difference between the total number of candidates from Chennai and the total number of female candidates from Bhopal, Patna and Ranchi together?
(a) 72000   (b) 74000   (c) 75000   (d) 78000   (e) None of these

DI Set-16:
Direction (76-80) : Answer the questions based on the following information.
The amount of money invested (rupees in crores) in the core infrastructure areas districts, Chittoor and Khammam, Andhra Pradesh, is as follows.

Chittor district			Khammam district		
Core area	1995	1996	Core area	1995	1996
Electricity	815.2	1054.2	Electricity	2065.8	2365.1
Chemical	389.5	476.7	Chemical	745.3	986.4
Thermal	632.4	565.9	Thermal	1232.7	1026.3
Solar	468.1	589.6	Solar	1363.5	1792.1
Nuclear	617.9	803.1	Nuclear	1674.3	2182.1
Total	2923.1	3489.5	Total	7081.6	8352.0

76) By what per cent was the total investment in the two districts more in 1996 as compared to 1995?
a) 14% b) 21% c) 24% d) 18% e) None

77) The investment in electricity and thermal energy in 1995 in these two districts formed what per cent of the total investment made in that year?
a) 41% b) 47% c) 52% d) 55% e) None

78) In Khammam district, the investment in which area in 1996 showed the highest percentage increase over the investment in that area in 1995?
a) Electricity b) Chemical c) Solar d) Nuclear e) None

79) Approximately how many times was the total investment in Chittoor to the total investment in Khammam?
a) 2.8 b) 2 c) 2.4 d) 1.7 e) None

80) What is the total of solar energy in 1995 at chittor district is increased by 20% and Nuclear energy in 1996 at khamman district is decreased 15% ?
a) 2505.5 b) 2416.505 c) 3217.85 d) 1928.406 e) None

DI Set- 17:

Direction (81-85): Answer the questions based on the following information. Mulayam Software Co., before selling a package to its clients, follows the given schedule.

Month	Stage	Cost (Rs. '000 per man/month)
1-2	Specification	40
3-4	Design	20
5-8	Coding	10
9-10	Testing	15
11-15	Maintenance	10

The number of people employed in each month is

Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Number of people employed	2	3	4	3	4	5	5	4	4	1	3	3	1	1	1

81) Due to overrun in 'design', the design stage took 3 months, i.e. months 3, 4 and 5. The number of people working on design in the fifth month was 5. Calculate the percentage change in the cost incurred in the fifth month. (Due to improvement in 'coding' technique, this stage was completed in months 6-8 only.)
a. 225% b. 150% c. 275% d. 240%

82) With reference to the above question, what is the cost incurred in the new 'coding' stage? (Under the new technique, 4 people work in the sixth m eighth.)
a. Rs. 1,40,000 b. Rs. 1,50,000 c. Rs. 1,60,000 d. Rs. 1,70,000

83) What is the difference in cost between the old and the new techniques?
a. Rs. 30,000 b. Rs. 60,000 c. Rs. 70,000 d. Rs. 40,000

84) Under the new technique, which stage of software development is most expensive for Mulayam Software Co.?
a. Testing b. Specification c. Coding d. Design

85) Which five consecutive months have the lowest average cost per manmonth under the new technique?
a. 1-5 b. 9-13 c. 11-15 d. None of these

DI Set- 18:

Direction(86-90):
The following table gives the sales details for text books and reference books at Primary / Secondary/ Higher Secondary/ Graduate Levels.

Year	Primary	Secondary	Higher Secondary	Graduate Level
1975	42137	8820	65303	25343
1976	53568	10285	71602	27930
1977	58770	16437	73667	28687
1978	56872	15475	71668	30057
1979	66213	17500	78697	33682
1980	68718	20177	82175	36697

86) What is the growth rate of sales of books at primary school level from 1975 to 1980?
(a) 29%   (b) 51%   (c) 63%   (d) 163%   (e) None

87) Which of the categories shows the lowest growth rate from 1975 to 1980?
(a) Primary   (b) Secondary (c) Higher secondary   (d) Graduate Level (e) None

88) Which category had the highest growth rate in the period?
(a) Primary   (b) Secondary   (c) Higher secondary   (d) Graduate Level (e) None

89) Which of the categories had either a consistent growth or a consistent decline in the period shown?
(a) Primary   (b) Secondary   (c) Higher secondary   (d) Graduate Level (e) None

90) What is the percentage increase in 1979 to 1980?
a) 8% b) 7%   c) 6% d) 12% e) None

DI Set- 19:

Direction(91-95):
Given below are the forecasts of the World and Asian energy demand for the years 1990, 2000 and 2010 AD. The demand is given in million barrels per day, crude oil equivalent

	1990		2000		2010	
	World	Asia	World	Asia	World	Asia
Petroleum	50.0	4.0	70.0	10.0	80.0	15.0
Natural Gas	30.0	0.5	40.0	2.5	50.0	5.0
Solid Fuels	50.0	4.0	60.0	5.0	75.0	10.0
Nuclear	10.0	0.5	20.0	1.0	25.0	1.3
Hydropower	10.0	1.0	10.0	1.5	20.0	2.0
Total	150.00	10.0	200.0	20.0	250.0	33.3

91) Over 1990 – 2010, which two fuels meet more than 60 percent of the total energy demand of both World and Asia?
(a) Petroleum & Natural Gas   (b) Petroleum & Solid Fuels   (c) Natural Gas & Solid Fuels
(d) None of the above

92) Which fuel's proportion in the total energy demand increases over the decade 1990–2000 and decreases over the decade 2000 Asia?
(a) Petroleum   (b) Natural Gas   (c) Solid Fuels   (d) Nuclear

93) Which is the fuel whose proportion in the total energy demand will decrease continuously over the period 1990
(a) Natural Gas   (b) Solid Fuels   (c) Nuclear   (d) Hydropower

94) Which is the fuel whose proportion to the total energy demand of the world will remain constant over the period 1990 the total energy demand in Asia?
(a) Solid Fuels   (b) Nuclear   (c) Hydropower   (d) Natural Gas

DI Set- 20:

Direction(96-100):
The table below shows the estimated cost (in Rs. Lakh) of a project of laying a railway line between two places

	1988	1989	1990	1991
1. Surveying	41.5	7.5	2.2	0.5
2. Cement	-	95.0	80.0	75.0
3. Steel	-	70.0	45.0	60.0
4. Bricks	-	15.0	12.0	16.0
5. Other Building Material	-	25.0	18.0	21.0
6. Labour	2.1	25.0	20.0	18.0
7. Administration	7.5	15.0	15.0	14.0
8. Contingencies	1.0	15.0	4.2	5.0
Total	52.1	267.5	196.4	209.5

96) The total expenditure is req cutting the expenditure on administration equally in all the years. What will be the percentage cut for 1989?
(a) 22.6 (b) 32.6 (c) 42.5 (d) 52.6

97) If the length of line to be laid each year is in proportion to the estimated cost for material and labour, what fraction of the total length is proposed to be completed by the third year?
(a) 0.9 (b) 0.7 (c) 0.6 (d) 0.3

98) What is the approximate ratio of the total cost of materials for all the years bear to the total labour cost?
(a) 4 : 1 (b) 8 : 1 (c) 12:1 (d) 16 : 1

99) If the cost of materials rises by 5% each year from 1990 onwards, by how much will the estimated cost rise?
(a) Rs. 11.4 lakh (b) Rs. 16.4 lakh (c) Rs.21.4 lakh (d) Rs.26.4 lakh

100) It is found at the end of 1990, that the entire amount estimated for the project has been spent. If for 1991, the actual amount spent was equal to that which was estimated, by what percent (approximately) has the actual expenditure exceeded the estimated expenditure?
(a) 39   (b) 29   (c) 19   (d) 9

51). (b), total unsold Samsung mobile phones in 2014 and 2015 together =
$(850000 * 25\%) + (860500 * 31\%) = 212500 + 266755 = 479255$
Total unsold Sony mobile phones in 2014 and 2015 together =
$(650000 * 44\%) + (794000 * 20\%) = 286000 + 158800 = 444800$
Number of unsold Samsung phones remains unsold as compared to Sony = 479255-444800 = 34455
52). (d), total mobile phones sold by Micromax = $(515000 * 75\% + 480000 * 88\% + 624000 * 90\% + 786000*65\%+892000*75\%= 2550225$
Average = 2550225/5 = 510045
53). (e), mobile phones sold in 2013 = $(480000 * 88\% + 423000 * 55\% + 755000 * 25\% + 715000 * 80\%+747000*35\%= 1677300$
Total unsold mobile phones in 2016 = $(892000 * 25\% + 842000 * 40\% + 750000 * 38\% + 898000 * 45\%+850000*20\%= 1418900$
Difference = 1677300-1418900 = 258400
54). (c), sales of mobile phones of Sony and Lenovo in 2014 = $(56\% * 650000 + 50\% * 612000) = 670000$
Sales of mobile phones of Sony and Lenovo in 2015 = $(80\% * 794000 + 80\% * 876000) = 1336000$
% increase = $\frac{1336000 - 670000}{670000} * 100 = 99.4\%$
55). (c), average mobile phones sold in 2012 = $\frac{75\%*575000 +72\%*862000 +85\%*495000 +70\%*600000 +70\%*7850}{5} = 510828$
Average mobile phones sold in 2014 = $\frac{90\%*624000 +50\%*612000 +56\%*650000 +75\%*850000 +50\%*812000}{5} = 455020$
Difference = 510828-455020 = 55808
56). (b), total ball faced by Rohit = (900+1500)/2 = 1200
Total matches played by him = total runs scored/avg. runs scored
Total runs scored = 90*1200/100=1080,
Total matches played= 1080/90=12
57). (d), data inadequate
58). (d), average runs scored by Dhoni = 75, total runs scored by him = 75*20 = 1500
Then strike rate of him is 1500*100/ 900
Strike rate of Virat kohli = 3/5 * 1500*100/900 = 100
59). (c), average runs scored by Suresh = 80, total runs = 80*20 = 1600
Total ball faced = 1600*100/128 = 1250
60). (e), matches played by Rohit = 5/4 of Suresh = 5/4*20 = 25,
Total runs scored by Rohit = 90*25 = 2250, total ball faced by him = 2250*100/90 = 2500,
Total ball faced by Suresh = 2500*5/4 = 3125
Total ball faced by them = 3125+2500 = 5625
61). (b), the filled table is used for answering questions from 11to15.

Year	Men	Women	Children	Total	Increase(+)/decrease(-) over the preceding year
2011	65104	60387	21456	146947	-
2012	70391	62516	25670	158577	+11630
2013	70465	63143	20314	153922	-4655
2014	69395	57630	21560	148585	-5337
2015	71274	65935	23789	160998	+12413
2016	-	45000	-	155498	-5500

Approximate Average number of men from 2011 to 2015
$= \frac{65104 +70391 +70465 +69395 +71274}{5} = 69326$
62). (c), total children in year range 2012-2014 = 25670+20314+21560 = 67544
Total women in the year range 2013- 2015 = 63143+57630+65935 = 186708

Approximate % difference$= \frac{186708-67544}{186708} * 100 \approx 64\%$

63). (a), total children in 2016 = 21560/2 = 10780,

Total men in 2016 = 155498-(10780+45000) = 99718

% increase in population of men in 2016 w.r.t 2011 $= \frac{99718-65104}{65104} * 100 = 53.16\%$

64). (e), average number of women $= \frac{60387+62516+63143+57630+65935+45000}{6} \approx 59102$

It is given in 2016 men is double of children so men $= \frac{155498-45000}{3} * 2 \approx 73665$

Therefore average men in all year $= \frac{65104+70391+70465+69395+71274+73665}{6} = 70049$

Difference in averages = 70049-59102 = 10947

65). (d), women and children in 2012 = 62516 + 25670 = 88186

Men and women in 2015 together = 71274+65935 = 137209

Required percentage $= \frac{88186}{137209} * 100 = 64.27\%$

66). (a), the data is given as

Online sites	HP +Lenovo (80000)	Lenovo (32000)	HP
Shopclues	15%=12000	16%=5120	6880(12000-5120)
Amazon	22%=17600	30%=9600	8000
eBay	18%=14400	12%=5760	10560
Snapdeal	20%=16000	18%=5760	10240
Flipkart	25%=20000	24%=7680	12320

Required % $= \frac{20000-9600}{9600} * 100 \approx 108\%$

67). (e), required angle $= \frac{20-18}{100} * 360 = 7.2°$

68). (c), number of HP laptops by highest seller is 12320 i.e. via Flipkart

Number of Hp laptops by lowest seller is 6880 via Shopclues, so the ratio = 12320/6880= 77/43

69). (d), after 10% increase total laptops sold by Snapdeal = 16000*110/100 = 17600,

Total laptops sold by Flipkart = 20000,

%change $= \frac{20000-17600}{20000} * 100 = 12\%$, so although 10% increase takes place next year in Snapdeal but it is 12% less than Flipkart sales in current year.

70). (a), ratio $= \frac{\frac{8000+12320+10560}{3}}{\frac{5120+3840+5760}{3}} = 30880/14720 = 193/92$

71). (b), the required ratio is 40% / 55% = 8:11.

72). (e), required fraction $= \frac{660-600}{600} = \frac{60}{600} = \frac{1}{10}$

73). (e), the total number of candidates from all six cities together = 3000000,

The total number of candidates from Delhi, Mumbai and Chennai together = 660000+480000+405000 = 1545000

The total number of female candidates from Ranchi, Patna and Bhopal together $= 3000000 * \frac{40}{100} * \frac{12+12+16}{100} = 480000$

Required ratio = 1545000/480000 = 103/32

74). (a), required % $= \frac{3000 * \frac{40}{100} * \frac{22}{100}}{375} * 100 = \frac{264}{375} * 100 = 70.4\%$

75). (c), total number of candidates from Chennai = 405000,

Total number of female candidates from Bhopal, Patna and Ranchi together = 3000000*40/100*40/100 = 480000

Required difference = 480000-405000 = 75000.

Solution (76-80)

76) Answer: D)

Total investment in the two districts in 1995 = 2932.1+ 7081.6 ≈ 10,000.

Total investment in the two districts in 1996 = 3489.5 + 8352 ≈ 11840.

Required percentage =((11840 – 10000)/10000) * 100 = 18% (approx.)

77) Answer: B)
Total investment in electricity and thermal energy in both the districts in 1995 = (815.2 + 632.4 + 2065.8 + 1232.7) = 4746.1.
Total investment made in that year = 2923.1 + 7081.6 = 10004.7 ≈ 10000
Hence required percentage = (4746.1/10000) * 100 = 47% (approx.)

78) Answer: B)
Percentage increase in investment in electricity = (300/2070) * 100 = 14%
Percentage increase in investment in chemical= {(986.4 – 745.3)/745.31} x 100 = 240/745 = 32%
Percentage increase in investment in solar = (428.6/1792.1)
let's take the approximate values = (430/1792) * 100 = 23%
And the Percentage increase in investment in nuclear = 507/1674
approximately = (500/1670)x 100 = 23%
Clearly percentage increase in investment in chemical is the highest

79) Answer: C)
Total investment in Chittoor = 2923.1 + 3489.5 = 6412.6 ≈ 6410.
Total investment in Khammam = 7081.6 + 8352 = 15430.
Required ratio = (15430/6410) = 2.4 times

80) Answer: B)
Solar energy in 1995 Increased by 20% = 468.1 / 100 * 110 = 561.72
Nuclear energy in 1996 decreased 15% = 2182.1 / 100 * 85 = 1854.785
561.72 + 1854.785 = 2416.505

Solution (81-85)
81) Answer: B)
Originally 4 people were scheduled for the fifth month to do coding
Therefore the cost for them (10000 × 4) = Rs. 40,000.
Now there is increase in number of men from 4 to 5 who are working on design in the fifth month.
Therefore the cost changes and the total cost for this would be (20000 × 5) = Rs.1,00,000.
Therefore the percentage change in the in the cost incurred in the fifth month = {(100000 – 40000)/40000} x 100 = 150%

82) Answer: A)
With the help of last question we will come to know that the coding stage is now completed in 6th, 7th and 8th months.
We also know that the number of people employed in the 6th month is 5 and in the 8th month is 5 and by the month 7th there are 5 people employed (from previous data).
Therefore by combining all the months we find that the total cost incurred in the coding stage = (5 + 5 + 4) × 10000 = Rs.1,40,000.

83) Answer: B)
The difference in the cost will arise only because of the following months: 5, 6 and 8.
And we can compare the costs as given below

	Original scheme			New scheme		
Month	People	Cost per man/ month	Total cost for the month	People	Cost per man/ month	Total cost for the month
5	4	10000	40000	5	20000	1.00.000

6	5	10000	50000	4	10000	40.000
8	4	10000	40000		10000	50.000
	Total cost		Rs. 1,30,000	Total cost		Rs. 1,90,000

It can be clearly seen that the difference in the cost between the old and the new technique is Rs. 60,000.

84) Answer: D)
The cost incurred in various stages under the present scheme is as given below.

	Month	People	Cost per man/month	Total cost for the month	Total cost for the stage
Specification	1	2	40000	80000	Rs. 2,00,000
	2	3	40000	120000	
Design	3	4	20000	80000	Rs. 2,40,000
	4	3	20000	60000	
	5	5	20000	100000	
Coding	6	4	10000	40000	Rs. 1,40,000
	7	5	10000	50000	
	8	5	10000	50000	
Testing	9	4	15000	60000	Rs. 75.000
	10	1	15000	15000	
Maintenance	11	3	10000	30000	Rs. 90,000
	12	3	10000	30000	
	13	1	10000	10000	
	14	1	10000	10000	
	15	1	10000	10000	

85) Answer: C)
From the above table it is clear that the average cost fo lowest for months 11 to 15

Solution (86-90):
86) Answer: C)
Since we can see that the answer options are not too close to each other so we can take the approximate values.
So the required ratio = (68600- 42000)/100 = 2650 / 42 = 63%

Books	1975	1980	Percentage growth
Primary	42137	68718	66%
Secondary	8820	20177	125%
Higher Secondary	65303	82175	26%
Graduate Level	25343	36697	45%

87) Answer: C)

From the table it is shown that percentage growth is least for higher secondary books i.e. 26%.

88) Answer: B)
From the given table in answer we can see that the percentage growth rate is maximum for secondary level books i.e.125%

89) Answer: D)
We can see that primary, secondary and higher secondary level books have all suffered from some sort of a decrease at a certain point of time, and have not shown a consistent decline or increase. But on the other hand, all the graduate level books have shown a consistent growth over the period.

90) Answer: C)
NO of books sold in 1979 = 196092
NO of books sold in 1980 = 207767
% increased in 1980 = 207767 – 196092 / 196092 * 100
= 5.95% ≈ 6

Solution(91-95):

91) Answer: B)

		1990		2000		2010	
		World	Asia	World	Asia	World	Asia
Total Energy		150	10	200	20	250	33
Natural Gas	**Value**	30	1	40	1.5	50	2
	Proportion	20%	10%	20%	7.5%	20%	6.06%
Solid Fuels	**Value**	50	4	60	2.5	75	5
	Proportion	33.3%	40%	30%	12.5%	30%	15.1%
Petroleum	**Value**	50	4	70	10	80	15
	Proportion	33.3%	40%	35%	50%	32%	45.4%

From the table we can say that over 1990 – 2010, Solid Fuels and Petroleum combined meet more than 60 percent of the total energy demand of both the World and Asia.

92) Answer: A)
From the table the fuel whose fuel's proportion in the total energy demand increases
over the decade 1990–2000 and decreases over the decade 2000-2010 for both the World and Asia is Petroleum

93) Answer: D)
This can be extracted with the help of following table:

		1990	2000	2010
Total Energy		10	20	33

Natural Gas	**Value**	0.5	2.5	5
	Proportion	5%	12.5%	15.15%
Solid Fuels	**Value**	4	5	10
	Proportion	40%	25%	30.3%
Nuclear	**Value**	0.5	1	1.3
	Proportion	5%	5%	3.9%
Hydropower	**Value**	1	1.5	2
	Proportion	10%	7.5%	6.06%

Hence proportion of Hydropower goes on decreasing over the period.

94) Answer: D)
This is also can be extracted with the help of following table

		1990	**2000**	**2010**
Total Energy		150	200	250
Natural Gas	**Value**	30	40	50
	Proportion	20%	20%	20%
Solid Fuels	**Value**	50	60	75
	Proportion	33.3%	30%	30%
Nuclear	**Value**	10	20	25
	Proportion	6.66%	10%	10%
Hydropower	**Value**	10	10	20
	Proportion	6.66%	5%	8%

Solution (96-100):

96) Answer: C)
Total expenditure = 52.1+267.5+196.4+209.5 = 725.5 lakhs.
If it has to be kept within 700 lakhs, the expenditures has to reduce by 25.5 laks.
So the expenditure reduced each year will be (25.5/4) = 6.375 lakhs.
Hence, percentage reduce for 1989 would be = (6.375/15) × 100 = 42.5%

97) Answer: B)
Costs of material and labor 1988 = 2.1

1989 = 95+70+15+25+25 = 230
1990 = 80+45+12+18+20 = 175
1991 = 75+60+16+21+18 = 190
Therefore proportion of these expenditures till 1990 = (2.1 + 230 + 175) / (2.1 + 230 + 175 + 190) = 0.6817.
This will also be the fraction of the total length of the line.

98) Answer: B)
Total material cost = (95+80+75+70+45+60+15+12+16+25+18+21) = 532
Total labour cost = (2.1+25+20+18) = 65.1
Therefore the ratio = 532 : 65.1 = 8 : 1 (approximately)

99) Answer: B)
The costs that can be taken under the head "Materials" are : Cement, steel, Bricks and Other building materials.
The estimated cost in 1990 = 80 + 45 + 12 + 18 = 155
The estimated cost in 1991 = 75 + 60 + 16 + 21 = 172
Cost of material rises by 5%, Cost would rise by 0.05X (155 + 172) = Rs.16.35 lakhs.

100) Answer: B)
Amount spent till 1990 = Rs.725.5 lakhs Estimated Expenditure for 1991 = 209.5 lakhs.
Hence the increase in expenditure will be 209.5 on 725.5 = 28.87%.

Questions (Set- 21 to 30)

DI Set- 21:

Direction(101-105):
**The following pie chart gives the percentage of workers from various industries working in night shifts.
The bar graph shows the percentage of female workers from these industries working in night shifts.**

Total no. of people = 40250
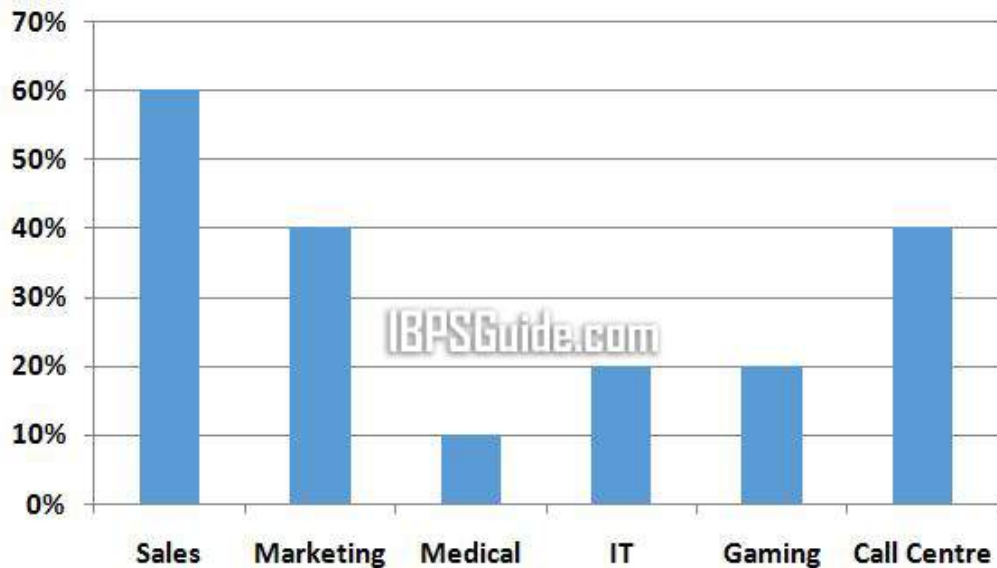
101) What is the approximate average number of females working in night shifts in all the industries?
A. 2066 B. 2395 C. 2069 D. 2394

102) The number of females working in night shifts in the gaming industry is what percent of the total number of people working in the night shifts from all the industries taken together?
A. 3.9% B. 3.7% C. 3.6% D. 3.5%

103) What is the difference in percentage of males and females working in night shifts in these industries?
A. 38.9% B. 38.7% C. 38.6% D. 38.4%

104) If the number of females working in the night shifts in marketing were 3206, while the number of females in rest of the industries remained unchanged, the new % of females working in night shifts will be _____(assume that the total number of people working in night shifts remains constant)
A. 33.19% B. 33.18% C. 33.16% D. 33.14%

105) Percentage of males working in night shifts is lowest in which of the following industries?
A. Sales B. IT C. Marketing D. Gaming

DI Set- 22:

Direction (106-110):
Refer to the table and answer the given questions.

Companies	Branches	Total number of Employees	Ratio of Male to Female Employees	Percentage of Post Graduate Employees
A	16	2568	5 : 7	75%
B	18	2880	11 : 5	65%
C	14	2310	10 : 11	40%
D	22	3575	3 : 2	60%
E	13	2054	7 : 6	50%
F	17	2788	20 : 21	75%
G	24	3720	8 : 7	55%
H	21	3360	9 : 5	80%

106) If the number of male post graduate employees in company H is 1800, what percent of the female employees in that particular company are post graduate?
A. 74% B. 76% C. 75% D. 73% E. 72%

107) In which of the given companies is the percentage of women employees with respect to the total number of employees(both males and females) in that company the second lowest?
A. G   B. B   C. E   D. H   E. D

108) What is the ratio of the total number of male employees in companies B and H together to the total number of female employees in Companies C and D together?
A. 63 : 51   B. 51 : 48   C. 77 : 63   D. 69 : 44   E. 55 : 53

109) What is the difference between the average number of post graduate employees in companies A, B and D together and the average number of post graduate employees in companies F, G and H?
A. 272   B. 312   C. 294   D. 346   E. 289

110) Which of the given companies has the highest number of average employees per office?
A. F   B. H   C. B   D. C   E. D

DI Set- 23:

Direction(111-115):

Direction: (1-5). Refer the table and answer the given questions.
Total Population in Five Cities = 30,00,000

Cities	Total Population (In Lakhs)	Rural : Urban	Male : Female	Literate : Illiterate	% Graduate out of total population
Mumbai	-	6 : 7	11 : 7	3 : 2	-
Chennai	6.15	-	7 : 3	-	55
Hyderabad	-	7 : 3	-	7 : 9	-
Bangalore	4.80	-	9 : 7	-	65
Kolkata	-	3 : 5	-	2 : 3	-

111) **The total population of Mumbai and Hyderabad is 12,25,000. The difference between the total population of Mumbai and Hyderabad is 55000. If the Hyderabad has more population than Mumbai then the urban population of Mumbai and Hyderabad together is approximately what percent of total population of these two Cities?**
A.36%   B.41%   C.54%   D.62%   E.65%

112) **If the population of Mumbai is 105000 more than Bangalore then approximately, by what percent of urban population of Mumbai less than its Rural population?**
A.15%   B.17%   C.25%   D.28%   E.None of the Above

113) **One – fourth of total population of Hyderabad is 1,60,000. If the total number of Literate in Chennai and Bangalore are 48% and 44% of their population.The total number of literates in these cities is approximately what percentage compared to the total population of the same?**
A.30%   B.35%   C.40%   D.45%   E.50%

114) **What is the sum of male population in Chennai and female population in Bangalore together ?**
A.5,70,000   B.6,20,500   C.6,40,500   D.6,60,000   E.None of the Above

115) **If the percentage of literate graduates in Hyderabad is 1/5 th of literate graduates in Chennai then what is the difference between the number of literate graduates from Bangalore and Hyderabad?**
A.234550   B.243550   C.244350   D.255340   E.255550

DI Set- 24:

Direction(116-120):

In the given pie -charts the distribution of passed students from six different colleges (A, B, C, D, E and F) of a city during the year 2012 and 2013 is given. In the line graph the percentage of boys passed in year 2012 and the percentage of girls passed in 2013 is shown. Answer the following questions based on these graphs.

Total students passed in 2012 = 30000

Total students passed in 2013 = 40000

Total students passed (2012)=30000
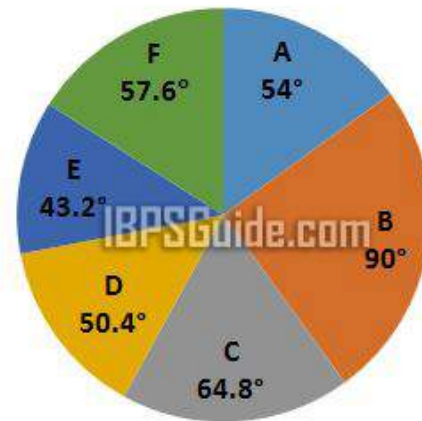
Total students passed (2013)=40000
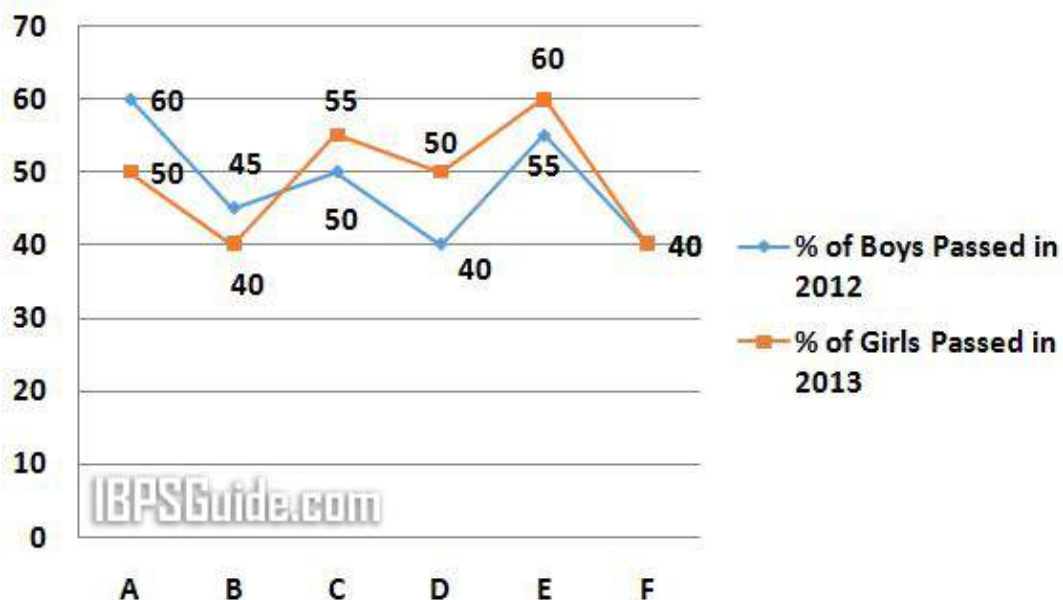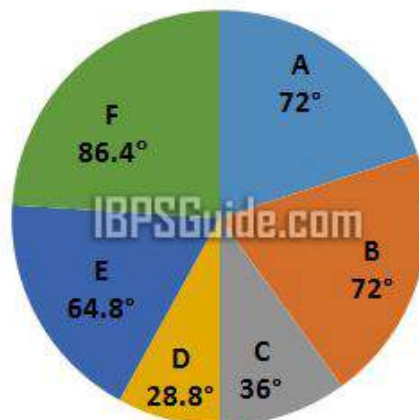
116) What is the number of female students passing in 2012 from College C?
1) 2000   2) 2300   3) 2400   4) 2500   5) 2700

117) What is the number of male students passing in year-2013 from College F?
1) 5760   2) 5750   3) 5740   4) 5730   5) 5720

118) What is the total number of females passing in 2012 from all colleges?
1) 14645   2) 15645   3) 16645   4) 17645   5) 18645

119) What is the difference between the number of male students passing in year 2013 and that of female students passing in the same year?
1) 1690   2) 1680   3) 1670   4) 1660   5) 1650

120) Number of boys passing from College E in 2012 is what percentage of the number of boys passing from College C in year 2013?
1) 70%   2) 80%   3) 90%   4) 100%   5) 110%

DI Set- 25:

Direction(121-125):
Study the following graph carefully to answer the question given below it:-
% Growth of Maruti Cars Produced in Successive Year
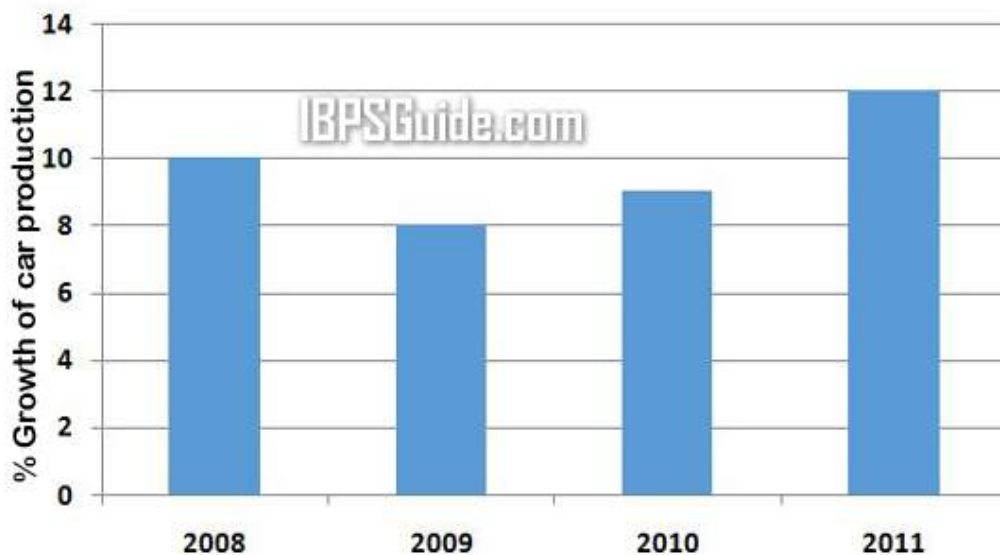
Pie Chart shows Percentage share of different cars in different years
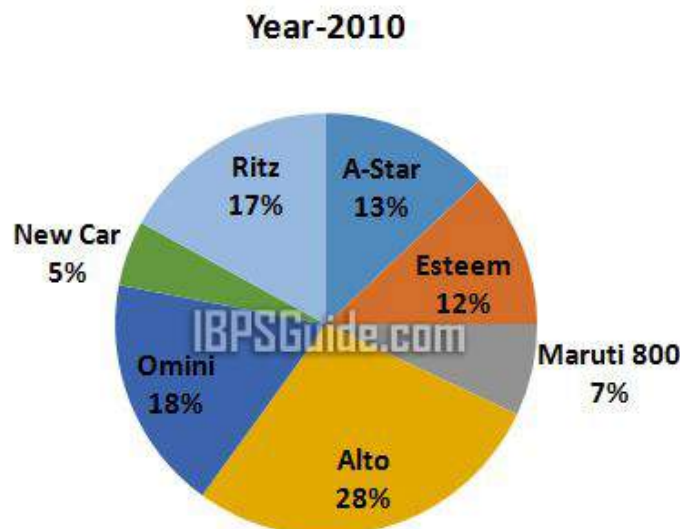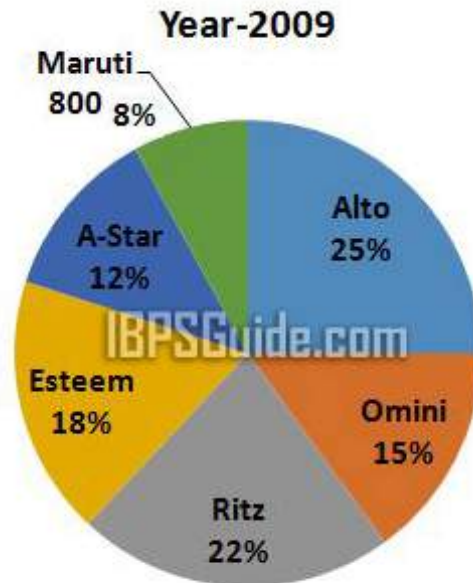
Year-2009

Year-2010

121. If the total car produced in the year 2008 is 1 lakh then what is approx percentage increase / decrease in the production of Alto in 2010 with respect to its previous year.
a) 22%   b) 30%   c) 25%   d) 18%   e) 15%

122.Referring to data in the previous question, i.e. total number of cars produced in 2008 is 1 Lakh, what is the percentage of Maruti Ritz produced in the year 2009, to that of the total car produced in the year 2008?
a) 20.57%   b) 18.50%   c) 30%   d) 23.76%   e) 27.75%

123.If the total car produced in the year 2011 is 134400 then how many Maruti Esteem were produced in the year 2010.
a) 25000   b) 23080   c) 27080   d) 14400   e) 21600

124.What is the ratio of Maruti Esteem produced to that of Maruti Omini in the year 2010.
a) 4 : 5   b) 3 : 5   c) 2 : 5   d) 3 : 7   e) None of these

125.If the total no. of car produced in the year 2009 is 140000 then. What is the average production of total car produced in duration of 2009 to 2011.

a) 150000   b) 158000   c) 150454   d) 150354   e) 154504

DI Set- 26:

Direction(126-130):
Following bar-graph shows the percentage of passed girls with respect to total passed students of two colleges A and B.

126) If the number of boys passed from College A and College B is 220 and 175 respectively in the year 2002, then what is the difference between number of girls passed from A and B in year 2002?
(a) 75   (b) 80   (c) 95   (d) 105   (5) None of these

127) If the number of girls passed from College A and College B in year 2001 is equal to 70, then what is the sum of total number of passed students of College A and College B in the same year?
(a) 445   (b) 415   (c) 405   (d) 375   (5) None of these

128) If the number of girls passed from College A in year 2004 is equal to the number of boys passed from College B in year 2002 and it is 105, then what is the difference to total number of students passed from College A in 2004 and College B in year 2002?
(a) 25   (b) 30   (c) 35   (d) 40   (5) None of these

129) If total number of students passed from College A and College B in year 2005 is 400 and 500 respectively, then number of girls passed from College B is how much percent more than the number of girls passed from College A in the same year?
(a) 25/2%   (b)35/2%   (c)20/9   (d)8/7   (5) None of these

130) If the number of girls passed from College A and College B in year 2003 is 200 and 240 respectively, then number of boys passed from College B is what percent of number of boys passed from College A in same year?
(a) 80%   (b) 110%   (c) 120%   (d) 130%   (5) None of these

DI Set- 27:

Direction(131-135):
Study the following line graph which gives the number of students who joined and left the school in the beginning of the year for six years from 1996 to 2001.
Initial strength of the school in 1995 was 3000. Answer questions based on the line graph given below.
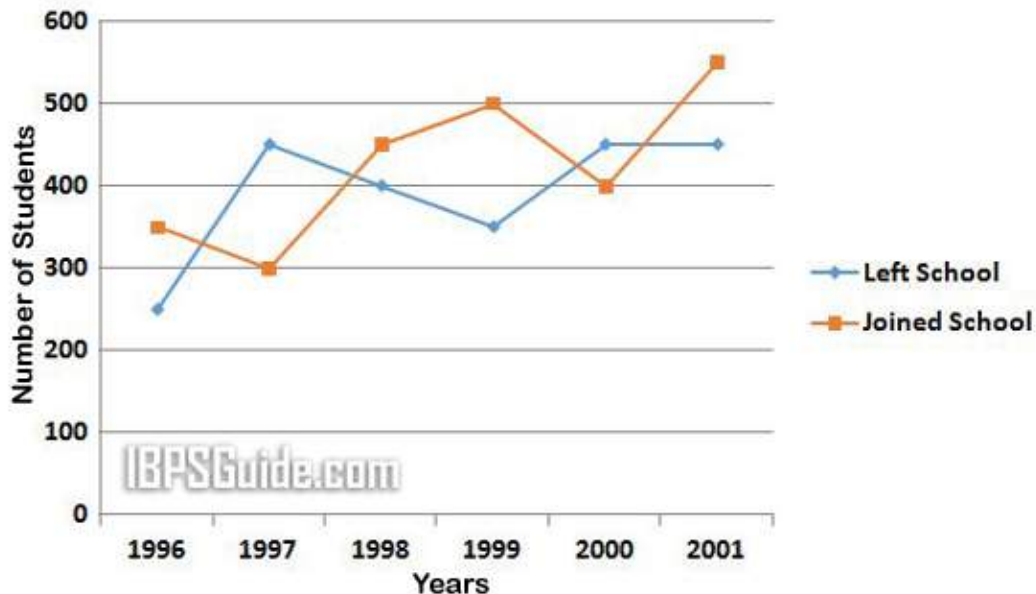
131) The strength of the school increased from 1997 to 1998 by what percent ?
(1) 1.7 %   (2) 1.8 %   (3) 1.9 %   (4) 2 %   (5) None of these

132) The number of students studying in the school during 1999 was :
(1) 3100   (2) 3000 (3) 3150   (4) 3250 (5) None of these

133) During which of the following pairs of years, the strength of the school was same ?
(1) 1997 and 1998 (2) 1998 and 2000 (3) 1999 and 2001 (4) 1996 and 2000   (5) None of these

134) The number of students studying in the school in 1998 was what percent of the number of students studying in the school in 2001 ?
(1) 90.75 %   (2) 91.75% (3) 92.75%   (4) 93.75%

135) Among the given years the largest number of students joined in which year ?
(1) 1999   (2) 2000 (3) 2001   (4) 1998   (5) None of these

DI Set- 28:
Direction(136-140):
Study the given graphs to answer the questions.
Production of wheat in different countries
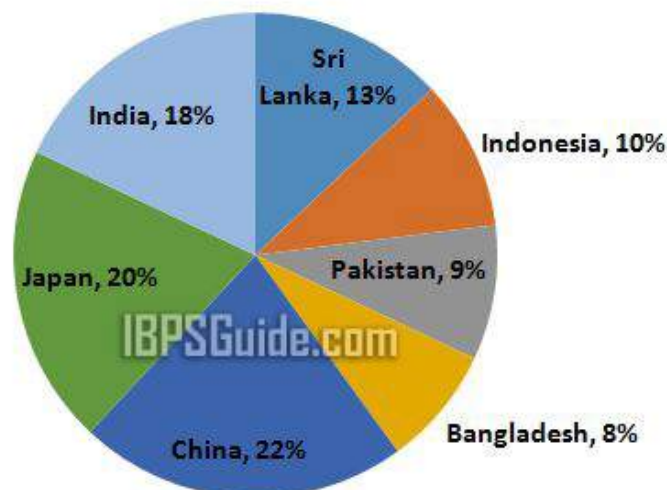
Total Production=50 lakh Tonnes
Production: Scientific Vs Conventional Methods in Percentage

Scientific Method   Conventional method
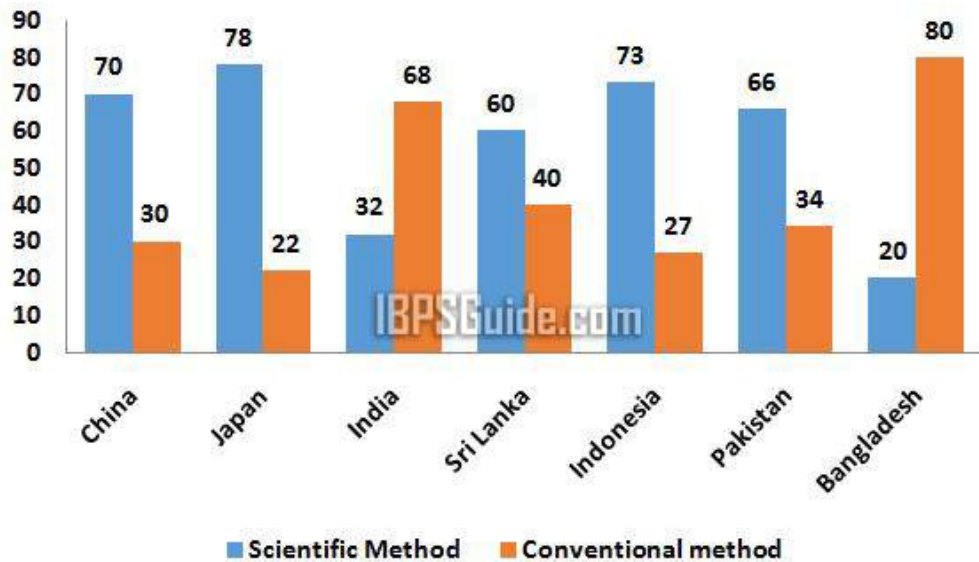
136. What is the difference between the production by scientific method and conventional method in Indonesia?
(1) 2.3 lakh tones   (2) 2.8 lakh tones (3) 2.5 lakh tones   (4) 3 lakh tones (5) None of these

137. What is the average production of wheat by scientific method for all the countries?
(1) 3.1 lakh tones (2) 4.24 lakh tones (3) 2.6 lakh tones   (4) 3.07 lakh tones (5) None of these

138. What is the ratio of production by conventional method in Pakistan to that by scientific method in Japan?
(1) 9/40 (2) 99/260 (3) 51/260   (4) 48/77 (5) None of these

139. The production of wheat in Sri Lanka by Conventional method is approximately how many times the production in India by scientific method?
(1) 1.2 (2) 1.5 (3) 0.9   (4) 2.1 (5) None of these

140. The production of wheat in India by Scientific method is approximately how many times the production in Pakistan by Conventional method?
(1) 2.88   (2) 2.07 (3) 2.61   (4) 0.81 (5) None of these

DI Set- 29:

Direction(141-145):
Study the following information carefully to answer the given question
For a company ABC Ltd, the turnover(in lakhs) and profitability (in %) are given for the year 2015 for its five products P, Q, R, S and T

Turn over of company ABC Ltd

IBPSGuide.com
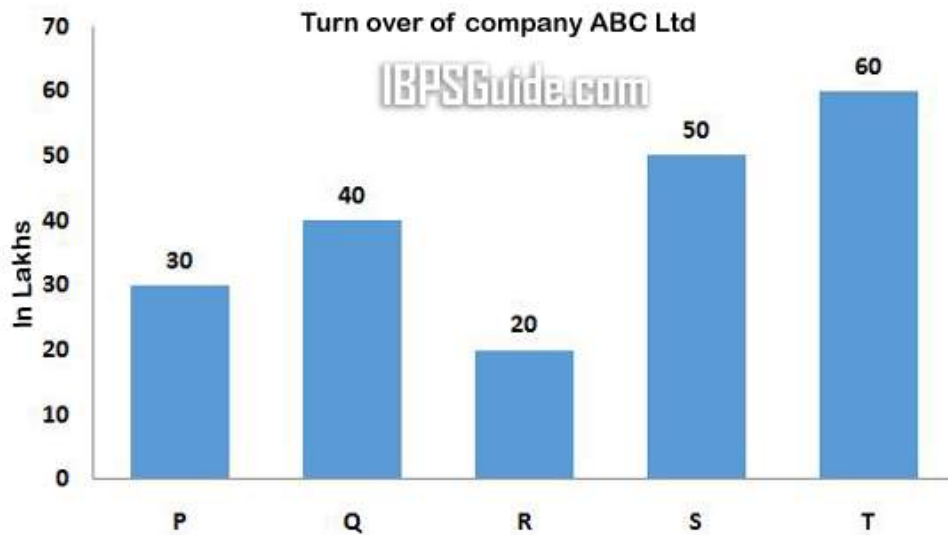
Product	Profitability (%)
P	-
Q	10
R	-
S	7.5
T	20

Note : Investment + Profit = Turnover

141) If profit % of R is 5% greater than Q.What is the approximation profit earned by Product R ?
1).1.5 lakh 2).3.2 lakh 3).2.6 lakh 4).4.3 lakh 5).None of these

142) Product P and Product T together enjoys approximately what percentage share of the total Profit(Profit % of P and T are equal) ?
1).52% 2).61% 3).37% 4).45% 5).None of these

143) Which Product has contributed the maximum Total earning of ABC Ltd ?
1).T 2).S 3).P 4).R 5).None of these

144) What is the approximate total profit of ABC ltd in the year 2015. ?
1).22.6 lakh 2).26.5 lakh 3).25 lakh 4).24.7 lakh 5).None of these

145) The profit earned by Product Q is Approximately what % of the profit earned by product T ?
1).17% 2).36% 3).27% 4).31% 5).None of these

DI Set- 30:

Direction(146-150):
Study the given pie-Chart and Bar Graph carefully and answer the Questions given below
Percentagewise distribution of employees in 5 different Organizations in a state

Total No. of Employees = 1,32,500
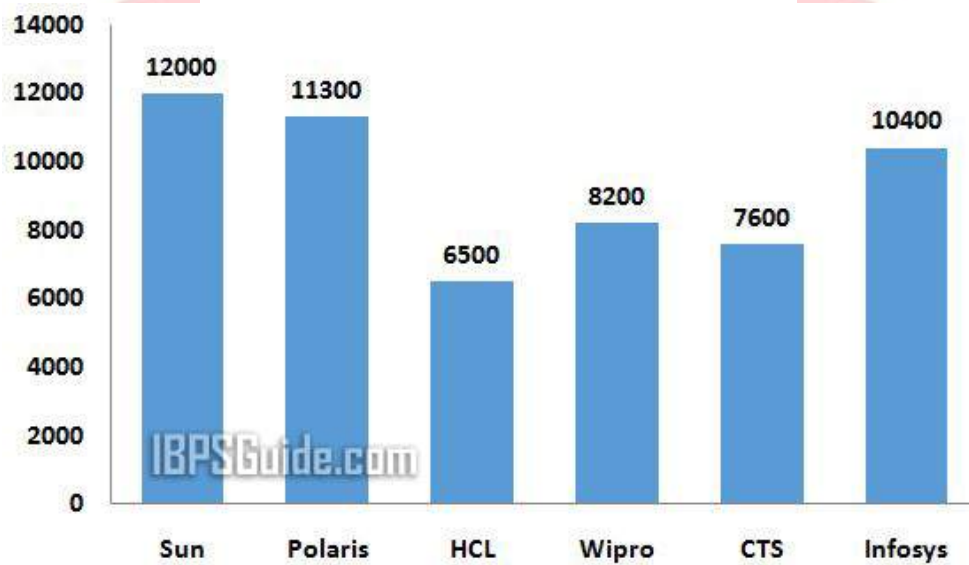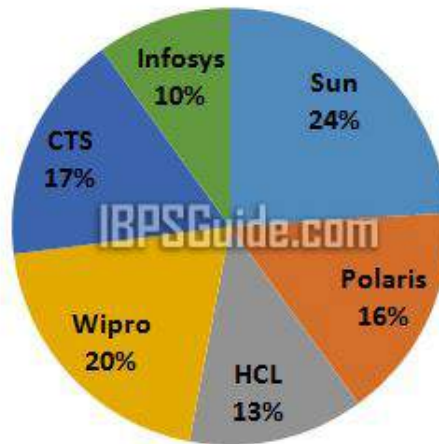
Number of Female employees out of the total employees

146). What is the total number of female employees in Wipro and male employees in Sun and Infosys ?
1).28900 2).30850 3).32600 4).26980 5).None of these

147). What is the difference between the total number of employees in Polaris to the number of male employees in HCL ?
1).10500 2).10000 3).10725 4).10475 5).None of these

148). Which of the following Organizations has more number of female employees than male employees ?
1).Wipro 2).Sun 3).Infosys 4).CTS 5).None of these

149). The number of male employees in CTS is approximately what % of the total number of employees in Sun ?
1).47%   2).32% 3).51% 4).28% 5).None of these

150). What is the average number of male employees in Wipro, Polaris and CTS ?
1).12560 2).15220 3).13725 4).14375 5).None of these

Detailed Solution for (Set- 21 to 30)

Solution (101-105):

101) Answer: A)

Average number of females
= [12% of 20% of 40250 + 18% of 20% of 40250 + 32% of 40% of 40250 + 8% of 60% of 40250 +14% of 40%
of 40250 +16% of 10% of 40250]/6
=12397/6 = 2066

102) Answer: C)
Female workers in Gaming = 18% of 20% of 40250 = 1449
% = [Female workers in Gaming / Total no of people working in night shifts from all industries]*100
= [1449/40250] *100
= 3.6%

103) Answer: D)
Total number of female workers = 12397 (From question 1)
Total number of male workers = 40250 – 12397 = 27853
Difference between male & female workers = 27853 – 12397 = 15456
% = [Difference between male & female workers/Total workers]*100 = 38.4%

104) Answer: C)
Female workers in Marketing = 14% of 40% of 40250 = 2254
According to question, Female workers in Marketing = 3206
Difference = 952
After Increment, no of females = Total number of female workers + 952 = 12397(From question 1) + 952 = 13349
% = [13349/40250]*100 = 33.16%

105) Answer: A)
Sales = 8% of 40% of 40250 = 1288
IT = 12% of 80% of 40250 = 3864
Marketing = 14% of 60% of 40250 = 3381
Gaming = 18% of 80% of 40250 = 5796

Solution (106-110):
106) Answer: A)
Number of Post graduate employees in Company H = 3360 *(80/100) = 2688
Number of female post graduate employees in Company H = 2688 – 1800 = 888
Required Percentage = (888 * 100)/1200 = 74%

107) Answer: D)
Company A : ([7/12 * (2568)] / 2568)*100 = 58.33%
Company B : ([5/16 * (2880)] / 2880)*100 = 31.25%
Company C : ([11/21 * (2310)] / 2310)*100 = 52.38%
Company D : ([2/5 * (3575)] / 3575)*100 = 40%
Company E : ([6/13 * (2054)] / 2054)*100 = 46.15%
Company F : ([21/41 * (2788)] / 2788)*100 = 51.21%
Company G : ([7/15 * (3720)] / 3720)*100 = 46.66%
Company H : ([5/14 * (3360)] / 3360)*100 = 35.71%

108) Answer: D)
= [2880 * (11/16)/ 2310 * (11/21) + 3360 * (9/14)/ 3575 * (2/5)] = (1980 + 2160)/(1210 + 1430) = 414/264 = 69:44

109) Answer: C)

Average number of post graduate employees in companies A, B and D = (1926 + 1872 + 2145)/3 = 5943/3 = 1981
Average number of post graduate employees in companies F, G and H = (2091 + 2046 + 2688)/3 = 6875/3 = 2275
Difference = 2275 – 1981 = 294

110) Answer: D)
Company A – 2568/16 = 160.5 ; Company B – 2880/18 = 160
Company C – 2310/14 = 165 ; Company D – 3575/22 = 162.5
Company E – 2054/13 = 158 ; Company F – 2788/17 = 164
Company G – 3720/24 = 155 ; Company H – 3360/21 = 160

Solution (110-115):
111) Answer: B)
Mumbai + Hyderabad = 12,25,000
Hyderabad – Mumbai = 55000
Hyderabad = 640000; Mumbai = 585000
Urban population of Mumbai and Hyderabad = 7/13* 585000 + 3/10 * 640000 = 507000
Percentage = (507000 / 12,25,000)*100 = 41%

112) Answer: B)
Mumbai = 105000 + 480000 = 585000
Rural Population = 6/13 * 585000 = 270000
Urban Population = 7/13 * 585000 = 315000
Percentage = (Difference / Rural Population)*100 = (45000/ 270000)*100 = 17%

113) Answer: D)
1/4 * Hyderabad = 1,60,000 =>Hyderabad = 6,40,000
Literate population of Hyderabad = 7/16 * 6,40,000 = 2,80,000
Literate population of Chennai = 295200
Literate population of Bangalore = 211200
Total number of Literate = 786400
Total population of three = 1735000
Percentage =786400/1735000 * 100 = 45%

114) Answer: C)
Sum = 7/10 * 615000 + 7/16 *480000 = 430500+ 210000 = 640500

115) Answer: C)
Literate graduates in Hyderabad = 1/5 * literate graduates in Chennai
Literate graduates in Chennai = 55/100 * 615000 = 338250
Literate graduates in Hyderabad = 1/5 * 338250 = 67650
Literate graduates in Bangalore = 65/100 * 480000 = 312000
Diff = 312000 – 67650 = 244350

Solution (116-120):
116) Answer: E)
50% of (64.8/360 * 30000)
= 50/100 * 5400 = 2700

117) Answer: A)
60% of (86.4/360 * 40000) = 60/100 * 9600
= 5760

118) Answer: B)

Total = 30000/(360 * 100) [54 * 40 + 90 * 55 + 64.8 * 50 + 50.4 * 60 + 43.2 * 45 + 57.6 * 60]

30000/(360 * 100) [2160 + 4950 + 3240 + 1944 + 3456]

30000/36000 * 18774 = 15645

119) Answer: B)

Total boys = 4000 + 4800 + 1800 + 1600 + 2880 + 5760 = 20840

Total girls = 40000 - 20840 = 19160

Diff = 20840 - 19160 = 1680

120) Answer: E)

E-Boys2012 = 43.2/360 * 30000 * 55/100 = 1980

C-Boys2013 = 36/360 * 40000 * 45/100 =1800

Req% = 1980 * 100/1800 = 110%

Solution (121-125):

121) Answer: A)

total no. of car produced in 2009 - 100000 + 100000 ×

a.= 108000 cars.

no. of the Alto produced in 2009 - 27000 cars.

total no. of car produced in 2010 - 108000 + 100000 × .09 =117720

no of Alto produced in 2010 = 32961.6

% increase = [(32961.6-27000)/27000]*100 = 22.08% approx 22%

122) Answer: D)

Maruti Ritz produced in the year 2009 = 108000 × 22/100 = 23760

required % = 23760/100000= 23.76% approx. 24%

123) Answer: D)

car produced in 2011 is - 134400

car produced in 2010 - 134400/1.12 = 12,0000

Maruti esteem produced in the year 2010 -120000*12/100 = 14400 car

124) Answer: E)

Ratio will be = (will be direct ratio of %)

= 2:3

125) Answer: E)

production of car in 2009 - 140000

in 2010 - 140000 + 1400000 ×.09= 152600

2011 - 152600 × 1.12 = 170912

Avg.=(140000+152600+170912)/3=154504

Solution (126-130):
126) Answer: D)

Total number of passed students of College A =(100*220)/55 = 400

Number of girls passed = 45% of 400 = 180

Total number of passed students of College= (100*175)70 = 250

Number of girls passed = 30% of 250 = 75
Difference = 180 – 75 = 105

127) Answer: D)
For College A,
35% of girls = 70
Total student =(70*100)/35   = 200
For College B,
40% of girls = 70
Total student = (70*100)/40 = 175
Sum = 200 + 175 = 375

128) Answer: A)
Total students passed of College A in 2004 = 175
Total students passed of College B in 2002 = 150
Difference = 175 – 150 = 25

129) Answer: C)
Number of girls passed of College= (44*400)/100 =176 Number of girls passed of College B =(36*500)/100 = 180
% difference = [(180-176)/180]*100=20/9

130) Answer: D)
Number of girls passed from College A = Number of boys passed from College A = 200
Number of girls passed from College B = 48% = 240
Total passed=(240/200)*48=500
Number of boys passed=52% of 500 = 260
%=(260/200)*100=130%

Solution (131-135):
131) Answer: A)
Let analyse the graph before answering question.
Number of students in 1995 = 3000 [given]
Number of students in 1996 = 3000-250+350 = 3100
Number of students in 1997 = 3100-450+300 = 2950
Number of students in 1998 = 2950-400+450 = 3000
Number of students in 1999 = 3000-350+500 = 3150
Number of students in 2000 = 3150-450+400 = 3100
Number of students in 2001 = 3100-450+550 = 3200
Above analysis will help us solving problems for this line graph.
Lets be back on question now,
Percentage increase in strength of the school from 1997 to 1998 will be,
= ((3000−2950)/2950∗100)%=1.69%
So this is approx equal to 1.7%

132) Answer: C)
Number of students in 1995 = 3000 [given]
Number of students in 1996 = 3000-250+350 = 3100
Number of students in 1997 = 3100-450+300 = 2950
Number of students in 1998 = 2950-400+450 = 3000
Number of students in 1999 = 3000-350+500 = 3150

133) Answer: D)

Number of students in 1995 = 3000 [given]
Number of students in 1996 = 3000-250+350 = 3100
Number of students in 1997 = 3100-450+300 = 2950
Number of students in 1998 = 2950-400+450 = 3000
Number of students in 1999 = 3000-350+500 = 3150
Number of students in 2000 = 3150-450+400 = 3100
Number of students in 2001 = 3100-450+550 = 3200
From from above options we find in 1996 and 2000 number of students was same i.e. 3100

134) Answer: D)
Number of students in 1995 = 3000 [given]
Number of students in 1996 = 3000-250+350 = 3100
Number of students in 1997 = 3100-450+300 = 2950
Number of students in 1998 = 2950-400+450 = 3000
Number of students in 1999 = 3000-350+500 = 3150
Number of students in 2000 = 3150-450+400 = 3100
Number of students in 2001 = 3100-450+550 = 3200
In 2001 students = 3200
In 1998 students = 3000
Required Percentage =(3000/3200∗100)%=**93.75%**

135) Answer: C)
Clearly from the line graph we can judge it was in year 2001.

Solution (136-140):
136) Answer: A)
Production In Indonesia = 50 x 10/100 = 5 lakh tones
Difference= 5 x (73 – 27) /100 = 2.3 lakh tones

137) Answer: B)
Production of wheat by scientific method in
India= 50 x (18/100) x (32/100) = 2.88 lakh tones
Japan = 50 x (20/100) x (78/100) = 7.8 lakh tones
China= 50 x (22/100) x (70/100) = 7.7 lakh tones
Bangladesh= 50 x (8/100) x (20/100) = 0.8 lakh tones
Pakistan= 50 x (9/100) x (66/100) = 2.97 lakh tones
Indonesia= 50 x (10/100) x (73/100) = 3,65 lakh tones
Sri Lanka= 50 x (13/100) x (60/100) = 3.9 lakh tones
So Avrg = (2.88 + 7.8 + 7.7 + 0.8 + 2.97 + 3.65 + 3.9)/7 = 4.24 lakh tones

138) Answer: C)
Production by conventional method in Pakistan = 50 x (9/100) x (34/100) = 1.53 lakh tones
Production by scientific method in Japan= 7.8 lakh tones
Required ratio= 1.53 : 7.8 = 51 : 260

139) Answer: C)
Production of wheat in Sri Lanka by Conventional method= 50 x (13/100) x (40/100) = 2.6 lakh tones
Production in India by scientific method= 50 x (18/100) x (32/100) = 2.88 lakh tones
According to question, 2.88 X x = 2.6
x = 2.6/2.88 = 0.9 times

140) Answer: E)

Production of wheat in India by Scientific method= 50 x (18/100) x (32/100) = 2.88 lakh tones
Production in Pakistan by Conventional method=50 x (9/100) x (34/100) = 1.53 lakh tones
According to question = 2.88/1.53 = 1.88 times

Solution(141-145):
141) Answer: C)
R Profit % = 15%
Investment = 20/1.15 = 17.4
Profit = Turnover-investment =20-17.4 = 2.6 lakh

142) Answer: A)
Profit of P = 30/1.2 * 20/100 = 5
Profit of Q = 40/1.1 * 10/100 = 3.6
Profit of R = 2.6
Profit of S = 50/1.075*1.75/100 = 3.5
Profit of T = 60/1.2 *20/100 = 10
Total Profit = 24.7
P & T = 5+10/24.7 *100 = 60.72 = 61%

143) Answer: A)
Profit of P = 30/1.2 * 20/100 = 5
Profit of Q = 40/1.1 * 10/100 = 3.6
Profit of R = 2.6
Profit of S = 50/1.075*1.75/100 = 3.5
Profit of T = 60/1.2 *20/100 = 10

144) Answer: D)
Profit of P = 30/1.2 * 20/100 = 5
Profit of Q = 40/1.1 * 10/100 = 3.6
Profit of R = 2.6
Profit of S = 50/1.075*1.75/100 = 3.5
Profit of T = 60/1.2 *20/100 = 10
Total Profit = 24.7lakh

145) Answer: B)
Profit of Q = 40/1.1 * 10/100 = 3.6
Profit of T = 60/1.2 *20/100 = 10
% = 3.6*100/10 = 36%

Solution (146-150):
146) Answer: B)
Sun = 24*132500/100 = 31800
Infosys = 10*132500/100 = 13250
Total = 8200+(31800-12000) + (13250-10400)
= 8200+19800+2850 = 30850

147) Answer: D)
Polaris = 132500*16/100 = 21200
HCL = 132500*13/100 = 17225
HCL male = 17225 – 6500 = 10725
Difference = 21200-10725 = 10475

148) Answer: C)

Org	F	M
Sun	12000	19800
Polaris	11300	9900
HCL	6500	10725
Wipro	8200	18300
CTS	7600	14925
Infosys	10400	2850

149) Answer: A)
CTS M = 14925
Sun Total = 31800
% = 14925*100/31800 = 46.9 = 47%

150) Answer: D)
Avg = 9900+18300+14925/3 = 14375

Questions (Set 31 to 40)

DI Set- 31:

Direction(151-155):
Study the following table and Pie-Chart carefully and answer the following questions given below.
Number of students studying in different streams in six engineering colleges

Colleges	Mechanical	Civil	Computer Science	Bio Technology	Aerospace	Electrical and Electronics
A	254	230	170	166	125	285
B	240	265	188	152	147	233
C	250	270	220	180	165	205
D	275	256	155	174	145	220
E	225	185	265	220	185	240
F	195	225	165	155	125	215

Pie-charts show the distribution of students in different cities in colleges B and D.
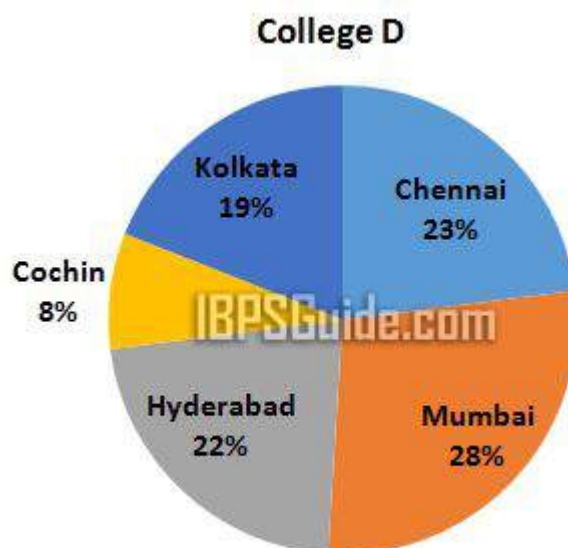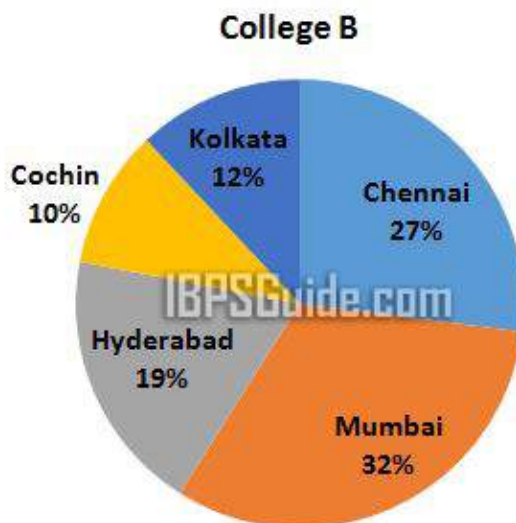
College B

College D

151) What is the approximate percentage of the number of students pursuing Aerospace engineering to that of those pursuing mechanical engineering in the given six colleges?
A.55% B.58% C.60% D.62% E.65%

152) How many students doing in Bio Technology in College D, were from Chennai?
A.35 B.60 C.55 D.62 E.Cannot be determined

153) What is the difference between the number of students from Mumbai in colleges B and D?
A.38 B.40 C.42 D.49 E.Cannot be determined

154) What is the approximate percentage between the number of students from Cochin in college D to that of those from Kolkata in college B?
A.50% B.54% C.67% D.76% E.82%

155) What is the difference between the number of students pursuing Civil engineering and those pursuing Electrical and Electronics engineering in the given six colleges?
A.23   B.30 C.33 D.40 E.43

DI Set- 32:

Direction(156-160):

Refer to the table and answer the given questions.

Total Number of People = 15000

Professions	% of People	% of Females	% of Males
Medical	13	62%	-
Engineering	-	-	58%
Banking	21	52%	-
Law	9	-	56%
Teaching	16	65%	-
Management	-	-	54%

156) If the % of people in Engineering is 9% more than the % of people in Management. What is the difference between the number of males from management and the females from Engineering professions?
A.242 B.256 C.279 D.285 E.None of the Above

157) If the total % of people in Management Profession is 16%. Then the total number of people in Banking Profession is approximately what percent of the total number of people in Engineering Profession?
A.65 % B.77 % C.84 % D.92 % E.117 %

158) What is the ratio of the number of males in banking profession to the number of females in law profession?
A.11:9 B.19:55 C.28:11 D.7:19 E.12:29

159) What is the difference between the total number of males and the total number of females from all the professions together?
A.320 B.360 C.385 D.410 E.None of the Above

160) What is the total number of females in certain professions, where the number of female is more than that of male?
A.4045 B.4407 C.4550 D.4855 E.None of the Above

DI Set- 33:

Direction(161-165):
I. The pie-chart shows sources of income for an NGO. The total income is Rs.40 crore. The bar chart gives the expenditure incurred on various items A – Food for poor, B – Education to illiterate, C – Mid-day deal programme, D – General Expenses, E – Eye Camp expenses, F – Integrated Street Children Programme.(in Crores)
Total Expenditure = Rs.39 crore
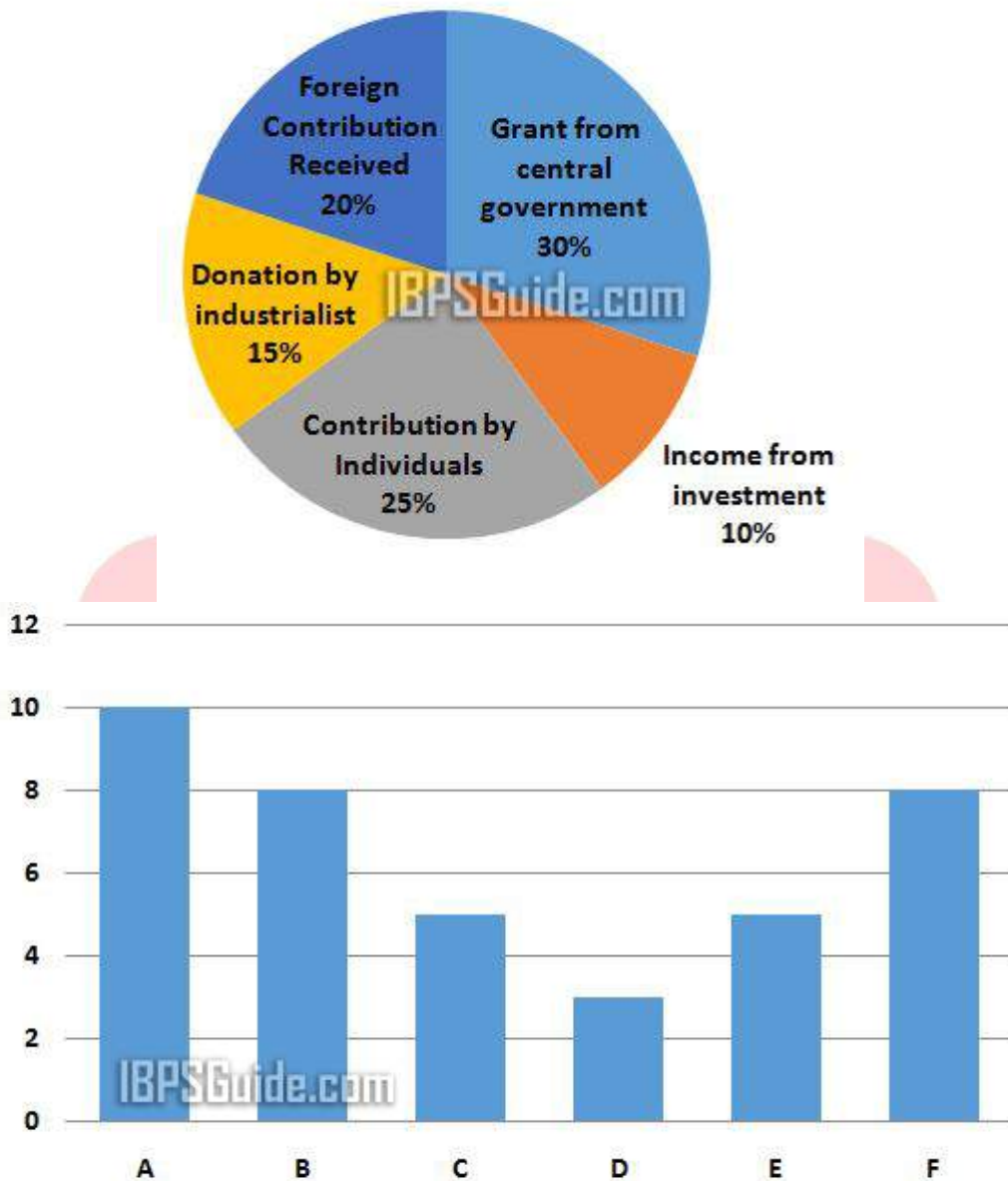
161) What Percentage of money is saved by the NGO?
A. 1.5%   B. 2.5%   C. 1.8%   D. 3.5%

162) If the industrialist stops donation and the expenditure pattern remains the same, then what will be the decrease in money spent for mid-day meal programme?
A. 0.77 crore   B. 0.87 crore   C. 0.93 crore   D. 0.94 crore

163) What is the ratio of expenditure on food for poor and mid-day meal programmes together to that of grant from central government?
A. 1:3   B. 2:3   C. 4:5   D. 5:4

164) The "General expenses" is how many times "income from investment"?
A. 0.75   B. 0.25   C. 1.25   D. 2

165) Suppose in the next year, grant from central government increase by 10%, foreign contribution decreases by 10% and other income amounts remain same. If the expense pattern remains same, what is the percent increase in "Food for Poor"?
A. 2%   B. 3%   C. 1%   D. 4%

DI Set- 34:

Direction(166-170):

Study the bar-chart and pie-chart carefully to answer the given questions.

Working male and female population (in lakh) in various cities

Population (in Lakh)
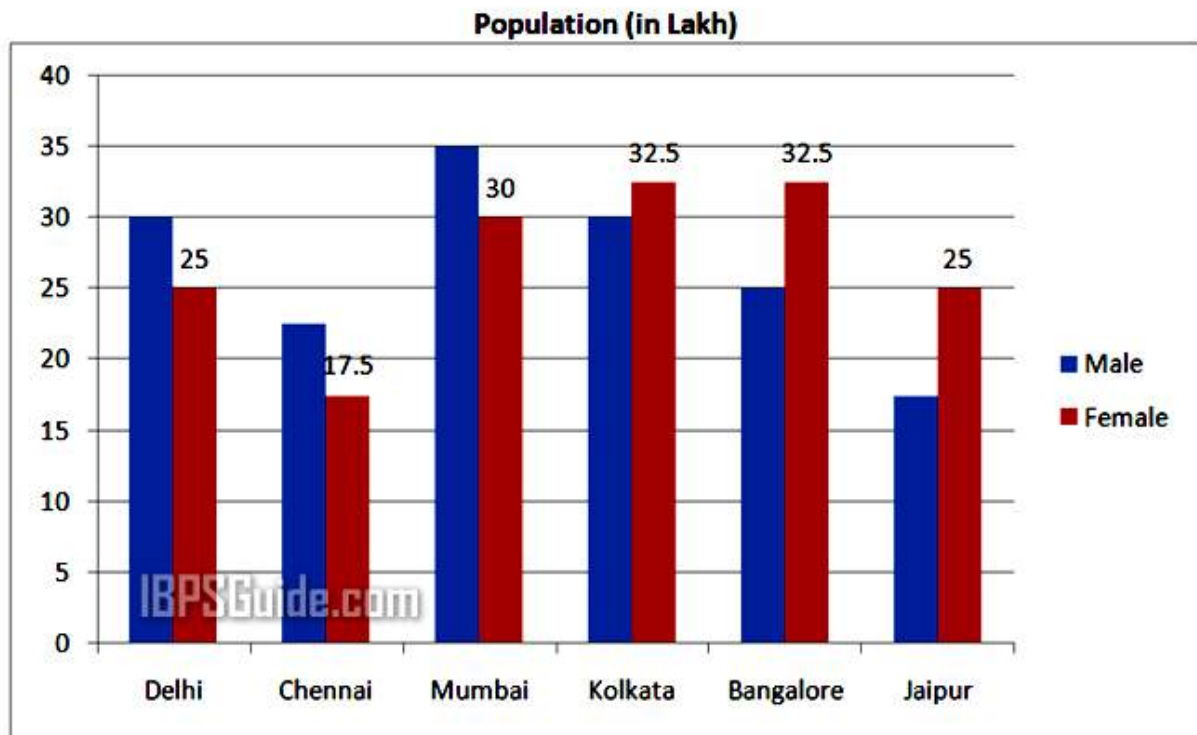
Percentage income of the people among six cities

Total income = Rs.200 Crore
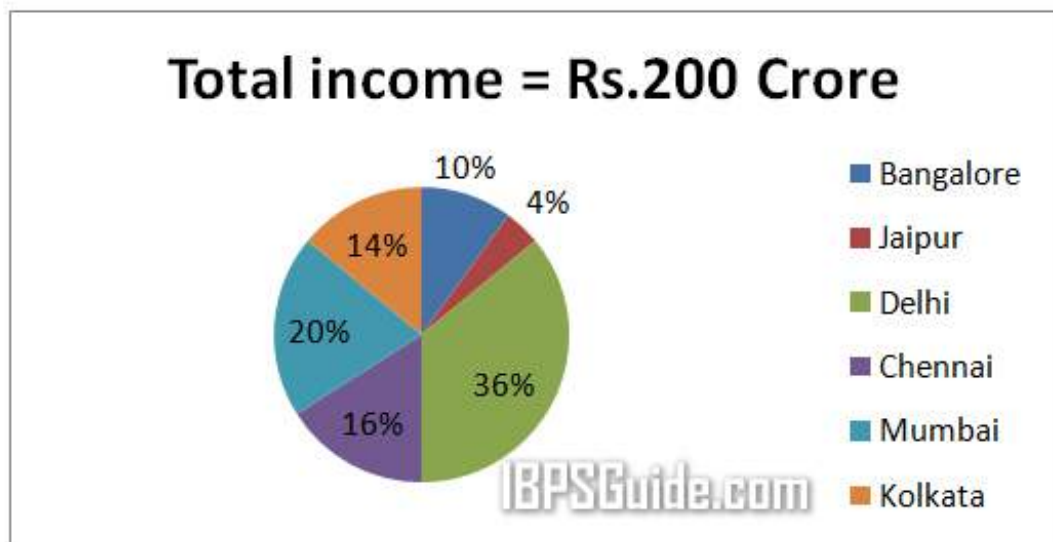
166) What is the difference between the number of working females in Bangalore and the number of working males in Chennai?
a) 12.5 lakh b) 11 lakh c) 9 lakh d) 12 lakh e) 10 lakh

167) In which city is the income per working person the minimum?
a) Delhi   b) Jaipur   c) Bangalore   d) Chennai e) Mumbai

168) What is the sum of the average working male and average working female population of the given six cities (calculate approximate value)?
a) 63.35 lakh   b) 49.96 lakh   c) 51.48 lakh   d) 53.75 lakh   e) 65.51 lakh

169) In Delhi, what is the difference between the income of males and that of females? (Assume each person (male/female) has equal income.)
a) Rs.6.545 Crore   b) Rs.5.055 Crore   c) Rs.2.935 Crore   d) Rs.3.455 Crore   e) Rs.4.565 Crore

170) The number of working females in Mumbai is what percent of the number of working males in Bangalore?
a) 95%   b) 110%   c) 120%   d) 132%   e) 144%

DI Set- 35:

Direction(171-175):
Study the pie-chart and line graph carefully to answer the given questions

The pie-chart shows the percentage of train accidents in different years
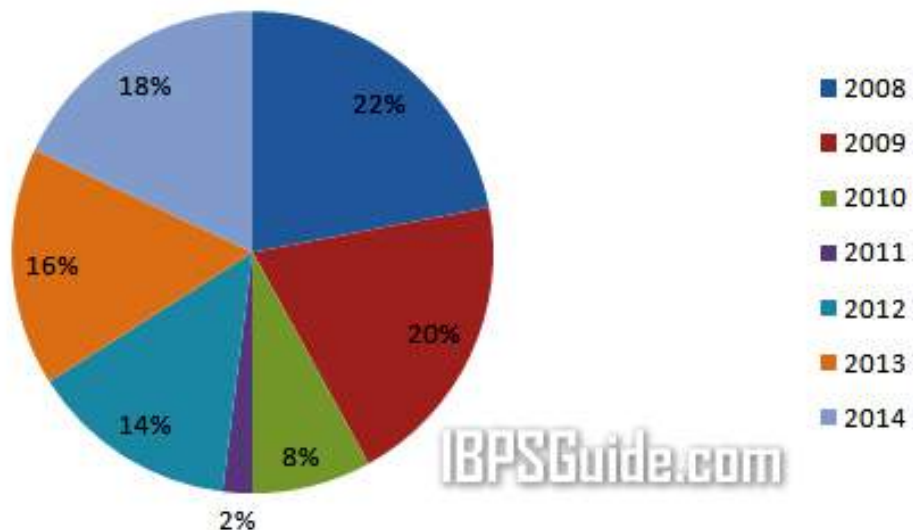
The line graph shows the number of persons who died in train accidents in various states in different years
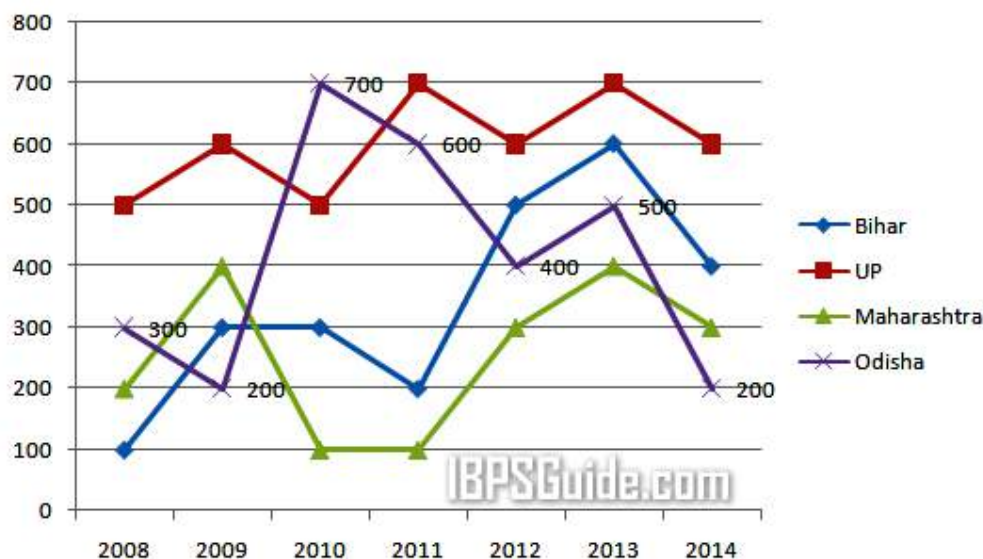
171) The number of persons who died in train accidents in 2013 is how much percent more than the number of persons who died in the train accident in 2011?
a) 143.5%   b) 137.5%   c) 37.5%   d) 127.5%   e) 147.5%

172) What is the average of the number of persons who died in train accidents in 2008 in all states together?
a) 182   b) 290   c) 275   d) 284   e) 307

173) In which state is the number of persons who died in the train accidents the maximum during the given period?
a) Odisha   b) UP   c) Bihar   d) Only a) and b)   e) Maharashtra

174) What is the difference between the number of train accidents in 2014 and that in 2012?
a) 5   b) 6   c) 7   d) 8   e) 9

175) What is the ratio of the number of persons who died in train accidents in 2010 to that in 2014?
a) 8 : 7   b) 10 : 9   c) 12 : 11   d) 14 : 13   e) 16 : 15

DI Set- 36:

Direction(176-180):
Study the given bar graph and pie chart to answer the following questions.
The bar graph shows the production (in thousand tones) of Wheat, Rice and Maize in different states.
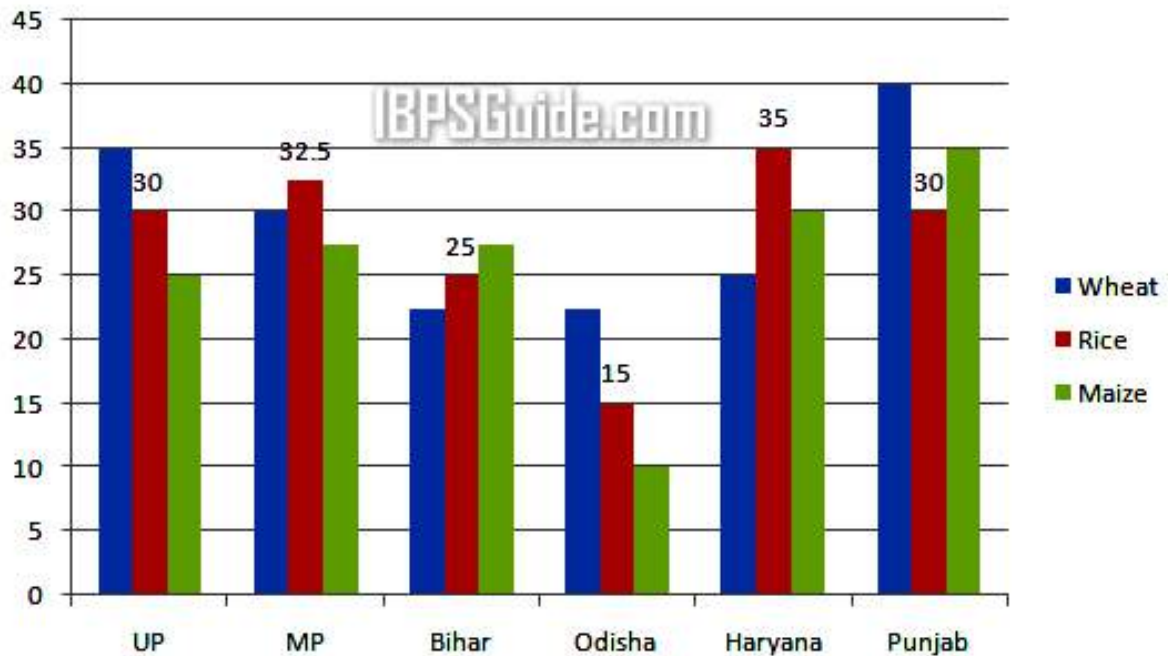
The pie-chart shows the percentage of agricultural land in the given six states.
Productivity = Total production / Area of agricultural land

Total agricultural land = 2 lakh Sq km
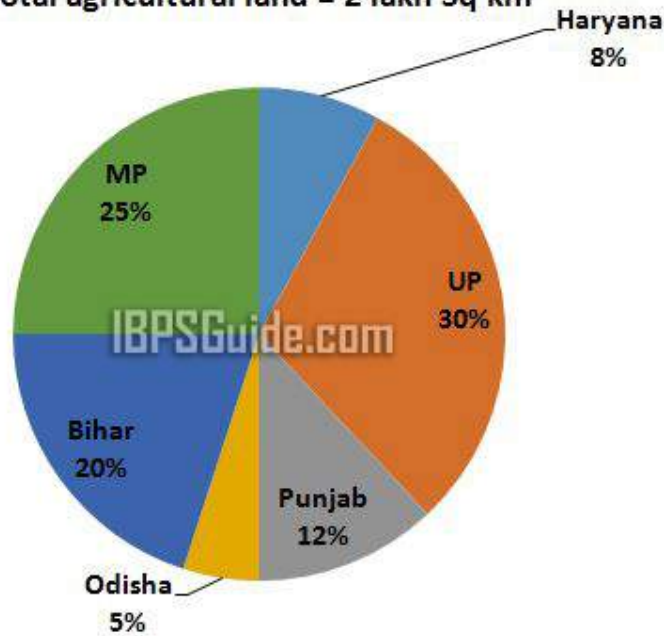
176) The productivity of which state is the maximum?
a) Bihar b) Haryana c) Punjab d) UP e) MP

177) The production of which state is the maximum?
a) Bihar   b) MP c) Haryana d) UP e) Punjab

178) The production of wheat in Punjab is what percent more than the production of Maize in Odisha?
a) 350%   b) 250%   c) 300% d) 200% e) 400%

179) What is the ratio of the production of Rice in Bihar to the production of Wheat in Haryana?
a) 2 : 3   b) 3 : 2 c) 2 : 1 d) 1 : 1 e) 1 : 2

180) If MP exports 40% of Rice at the rate of Rs.30 per kg and UP exports 30% of Rice at the rate of Rs.32 per kg, then what is the ratio of the incomes from the exports?
a) 65 : 48   b) 31 : 42 c) 43 : 54 d) 57 : 62 e) 1 : 2

DI Set- 37:

Direction(181-185):
Two different finance companies declare fixed annual rate of interest on the amounts invested with them by investors. The rate of interest offered by these companies may differ from year to year depending on the variation in the economy of the country and the banks rate of interest. The annual rate of interest offered by the two Companies P and Q over the years is shown by the line graph provided below.

181. A sum of Rs. 4.75 lakhs was invested in Company Q in 1999 for one year. How much more interest would have been earned if the sum was invested in Company P?
A.Rs 19,000 B.Rs.14, 250 C.Rs.11, 750 D.Rs. 9,500 E. None of these

182. If two different amounts in the ratio 8:9 are invested in Companies P and Q respectively in 2002, then the amounts received after one year as interests from Companies P and Q are respectively in the ratio?
A.2:3 B. 3:4 C.6:7 D. 4:3 E. None of these

183. In 2000, a part of Rs. 30 lakhs was invested in Company P and the rest was invested in Company Q for one year. The total interest received was Rs. 2.43 lakhs. What was the amount invested in Company P?
A. Rs.9 lakh B. Rs.11 lakh C.Rs. 12 lakh D.Rs.18 lakh E. None of these

184. An investor invested a sum of Rs. 12 lakhs in Company P in 1998. The total amount received after one year was re-invested in the same Company for one more year. The total appreciation received by the investor on his investment was?
A. Rs. 2, 96,200 B. Rs. 2, 42,200 C. Rs. 2, 25,600 D. Rs. 2, 16,000 E. None of these

185. An investor invested Rs. 5 lakhs in Company Q in 1996. After one year, the entire amount along with the interest was transferred as investment to Company P in 1997 for one year. What amount will be received from Company P, by the investor?
A. Rs. 5, 94,550 B. Rs. 5, 80,425 C. Rs. 5, 77,800 D. Rs. 5, 77,500 E. None of these

DI Set- 38:

Direction(186-190):
Study the table carefully to answer the following questions.

Station	Arrival	Departure time	Distance travelled from origin (in km)	Fare (Rs.)	No. of passengers Boarding the train at each station		No. of passengers deboarding the train at each station	
					Adults	Children	Adults	Children
Kanyakum-ari	Starting	01.00pm	-	0	250	70	-	-
Tirunelveli	03 :00 pm	03 :05 pm	100 km	80	320	90	100	20
Tuticorin	07:00 pm	07 : 10 pm	250 km	200	150	70	50	30
Madurai	11:45 pm	12:05am	430 km	310	100	60	230	50
Tiruchirap-palli	03 : 35 am	03 : 40 am	670 km	450	120	40	80	30
Arakkoram	6 : 30 am	06 : 35 am	820km	590	80	20	90	10
Renigunta	11 : 00 am	Terminates	1140 km	740	-	-	-	-

186) What is the speed of the train running between Kanyakumari and Madurai?
a) 40 kmph b) 60 2/19 kmph c) 62 11/21 kmph d) 50 kmph e) 68 15/22 kmph

187) If there is no any stop between Kanyakumari and Renigunta, then what will be the new speed of the train?
1) 47 5/7 kmph 2) 48 4/9 kmph 3) 49 ½ kmph 4) 50 3/7 kmph 5) 53 11/17 kmph

188) What is the total income of Railways from this train from Kanyakumari to Madurai? (Given – fare for Child is 40% that for an Adult)
1) Rs.163400   2) Rs.155980   3) Rs.173500   4) Rs.184000   5) Rs.1925000

189) What is the ratio of adults to children who arrive at Renigunta?
1) 3 : 5   2) 47 : 21   3) 39 : 41   4) 47 : 51   5) 5 : 19

190) A 10-member family, in which there are 4 children, boards the train at Tuticorin and deboards the train at Arakkonam. What is the fare paid by them? (Given that the ratio of fare of Adult to Child is 5 : 2)
1) Rs.3034   2) Rs.2832   3) Rs.2964   4) Rs.3544   5) Rs.3262

DI Set- 39:

Direction(191-195):
Study the following table chart carefully to answer the question given below:
The table graph shows the monetary policy statement issued by the RBI in different quarters.

Quarters Rate	Q-1	Q-2	Q-3	Q-4	Q-5	Q-6
Repo Rate	7.50%	6.25%	7.25%	7.75%	7.75%	8.50%
Reverse Repo Rate	6.50%	5.25%	6.25%	6.75%	6.75%	7.50%
CRR	4.25%	4.00%	4.50%	4.75%	4.25%	4.50%
SLR	22.50%	23.00%	22.50%	23.50%	22.00%	23.50%
MSF	9.50%	9.75%	8.25%	8.75%	8.25%	9.50%
Bank Rate	9.50%	9.75%	8.25%	8.75%	8.25%	9.50%

191. The difference between the average of the rates of the sixth quarter and that of the third quarter is
a) 0.25   b) 0.50   c) 0.75   d) 1.00   e) None of these

192. What is the sum of the average of MSF and that of Reverse Repo Rate?
a) 14.50   b) 15.50   c) 15.75   d) 15.25   e) None of these

193. The ratio of the sum of the Repo Rates in all the given quarters to that of the Reverse Repo Rates in all the given quarters is
a) 17:13   b) 17:15   c) 15:13   d) 13:15   e) None of these

194. The sum of the Repo Rates in all quarters is what per cent (approx) of the sum of SLR in all quarters?
a) 32.85   b) 32.25   c) 34.35   d) 33.75   e) None of these

195. The average of all the rates in the fourth quarters is what per cent (approx) of the average of all the rates of the first quarters?
a) 100.04   b) 100.48   c) 100.84   d) 100.44   e) None of these

DI Set- 40:
Direction(196-200):

The bar graph provided below gives the data of the production of paper (in lakh tonnes) by three different companies X,Y,Z over the years. Study the bar chart and answer the questions.

196) What is the difference between the production of Company Z in 1998 and Company Y in 1996 ?
a) 10,00,000 tonnes b) 15,00,000 tonnes c) 20,00,000 tonnes d) 25,00,000 tonnes

197) What is the ratio of the average production of Company X in the period 1998-2000 to the average production of company Y in the same period
a) 23:25 b) 24:27 c) 25:26 d) 27:29

198) The average production for five years was maximum for which Company ?
a) 2000 b) 1999 c) 1997 d) 1998

199) What is the percentage increase in the production of Company Y from 1996 to 1999 ?
a) 40% b) 50% c) 55% d) 60%

200) In which year the percentage of production of Company Z to the production of company Y is maximum ?
a) 1998 b) 1996 c) 2000 d) 1999

Detailed Solution for (Set- 31 to 40)

Solution (151-155):
151) Answer: D)
Number of students pursuing Aerospace engineering = 892
Number of students pursuing mechanical engineering = 1439
Percentage = 892/1439 * 100 = 62%

152) Answer: E)
Given data is not sufficient.

153) Answer: D)
Total number of students in college B = 1225
Number of students from Mumbai in college B = 1225 * (32/100) = 392
Total number of students in college D = 1225
Number of students from Mumbai in college D = 1225 * (28/100) = 343
Difference = 392 – 343= 49

154) Answer: C)
Number of students from Kolkata in college B = 1225 * (12/100) = 147
Number of students from Cochin in college D = 1225 * (8/100) = 98
Percentage = 98/147 *100 = 67%

155) Answer: C)
Number of students pursuing Civil engineering = 1431
Number of students pursuing Electrical and Electronics engineering =1398
Difference = 33
Solution(156-160):
156) Answer: C)
% of People in Management = x ; % of People in Engineering = y
x + y = 100% -59% = 41%
x + y = 41
y – x = 9 => Engineering = 25% ; Management = 16%
Males from Management = 54/100* 2400 = 1296
Females from Engineering = 42/100 * 3750 = 1575
Difference = 1575 – 1296 = 279

157) Answer: C)

Engineering = 100 – Others = 100 – 75 = 25%

Required Percentage = (21/25)*100 = 84%

158) Answer: C)

Number of males in banking profession = 48/100 * 3150 = 1512

Number of females in law profession = 44/100 * 1350 = 594

Ratio = 1512 : 594 = 28:11

159) Answer: B)

Total number of Males = 15000*(13*38 + 25*58 + 21*48 + 9*56 + 16*35 + 16*54) / 100 * 100 = 7320

Total number of Females = 15000 – 7320 = 7680

Difference = 7680– 7320 = 360

160) Answer: B)

The number of female is more than that of male in Medical, Banking and Teaching.

Total = 1209+1638+1560 = 4407

Solution (161-165):

161) Answer: B)

Total income = Rs.40 crore

Total Expenditure = Rs.39 crore

% of money is saved by the NGO = [(40-39)/40]*100 = 2.5%

162) Answer: A)

Decrease in Income = 15% of 40 crore

New Income = 85% of 40 crore = 34 crore

percentage of expenditure on midday meal = (5/39)*100 = 12.8%

New Expenditure after gradual decrease is expenditure with respect to income = (39/40)*34 = 33.15crore

Expenditure on midday meal = (12.8/100)*33.15 = 4.24 crore

Decrease in Expenditure on midday meal = 5 – 4.24 = 0.77 crore

163) Answer: D)

Expenditure on food for poor = 10 crore

Expenditure on food for mid-day meal programme = 5 crore

Total Expenditure = 15 crore

Grant from central Government = 30% of 40 crore = 12 crore

Ratio = 15:12 => 5:4

164) Answer: A)

General Expenses = 3 crore

Income from Investment = 10% of 40 crore = 4 crore

"General expenses" is x times "income from investment" then

3 = 4x

x = 3/4 = 0.75

165) Answer: C)

Grant from central government = 30% of 40 crore = 12 crore

After increase 10% = 110% of 12crore = 13.2 crore

foreign contribution = 20% of 40 crore = 8 crore

After 10% decrease in foreign contribution = 90% of 8 crore = 7.2 crore

Total increase in donation = [13.2 + 7.2] – [12 + 8] = 0.4 crore

Gradual increase in expenditure = (39/40)*40.4 = 39.39 crore

Gradual increase in A =(10/39)*39.4 = 10.10 crore

% increase = (0.10/10)*100 = 1%

Solution (166-170):
166) Answer: E)
The difference between the working females in Bangalore and the working males in Chennai = 32.5 − 22.5 = 10 lakh

167) Answer: B)
Income per working person = Total income of city / Number of working people in city
Income per working person in Delhi = 200

Crore x 36/100 ∕ (30+25) Lakh = 72   ∕ 55   = Rs.130.9
In Chennai = 200 x 16/100 ∕ (22.5+17.5) Lakh = Rs.80
In Mumbai = 200 x 20/100 ∕ (35+30) Lakh = Rs.61.53
In Kolkata = 200 x 14/100 ∕ (30+32.5) Lakh = Rs.44.8
In Bangalore = 200 x 10/100 ∕ (25+32.5) Lakh = Rs.34.78
In Jaipur = 200 x 4/100 ∕ (17.5+25) Lakh = Rs.18.82
The income per working person in Jaipur is the minimum.

168) Answer: D)
Average number of working males = $1/6 \times (30 + 22.5 + 35 + 30 + 25 + 17.5)$ = 26.66 lakh
Average number of working females = $1/6 \times (25 + 17.5 + 30 + 32.5 + 32.5 + 25)$ =27.08 lakh
So, required sum = 26.66 + 27.08 = 53.75 lakh

169) Answer: A)
Total income of Delhi = $[200 \times 36/100]$ = Rs.72 Crore
Income per person = 72 Crore / 55 Lakh = Rs.130.9
So, required difference of income = 5 lakh $\times$ 130.9 = Rs.654.5 lakh
= Rs.6.545 Crore

170) Answer: C)
Required % = $30/25 \times 100$ = 120%
Solution (171-175):
171) Answer: C)
The number of people who died in train accidents in 2013 = 400 + 500 + 600 + 700 = 2200
The number of people who died in train accidents in 2011 = 100 + 200 + 600 + 700 = 1600
So, required % = 2200 – 1600 x 100 ∕ 1600 = 37.5%

172) Answer: C)
Average number of people who died in train accidents in all states in 2008 = $1/4 \times (100 + 200 + 300 + 500)$ = 1100/4 = 275

173) Answer: B)
The number of deaths in train accidents in Bihar = 100 + 300 + 300 + 200 + 500 + 600 + 400 = 2400
Similarly, in UP = 500 + 600 + 500 + 700 + 600 + 700 + 600 = 4200
In Maharashtra = 200 + 400 + 100 + 100 + 300 + 400 + 300 = 1800
In Odisha = 300 + 200 + 700 + 600 + 400 + 500 + 200 = 2900
In UP the number of people who died in train accidents is the maximum.
Quicker method it is clear from the graph that the highest number of people died in UP.

174) Answer: D)
The number of train accidents in 2014 = $200 \times 18/100$ = 36
The number of train accidents in 2012 = $200 \times 14/100$ = 28
So, required difference = 36 − 28 = 8

175) Answer: E)
The ratio of the number of deaths in 2010 to that in 2014 = (100 + 300 + 500 + 700) : (200 + 300 + 400 + 600) = 1600 : 1500 = 16 : 15

Solution (176-180):
176) Answer: B)
Productivity = Total Production / Area of agricultural land
Productivity of UP = (35 + 30 + 25) x 1000 / 2 Lakh x 30/100 = 90000 / 60000 = 1.5 tonnes per sq km
Productivity of MP = (30 + 32.5 + 27.5) x 1000 / 2 Lakh x 25/100 = 90000 / 50000 = 1.8 tonne per sq km
Productivity of Bihar = (22.5 + 25 + 27.5) x 1000 / 2 Lakh x 20/100 = 75000 / 40000 = 1.875 tonnes per sq km
Productivity of Odisha = (22.5 + 15 + 10) x 1000 / 2 Lakh x 5/100 = 47.5 x 1000 / 10000 = 4.75 tonnes per sq km
Productivity of Haryana = (25 + 35 + 30) x 1000 / 2 Lakh x 8/100 = 90000 / 16000 = 5.625 tonnes per sq km

Productivity of Punjab = (40 + 30 + 35) x 1000 / 2 Lakh x 12/100 = 105000 / 24000 = 4.375 tonnes per
So, productivity of Haryana is the maximum

177) Answer: E)
Production of Punjab is maximum = 105000 tonnes

178) Answer: C)
Production of Wheat in Punjab = 40000 tonnes
Production of Maize in Odisha = 10000 tonnes
So, required % = 40000 – 10000 / 10000 × 100% = 300%

179) Answer: D)
The ratio of production of Rice in Bihar to the production of Wheat in Haryana = 25000 tonnes : 25000 tonnes = 1 : 1

180) Answer: A)
Income of MP from export of 40% of Rice at the rate of Rs.30 per kg = 32500 × 40/100 × 1000 × 30 = Rs.39 Crore
Income of UP from export of 30% of Rice at the rate of Rs.32 per kg = 30000 × 1000 × 30/100 × 32 = Rs.28.8 Crore
So, required ratio = 39 : 28.8 = 390 : 288 = 65 : 48

Solution (181-185):
181. Answer: (D)
DIFFERENCE = Rs. [(10% of 4.75) - (8% of 4.75)]
= Rs. (2% of 4.75) lakhs
= Rs. 0.095 lakhs
= Rs. 9500.

182. Answer: (D)
Let the amounts invested in 2002 in Companies P and Q be Rs. 8x and Rs. 9xrespectively.
Then, interest received after one year from Company P = Rs. (6% of 8x)
= Rs. (48x/100)
and interest received after one year from Company Q = Rs. (4% of 9x)
= Rs. (36x/100)
Required ratio **= 4/3**

183. Answer: (D)
184. Answer: (C)
Amount received from Company P after one year (i.e., in 199) on investing Rs. 12 lakhs in it
= Rs. [12 + (8% of 12)] lakhs

= Rs. 12.96 lakhs.

Appreciation received on investment during the period of two years

= Rs. (14.256 - 12) lakhs

= Rs. 2.256 lakhs = **Rs. 2, 25,600**

185. Answer: (B)

Amount received from Company Q after one year on investment of Rs. 5 lakhs in the year 1996

= Rs. [5 + (6.5% of 5)] lakhs

= Rs. 5.325 lakhs.

Amount received from Company P after one year on investment of Rs. 5.325 lakhs in the year 1997

= Rs. [5.325 + (9% of 5.325)] lakhs

= Rs. 5.80425 lakhs

= Rs. 5, 80, 425

Solution (186-190):

186) Answer: A)

; Speed of train between Kanyakumari and Madurai $= \dfrac{430}{11.45\ pm - 1.00\ pm} = \dfrac{430}{10.45}$

$= \dfrac{430}{10\frac{3}{4}} = \dfrac{430 \times 4}{43} = 40$ kmph

187) Answer: E)

Total time taken by the train to travel from Kanyakumari to Renigunta = 11 am – 1 pm = 22 hours

Total halt time = 5 + 10 + 20 + 5 + 5 = 45 minutes

If there in no halt then time taken = 22hr – 45 minutes = 21 hours 15 minutes

$\therefore$ Speed $= \dfrac{1140\ km}{21\ hrs\ 15\ minutes} = \dfrac{1140 \times 4}{85} = \dfrac{1140 \times 4}{85} = \dfrac{912}{17} = 53\dfrac{11}{17}$ kmph

188) Answer: B)

2; Total income of Railways from the train from Kanyakumari to Madurai = (fare of adult × number of adults) + (fare of child × number of children)

$= (250 \times 80) + (70 \times 80 \times \dfrac{40}{100}) + \{(250 + 320 - 100)(200 - 80) + (70 + 90 - 20)(200 - 80)$

$\dfrac{40}{100}\} + \{(250 + 320 - 100 + 150 - 50) \times (310 - 200) + (70 + 90 + 70 - 20 - 30)(310 - 200$

$\times \dfrac{40}{100})\}$

$= \{(20000 + 2240) + (56400 + 6720) + (62700 + 7920)\} = ₹155980$

189) Answer: B)

Number of adults arriving at Renigunta = (250 + 320 + 150 + 100 + 120 + 80) – (100 + 50 + 230 + 80 + 90) = 470

Number of children arriving at Renigunta = (70 + 90 + 70 + 60 + 40 + 20) – (20 + 30 + 50 + 30 + 10) = 210

Reqd ratio = 470 : 210 = 47 : 2

190) Answer: C)

; The fare paid by the family = fare of 6 adults + fare of 4 children

$= \{6 \times (590 - 200) + 4(590 - 200) \times \dfrac{2}{5}\}$

$= ₹2964$

Solution (191-195):

191) Answer: A)
Solution: Average of Q-6: (8.5+7.5+4.5+23.5+9.5+9.5)/6=63/6=10.5
          Average of Q-3: (7.25+6.25+4.5+22.5+8.25+8.25)/6= 57/6=9.50
          Required Difference = 10.50 - 9.50 = 1.00

192) Answer: B)
Solution: Average of MSF: (9.5+9.75+8.25+8.75+8.25+9.50)/6=54/6=9
          Average of Reverse Repo Rate: (6.50+5.25+6.25+6.75+6.75+7.5)/6= 39/6=6.50
          Required Sum = 9+6.50=15.50

193) Answer: C)
Solution: Sum of Repo Rate: (7.50+6.25+7.25+7.75+7.75+8.5) =45.00
          Sum of Reverse Repo Rate: (6.50+5.25+6.25+6.75+6.75+7.5) =39.00
          Required Ratio = 45.00:39.00= 45:39= 15:13

194) Answer: A)
Solution: Sum of Repo Rates: (7.50+6.25+7.25+7.75+7.75+8.5) =45.00
          Sum of SLR: (22.50+23+22.50+23.50+22+23.50) =137.00
          Required %= (45.00/137.00) x100= 32.846=32.85 (approx)

195) Answer: C)
Solution: Sum of Rates in Q-4: (7.75+6.75+4.75+23.50+8.75+8.75) =60.25
          Sum of Rates in Q-1: (7.50+6.50+4.25+22.50+9.50+9.50) =59.75
          Required %= (60.25/59.75) x100= 100.836=100.84 (approx)

Solution (196-200):
196) Answer: C)
As per bar chart, Difference will be
[45-25]*100000 = 20,00,000 tonnes
Please note: we multiplied it by 100000, because graph is given in "lakh" tones

197) Answer: A)
Average production of Company X in the period 1998-2000

$$= \left[\frac{1}{3} * (25 + 50 + 40) \right]$$

$$= \left(\frac{115}{3} \right) \text{lakh tonnes}$$

Average Production of company Y in the period 1998-2000

$$= \left[\frac{1}{3} * (35 + 40 + 50) \right]$$

$$= \left(\frac{125}{3} \right) \text{lakh tonnes}$$

$$\text{Required Ratio} = \frac{\frac{115}{3}}{\frac{125}{3}}$$

$$= \frac{115}{125}$$

$$= \frac{23}{25}$$

$$= 23 : 25$$

198) Answer: C)

Percentage change(rise/fall) in the production of Y in comparison to the previous year, for different years are:

$$\text{for } 1997 = \left[\frac{(35-25)}{25} * 100\right]$$
$$= 40\%$$

$$\text{for } 1998 = \left[\frac{(35-35)}{35} * 100\right]$$
$$= 0\%$$

$$\text{for } 1999 = \left[\frac{(40-35)}{35} * 100\right]$$
$$= 14.29\%$$

$$\text{for } 2000 = \left[\frac{(50-40)}{40} * 100\right]$$
$$= 25\%$$

So maximum percentage is for year 1997

199) Answer: D)

To get the percentage increase in the something, we have to first get the difference between the final value and initial value, then we can get the calculate that difference is what percentage of "initial value"

So lets solve it,

Percentage increase in the production of Company Y from 1996 to 1999

=[40−2525−100]%=[1525−100]%=60%

$$= \left[\frac{40-25}{25} * 100\right]\%$$
$$= \left[\frac{15}{25} * 100\right]\%$$
$$= 60\%$$

200) Answer: B)

The percentages of production of Company Z to the production of Company Y in various years is as:

Note: Small thing which should always be taken care of, is to find percentage of which company to which company, I mean the order. As in this question

Company Z to the Company Y.

So lets solve it,

for 1996 =(3525−100)%=140%for 1997 =(4035−100)%=114.29%for 1998 =(4535−100)%=128.57%for 1999 =(3540−100)%=87.5%for 2000 =(3550−100)%=70%

$$\text{for } 1996 = \left(\frac{35}{25} * 100 \right) \%$$
$$= 140\%$$
$$\text{for } 1997 = \left(\frac{40}{35} * 100 \right) \%$$
$$= 114.29\%$$
$$\text{for } 1998 = \left(\frac{45}{35} * 100 \right) \%$$
$$= 128.57\%$$
$$\text{for } 1999 = \left(\frac{35}{40} * 100 \right) \%$$
$$= 87.5\%$$
$$\text{for } 2000 = \left(\frac{35}{50} * 100 \right) \%$$
$$= 70\%$$

So for 1996 the percentage is highest.

Questions (Set- 41 to 50)

DI Set- 41:

Direction(201-205):
The bar graph given below shows the foreign exchange reserves of a country (in million US $) from 1991-92 to 1998-99. Answer the questions based on this graph.

Foreigh exchange Reserves of a Country (in million US$)
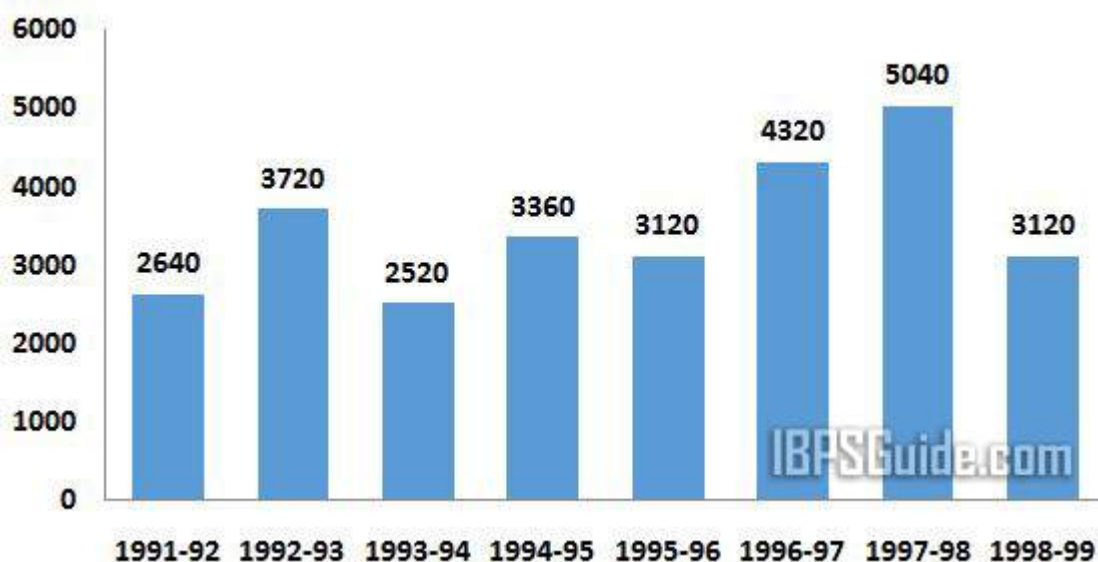
201) The foreign exchange reserves in 1997-98 was how many times that in 1994-95 ?
(a) 0.7 (b) 1.2 (c) 1.4 (d) 1.5 (e) 1.8 1

202) What was the percentage increase in the foreign exchange reserves in 1997-98 over 1993-94 ?
(a)100 (b)150 (c)200 (d)620 (e)2520

203) For which year, the percent increase of foreign exchange reserves over the previous-year,is the highest?

(a)1992-93 (b)1993-94 (c)1994-95 (d)1996-97 (e)1997-98

204) The foreign exchange reserves in 1996-97 were approximately what percent of the average foreign exchange reserves over the period under review ? ,
(a) 95% (b) 110% (c) 115% (d) 125% (e) 140%

205) The ratio of the number of years, in which the foreign exchange reserves are above the average reserves, to those in which the reserves are below the average reserves, is :
(a) 2:6 (b) 3:4 (c) 3:5 (d) 4;4 (e) 5:3

DI Set- 42:

Direction(206-210):
        Study the following pie-chart, line graph and table and answer the questions that follow.
   Share holding of Institutions, Foreign and Domestic individuals in Microfinance institutions in 2011
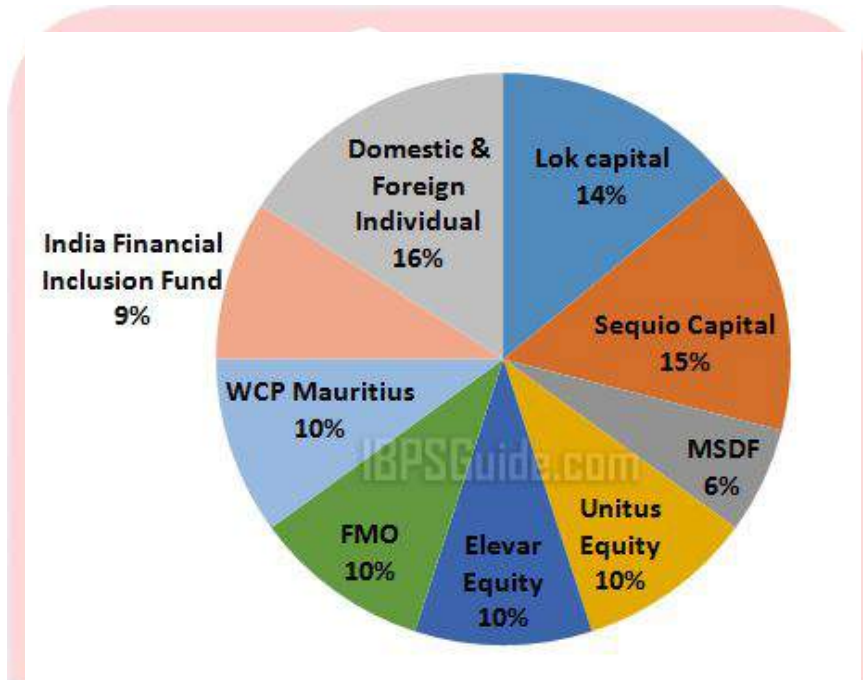
The following line graph show the percentage profit in different years.
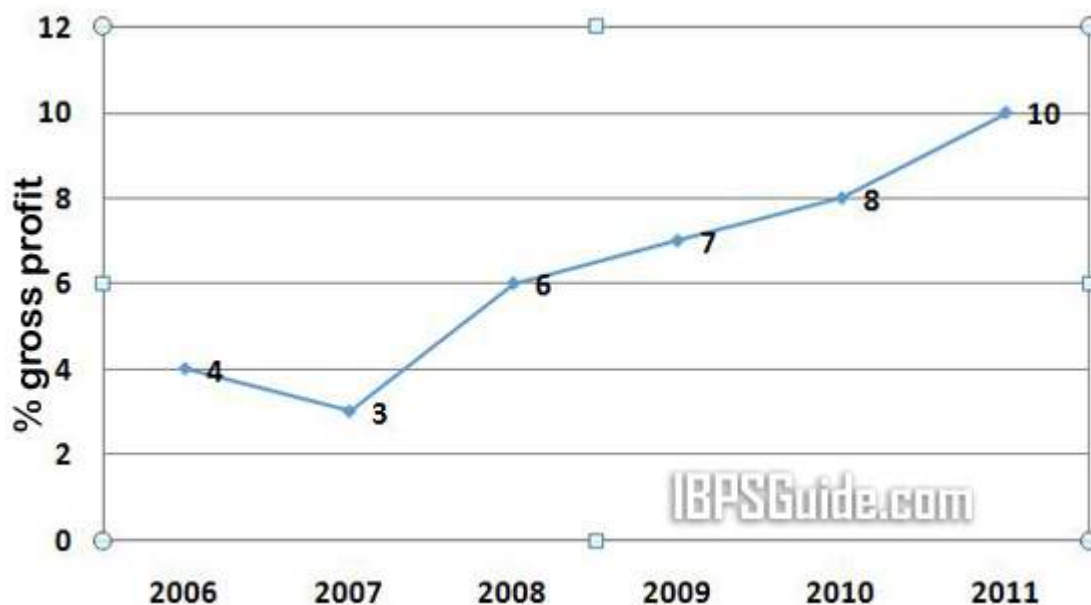
The following table shows the tax paid on profits over the year

Year	Tax paid on profit
2006	10%
2007	8%
2008	10%
2009	12%
2010	10%
2011	10%

Dividend = Gross profit - Tax

Dividend (Net profit) is provided to shareholders according to their investment ratio in microfinance institutions.

Note: The money invested by Unitus Equity fund in microfinance institutions is 80 crore.

206). What would have been the total dividend (in `) collected to provide all the shareholders, after doing business in the year 2011?
a) 82 lakh b) 96 crore c) 76 lakh d) 72 crore

207) If in 2007 total money received by the shareholders was `600 crore then what is the ratio of tax paid in the year 2007 to that in year 2011?
a) 15 : 47 b) 9 : 50 c) 8 : 47 d) 16 : 47

208) If the money received by shareholders in the year 2010 is 10% less than that in 2011, what was the dividend (in crore) received by Sequio Capital in the year 2010?
a) 7.78 crore b) 8.96 crore c) 6.98 crore d) 6.90 crore

209) If the total money received by the shareholders is 800 crore in 2011 what is the ratio of the money invested and the total money received by Elevar Equity in the year 2011?
a) 105 : 119 b) 100 : 109 c) 99 : 100 d) 99 : 105

DI Set- 43:

Direction(211-215):

Following line graph shows the number of students passed (in hundred) from six different states in year 2007,2008 and 2009. The table given below shows the percentage of girls among these passed students.
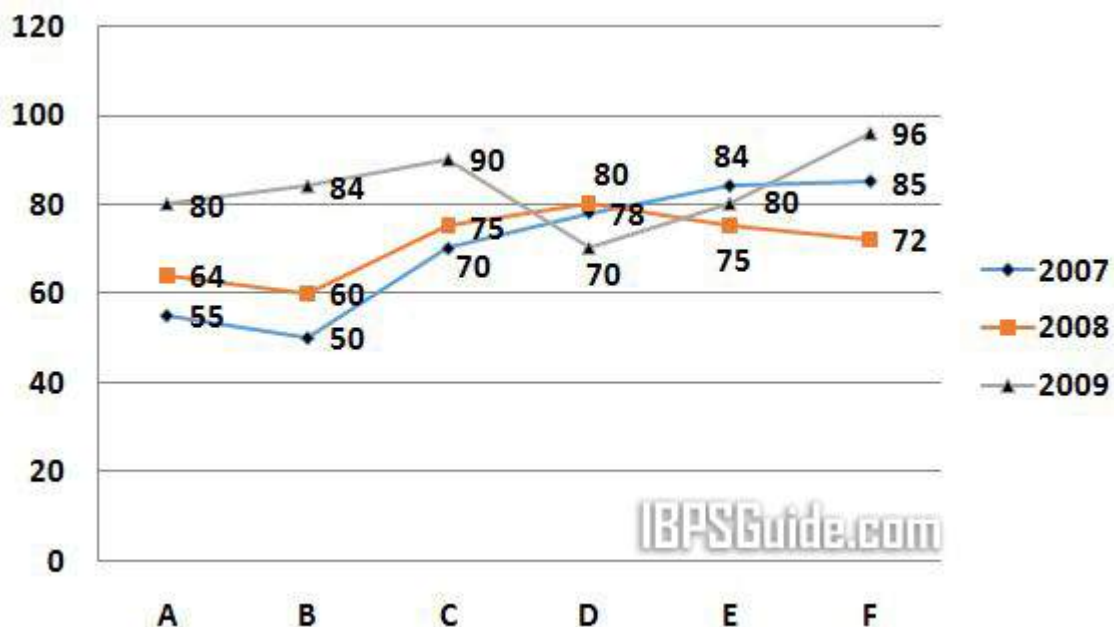
	2007	2008	2009
A	47%	38%	42%
B	36%	45%	37%
C	52%	48%	40%
D	57%	51%	43%
E	44%	49%	52%
F	45%	55%	56%

211) What is the average number of girls passed from all six states together in year 2007?
a) 3312 b) 3322 c) 3332 d) 3342

212) The number of girls passed from State F in year 2008 is what percentage of the total number of girls passed from State B in year 2007?
a) 220% b) 180% c) 145% d) 80%

213) Total number of boys passed from all six states together in year 2009 is what percentage of total students (girls & boys) passed in the exam from all states in that year?
a) 48.24% b) 54.772% c) 57.125% d) 60.5%

214) What is the difference between total number of boys passed and the total number of girls passed from State D in all three years together?
a) 266 b) 268 c) 270 d) 272

215) From which of the following states the percentage rise in the number of boys passed from year 2008 to year 2009 is the highest?
a) A b) B c) C d) F

DI Set- 44:

Direction(216-220):
The following pie chart represents the break-up of Raju's monthly Expenses.
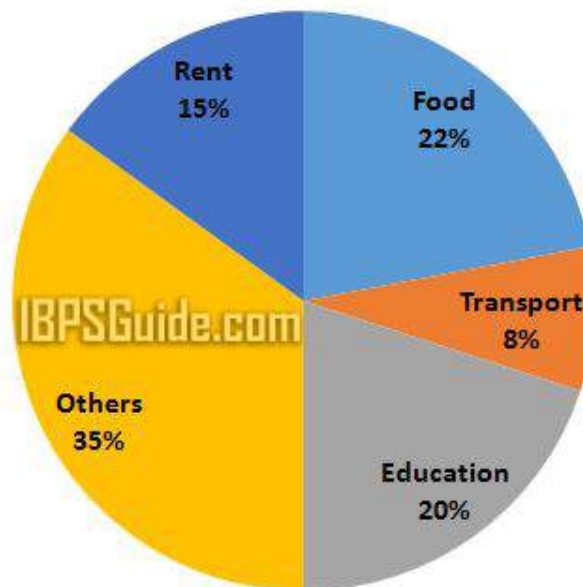
216). If Raju spent Rs 4500 more on food and transport together than he spent on rent, then find his monthly expenses.
(1) Rs. 20 ,000 (2) Rs. 15,000 (3) Rs. 30,000 (4) Rs. 40,000 (5) Rs. 35,000

217). If Raju increased his savings, which is currently 10% of his income, by 20% and reduced his expenses by 20%, then his savings would be what percentage of his expenses?
(1) 15%   (2) 25%   (3) 30%   (4) 10%   (5) 20%

218). Raju spent 20% of his expenditure on 'others' on entertainment. This amounted to Rs 2100. Find his expenditure on education.
(1) 4,500   (2) 5,000   (3) 7,000   (4) 6,500   (5) None of these

219). Find the angle made by the expenditure on rent and 'others' put together.
(1) 150   (2) 160   (3) 180   (4) 200   (5) None of these

220) As prices dropped, Raju's expenditure on clothes dropped by 10%. As a result of this, his expenditure on 'others' decreased from Rs 10,500 to Rs 10,290.What percentage of his expenditure on 'others' was spent on clothes?
(1) 12%   (2) 30%   (3) 16%   (4) 20%   (5) None of these

DI Set- 45:

Direction(221-225):
Study the following table and answer the questions below.
BUDGET ALLOCATIONS OF IMPORTANT MINISTRIES in 2016-2017 (BE and RE) and in 2017-2018 (BE)
(In Crores of Rupees)

Sr. No.	Budget Allocation	BE 2016-2017	RE 2016-2017	BE 2017-2018
1.	Ministry of Agriculture and Farmers' Welfare	44485	-	51026
2.	Ministry of Development of North Eastern Region	2430	2524	2682
3.	Ministry of Drinking Water and Sanitation	14010	16512	20011
4.	Ministry of Health and Family Welfare	38206	-	48853
5.	Ministry of Housing and Urban Poverty Alleviation	5411	5285	6406
6.	Ministry of Human Resource Development	72394	73599	79686
7.	Ministry of Micro, Small and Medium Enterprises	3465	5463	6482
8.	Ministry of Road Transport and Highways	-	52447	64900
9.	Ministry of New and Renewable Energy	5036	4360	5473
10.	Ministry of Railways	45000	46155	-

NOTE: Some data are missing from the table. You have to read each question given below carefully to get the relevant information.

221) As per the Union Budget Released on 1st February 2017, the budget allocated to the Ministry of Railways (BE) in 2017-18 is 200/9% more than the budget allocated to the Ministry of Railways (BE) in the previous year. How much budget is allocated to the Ministry of Railways (BE) in 2017-18?

a) 50000   b) 55000   c) 60000   d) 65000   e) 70000

222) What is the difference between the average budget estimated (BE) allocated to Ministry of New and Renewable Energy, Micro, Small and Medium Enterprises, Housing and Urban Poverty Alleviation and Development of North Eastern Region in 2016-17 and revised estimated (RE) allocated to the same ministries in 2016-17?
a) 312.5 cr   b) 352.5 cr   c) 322.5 cr   d) 325.5 cr   e) 342.5 cr

223) If the revised estimated budget allocated to Ministry of Agriculture and Farmers' Welfare and Ministry of Health and Family Welfare is 3587 cr and 1482 cr more than the budget estimated for these two ministries in 2016-17. What is the total revised estimated budget allocated for these two ministries in 2016-17?
a) 86770 cr   b) 87660 cr   c) 86670 cr   d) 87760 cr   e) 87770 cr

224) What is the percentage increase in the budget allocated (BE) for the Ministry of Drinking Water and Sanitation from 2016-17 (BE) to 2017-18(BE) (Approximately)?
a) 43%   b) 34%   c) 49%   d) 55%   e) 38%

225) If Budget estimated (BE) in 2016-17 for Ministry of Road Transport and Highways is 5529 cr more than the Revised estimated (RE) budget in 2016-17, then by what percent is the BE in 2017-18 for the same ministry is more than the BE in 2016-17 (Approximately)?
a) 10%   b) 15%   c) 12%   d) 16%   e) 9%

DI Set- 46:

Direction(226-230):
The bar-graph given below shows the percentage distribution of the total production of a car manufacturing company into various models over two years. Study the graph carefully and answer the questions that follow.
Percentage of Six different types of Cars manufactured by a Company over two years
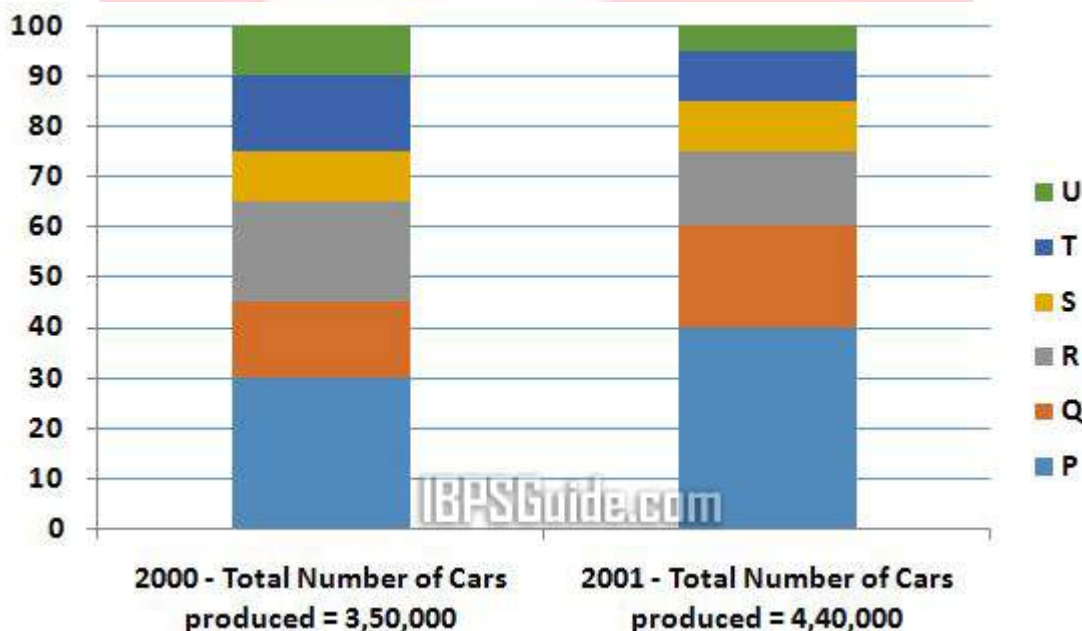
226) Total number of cars of models P, Q and T manufactured in 2000 is:
a) 2,45,000 b) 2,27,500 c) 2,10,000   d) 1,92,500   e) 1,57,500

227) For which model the percentage rise/fall in production from 2000 to 2001 was minimum?
a) Q   b) R   c) S   d) T   e) U

228) What was the difference in the number of Q type cars produced in 2000 and that produced in 2001?
a) 35,500   b) 27,000   c) 22,500   d) 17,500   e) 16,000

229) If the percentage production of P type cars in 2001 was the same as that in 2000, then the number of P type cars produced in 2001 would have been:
a) 1,40,000   b) 1,32,000   c) 1,17,000   d) 1,05,000   e) 97,000

230) If 85% of the S type cars produced in each year were sold by the Company, how many S type cars remained unsold?
a) 76,500   b) 93,500   c) 1,18,500   d) 1,22,500   e) 1,33,500

DI Set- 47:

Direction(231-235):
The table given below shows the scorecard of India during a test match. Some values are missing. Find the answers based on information in table and respective questions.

Player	Runs	Balls Faced	4's	6's
V Kohli	148	104	13	-
S Raina	40	55	3	-
R Ashwin	37	42	1	1
C Pujara	-	21	2	0
R Jadeja	13	5	0	1
MS Dhoni	81	-	11	3
Total	-	-	-	10

Further information is:
(i)   Total runs scored by V Kohli from those scored by 1's and 2's are in the ratio of 1 : 5
(ii)   Number of white balls faced by C Pujara is 6.
(iii)   A white ball is defined as the ball on which no run is scored.
(iv)   During the entire match only 1's, 2's, 4's and 6's were taken by the batsmen.
(v)   V Kohli hits the maximum number of 6's among all the batsmen.
(vi)   Beside C Pujara every player has hitted at least a six.
(vii)   Every player has taken at least a 1 and a 2.

231) What is the total number of white balls face by V Kohli?
A) 42 B) 53 C) 49 D) 45 E) 38

232) What is the minimum number of balls faced by MS Dhoni?
A) 24 B) 32 C) 29 D) 36 E) 20

233) If the number of balls faced by C Pujara to take 1's is greater than that for 2's, then he can score a maximum of how many runs?
A) 24 B) 27 C) 32 D) 21 E) 34

234) Assume if only the given players score during the match for the team, then what is the minimum score of the team?
A) 333 B) 309 C) 403 D) 358 E) 341

235) What was the maximum possible new run rate of the team?
A) 9.32   B) 8.48   C) 7.56   D) 4.45 E) 12.23

DI Set- 48:

Direction(236-240):
A company makes a target of producing 1250 each of its 6 products A, B, C, D, E, and F in a month for selling to its distributors. But after a month it was found that company could manufacture each product more than the target value
The bar graph shows the % increase in the productions of each of the products. The table shows the ratio of defective to non-defective products sold.
Study the bar graph and table to answer the questions that follow.

% increase in the production of products above the target value
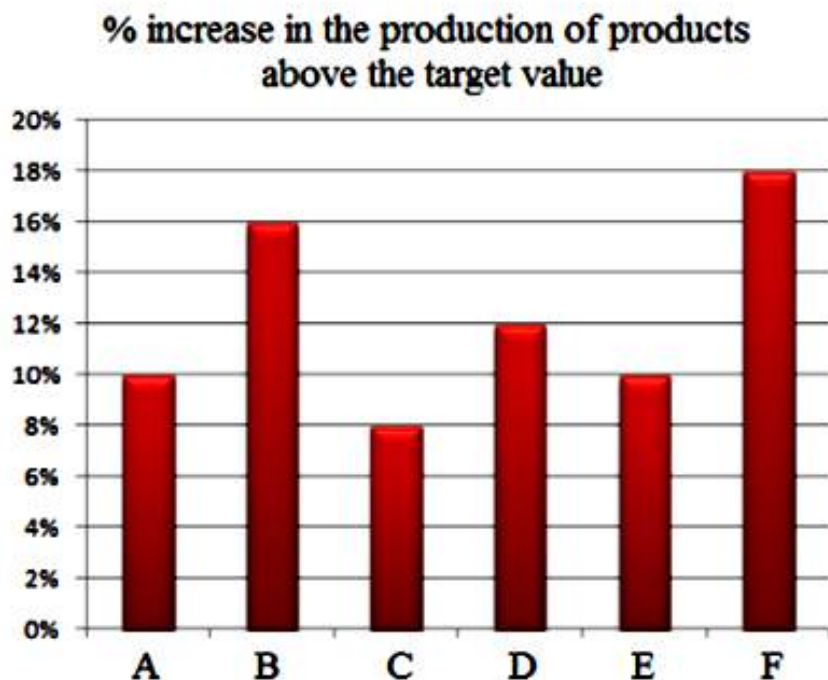
Products	Defective : Non Defective
A	2:9
B	1:4
C	2:7
D	1:6
E	3:8
F	1:4

236) Find the total products D and E which are defective.
A) 665 B) 676 C) 542 D) 575 E) 584

237) Find the difference in production of products B and E together (non-defective) and production of products A and F together (defective).
A) 1615 B) 1461 C) 1254 D) 1358 E) 1225

238) Products A and B are sold for Rs 100 and Rs 120 respectively. The defective A and B products are returned to the company, how much worth of product are returned to the company?
A) Rs 62200 B) Rs 72700 C) Rs 59800 D) Rs 63100 E) Rs 34800

239) Production of products C and E costs Rs 50 and Rs 60 respectively. They are sold for Rs 60 and Rs 80 respectively. If the defective products are returned to the company, find the loss% incurred by the company because of these products (considering that defective products are a waste for the company).
A) 4.57% B) 4.67% C) 5.93% D) 3.35% E) 5.28%

240) All defective products are returned to the company and also the company will have to give a penalty of Rs 5 on defective A, B and D products and Rs 6 on defective C, E and F products. Find the total penalty to be given by the company?
A) Rs 9460 B) Rs 9280 C) Rs 9840 D) Rs 9520 E) Rs 9420

DI Set- 49:

Direction(241-245):

A test cricket match is played between Team X and Team Y. Both teams have only 5 players. The following bar graph shows the runs scored by different players of both the teams in the two innings of the test match.
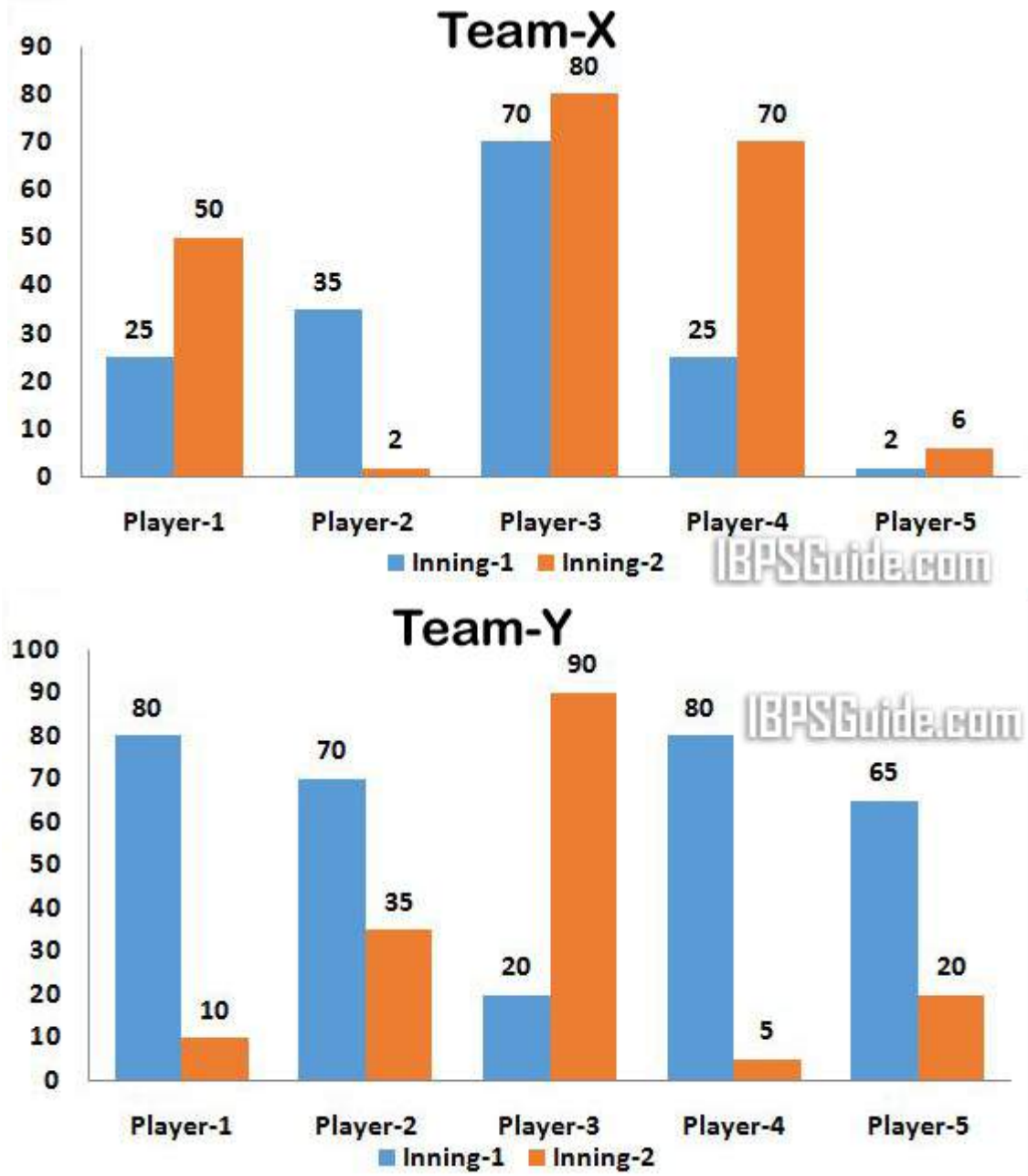
241) What is the margin in team Y′s win?
A) 105 B) 107 C) 110 D) 112 E) 114

242) If the man of the match is given on the basis of highest average run in a match, then who gets the man of the match?
A) Player 3 of Team Y B) Player 2 of Team Y C) Player 2 of Team X D) Player 3 of Team X
E) None of these

243) The total runs scored by the highest run scorer of team X is by what percent greater/lower than the total runs scored by the highest run scorer from Team Y?
A) 15.67% B) 36.36% C) 26.66% D) 18.88% E) None of these

244) Run rate is calculated as runs scored per over. Team X played 35 and 46 overs in Inning 1 and Inning 2 respectively. Team Y played 65 and 46 overs in Inning 1 and Inning 2 respectively. Which of the following has the highest run rate?
A) Team X in Inning 1   B) Team X in Inning 2 C) Team Y in Inning 1   D) Team Y in Inning 2
E) Cannot be Determined

245) What is the respective ratio between the total runs scored by Team X and Team Y?
A) 71:95   B) 73:95   C) 71:105   D) 73:105   E) None of these

<u>DI Set- 50:</u>

Direction(246-250):

The given pie-charts show the expenses of a family of two months:
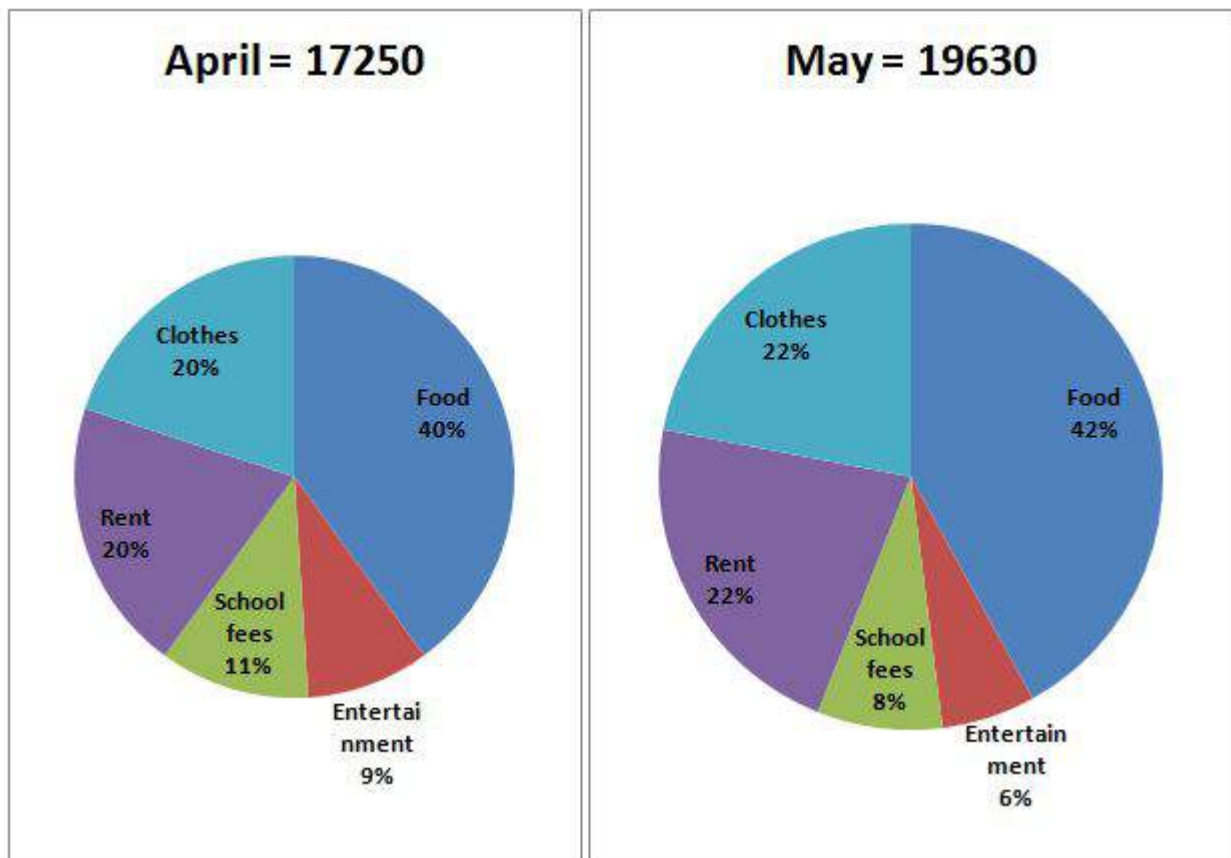
246). The expenses on rent in May is what per cent more than the expenses on clothes in April? (Rounded off the nearest percentage)
a) 15%   b) 45%   c) 35%   d) 25%   e) 30%

247). What is the percentage increase in expenses on food from April to May?
a) 20.85%   b) 17.56%   c) 19.48%   d) 18.21%   e) 15.59%

248). The total amount spent on entertainment and clothes together in both the months is? (Rounded off the nearest value)
a) 11500 b) 10500 c) 10650 d) 11250 e) 10900

249. The expenses on clothes in May is what per cent more than the expenses on school fees in April?
a) 130.25%   b) 156.91%   c) 127.59%   d) 125.74%   e) 120.56%

250. What is difference between the average expense on entertainment and school fees in May and the average expense on food and clothes in April? (Rounded off the nearest digit)

a) 3680 b) 3740 c) 4080 d) 3960 e) 3800

Detailed Solution for (Set- 41 to 50)

Solution (201-205):
201) Answer: D)
Required ratio = 5040/3360=1.5

202) Answer: A)
Foreign exchange reseryes in 1997-98 = 5040 million US $
Foreign exchange reserves in 1993-94 = 2520 million US $
Increase = (5040 — 2520) = 2520 million US $.
Percentage increase =[(2520/2520) x 100)]% = 100%.

203) Answer: A)
There is an increase in foreign exchange reserves during the years 1992-93, 1994-95 1996-97 and 1997-98 as compared to previous year (as shown by bar-graph).
The percentage increase in reserves during these years compared to previous year are :
(i) For 1992-93 =[{(3720-2640)/2640 }* 100] % = 40.91%
(ii) F01' 1994-95 =[{(3360 - 2520)/2520}* 100] % = 33.33%
(iii) For 1996-97 =[{(4320 - 3120)/3120}*100] % = 38.46%
(iv) For 1997-98 =[{ (5040 - 4320)/4320}*100] % = 16.67%
Clearly, the percentage increase over previous year is highest for 1992-93.

204) Answer: D)
Average foreign exchange reserves over the given period
= [(2640 + 3720 + 2520 + 3360 + 3120+ 4320 + 5040 + 3120)] million US $
= 3480 million US $.
Foreign exchange reserves in 1996-97 = 4320 million US $.
Required Percentage = [(4320/3480)*100)]% = 124.14% = 125%.

205) Answer: C)
Average foreign exchange reserves over the given period = 3480 million US$.
The country had reserves above 3480 million US $ during the years 1992-93, 1996-97 and 1997-98 ie., for 3 years and below 3480 million US$ during the years 1991-92, 1993-94, 1994-95, 1995-96 and 1998-99 ie., for5 years.
Hence, required ratio = 3 :5

Solution (206-210):
206) Answer: D)
Money invested by Unitus Equity = 80 crore
10% → 80 crore
100% → 800 crore
Total money received by share holders = 800
profit in 2011 = $800 \times \frac{10}{100}$ = 80 crore
Total dividend = $80 - 80 \times \frac{10}{100}$ = 80 - 8 = 72 crore
Total dividend = 72 crore

207) Answer: B)

Total money received by shareholders in 2007 → 600 crore

Profit in 2007 = 3 x $\frac{600}{100}$ = 18 crore

Tax paid in 2007 = 18 x $\frac{8}{100}$ = 1.44 crore

profit in the year 2011 = 80 crore

Tax paid in 2011 = 80 x $\frac{10}{100}$ = 8 crore

Ratio = $\frac{1.44}{800}$ = $\frac{9}{50}$ = 9 : 50

208) Answer: A)

Money received in 2011 = 800 crore Money received in 2010 = 720

Profit = 720 x $\frac{8}{100}$ = 57.6 crore

Tax paid = 57.6 x $\frac{10}{100}$ = 5.76 crore

Total Dividend = Gross profit - Tax = 57.6 - 5.76 = 51.84 crore

Dividend of Sequio Capital = $\frac{15}{100}$ x 51.84 = 7.776 = 7.78 crore

209) Answer: B)

Money invested by Elevar Equity = 800 x $\frac{10}{100}$ = 80 crore

Total Dividend = 800 x $\frac{10}{100}$ - Tax on profit

= 80 - $\frac{80 \times 10}{100}$ = 72 crore

Dividend received by Elevar Equity in 2011 = $\frac{72 \times 10}{100}$ = 7.2 crore

Ratio = $\frac{80}{80+7.2}$ = $\frac{800}{87.2}$ = $\frac{400}{436}$ = 400 : 436

Solution (211-215):

211) Answer:C)

Total girls = 5500 x $\frac{47}{100}$ + $\frac{5000 \times 36}{100}$ + $\frac{7000 \times 52}{100}$ + $\frac{7800 \times 57}{100}$ + $\frac{8400 \times 44}{100}$ + $\frac{8500 \times 45}{100}$

= 2585 + 1800 + 3640 + 4446 + 3696 + 3825

= 19992

Average = $\frac{19992}{6}$ = 3332

212) Answer: A)

G_F = 7200 x $\frac{55}{100}$ = 3960

G_B = 5000 x $\frac{36}{100}$ = 1800

Reqd % = $\frac{3960}{1800}$ x 100 = 220 %

213) Answer: B)

Total boys = 27386

Total students = 50000

Reqd % = $\frac{27386}{50000}$ x 100 = 54.772

214) Answer: D)

$Girls_{2007-2008} = 7800 \times \frac{57}{100} + 8000 \times \frac{51}{100} + 7000 \times \frac{43}{100}$

Total girls = 4446 + 4080 + 3010 = 11536

No. of boys = (7800 + 8000 + 7000) - 11536 = 22800- 11536 = 11264

Diff = 11536- 11264 = 272

215) Answer: B)

Number of boys passed		
States	2008	2009
A	3968	4640
B	3300	5292
C	3900	5400
D	3920	3990
E	3825	3840
F	3240	4224

$A = \frac{(4640-3968)}{3968} \times 100 = 16.93 \%$

$B = \frac{(5292-3300)}{3300} \times 100 = 60.36 \%$

$C = \frac{(5400-3900)}{3900} \times 100 = 38.46 \%$

$D = \frac{(3990-3920)}{3920} \times 100 = 1.78 \%$

$E = \frac{(3840-3825)}{3825} \times 100 = 0.39 \%$

$F = \frac{(4224-3240)}{3240} \times 100 = 30.37 \%$

Solution (216-220):

216) C

Percentage of his expenditure spent on rent =15%

Percentage of his expenditure spent on transport and food =30%

⇒ 30%−15%=15% = Rs 4500

Monthly expenses:

= 100% = (100/15) X 4500

= Rs. 30,000

217) A

Let his monthly income be Rs x.

Original savings = Rs. (10/100)x

New Savings = (10/100)x + 20/100(10x/100)

= Rs. (12/100)x

Original expenditure = x – (10/100)x

= Rs. (90/100)x

New expenditure:

= (90/100)x – (20/100) (90x/100)

= Rs. (72/100)x

Required percentage:

[(12x/100)/(72x/100)] x 100

= 16.66%

218) E

Expenditure on entertainment:

=20%of(35% of others)=7% of the total expenses⇒ 2100=7% of total expenses

Also education accounts for 20% of the total expenses.

⇒ Expenditure on education:

= 20% of the total= Rs [2100 x (20/7)]

= Rs. 6,000

219) C

Total expenditure on rent and others:

=15%+35%

=50%

Required angle = (50/100) x 360

= 180

220) D

Decrease in expenditure on 'others':

=10,500−10,290= Rs 210⇒ initial expenditure on clothes:

= 210 (100/10)

= Rs. 2100

ð Required percentage:

= (2100/10,500) x 100

= 20%

Solution (221-225):

22 1) Answer: B)

Sol. BE (2016-17) = 45000 cr

$$BE (2017\text{-}18) = \frac{45000}{100} \times \left(100 + \frac{200}{9}\right)$$

$$= 450 \times \frac{1100}{9}$$

$$= 55000 \text{ cr.}$$

22 2) Answer: C)

Total budget estimated (BE) for the given ministries

= 2430 + 5411 + 3465 + 5036

= 16342

Average =16342/4=4085.5

Total Revised estimated (RE)

= 2524 + 5285 + 5463 + 4360

= 17632

Average =17632/4=4408

Required difference = 4408 - 4085.5 = 322.5 cr

223) Answer: D)

Revised estimated Budget for Ministry of Agriculture and farmer's welfare

= 44485 + 3587 = 48072

Revised estimated budget for Ministry of Health & family welfare = 38206 + 1482 = 39688

Total = 39688 + 48072

= 87760 cr

224) Answer: A)

S4. Ans.(a)

Sol. Required percentage $= \frac{(20011-14010)}{14010} \times 100$

$\frac{6001}{14010} \times 100$

$= 42.83 \approx 43\%$

225) Answer: C)

S5. Ans.(c)

Sol. BE in 2016-17 = 52447 + 5529

= 57976

Required% $= \frac{64900 - 57976}{57976} \times 100$

$= \frac{6924}{57976} \times 100$

$= 11.94 \approx 12\%$

Solution (226-230):
226) Answer: c)
We shall first determine the number of cars of each model produced by the Company during the two years:
In 2000: Total number of cars produced = 3,50,000.
P = (30 – 0)% of 3,50,000 = 30% of 3,50,000 = 1,05,000
Q = (45 – 30)% of 3,50,000 = 15% of 3,50,000 = 52,500
R = (65 – 45)% of 3,50,000 = 20% of 3,50,000 = 70,000
S = (75 – 65)% of 3,50,000 = 10% of 3,50,000 = 35,000
T = (90 – 75)% of 3,50,000 = 15% of 3,50,000 = 52,500
U = (100 – 90)% of 3,50,000 = 10% of 3,50,000 = 35,000.
In 2001: Total number of cars produced = 4,40,000.
P = (40 – 0)% of 4,40,000 = 40% of 4,40,000 = 1,76,000
Q = (60 – 40)% of 4,40,000 = 20% of 4,40,000 = 88,000
R = (75 – 60)% of 4,40,000 = 15% of 4,40,000 = 66,000
S = (85 – 75)% of 4,40,000 = 10% of 4,40,000 = 44,000
T = (95 – 85)% of 4,40,000 = 10% of 4,40,000 = 44,000
U = (100 – 95)% of 4,40,000 = 5% of 4,40,000 = 22,000
Now, we shall solve the questions.
Total number of cars of models P, Q and T manufactured in 2000
= (105000 + 52500 + 52500) = 2,10,000.

227) Answer: B)
Using the above calculation, the percentage change (rise/fall) in production from 2000 to 2001 for various model is:

For P $= \left[\frac{(176000-105000)}{105000} \times 100 \right]\% = 67.62\%$, rise

For Q $= \left[\frac{(88000-52500)}{52500} \times 100 \right]\% = 67.62\%$, rise.

For R $= \left[\frac{(70000-66000)}{70000} \times 100 \right]\% = 5.71\%$, fall.

For S $= \left[\frac{(44000-35000)}{35000} \times 100 \right]\% = 25.71\%$, rise.

For T $= \left[\frac{(52500-44000)}{52500} \times 100 \right]\% = 16.19\%$, fall.

For U $= \left[\frac{(35000-22000)}{35000} \times 100 \right]\% = 37.14\%$, fall.

∴ Minimum percentage rise/fall in production is in the case of model R.

228) Answer: A)
Required difference = 88000 – 52500 = 35500

229) Answer: B)
If the percentage production of P type cars in 2001 = percentage production of P type cars in 2000 = 30%
Then, number of P type cars produced in 2001 = 30% of 440000 = 132000.

230) Answer: C)
Number of S type cars which remained unsold in 2000 = 15% of 350000
and number of S type car which remained unsold in 2001 = 15% of 440000
∴ Total number of S type cars which remained unsold
= 15% of (35000 + 44000) = 15% of 790000 = 118500.
Solution (231-235):

231) Answer: D)
Runs scored by 4's = 13*4 = 52
Total 6's = 10, Each player except Pujara hit at least a 6. And Kohli hit the maximum 6's. So 6's by Kohli = 4.
So runs scored by 6's = 4*6 = 24
Total runs scored by 4's and 6's = 52+24 = 76
For these runs balls played are 13+4 = 17 …….(1)
So runs by 1'2 and 2's = 148-76 = 72
1's and 2's runs ratio = 1 : 5
So 12 runs by 1'2 and 60(2*30) by 2's
So balls for 1's and 2's = 12+30 = 42 ……..(2)
So total balls = 17+42 = 59
So number of white balls = 104 – 59 = 45

232) Answer: A)
Runs scored by 4's = 11*4 = 44 ….(1)
by 6's = 3*6 = 18 ……(2)
Total runs by 4's and 6's = 44+18 = 62
remaining runs = 81-62 = 19
By taking 1's and 2's he has scored these 19 runs. To minimize the number of balls Dhoni has to score more runs taking 2's. So he can score 18 runs by taking 2's and 1 by taking a 1.
So balls for 1's and 2's = 9+1 = 10 …….(3)
So total balls (minimum) = 11+3+10 = 24

233) Answer: B)
Runs by 4's = 2*4 = 8 ….(1)
Number of white balls = 6
So remaining balls = 21 – (2+6) = 13
So, to maximize his score in 13 balls, he can take 7 one's and 6 two's. ……(2)
So a maximum of 8 + 7*1 + 6*2 = 27 runs

234) Answer: E)
In order to find the minimum score of team, we have to find the minimum runs scored by Pujara.
he takes 2 four's so 2*4 = 8 runs
So now 21-2 = 19 balls left. Now given that he faced 6 white balls, So now balls left = 19-6 = 13 balls. Now for minimum runs, he should score more 1's than 2's
Since at least one 1's and one 2's is necessary so minimum runs on 13 balls is 1*12 + 2*1
So total min runs by Pujara = 2*4 + 1*12 + 2*1 = 22
So minimum score of team = 148+40+37+22+13+81 = 341

235) Answer: B)

First find the maximum runs scored and minimum balls faced.

Minimum number of balls faced by Dhoni = 24

Maximum runs scored by Pujara = 2*12 + 1*1 + 4*2 = 33

Maximum runs scored by team = 148+40+37+33+13+81 = 352

Minimum number of balls faced = 104+55+42+21+5+24 = 251 balls or 251/6 = 41.5 overs

So maximum run rate = 352/41.5 = 8.48

Solution (236-240):

236) Answer: D)

First find each of the total products

A's production is 10% above the target value of 1250.

So

A – 110/100 * 1250 = 1375

B – 116/100 * 1250 = 1450

C – 108/100 * 1250 = 1350

D – 112/100 * 1250 = 1400

E – 110/100 * 1250 = 1375

F – 118/100 * 1250 = 1475

Defective D products = 1/7 * 1400 = 200

Defective E products = 3/11 * 1375 = 375

So total = 200+375 = 575

237) Answer: A)

Non-Defective B products = 4/5 * 1450 = 1160

Non-Defective E products = 8/11 * 1375 = 1000

Defective A products = 2/11 * 1375 = 250

Defective F products = 1/5 * 1475 = 295

So required ans = (1160+1000) – (250+295) = 1615

238) Answer: C)

Defective A products = 250

Defective B products = 1/5 * 1450 = 290

So loss = 250*100 + 290*120 = Rs (25000 + 34800) = Rs 59800

239) Answer: B)

CP of C products = 1350 * 50 = Rs 67500

CP of E products = 1375 * 60 = Rs 82500

So total CP of C and E = 67500 + 82500 = Rs 1,50,000

Non-Defective C products = 7/9 * 1350 = 1050

So amount got by selling these Non-Defective C products = 1050*60 = Rs 63000

Non-Defective E products = 8/11 * 1375 = 1000

So amount got by selling these Non-Defective E products = 1000*80 = Rs 80000

So total SP of Non-Defective C and E products = 63000 + 80000 = Rs 1,43000

Defective C and E products are returned, so that is a loss.

So Loss % = (150000 – 143000)/150000 * 100 = 4.67%

240) Answer: D)

Defective A products = 250

Defective B products = 290

Defective C products = 300

Defective D products = 200

Defective E products = 375

Defective F products = 295

So penalty = (250+290+200)*5 + (300+375+295)*6 = 3700 + 5820 = Rs 9520

Solution (241-245):

241) Answer: C)

	Inning 1	Inning 2	Total
Player 1	25	50	75
Player 2	35	2	37
Player 3	70	80	150
Player 4	25	70	95
Player 5	2	6	8
Total	157	208	365
	Inning 1	Inning 2	Total
Player 1	80	10	90
Player 2	70	35	105
Player 3	20	90	110
Player 4	80	5	85
Player 5	65	20	85
Total	315	160	475

Y-X=110

242) Answer: D)
Player 3 of Team X has the highest total score= 150 hence his average is also highest.

243) Answer: B)
Highest run scorer in Team X= Player 3=150
Highest run scorer in Team Y= Player 3= 110
required %=(150-110)/110 *100=36.36%

244) Answer: C)
X (1) =157/35=4.48
X(2)=208/46=4.52
Y(1)=315/65=4.84
Y(2)=160/46=3.47
Hence run rate of team Y in inning 1 is highest =4.84

245) Answer: B)
365:475 =73:95

Solution (246-250):

246. Expense on Rent in May
= 19630 × 22 / 100 = 4318.6
Expense on Clothes in April
= 17250 × 20 / 100 = 3450
Required % = (4318.6 – 3450) / 3450 × 100
= 25.17%
≈ 25%
Answer is: d)

247. Expense on Food in April = 17250 × 40 / 100 = 6900
Expense on Food in May = 19630 × 42 / 100 = 8244.6
Required % = (8244.6 – 6900) / 6900 × 100
= 19.48%
Answer is: c)

248. Total expenses on Entertainment and clothes together in both the months
In April = 17250 × 9/100 + 17250 × 20/100
= 1552.5 + 3450
= 5002.5
In May = 19630 × 6 / 100 + 19630 × 22/100
= 1177.8 + 4318.6
= 5496.4
Total = 5002.5 + 5496.4 = 10498.9 ≈ 10500
Answer is: b)

249. Expense on clothes in May = 19630 × 22 / 100 = 4318.6
Expense on School fees in April = 17250 × 11 / 100 = 1897.5
Required %
 = (4318.6 – 1897.5) / 1897.5 × 100
= 2421.1/1897.5 × 100
= 127.59%
Answer is: c)

250. Average expense on entertainment and school fees in May = (19630 × 6 / 100 + 19630 × 8 / 100) / 2
= (1177.8 + 1570.4) / 2
= 2748.2 / 2 = 1374.1
Average expense on food and clothes in April = (17250 × 40 / 100 + 17250 × 20 / 100) / 2
= (6900 + 3450) / 2
= 10350 / 2
= 5175
Required difference = 5175 – 1374.1 = 3800.9 ≈ 3800
Answer is: e)

Questions (Set- 51 to 60)

DI Set- 51:

Direction(251-255):

The following bar graph shows the Income and Expenditures (in million US $) of five companies in the year 2001. The percent profit or loss of a company is given by

$$\% \text{ Profit/Loss} = \frac{\text{Income} - \text{Expenditure}}{\text{Expenditure}} \times 100$$

Income and Expenditure (in million US \$) of five companies in the year 2001
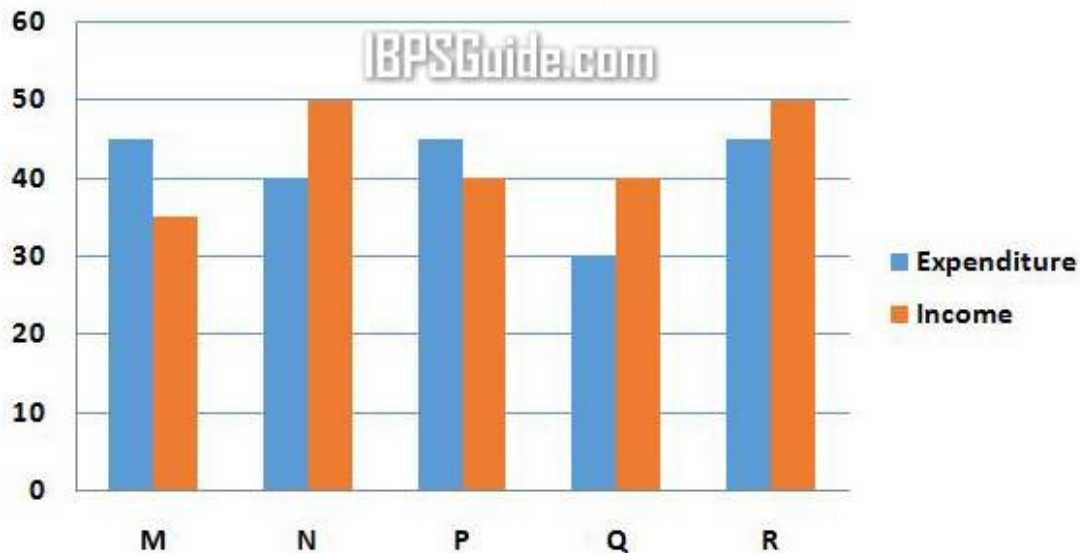
251) The companies M and N together had a percentage of profit/loss of?
A) 12% loss B)10% loss   C) 10% profit D) There was no loss or profit   E) None

252) In 2001, what was the approximate percentage of profit/loss of all the five Companies taken together?
A) 5% profit B) 6.5% profit C) 4% loss D) 7% loss E) None

253) Which company earned the maximum percentage profit in the year 2001?
A) M   B) N   C) P D) Q E) None

254) For Company R, if the expenditure had increased by 20% in year 2001 from year 2000 and the company had earned profit of 10% in 2000, what was the Company's income in 2000 (in million US \$)?
A) 35.75   B) 37.25   C) 38.5 D) 41.25 E) None

255) If the income of Company Q in 2001 was 10% more than its income in 2000 and the Company had earned a profit of 20% in 2000, then its expenditure in 2000 (in million US \$) was?
A) 28.28   B) 30.30   C) 32.32   D) 34.34 E) None

DI Set- 52:

Direction(256-260):
Out of the two bar graphs provided below, one shows the amounts (in Lakh Rs. = One Lakh is equal to One Hundred Thousand (100,000)) invested by a Company in purchasing raw materials over the years and the other shows the values (in Lakh Rs. = One Lakh is equal to One Hundred Thousand (100,000)) of finished goods sold by the Company over the years.

Amount invested in Raw Materials (Rs. In Lakhs)

Value of Sales of Finished Goods (Rs. In Lakhs)
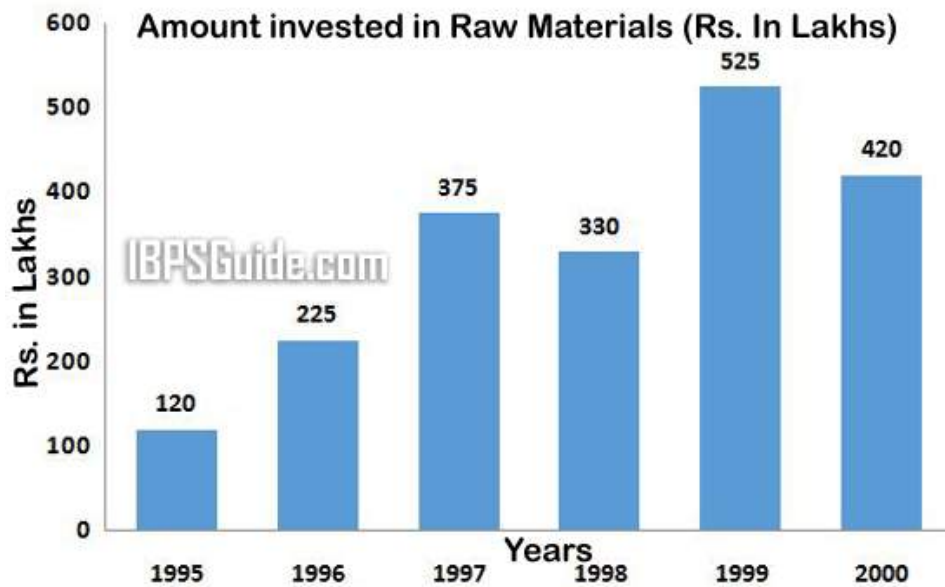
256) Interpret the data and find the maximum difference between the amount invested in Raw materials and value of sales of finished goods was during the year?
A) 1995 B) 1996 C) 1997 D) 1998 E) None

257) The value of sales of finished goods in 1999 was approximately what percent of the sum of amount invested in Raw materials in the years 1997, 1998 and 1999?
A) 33% B) 37% C) 45% D) 49%   E) None

258) What was the difference between the average amount invested in Raw materials during the given period and the average value of sales of finished goods during this period?
A) Rs. 62.5 lakhs   B) Rs. 68.5 lakhs   C) Rs. 71.5 lakhs   D) Rs. 77.5 lakhs   E) None

259) In which year, the percentage change (compared to the previous year) in the investment on Raw materials is same as that in the value of sales of finished goods?
A) 1996   B) 1997   C) 1998   D) 1999   E) None

260) In which year, there has been a maximum percentage increase in the amount invested in Raw materials as compared to the year?
A) 1996   B) 1997   C) 1998   D) 1999
E) None

DI Set- 53:

Direction(261-265):
Study the following graph and the table and answer the questions given below.

Data of different states regarding population of states in the year 1998

U.P 11%
T.N 9%
A.P 26%
Bihar 12%
Goa 13%
Delhi 8%
M.P 21%

IBPSGuide.com
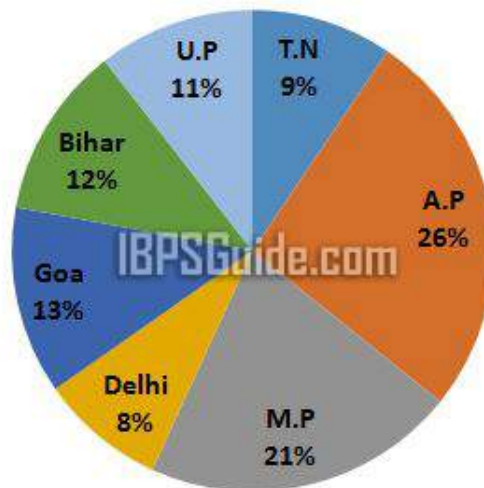
Total population of the given States = 3276000				
States	**Sex and Literacy wise Population Ratio**			
	Sex		**Literacy**	
	Male	**Female**	**Literate**	**Illiterate**
A.P	5	3	2	7
M.P	3	1	1	4
Delhi	2	3	2	1
Goa	3	5	3	2
Bihar	3	4	4	1
U.P	3	2	7	2
T.N	3	4	9	4

261) What will be the percentage of total number of males in U.P., M.P. and Goa together to the total population of all the given states?
A) 25%   B) 27.5%   C) 28.5%   D) 31.5%   E) None

262) What was the total number of illiterate people in A.P. and M.P. in 1998?
A) 876040   B) 932170   C) 981550   D) 1161160   E) None

263) What is the ratio of the number of females in T.N. to the number of females in Delhi?
A) 7 : 5   B) 9 : 7   C) 13 : 11   D) 15 : 14   E) None

264) What was the number of males in U.P. in the year 1998?
A) 254650   B) 294840   C) 321470   D) 341200   E) None

265) If in the year 1998, there was an increase of 10% in the population of U.P. and 12% in the population of M.P. compared to the previous year, then what was the ratio of populations of U.P. and M.P. in 1997?
A) 42 : 55   B) 48 : 55   C) 7 : 11   D) 4 : 5   E) None

DI Set- 54:

Direction(266-270):

A school has four sections A, B, C, D of Class IX students.

The results of half yearly and annual examinations are shown in the table given below

Result	No. of Students			
	Section A	Section B	Section C	Section D
Students failed in both Exams	28	23	17	27
Students failed in half-yearly but passed on Annual Exams	14	12	8	13
Students passed in half-yearly but failed in Annual exams	6	17	9	15
Students passed in both exams	64	55	46	76

266) If the number of students passing an examination be considered a criteria for comparision of difficulty level of two examinations, which of the following statements is true in this context?
A. Half yearly examinations were more difficult.
B. Annual examinations were more difficult.
C. Both the examinations had almost the same difficulty level.
D. The two examinations cannot be compared for difficulty level.

267) How many students are there in Class IX in the school according to the table chart?
A. 336 B. 189 C. 335 D. 430

268) Which section has the maximum pass percentage in at least one of the two examinations?
A. A Section   B. B Section   C. C Section   D. D Section

269) Which section has the maximum success rate in annual examination based on the data in the table chart?
A. A Section   B. B Section   C. C Section   D. D Section

270) Which section has the minimum failure rate in half yearly examination?
A. A section   B. B section   C. C section   D. D section

DI Set- 55:

Direction(271-275):
The following table gives the percentage distribution of population of five states, P, Q, R, S and T on the basis of poverty line and also on the basis of sex.

State	Percentage of Population below the Poverty Line	Proportion of Males and Females	
		Below Poverty Line M : F	Above Poverty Line M : F
P	35	5 : 6	6 : 7
Q	25	3 : 5	4 : 5
R	24	1 : 2	2 : 3
S	19	3 : 2	4 : 3
T	15	5 : 3	3 : 2

271) If the male population above poverty line for State R is 1.9 million, then the total population of State R is?
A. 4.5 million   B. 4.85 million   C. 5.35 million   D. 6.25 million

272) What will be the number of females above the poverty line in the State S if it is known that the population of State S is 7 million?
A. 3 million   B. 2.43 million   C. 1.33 million   D. 5.7 million

273) What will be the male population above poverty line for State P if the female population below poverty line for State P is 2.1 million?
A. 2.1 million   B. 2.3 million   C. 2.7 million   D. 3.3 million

274) If the population of males below poverty line for State Q is 2.4 million and that for State T is 6 million, then the total populations of States Q and T are in the ratio?
A. 1:3   B. 2:5   C. 3:7   D. 4:9

DI Set- 56:
Direction(276-280):
Study the following table and answer the questions based on it.
Number of Candidates Appeared, Qualified and Selected in a competitive examination from Five States Delhi, H.P, U.P, Punjab and Haryana Over the Year 1997-2001

Number of Candidates Appeared, Qualified and Scheduled in a Competitive Examination from Five States Delhi, H.P, U.P, Punjab and Haryana Over the Years 1994 to 1998

Year	Delhi			H.P			U.P			Punjab			Haryana		
	App	Qual	Sel	App	Qual	Sel	App	Qual	Sel	App	Qual	Sel	App	Qual	Sel
1997	8000	850	94	7800	810	82	7500	720	78	8200	680	85	6400	700	75
1998	4800	500	48	7500	800	65	5600	620	85	6800	600	70	7100	650	75
1999	7500	640	82	7400	560	70	4800	400	48	6500	525	65	5200	350	55
2000	9500	850	90	8800	920	86	7000	650	70	7800	720	84	6400	540	60
2001	9000	800	70	7200	850	75	8500	950	80	5700	485	60	4500	600	75

276) For which state the average number of candidates selected over the years is the maximum?
A. Delhi   B. H.P   C. U.P   D. Punjab

277) The percentage of candidates qualified from Punjab over those appeared from Punjab is highest in the year?
A. 1997   B. 1998   C. 1999   D. 2000

278) In the year 1997, which state had the lowest percentage of candidates selected over the candidates appeared?
A. Delhi   B. H.P   C. U.P   D. Punjab

279) The number of candidates selected from Haryana during the period under review is approximately what percent of the number selected from Delhi during this period?
A. 79.5%   B. 81%   C. 84.5%   D. 8.5%

280) The percentage of candidates selected from U.P over those qualified from U.P is highest in the year?
A. 1997   B. 1998   C. 1999   D. 2001

280.I) What is the approximate percentage of total number of candidates selected to the total number of candidates qualified for all five stages together during the year 1999?
A. 10%   B. 11%   C. 12%   D. 13%

DI Set- 57:

Direction(281-285):

Study the following graph and answer the questions that are given below:
Income of Railways from Passengers and Goods carriages
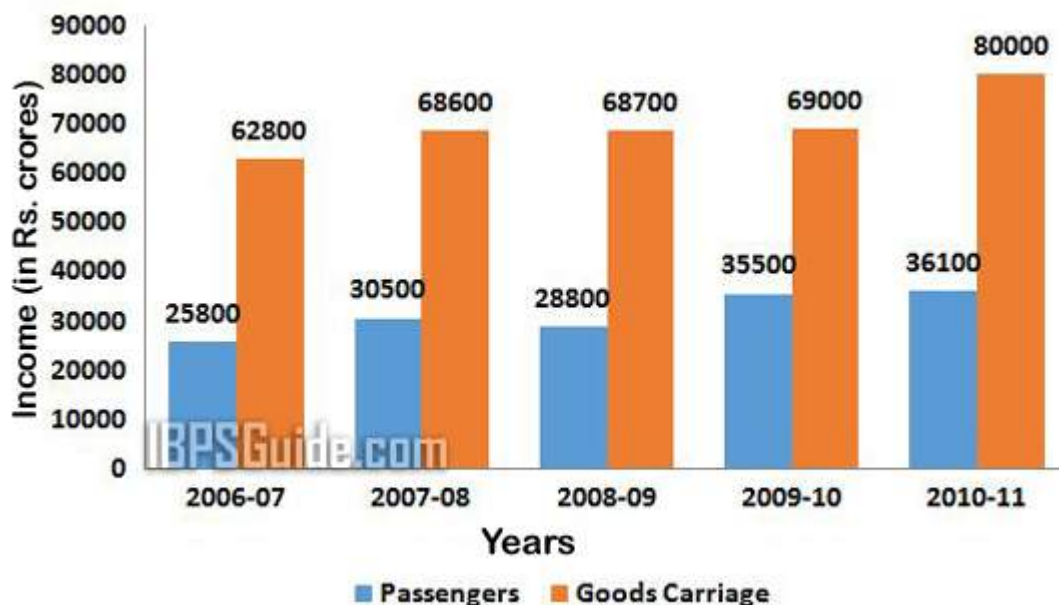
Total expenditure of Railways on both (Passengers and Goods carriage)
(Profit = income - expenditure)
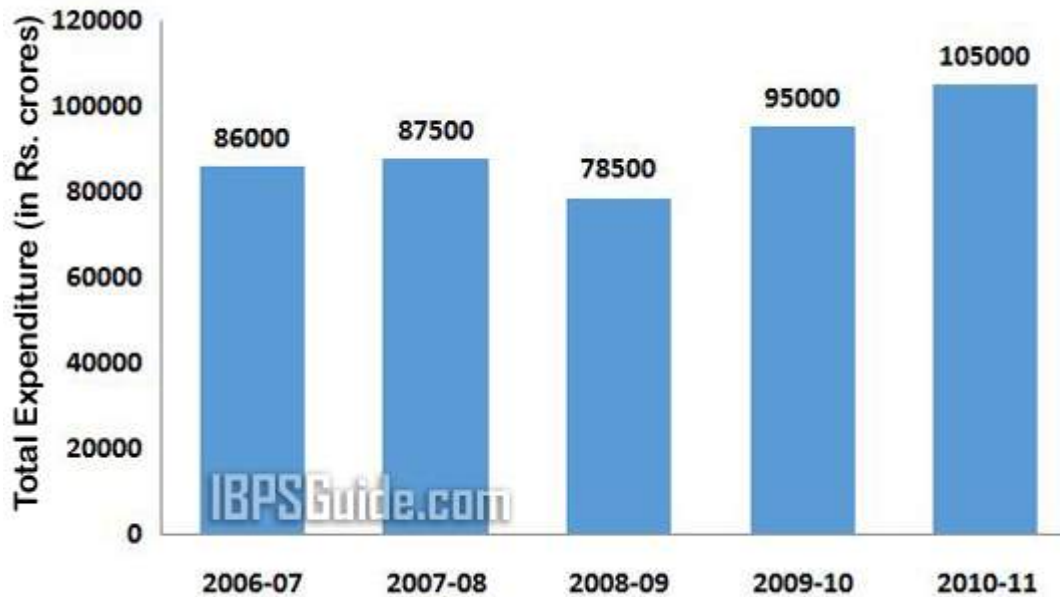
281). In which of the following years the percentage increase/decrease in the total income of Railways is the maximum over its previous year?
a) 2010-11   b) 2007-08   c) 2008-09   d) 2009-10   e) None of these

282). In which of the following years the profit of Railways is the maximum?
a) 2006-07   b) 2007-08   c) 2008-09   d)2009-10   e) None of these

283). In how many years the income from Passengers carriage is less than the average income from the same for all the given years?
a) Two   b) One   c) Three   d) Four   e) None of these

284). What is the approximate per cent income from Goods carriage in 2007-08 with respect to the total income from Passengers carriage for all the given years?
a) 44%   b) 40%   c) 41%   d) 42%   e) None of these

285). What is the ratio of the total income in the year 2008-09 to that in the year 2009-10?
a) 45 : 65   b) 95 : 110   c) 195 : 209   d) 205 : 249   e) None of these

DI Set- 58:

Direction(286-290):

Study the following table carefully and answer the given questions

Mobile	Cost Price	Selling Price	% of Profit	Profit
Samsung	35,000	—	—	3,500
Apple	53,000	—	14%	—
Micromax	—	22,000	—	—
LG	28,000	—	—	—
HTC	—	33,000	10%	—
Sony	32,000	—	—	4,000

286). What is the selling price and % of Profit of Sony Mobile ?
a) 36,000 and 12.5%   b) 36,00 and 15%   c) 36,000 and 18%   d) 36,000 and 20%   e) 36,000 and 23%

287). What is the % of Profit Micromax, If Cost Price of Micromax is 3/5 of Cost Price of HTC mobile ?
a) 33 1/3%   b) 26 4/9%   c) 22 2/9%   d) 24 5/9%   e) 25 7/9%

288). What is the selling price and % of profit of LG mobile?. If profit is 500 more than the profit of Samsung mobile.
a) 32,000 and 14 1/7%   b) 34,000 and 14 4/7%   c) 32,000 and 15 2/7%   d) 34,000 and 17 5/7%
e) 32,000 and 14 2/7%

289). What is the profit earned on Apple mobile ?
a) 7360   b) 7450   c) 7420   d) 7560   e) 7620

300). What is the ratio between Cost Price and Selling price of Samsung ?
a) 14:15   b) 10:13   c) 10:14   d) 14:15   e) 10:11

DI Set- 59:

Direction(291-295):

There are six companies which produce a particular item in two models M_1 and M_2. These companies produce 5 lakh items. The given pie-chart shows the percentage distribution of the total items produced and the table shows the ratio of model M_1 to M_2 produced by these companies and their percentage sale.

(5 lakh items)
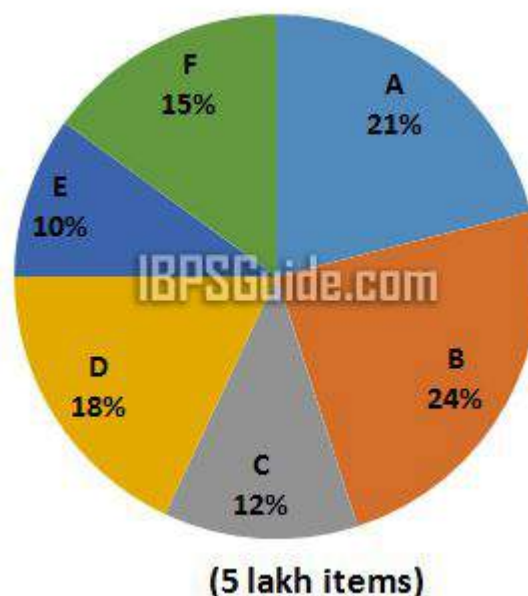
Company	Ratio M1:M2	% sale M1	% sale M2
A	4:3	48%	45%
B	3:5	60%	54%
C	2:1	75%	65%
D	4:5	55%	70%
E	3:2	50%	60%
F	8:7	45%	65%

291). What is the total number of model M_2 items sold by Company A?
a) 19750   b) 20250   c) 21450   d) 22500   e) None of these

292). If Company C sells model M_2 items at the rate of Rs.115 per item, how much money did it earn by selling all M_2 items?
a) Rs.11.25 lakh   b) Rs.12.45 lakh   c) Rs.13.75 lakh   d) Rs.14.95 lakh   e) None of these

293). The total number of model M_2 items sold by Company E is what per cent of the total number of model M_1 items sold by Company C?
a) 30%   b) 35%   c) 40%   d) 45%   e) 50%

294). What is the difference between the total number of model M_2 items sold by Company F and the total number of model M_1 items sold by Company D?
a) 750   b) 800   c) 850   d) 900   e) 950

295). What is the total number of unsold items of model M_1 and M_2 of Company B?
a) 50000   b) 52500   c) 55000   d) 57500   e) 60000

DI Set- 60:

Direction(296-300):

The following pie-chart shows the distribution of expenditure of three companies A, B and C.

S - Salary, I - Infrastructure,
T – Transportation
B – Bonus
R - Raw material,
M - Miscellaneous and the total expenditures of Company A, B and C are Rs. 80 lakh, Rs.90 lakh and Rs.75 lakh respectively.
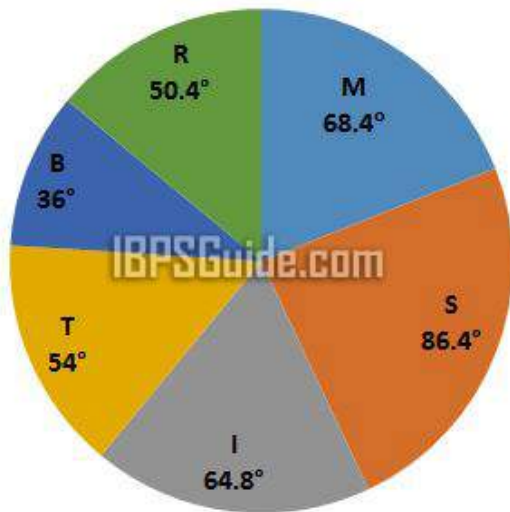
(Expenditure of Company A (Rs. 80 lakh))

Pie chart A: M 68.4°, S 86.4°, I 64.8°, T 54°, B 36°, R 50.4°
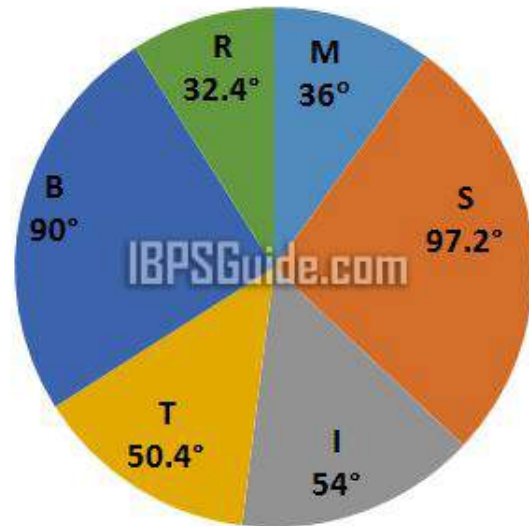
(Expenditure of Company B (Rs. 90 lakh))

Pie chart B: M 36°, S 97.2°, I 54°, T 50.4°, B 90°, R 32.4°
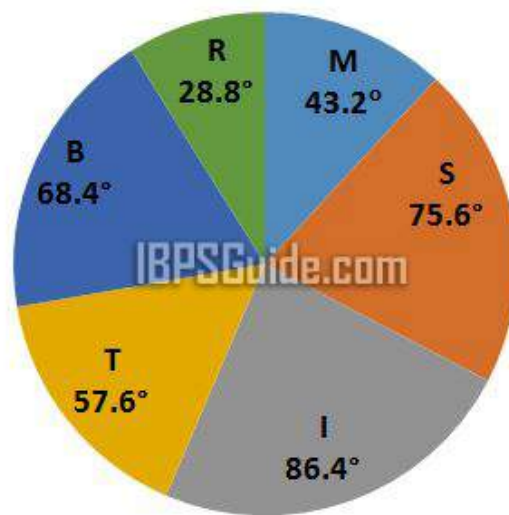
(Expenditure of Company C (Rs. 75 lakh))

Pie chart C: M 43.2°, S 75.6°, I 86.4°, T 57.6°, B 68.4°, R 28.8°

296). What is the difference between (in Rs.) the expenditure of Company A on salary and the expenditure of Company B on raw material?
a) 9.6 lakh   b) 11.1 lakh   c) 12.4 lakh   d) 13.4 lakh   e) 15.1 litkh

297). The expenditure of Company C on salary is approximately what percentage of the expenditure of Company A on transportation?
a) 76.2%   b) 96%   c) 112.5%   d) 125%   e) 131%

298). What is the average expenditure (in Rs.) of the three companies on infrastructure?
a) 12.2 lakh   b) 15.3 lakh   c) 16.4 lakh   d) 17.5 lakh   e) None of these

299). What is the ratio of the expenditure of Company A on infrastructure to the expenditure of Company B on transportation?
a) 5:4   b) 6:5   c) 7:6   d) 8:7   e) 9:8

300). The expenditure of Company C on infrastructure is what percentage more or less than the expenditure of Company A on bonus?
a) 80%   b) 100%   c) 120%   d) 125%   e) 150%

Solution (251-255):
251) Answer: D)
Total income of Companies M and N together
= (35 + 50) million US $
= 85 million US $
Total expenditure of Companies M and N together
= (45 + 40) million US $
= 85 million US $.
Therefore Percent Profit/Loss of companies M and N together
% Profit/Loss = ((85-85)/85)x100% = 0%.
Thus, there was neither loss nor profit for companies M and N together.

252) Answer: A)
Total income of all five companies
= (35 + 50 + 40 + 40 + 50) million US $
= 215 million US $.
Total expenditure of all five companies
= (45 + 40 + 45 + 30 + 45) million US $
= 205 million US $.
Therefore % Profit = ((215-205)/205)x100% = 4.88% ~= 5%.

253) Answer: D)

The percentage profit/loss in the year 2001 for various comapanies are:

For M = $\left[\frac{(35-45)}{45} \times 100 \right]$% = -22.22%   i.e.,   Loss = 22.22%.

For N = $\left[\frac{(50-40)}{40} \times 100 \right]$% = 25%   i.e.,   Profit = 25%.

For P = $\left[\frac{(40-45)}{45} \times 100 \right]$% = -11.11%   i.e.,   Loss = 11.11%.

For Q = $\left[\frac{(40-30)}{30} \times 100 \right]$% = 33.33%   i.e.,   Profit = 33.33%.

For R = $\left[\frac{(50-45)}{45} \times 100 \right]$% = 11.11%   i.e.,   Profit = 11.11%.

Clearly, the Company Q earned the maximum profit in 2001.

254) Answer: D)
Let the expenditure of Company R in 2000 be x million US $.
Then, expenditure of Company R in 2001 = (120/100xx) million US $.
Therefore 120x/100= 45 => x = 37.5.
i.e., expenditure of Company R in 2000 = 37.5 million US $.
Let the income of Company R in 2000 be I million US $.
Then, 10 = ((I-37.5)/37.5)x100 [Ref %Profit in 2000 = 10%]
=> I - 37.5 = 3.75
=> I = 41.25
i.e., Income of Company R in 2000 = 41.25 million US $.

255) Answer: B)

Let the income of Company Q in 2001 = x million US $.

Then, income of Company in 2001 = $\left(\dfrac{110}{100} \times x\right)$ million US $.

$\therefore \dfrac{110x}{100} = 40 \quad \Rightarrow \quad x = \left(\dfrac{400}{11}\right)$.

i.e., income of Company Q in 2000 = $\left(\dfrac{400}{11}\right)$ million US $.

Let the expenditure of Company Q in 2000 be E million US $.

Then, $20 = \dfrac{[(400/11) - E]}{E} \times 100 \qquad [\because \ \%\text{Profit} = 20\% \ ]$

$\Rightarrow \quad 20 = \left[\left(\dfrac{400}{11E}\right) - 1\right] \times 100$

$\Rightarrow \quad E = \dfrac{400}{11} \times \dfrac{100}{120} = 30.30$.

$\therefore$ Expenditure of Company Q in 2000 = 30.30 million US $.

Solution (256-260):

256) Answer: C)

The differences between the amount invested in raw material and the value of sales of finished goods for various years are:

For 1995 = Rs. (200 - 120) lakhs = Rs. 80 lakhs.
For 1996 = Rs. (300 - 225) lakhs = Rs. 75 lakhs.
For 1997 = Rs. (500 - 375) lakhs = Rs. 125 lakhs.
For 1998 = Rs. (400 - 330) lakhs = Rs. 70 lakhs.
For 1999 = Rs. (600 - 525) lakhs = Rs. 75 lakhs.
For 2000 = Rs. (460 - 420) lakhs = Rs. 40 lakhs.
Clearly, maximum difference was during 1997.

257) Answer: D)

Required percentage $= \left[\dfrac{600}{(375 + 330 + 525)} \times 100\right]\%$

$= 48.78\%$

$\approx 49\%$.

258) Answer: D)

= Rs. $\left[\frac{1}{6} \times (200 + 300 + 500 + 400 + 600 + 460) \right.$

$\left. - \frac{1}{6} \times (120 + 225 + 375 + 330 + 525 + 420) \right]$ lakhs

= Rs. $\left[\left(\frac{2460}{6} \right) - \left(\frac{1995}{6} \right) \right]$ lakhs

= Rs. (410 - 332.5) lakhs

= Rs. 77.5 lakhs.

259) Answer: B)

For 1996 = $\left[\frac{(225 - 120)}{120} \times 100 \right]\%$ = 87.5%.

For 1997 = $\left[\frac{(375 - 225)}{225} \times 100 \right]\%$ = 66.67%.

For 1998 = $\left[\frac{(330 - 375)}{375} \times 100 \right]\%$ = -12%.

For 1999 = $\left[\frac{(525 - 330)}{330} \times 100 \right]\%$ = 59.09%.

For 2000 = $\left[\frac{(420 - 525)}{525} \times 100 \right]\%$ = -20%.

Percentage change in value of sales of finished goods:

For 1996 = $\left[\frac{(300 - 200)}{200} \times 100 \right]\%$ = 50%.

For 1997 = $\left[\frac{(500 - 300)}{300} \times 100 \right]\%$ = 66.7%.

For 1998 = $\left[\frac{(400 - 500)}{500} \times 100 \right]\%$ = -20%.

For 1999 = $\left[\frac{(600 - 400)}{400} \times 100 \right]\%$ = 50%.

For 2000 = $\left[\frac{(460 - 600)}{600} \times 100 \right]\%$ = -23.33%.

Thus, the percentage difference is same during the year 1997.

260) Answer: A)

For 1996 = $\left[\dfrac{(225 - 120)}{120}\right]$% = 87.5%.

For 1997 = $\left[\dfrac{(375 - 225)}{225}\right]$% = 66.67%.

For 1998 there is a decrease.

For 1999 = $\left[\dfrac{(525 - 330)}{330}\right]$% = 59.09%.

For 2000 there is a decrease.

∴ There is maximum percentage increase in 1996.

Solution (261-265):
261) Answer: C)

Number of males in U.P = $\left[\dfrac{3}{5}\text{ of (15\% of N)}\right]$ = $\dfrac{3}{5} \times \dfrac{15}{100} \times N$ = $9 \times \dfrac{N}{100}$.

where N = 3276000.

Number of males in M.P = $\left[\dfrac{3}{4}\text{ of (20\% of N)}\right]$ = $\dfrac{3}{4} \times \dfrac{20}{100} \times N$ = $15 \times \dfrac{N}{100}$.

Number of males in Goa = $\left[\dfrac{3}{8}\text{ of (12\% of N)}\right]$ = $\dfrac{3}{8} \times \dfrac{12}{100} \times N$ = $4.5 \times \dfrac{N}{100}$.

∴ Total number of males in these three states = $(9 + 15 + 4.5) \times \dfrac{N}{100}$

$$= \left(28.5 \times \dfrac{N}{100}\right).$$

∴ Required Percentage = $\left[\dfrac{\left(28.5 \times \dfrac{N}{100}\right)}{N} \times 100\right]$% = 28.5%.

262) Answer: D)
No. of illiterate people in A.P. = [7/9 of (25% of 3276000)] = 637000.
No. of illiterate people in M.P. = [4/5 of (20% of 3276000)] = 524160.
Therefore Total number = (637000 + 524160) = 1161160.

263) Answer: D)

$$\text{Required ratio} = \frac{\frac{4}{7} \text{ of (9\% of 3276000)}}{\frac{3}{5} \text{ of (8\% of 3276000)}}$$

$$= \frac{\left(\frac{4}{7} \times 9\right)}{\left(\frac{3}{5} \times 8\right)}$$

$$= \left(\frac{4}{7} \times 9 \times \frac{5}{3} \times \frac{1}{8}\right)$$

$$= \frac{15}{14}.$$

264) Answer: B)

Number of males in U.P.

$$= \left[\frac{3}{5} \text{ of (15\% of 3276000)}\right]$$

$$= \frac{3}{5} * \frac{15}{100} \times 3726000$$

$$= 294840.$$

265) Answer: A)

Let x be the population of U.P. in 1997. Then,

Population of U.P. in 1998 = 110% of $x = \frac{110}{100} \times x$.

Also, let y be the population of M.P. in 1997. Then,

Population of M.P. in 1998 = 112% of $y = \frac{112}{100} \times x$.

Ratio of populations of U.P. and M.P. in 1998 $= \frac{\left(\frac{110}{100} \times x\right)}{\left(\frac{112}{100} \times y\right)} = \frac{110x}{112y}$.

From the pie-chart, this ratio is $\frac{15}{20}$.

$\therefore \frac{110x}{112y} = \frac{15}{20} \implies \frac{x}{y} = \frac{15}{20} \times \frac{112}{110} = \frac{42}{55}$.

Thus, ratio of populations of U.P. and M.P. in 1997 = $x : y$ = 42 : 55.

Solution (266-270):

266) Answer: C)

Number of students who passed half-yearly exams in the school

= (Number of students passed in half-yearly but failed in annual exams) + (Number of students passed in both exams)

= (6 + 17 + 9 + 15) + (64 + 55 + 46 + 76)

= 288.

Also, Number of students who passed annual exams in the school

= (Number of students failed in half-yearly but passed in annual exams) + (Number of students passed in both exams)

= (14 + 12 + 8 + 13) + (64 + 55 + 46 + 76)

= 288.

Since, the number of students passed in half-yearly = the number of students passed in annual exams. Therefore, it can be inferred that both the examinations had almost the same difficulty level.

Thus Statements (a), (b) and (d) are false and Statement (c) is true.

267) Answer: D)

Since the classification of the students on the basis of their results and sections form independent groups, so the total number of students in the class:

= (28 + 23 + 17 + 27 + 14 + 12 + 8 + 13 + 6 + 17 + 9 + 15 + 64 + 55 + 46 + 76)

= 430.

268) Answer: D)

Pass percentages in at least one of the two examinations for different sections are:

For Section A $\left[\frac{(14 + 6 + 64)}{(28 + 14 + 6 + 64)} \times 100 \right]\% = \left[\frac{84}{112} \times 100 \right]\% = 75\%.$

For Section B $\left[\frac{(12 + 17 + 55)}{(23 + 12 + 17 + 55)} \times 100 \right]\% = \left[\frac{84}{107} \times 100 \right]\% = 78.5\%.$

For Section C $\left[\frac{(8 + 9 + 46)}{(17 + 8 + 9 + 46)} \times 100 \right]\% = \left[\frac{63}{80} \times 100 \right]\% = 78.75\%.$

For Section D $\left[\frac{(13 + 15 + 76)}{(27 + 13 + 15 + 76)} \times 100 \right]\% = \left[\frac{104}{131} \times 100 \right]\% = 79.39\%.$

Clearly, the pass percentage is maximum for Section D.

269). Answer: A)

Total number of students passed in annual exams in a section

= [(No. of students failed in half-yearly but passed in annual exams) + (No. of students passed in both exams)] in that section

Therefore Success rate in annual exams in Section A

$$= \left[\frac{\text{No. of students of Section A passed in annual exams}}{\text{Total number of students in Section A}} \times 100 \right]\%$$

$$= \left[\frac{(14 + 64)}{(28 + 14 + 6 + 64)} \times 100 \right]\%$$

$$= \left[\frac{78}{112} \times 100 \right]\%$$

$$= 69.64\%.$$

Similarly, success rate in annual exams in:

Section B $\left[\dfrac{(12 + 55)}{(23 + 12 + 17 + 55)} \times 100 \right]\% = \left[\dfrac{67}{107} \times 100 \right]\% = 62.62\%.$

Section C $\left[\dfrac{(8 + 46)}{(17 + 8 + 9 + 46)} \times 100 \right]\% = \left[\dfrac{54}{80} \times 100 \right]\% = 67.5\%.$

Section D $\left[\dfrac{(13 + 76)}{(27 + 13 + 15 + 76)} \times 100 \right]\% = \left[\dfrac{89}{131} \times 100 \right]\% = 67.94\%.$

Clearly, the success rate in annual examination is maximum for Section A.

270) Answer: D)
Total number of failures in half-yearly exams in a section
= [(Number of students failed in both exams) + (Number of students failed in half-yearly but passed in Annual exams)] in that section
Therefore Failure rate in half-yearly exams in Section A

$$= \left[\frac{\text{Number of students of Section A failed in half-yearly}}{\text{Total number of students in Section A}} \times 100 \right]\%$$

$$= \left[\frac{(28 + 14)}{(28 + 14 + 6 + 64)} \times 100 \right]\%$$

$$= \left[\frac{42}{112} \times 100 \right]\%$$

$$= 37.5\%.$$

Similarly, failure rate in half-yearly exams in:

Section B $\left[\dfrac{(23 + 12)}{(23 + 12 + 17 + 55)} \times 100 \right]\% = \left[\dfrac{35}{107} \times 100 \right]\% = 32.71\%.$

Section C $\left[\dfrac{(17 + 8)}{(17 + 8 + 9 + 46)} \times 100 \right]\% = \left[\dfrac{25}{80} \times 100 \right]\% = 31.25\%.$

Section D $\left[\dfrac{(27 + 13)}{(27 + 13 + 15 + 76)} \times 100 \right]\% = \left[\dfrac{40}{131} \times 100 \right]\% = 30.53\%.$

Clearly, the failure rate is minimum for Section D.

Solution (271-275):

271) Answer: D)
Let the total population of State R be x million. Then, population of State R above poverty line

$$= [(100 - 24)\% \text{ of } x] \text{ million}$$

$$= \left(\frac{76}{100} \times x\right) \text{ million}$$

And so, male population of State R above poverty line

$$= \left[\frac{2}{5} \times \left(\frac{76}{100} \times x\right)\right] \text{ million}$$

But, it is given that male population of State R above poverty line = 1.9 million.

$$\therefore \frac{2}{5} \times \left(\frac{76}{100} \times x\right) = 1.9 \implies x = \frac{5 \times 100 \times 1.9}{76 \times 2} = 6.25.$$

$\therefore$ Total population of State R = 6.25 million.

272) Answer: B)
Total population of State S = 7 million.
Therefore Population above poverty line = [(100 - 19)% of 7] million
= (81% of 7) million = 5.67 million.
And so, the number of females above poverty line in State S
= (3/7)x5.67 million
= 2.43 million.

273) Answer: D)
Female population below poverty line for State P = 2.1 million Let the male population below poverty line for State P be x million.

Then, $5 : 6 = x : 21 \implies x = \frac{2.1 \times 5}{6} = 1.75.$

$\therefore$ Population below poverty line for State P = (2.1 + 1.75) million = 3.85 million.

Let the population above poverty line for State P by y million.

Since, 35% of the total population of State P is below poverty line, therefore, 65% of the total population of State P is above poverty line i.e., the ratio of population below poverty line to that above poverty line for State P is 35 : 65.

$\therefore 35 : 65 = 3.85 : y \implies y = \frac{65 \times 3.85}{35} = 7.15.$

$\therefore$ Population above poverty line for State P = 7.15 million and so, male population above poverty line for State P

$$= \left(\frac{6}{13} \times 7.15\right) \text{ million}$$

$$= 3.3 \text{ million.}$$

274) Answer: B)
For State Q: Male population below poverty line = 2.4 million. Let the female population below poverty line be x million.

Then, $3 : 5 = 2.4 : x$ $\Rightarrow$ $x = \dfrac{5 \times 2.4}{3} = 4.$

$\therefore$ Total population below poverty line = $(2.4 + 4) = 6.4$ million.

If N_q be the total population of State Q, then,

25% of $N_q = 6.4$ million $\Rightarrow$ $N_q = \left(\dfrac{6.4 \times 100}{25}\right)$ million = 25.6 million.

For State T:

Male population below poverty line = 6 million.

Let the female population below poverty line be y million.

Then, $5 : 3 = 6 : y$ $\Rightarrow$ $y = \dfrac{3 \times 6}{5} = 3.6.$

$\therefore$ Total population below poverty line = $(6 + 3.6) = 9.6$ million.

If N_t be the total population of State T, then,

15% of $N_t = 9.6$ million $\Rightarrow$ $N_t = \left(\dfrac{9.6 \times 100}{15}\right)$ million = 64 million.

Thus, Required ratio = $\dfrac{N_q}{N_t} = \dfrac{25.6}{64} = 0.4 = \dfrac{2}{5}.$

Solution (276-280):

276) Answer: A)
The average number of candidates selected over the given period for various states are:

For Delhi = $\dfrac{94 + 48 + 82 + 90 + 70}{5} = \dfrac{384}{5} = 76.8.$

For H.P. = $\dfrac{82 + 65 + 70 + 86 + 75}{5} = \dfrac{378}{5} = 75.6.$

For U.P. = $\dfrac{78 + 85 + 48 + 70 + 80}{5} = \dfrac{361}{5} = 72.2.$

For Punjab = $\dfrac{85 + 70 + 65 + 84 + 60}{5} = \dfrac{364}{5} = 72.8.$

For Haryana = $\dfrac{75 + 75 + 55 + 60 + 75}{5} = \dfrac{340}{5} = 68.$

Clearly, this average is maximum for Delhi.

277) Answer: D)
The percentages of candidates qualified from Punjab over those appeared from Punjab during different years are:

For 1997 = $\left(\dfrac{680}{8200} \times 100\right)\% = 8.29\%.$

For 1998 = $\left(\dfrac{600}{6800} \times 100\right)\% = 8.82\%.$

For 1999 = $\left(\dfrac{525}{6500} \times 100\right)\% = 8.08\%.$

For 2000 = $\left(\dfrac{720}{7800} \times 100\right)\% = 9.23\%.$

For 2001 = $\left(\dfrac{485}{5700} \times 100\right)\% = 8.51\%.$

Clearly, this percentage is highest for the year 2000.

278) Answer: D)

The percentages of candidates selected over the candidates appeared in 1997, for various states are:

(i) For Delhi = $\left(\dfrac{94}{8000} \times 100\right)\% = 1.175\%.$

(ii) For H.P. = $\left(\dfrac{82}{7800} \times 100\right)\% = 1.051\%.$

(iii) For U.P. = $\left(\dfrac{78}{7500} \times 100\right)\% = 1.040\%.$

(iv) For Punjab $\left(\dfrac{85}{8200} \times 100\right)\% = 1.037\%.$

(v) For Haryana $\left(\dfrac{75}{6400} \times 100\right)\% = 1.172\%.$

Clearly, this percentage is lowest for Punjab.

279) Answer: D)

$$\text{Required percentage} = \left[\dfrac{(75 + 75 + 55 + 60 + 75)}{(94 + 48 + 82 + 90 + 70)} \times 100\right]\%$$

$$= \left[\dfrac{340}{384} \times 100\right]\%$$

$$= 88.54\%$$

$$\approx 88.5\%$$

280) Answer: B)

The percentages of candidates selected from U.P. over those qualified from U.P. during different years are:

For 1997 = $\left(\dfrac{78}{720} \times 100\right)$% = 10.83%.

For 1998 = $\left(\dfrac{85}{620} \times 100\right)$% = 13.71%.

For 1999 = $\left(\dfrac{48}{400} \times 100\right)$% = 12%.

For 2000 = $\left(\dfrac{70}{650} \times 100\right)$% = 10.77%.

For 2001 = $\left(\dfrac{80}{950} \times 100\right)$% = 8.42%.

Clearly, this percentage is highest for the year 1998.

280.I) Answer: D)

Required percentage = $\left[\dfrac{(82 + 70 + 48 + 65 + 55)}{(640 + 560 + 400 + 525 + 350)}\right]$%

= $\left[\left(\dfrac{320}{2475} \times 100\right)\right]$%

= 12.93%

≈ 13%.

Solution (281-285):

281). B) In 2007-08 = (99100−88600)/88600×100 = 11.86% increase
In 2008-09 = (99100−97500)/97500×100 = 1.6% increase
In 2009-10 = (104500 − 97500)/97500 = 7.17% increase
In 2010-11 = (116100−104500)/104500 = 11.10% increase

282). C) Profit = Income - Expenditure
Profit in 2006-07 = 88600 - 86000 = Rs. 600 crore
In 2007-08 = 99100 - 87500 = Rs. 11600 cr
In 2008-09 = 975OO - 785OO = Rs. 19000 cr
In 2009-10 = 104500 - 95000 = Rs. 9500 cr
In 2010-11 = 116100 - 105000 = Rs. 11100 cr
Hence the profit of the Railways in 2008-09 is the maximum.

283). C) Average income of the Railways by Passenger trains
= (25800+30500+28800+35500+36100)/5 = 156700/5 = 31340
Hence there are three years in which there is less income than the average income earned by Passenger trains.

284). A) Required percentage = 68600/156700 = 43.77% = 44%

285). C) Required Ratio = 97500/104500 = 195/209 = 195 : 209
Solution (286-290):

286). A)

Selling price = 32,000+4000=36,000
% of Profit = 4000/36000 = 12.5%

287). C)
HTC mobile Selling Price = 33,000
HTC Mobile % Of Profit = 10%
means   33,000 ------- 110%
            ?   ------- 100% (CP)
Cost Price of HTC = 30,000
Micromax cost price = 3/5 *30,000 = 18,000
 Selling price = 22,000
profit = 4,000
% of profit = (4000/18,000)*100 = 22 2/9%

288). E)
Profit on Samsung mobile =3,500
from that profit on LG mobile = 3500+500=4000
Selling Price of LG mobile = 32,000
% of profit on LG = (4000/28,000)*100 = 14 2/7%

289). C)
Cost Price = 53,000
% of profit = 14%
53,000 ------------ 100%
 ?   ----------- 114%
Selling price = 60,420
profit = 60,420-53,000=7420

290). E)
Cost Price = 35,000
Selling Price = 35,000+3500=38500
Ratio = 35000 : 38500 = 10:11
Solution (291-295):

291). Total number of model M_2 items sold by Company A
= 500000 x (21/100) x (3/7) x (45/100) = 20250
Answer: b)

292). Total number of model M_2 items sold by Company C
= 500000 x (12/100)× (1/3) x (65/100) = 13000
Total earning = 13000 x 115 = Rs.14.95 lakh
Answer: d)

293). Total number of model M_2 items sold by Company E
= 500000 x (10/100) x (2/5) x (60/100) =12000
Total number of model M1 items sold by Company C
= 500000 x (12/100) x (2/3) x (75/100) = 30000
Reqd % = (12000/30000) x 100 = 40%
Answer: c)

294). Total number of model M_2 items sold by Company F
= 500000 x (15/100) x (7/15) x (65/100) =22750
Total number of model M_1 items sold by Company D
= 500000 x (18/100) x (4/9) x (55/100) = 22000

Difference = 22750 - 22000 = 750

Answer: a)

295). Total number of model M_1 items produced by Company B
= 500000 x (24/100) x (3/8) = 45000
Total .number of model M 1 items unsold by Company B
= 45000 x (40/100) =18000
Total number of model M_2 items produced by company B
= 500000 x (24/100) x (5/8) = 75000
Total number of model M_2 items unsold by Company B
= 75000 x 46/100 = 34500
Total unsold (M_1+M_2) items =18000+ 34500= 52500

Answer: b)

Solution (296-300):

296). Difference = $80 \times (86.4/360) - (90 \times 32.4)/360$
= 19.2 - 8.1 = 11.1 lakh

Answer is: B

297). Expenditure of Company C on Salary
= $75 \times (75.6/360)$ = 15.75 lakh
Expenditure of Company A on Transportation = $80 \times (54/360)$ = 12 lakh
:. Reqd% = $[(15.75 \times 100)/12]$ = 131.25%; Approx 131%

Answer is: E

298). Average = (1/3) {$[80 \times (64.8/360)+ 90 \times (54/360)+75 \times (86.4/360)]$}
= 1/3 (14.4 + 13.5 + 18) = 45.9/3 = 15.3 lakh

Answer is: B

299). Expenditure of Company A on infrastructure = $[80 \times (64.8/360)]$= 14.4 lakh
Expenditure of Company B on transportation = $90 \times (50.4/360)$ = 12.6 lakh
:. Ratio = (14.4/12.6) = 8/7 = 8 : 7

Answer is: D

300). Expenditure of Company C on infrastructure = $75 \times (86.4/360)$ = 18 lakh
Expenditure of Company A on bonus = $80 \times (36/360)$ = 8 lakh
:. Reqd % = $[(18-8)/8] \times 100$ = (1000/8) = 125%
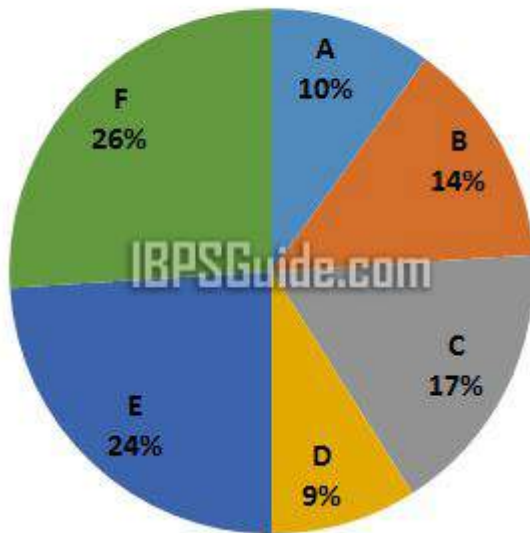
Answer is: D
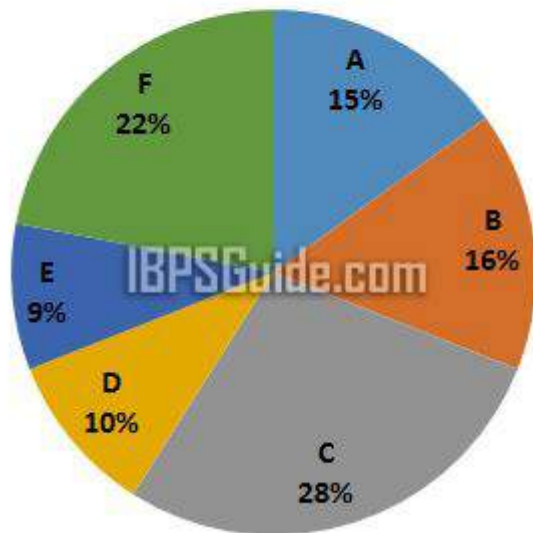
Questions (Set – 61 to 70)

DI Set- 61:

Direction(301-305):

The following pie-charts show the percentage distribution of the total number of readers of a newspaper in the year 2011 and 2015, among six different states.

Year 2011   **Year 2015**

301). If the number of readers from State D in the year 2011 and 2015 were 38700 and 57000 respectively, what is the difference between the total number of readers from State F in the year 2015 and that in 2011?
a) 12400 b) 13600 c) 14200 d) 15700 e) 16800

302). If the ratio of the number of readers from State A in the year 2011 to that in 2015 was 2 : 5, what will be the ratio of the total number of readers from all six states together in year 2011 to that in 2015?
a) 2:5 b) 3:5 c) 4:5 d) 9:25 e) 4 :9

303). If the number of readers from State C in the year 2011 and that from State E in the year 2015 were 73100 and 51300 respectively, then what is the total number of readers from State B in the year 2011 and 2015 together?
a) 1.324 lakh b) 1.468 lakh c) 1.514 lakh d) 1.642 lakh e) 1.728 lakh

304). The percentage share of readers from State A in the year 2015 is approximately what per cent of the percentage share of readers from State E in the year 2011?
a) 47.5% b) 52.5% c) 57.5% d) 62.5% e) None of these

305). If the total number of readers from all six states together in year 2011 and 2015 were 4.3 lakh and 5.7 lakh respectively, what is the difference between the total number of readers from State B and State C together in the year 2011 and 2015?
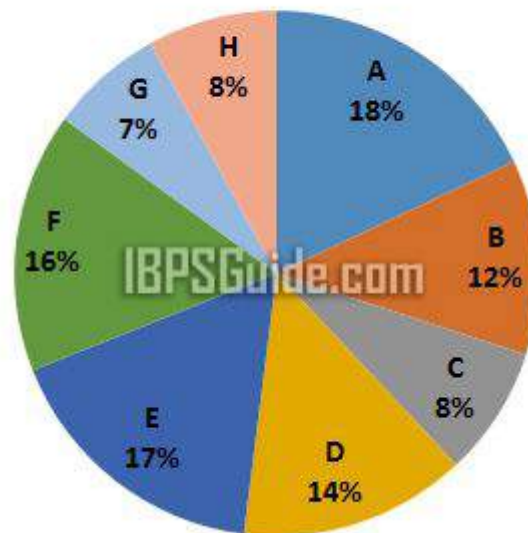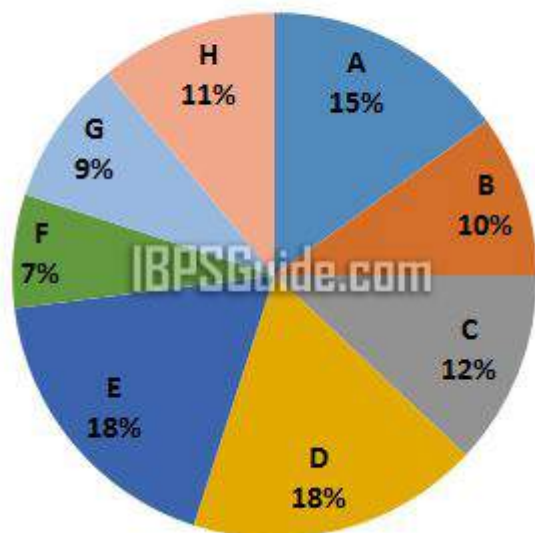a) 1.175 lakh b) 1.415 lakh c) 1.625 lakh d) 1.596 lakh e) None of these

DI Set- 62:
Direction(306-310):

In the following pie charts the percentage of employees of a company working in 8 different states has been given. Study these pie-charts carefully to answer the questions.

Number of male employees = 56000   Total number of employees = 86000

State	Total employees	Number of male employees
A	15480	8400
B	10320	5600
C	6880	6720
D	12040	10080
E	14620	10080
F	13760	3920
G	6020	5040
H	6880	6160

306). What is the average number of female employees in the states D and G?
a) 1670 b) 1970 c) 1270 d) 1470 e) 1070

307). What is the ratio between the number of male employees and female employees in state B?
a) 75 : 56 b) 70 : 31 c) 70 : 59 d) 59 : 70 e) 70 : 69

308). By what per cent is the total number of employees in states E, F and G more than the number of male employees working in the states B, C and D?
a) 59.2% b) 53.6% c) 55.8% d) 45.4% e) 51.2%

309). What is the approximate average number of male employees in states A, B and C ?
a) 7860 b) 6097 c) 6907 d) 6507 e) 6157

310). If an increase of 40% is made in the average number of female employees, working in states C, D and E, then their resulting average number will be what per cent of the average number of female employees?
a) 83% b) 89% c) 75% d) 96% e) 70%

DI Set- 63:

Direction(311-315):

Study the following table carefully to answer the questions.

Rate of Interest (P.C.P.A) of Five Banks on Deposits Under Different Schemes

Company→ Scheme ↓	SBI	IDBI	UCO	DENA	HDFC
Bronze	8.5	9.0	8.0	8.5	9.0
Silver	9.5	8.5	9.0	9.0	8.5
Gold	8.0	8.0	7.5	8.5	8.5
Diamond	10.0	9.5	10.5	9.5	10.0

311). Mr. Anand invested 30,000 in SBI Bank under Silver Scheme which offers simple interest and 48,000 in DENA Bank under Silver Scheme which offers compound interest. What will be the total amount of interest earned by Mr. Anand in two years?
a) 14728.80 b) 16658.50 c) 12987.70 d) 17458.20 e) 18541.70

312). Mr. Rajan deposited an amount in Silver Scheme with UCO Bank for two years. After that he withdrew the amount and reinvested only the principal amount in Diamond Scheme of IDBI Bank for two years. Total amount of simple interest accrued from the two schemes is 14, 800. What was the principal amount?
a) 50,000 b) 60,000 c) 40,000 d) 30,000 e) 45,000

313). Ramesh invested an amount of 45,000 for two years with IDBI Bank under Gold Scheme which offers compound interest and Kalam invested equal amount for two years with UCO Bank under Diamond Scheme which offers simple interest. Who earned more interest and how much?
a) Ramesh, 1,254 b) Kalam, 1,254 c) Ramesh, 1,962 d) Kalam, 1,962 e) Cannot be determined

314). HDFC Bank offers compound interest under Bronze Scheme and SBI Bank offers simple interest under Diamond Scheme. What will be the difference between the interest earned under the Bronze Scheme of HDFC Bank and Diamond Scheme of SBI Bank respectively in two years on an amount of 1.2 lakhs?
a) 1,428 b) 1,268 c) 1,748 d) 1,678 e) 1,358

315). DENA Bank offers compound interest under Silver Scheme and simple interest under Diamond Scheme. Dinesh invested 25,000 with this company under Diamond Scheme and after one year switched over to Silver Scheme along with the interest for one more year. What is the total amount he will get at the end of two years?
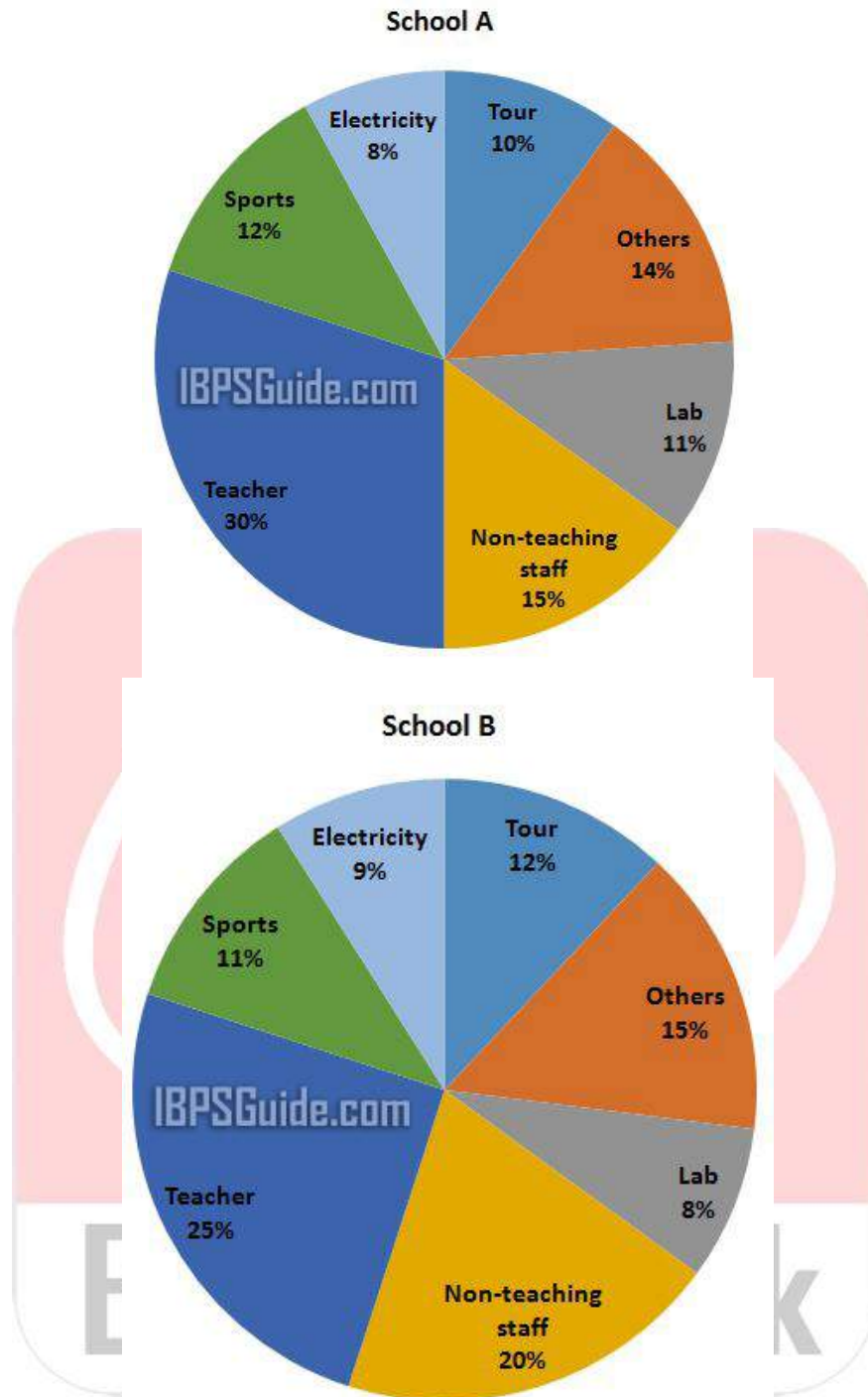a) 27,786.25 b) 29,838.75 c) 33,234.25 d) 39,852.75 e) 30,456.75

DI Set- 64:

Direction(316-320):

Study the following graph and pie-chart carefully to answer the given questions.
The graph shows the expenditure of School A and School B in 2012 under various heads. Total expenditure of School A= Rs. 10 lakh

School A

School B

316). If the total expenditure of School B is 95% of the total expenditure of School A, then what is the difference between the expenditure on teachers of School A and that on non-teaching staff of School B?
a) Rs. 1.5 lakh   b) Rs. 1.1 lakh   c) Rs. 2 lakh   d) Rs. 2.5 lakh   e) Rs. 1.97 lakh

317). If the total expenditure of School A is 20% less than the expenditure of School B, then what is the ratio of the expenditure on tour of School B to that of School A?
a) 9: 7   b) 7: 5   c) 5: 3   d) 3: 2   e) 2: 5

318). There are 60 teachers (including the principal) in School A of these 30% are new teachers who get 40% less salary than the old ones and the Principal gets 10% more salary than an old teacher. What is the salary of a new teacher?
a) Rs. 3212.57   b) Rs. 3658.53   c) Rs. 2835.75   d) Rs.3789.47   e) Rs.2312.91

319). In the summer vacation, when sports, tour, electricity and labs are closed, the expenditure of School A reduces by what per cent?
a) 47%   b) 35%   c) 32%   d) 40%   e) 41%

320). The total expenditure of School B is Rs. 12 lakh and the number of non-teaching staff is 50. If 30% of the non-teaching staff are removed, then the total expenditure reduces by what per cent?
a) 12%   b) 4%   c) 6%   d) 8%   e) 13%

DI Set- 65:

Direction(321-325):

Study the table carefully to answer the following questions.
The percentage profit is given on total cost price.
Cost price = cost of production + transportation cost + packaging cost

Name of goods	Cost of production per kg	Cost of transportation	Cost of packaging	Selling price per kg	Profit/loss	Percentage of profit/ loss
Ghee	Rs.80	Rs.8		Rs.120		
Rice	Rs.40	0	0			5% profit
Sugar	Rs.45		Rs.5		Rs.50	
Milk	Rs.20	Rs.3	Rs.2			
Pulse	Rs.70	Rs.10		Rs.90		6% loss

321). What is the difference between the selling price of Sugar and that of Rice, if the cost of transportation is zero for both?
a) Rs.56   b) Rs.52   c) Rs.48   d) Rs.36   e) Rs.72

322). What is the cost of packaging of pulse?
a) Rs.22.5   b) Rs.20.04   c) Rs.19.91   d) Rs.18.71   e) Rs.15.74

323). What is the percentage profit of milk if its selling price is 80% of the cost price of Rice?
a) 28%   b) 30%   c) 32%   d) 34%   e) 38%

324). 4 kg Ghee, 3 kg Rice and 5 kg Milk are sold. What is profit or loss percentage? (The packing cost is zero for all goods) and selling price of Milk is Rs.32 per kg?
a) 36%   b) 32%   c) 30.49%   d) 34.2%   e) 31.5%

325). If the profit of milk is Rs. 36 then from the selling price is reduced by 12.5%, what is the new selling price?
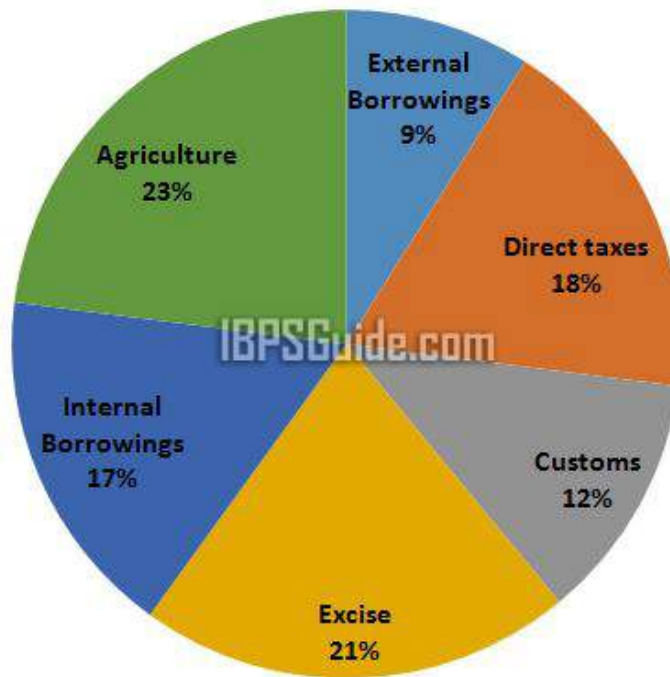a) 48   b) 53   c) 61   d) 66   e) 59

DI Set- 66:

Direction(326-330):

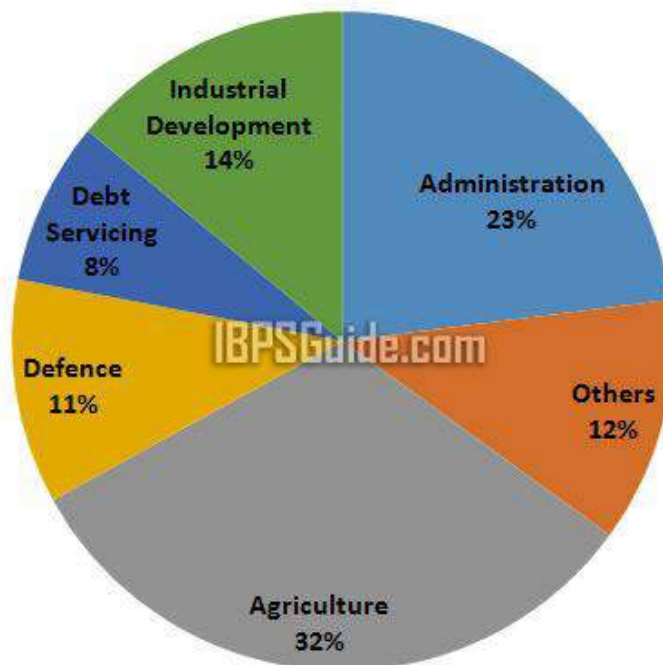Refer to the pie-charts below and answer the questions that follow.
YEAR 1999-2000
BREAK-UP OF NATIONAL INCOME AND NATIONAL EXPENDITURE

Rupee Earned

Rupee Spent

326). If debt service ratio = debt servicing cost / national income, by what percentage should agricultural income rise (keeping all other incomes constant) so as to bring the debt-service ratio to 7.5%?
a) 7%   b) 29%   c) 40%   d) 125%   e) 150%

327). If it is known that out of total external borrowings, 65% is spent on industrial development, 28% on defence, and the rest on debt servicing, then what is the component of foreign finance in industrial development? (Assume rupees earned = rupees spent)
a) 74%   b) 53%   c) 42%   d) 27%   e) 25%

328). If the total collection by way of direct taxes in 1999-2000 was estimated at Rs 123,000 million, how much extra money was pumped into the agricultural sector during 1999-2000? (Assume rupees earned = rupees spent)

a) Rs 20,000 million   b) Rs 47,000 million   c) Rs 61,500 million   d) Rs 72,000 million
e) Rs 56,000 million

329). If the internal borrowings are to be decreased by 50%, by what per cent should the rupee earned from other resources be increased if external borrowings cannot be increased?
a) 11.5%   b) 20%   c) 30%   d) 17%   e) 25%

330). If the sectoral allocation is to change so that our country spends as much on industrial development as on agriculture (with total spending on industrial development and agriculture remaining the same), then the allocation of agricultural sector should reduce by approximately
a) 25.13%   b) 17%   c) 36%   d) 28%   e) 28.13%
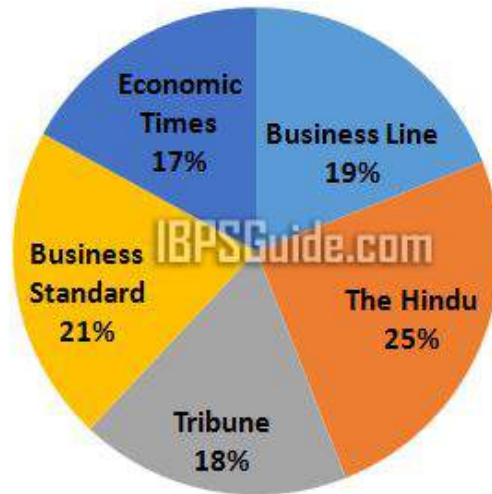
DI Set- 67:
Direction(331-335):

Study of the following pie-charts carefully to answer the given questions.

Details of the number of persons reading newspapers from different cities
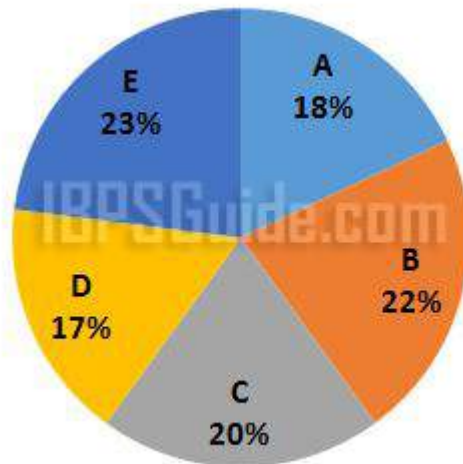
Total no. of persons=8.52 crore
Percentage of persons reading different newspapers in each city

Different categories of persons reading each news papers in each city

331).What is the difference between the college students who reads Business Line from City A and the corporate persons who reads Tribune from City D?
a) 334156   b) 354182   c) 364164   d) 352728   e) None of these

332).The number of professionals reading Business Line from city C is approximately what per cent of the number of college students reading The Hindu from city B?
a) 92%   b) 86%   c) 83%   d) 85%   e) 87%

333).The total number of corporate persons who read Tribune from city B, C and D together is what percentage more or less than the total number of persons in others category who read Economic Times from city A and E together?
a) 301.45%   b) 204.73%   c) 354.36%   d) 284.56%   e) 423.84%

334).What is the ratio of the no. of persons reading Business line from city A to the no. of persons reading Business Standard from city C?
a) 67:78   b) 57:70   c) 70:57   d) 78:67   e) None of these

335).What is the difference between the no. of college students reading Economic Times from city E and the no. of corporate reading business Standard from city C?
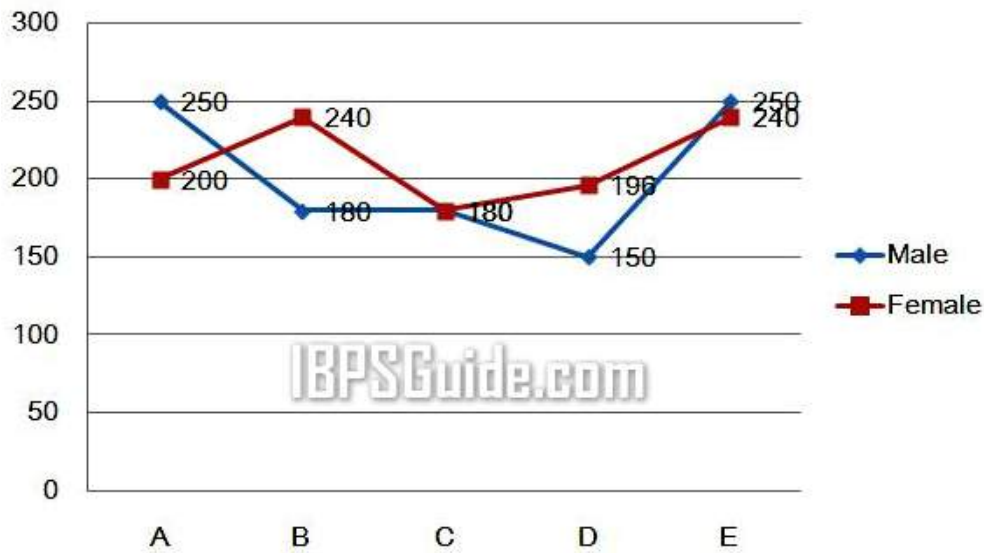a) 283716   b) 252628   c) 352829   d) 426827   e) 224825
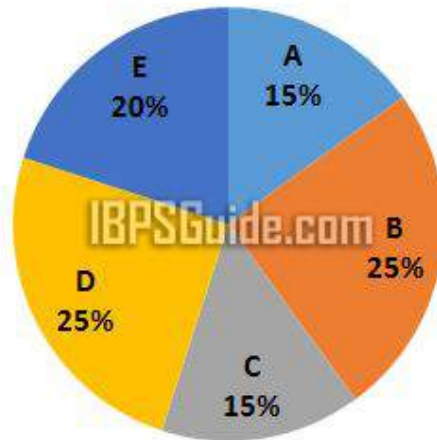
DI Set- 68:

Direction(336-340):
Following graph shows the number of males and females in 5 different cities

Pie‑chart Ⅰ and pie‑chart Ⅱ shows the percentage illiterate males and percentage literate females of different states respectively
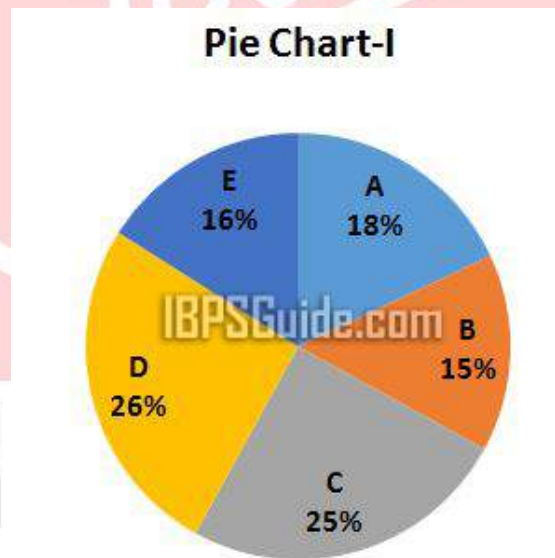
Pie Chart-II

336). The total number of illiterate females in State C and B is what percentage of literate males in State E and A?
a) 82.54%   b) 61.46%   c) 75.58%   d) 80.24%   e) 60.23%

337). If city F has 25% more no. of females than that in city D, and 35% more no. of males than that in city B, then the literate males of city B & C together is what percentage more or less than the total no. of males and females together in city F?
a) 23.33%   b) 66.66%   c) 91.94%   d) 44.44%   e) 40.98%

338). What is the total number of illiterate females?
a) 912   b) 812   c) 842   d) 852   e) 862

339). What is the total number of illiterate males?
a) 912   b) 710   c) 618   d) 594   e) 814

340). What is the difference between the average of literate females in State B, C, D and E together and the average of literate males in State A, B, D and C together?
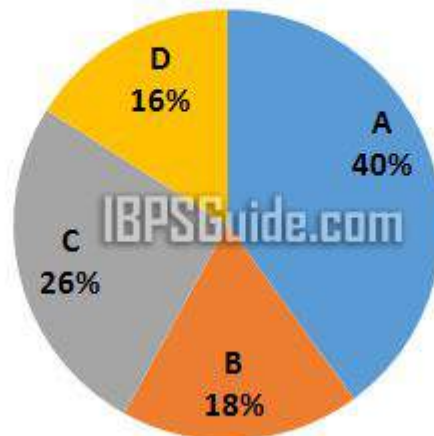a) 142   b) 105   c) 133   d) 185   e) 163

DI Set- 69:

Direction(341-345):
Study the following bar‑graph and pie‑chart carefully to answer the following questions

(Speed in Kmph)

Percentage of distance travelled by Shyam by the four different boats

341). What is the difference of time taken by boat A to travel 200 km upstream and boat B to travel 312 km downstream?
a) 18 hours   b) 32 hours   c) 21 hours   d) 13 hours   e) 24 hours

342). What is the time taken by Shyam to reach his destination upstream?
a) 272 hours   b) 245 hours   c) 240 hours   d) 232 hours   e) 268 hours

343). If the speed of boat C is increased by 40% and the speed of stream decreases by 20% then what is the difference between the time taken by the boat now and that taken previously to travel 200 km? (Assume opposite direction of stream)
a) 28 6/23 hours   b) 22 4/5 hours   c) 20 4/5 hours   d) 18 5/6 hours   e) 35 5/6 hours

344). If the speed of boat D increases by 10% then what is the approximate percentage of the time taken by Shyam to reach 500 km by boat D to the time taken by him to reach 1500 km by boat D?(Assume opposite direction of stream)
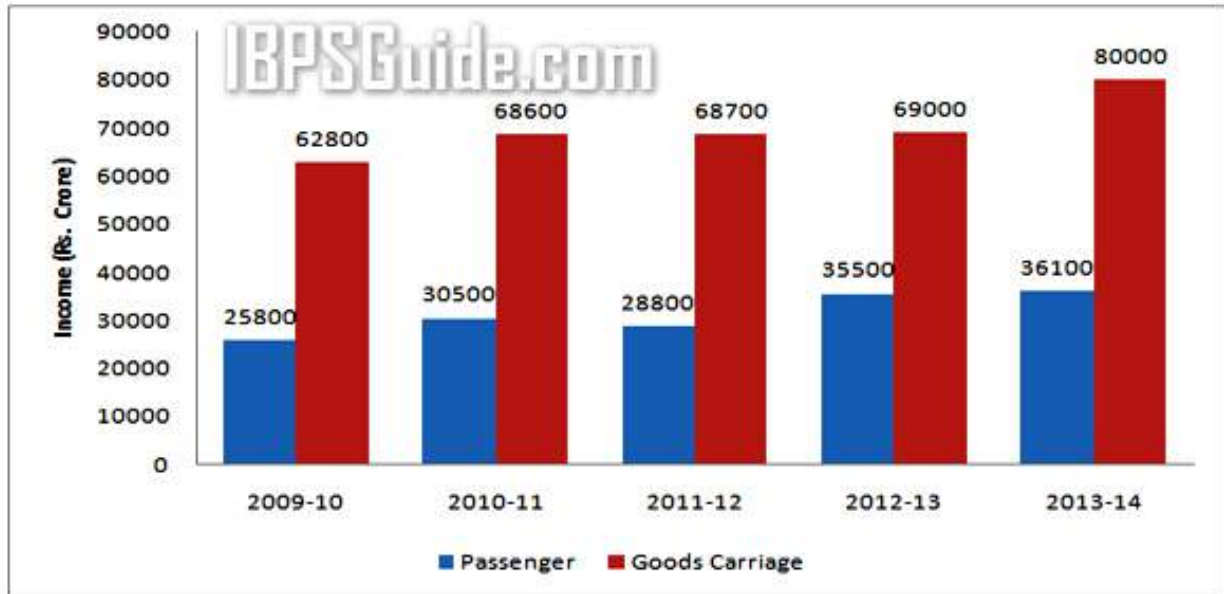a) 48%   b) 33%   c) 68%   d) 78%   e) 44%

345). What is the ratio of the time taken by boat C to that taken by boat D? (Assume same direction of stream)

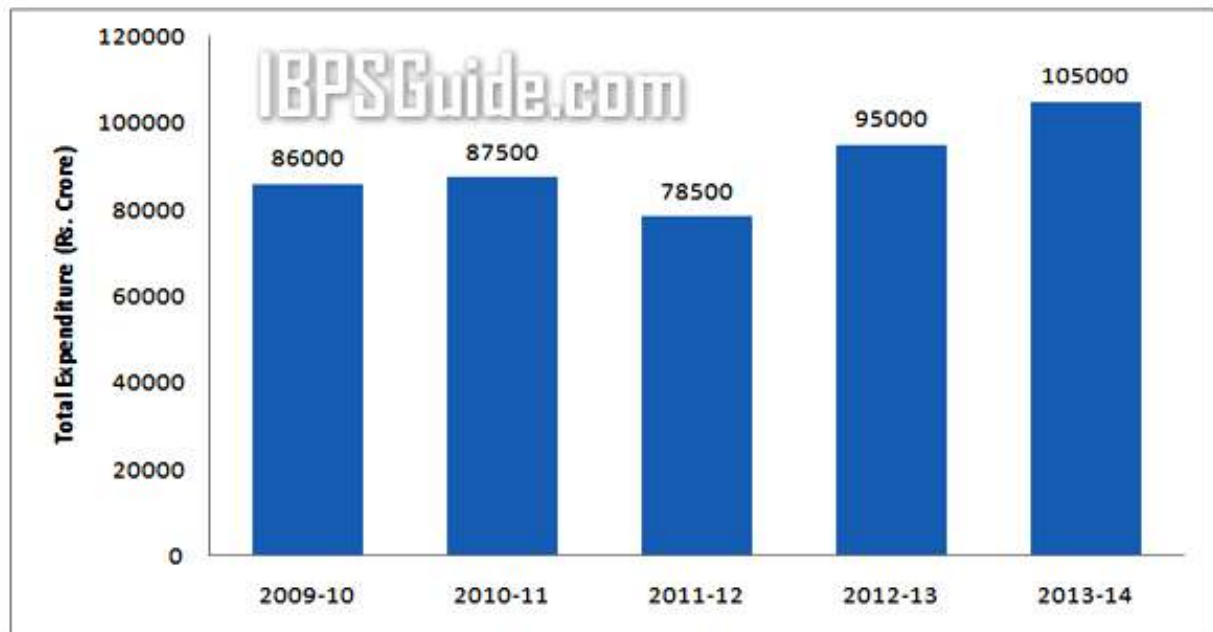a) 9 : 7 b) 7 : 5 c) 5 : 3 d) 4 : 3 e) 3 : 2

DI Set- 70:

Direction(346-350):

Income of the Railways from Passenger and Goods carriage

Total expenditure of Railways on both (Passenger + Goods carriage)
Profit = Income ‑ Expenditure

346). In which of the following years is the percentage increase / decrease in the total income of the Railways the maximum from its previous year?
a) 2013 – 14 b) 2010 – 11 c) 2011 – 12 d) 2012 ‑ 13 e) None of these

347). In which of the following years is the profit percentage of the Railways the maximum?
a) 2009 – 10 b) 2010 – 11 c) 2011 – 12 d) 2012 ‑ 13 e) None of these

348). In how many years is the income of the Passenger trains less than the average income of the Passenger trains in all the given years and the expenditure of the Passenger + Goods carriage trains more than the average expenditure of the Passenger + Goods carriage trains in all the given years respectively?
a) Two, three b) Four, three c) Three, two d) One, four e) None of these

349). What is the approximate percentage of income from Goods carriage in all the given years in comparison to the total income and expenditure of the Passenger + Goods carriage trains for all the given years?
a) 36% b) 40% c) 48% d) 52% e) None of these

350). In 2015 – 16, if the income of railways from passenger and goods carriage trains increases by 34% and 27% of the income by passenger and goods carriage trains in 2012 – 13 respectively, then what is the ratio of the total income in the year 2015 ‑ 16 with respect to that in the year 2013 ‑ 14?
a) 1245 : 1165 b) 1095 : 1110 c) 1352: 1161 d) 1205 : 1249
e) None of these

Detailed Solution for (Set- 61 to 70)

Solution (301-305):

301). Number of readers from State F in the year 2015
= 57000 $\times$ (100/10) $\times$ (22/100) = 1.254 lakh
Number of readers from State F in the year 2011
= 38700 $\times$ (100/9) $\times$ (26/100)=1.118 lakh
:. Difference =1.254 - 1.118 = 0.136 lakh = 13600
Answer is: B

302). Let the number of readers from State A be 2x and 5x respectively in the year 2011 and 2015.
:. Total number of readers from State A in the year 2011
= 2x $\times$ (100/10)=20x
Total number of readers from State A in the year 2015
= 5x $\times$ (100/15) = 100x/3
:. Ratio = 20x $\times$ (3/100x) = 3 : 5
Answer is: B

303). The number of readers from State B in the year 2011
=73100 $\times$ (100/17) x (14/100)= 60200
The number of readers from State B in the year 2015 =
= 51300 $\times$ (100/9) $\times$ (16/100) = 91200
:. Total= 60200 + 91200 = 151400
Answer is: C

304). Reqd % = (15/24) $\times$ I00=62.5%
Answer is: D

305). The number of readers from State B in the year 2011
=430000 $\times$ (14/100)=60200
The number of readers from State C in the year 2011
=430000 $\times$ (17/100) = 73100
:. Total number of readers from State B and C in the year 2011= 133300
The number of readers from state B in the year 2015

$=570000 \times (16/100) = 91200$

The number of readers from state C in the year 2015 = $570000 \times (28/100) = 159600$

:. Total no. of readers from State B and C in the year 2015= 250800

Difference = 250800-133300= 117500

Answer is: A

Solution (306-310):

306). Females in state D

$= 12040 - 10080 = 1960$

Females in state G

$= 6020 - 5040 = 980$

Required average

$= (1960 + 980)/ = 2940/2 = 1470$

Answer is: d)

307). Employees in state B:

Males = 5600

Females = $10320 - 5600 = 4720$

Required ratio

$= 5600 : 4720 = 70 : 59$

Answer is: c)

308). Total employees in states E, F and G = 14620 + 13760 + 6020 = 34400

Total male employees in states B, C and D

$= 5600 + 6720 + 10080$

Required percentage = $(34400 - 22400)/22400 \times 100$

$= 12000 \times 100/22400 = 53.6\%$

Answer is: b)

309). Male employees:

States (A + B + C)

$= 8400 + 5600 + 6720 = 20720$

Required average = $20720/3 = 6907$

Answer is: c)

310). New number of female employees:

State C

Total employees = 6880

Female employees = $6880 - 6720 = 160$

State D

Total employees = 12040

Female employees = $12040 - 10080 = 1960$

State E

Total employees = 14620

Female employees = $14620 - 10080 = 4540$

Total female employees

$= 160 + 1960 + 4540$

$= 6660$

Average = $6660/3 = 2220$

New average = $(2220 \times 140)/100 = 3108$

Earlier average

$= 86000 - 56000/8 = 30000/8 = 3750$

Required percentage = 3108/3705 $\times$ 100 = 83%
Answer is: a)
Solution (311-315):

311). Interest earned under Silver Scheme of SBI Bank
= { (30000 $\times$ 9.5 $\times$ 2)/100} = 5700
CI earned under Silver Scheme of DENA Bank
= 48000 { (1 + 9/100)^2 –1) }
= (48000 $\times$ 0.1881) = 9028.8
Total interest earned by Mr. Anand
= (5700 + 9028.8) = 14728.8
Answer is: a)

312). Let the principal be x, Interest accrued from UCO Bank = x $\times$ 2 $\times$ 9/100 = 9x/50
Interest accrued from IDBI Bank = 9.5x/50
= 9.5x/50 + 9x/50 = 14800
= 18.5x = 14800 $\times$ 50
x = 14800 $\times$ 50/18.5 = 40000
Answer is: c)

313). CI got by Ramesh = 45000 { (1 +8/100)^2 -1}
= (45000 $\times$ 0.1664) = 7488
Interest got by Kalam
= {(45000 $\times$ 10.5 $\times$ 2)/100} = 9450
Difference
= (9450 – 7488) = 1962
Kalam earned more interest.
Answer is: d)

314). CI earned under the Bronze Scheme of HDFC Bank
= P { (1+R/100)^T -1} = 120000 { (1+9/100)^2 -1}
= 120000 $\times$ 0.1881 = 22572
CI earned under the Diamond Scheme of the SBI Bank
= (120000 $\times$ 2 $\times$ 10)/100 = 24000
Difference
= (24000 – 22572) = 1428
Answer is: a)

315). SI earned under the Diamond Scheme of DENA Bank
= 25000 $\times$ 9.5/100 = 2375
Amount = (25000 + 2375) = 27375
Total amount under Silver Scheme
= 27375 $\times$ (1 + 9/100)
= 27375 $\times$ 109/100
= 29838.75
Answer is: b)
Solution (316-320):

316). Answer: 2)
Total expenditure of School B = 1000000 x 95/100 = Rs. 950000 = Rs. 9.5 lakh.
Therefore, Expenditure on teachers of School A = 1000000 x 30/100 = Rs. 300000 lakh = Rs. 3 lakh
Expenditure on non-teaching staff of School à B = 950000 x 20/100 = Rs.190000 = Rs. 1.9 lakh

Therefore, Reqd. difference = (3 lakh - 1.9 lakh) = Rs. 1.1 lakh

317). Answer: 4)
Given total expenditure of School A = Rs. 10 lakh
Total expenditure of School B = 1000000 x 100 / 80 = Rs. 1250000 = Rs. 12.5 lakh
Therefore, Expenditure of School B on tour =1250000 x 12 / 100 = 150000 = 1.5 lakh
Expenditure of School A on tour = 1000000 x 10 / 100 = Rs. l lakh
Therefore, Reqd. ratio = 150000: 100000 = 3: 2

318). Answer: 4)
Salary of all the teachers in School A = 1000000 x 30 / 100 = Rs. 300000
Number of new teachers = 60 x 30 / 100 = 18
Number of old teachers = (60 - 18) = 42
Let the salary of an old teacher be Rs. x.
Salary of a new teacher = x $\times$ 60 / 100 = 3x / 5
Now, salary of principal =Rs. 11x / 10
So, x $\times$ 41 + 11x/10 + 3x $\times$ 18 / 5 = 300000
(410x +11x+ 54x) / 10 = 300000
 or, 475x= 300000 x 10
x = 300000 x10 / 475 à x = Rs. 6315.78
Salary of a new teacher = 6315.78 $\times$ 3 / 5 = 3789.47

319). Answer: 5)
In summer vacation there is no expenditure on sports, tour, electricity and lab.
The remaining expenditure = expenditure on teacher + non-teaching staff + others
= 30 + 15 + 14 = 59%
Therefore, Expenditure reduces by (100 - 59 =) 41%

320). Answer: 3)
In School B, the expenditure on non-teaching staff = 12 x 20/100 = 2.4 lakh
Expenditure on each non-teaching staff = 240000 / 50 = Rs. 4800
After removing 30% the number of non-teaching staff= 50 x 70 / 100 = 35
Salary of 35 non-teaching staff = 35 x 4800 = Rs.168000 =1.68 lakh
Therefore, Reduction in expenditure = 2.4 lakh - 1.68 lakh = 0.72 lakh = Rs. 72000
Therefore, Percentage reduction in total expenditure = 72000 /1200000 x 100 = 6%

Solution (321-325):

321). Option C)

Selling price of Rice = $40 \times \frac{105}{100}$ = Rs.42
Selling price of Sugar = 45 + 5 + 50 = Rs.100
So, required difference = 100 ⍰ 42 = 48

322). Option C)

Selling price of Pulse = Rs.90   Loss = 6%
Total cost price = $90 \times \frac{100}{94}$ = Rs.95.74
So, cost of packaging of pulse = Total cost price ⍰ Cost of production ⍰ Cost of transportation = 95.74 ⍰70.10 = Rs.15.74

323). Option A)

Cost price of Rice = Rs.40

Selling price of Milk = $40 \times \frac{80}{100}$ = Rs.32

Cost price of Milk = Cost of production + transportation + packaging = 20 + 3 + 2 = Rs.25

So, % profit = $\frac{32 - 25}{25} \times 100 = 28\%$

324). Option C)

Cost price of 4 kg Ghee + 3 kg Rice + 5 kg Milk

= [4 × (80 + 8) + 3 × 40 + 5 × (20 + 3)]

= 352 + 120 + 115 = Rs.587

Selling price of 4 kg Ghee + 3 kg Rice + 5 kg Milk = 4 × 120 + 3 × 42 + 5 × 32 = 480 + 126 + 160 = Rs.766

So, % profit = $\frac{766 - 587}{587} \times 100 = 30.49\%$

325). Option B
Profit= Rs. 36
CP = 20+ 3 + 2 = Rs. 25
SP = 36+25 = Rs. 61
SP is reduced by 12.5% = 61 × (87.5/100)
= Rs. 53.37
Approx = Rs. 53
Solution (326-330):

326). Debt service ratio = Debt servicing cost / National Income

To bring down the ratio from 8% to 7.5%, national income must rise by 8 / 7.5,

Ie, 16 / 15 times, ie by 1 / 15 × 100 = 6.67%

All other income except Agriculture remains constant.

Agricultural income should rise by 6.67 / 23 × 100 = 29%.

Answer: b)

327). External borrowing = 9% of resources available.

65% of external borrowings spent on industrial development

= 65 / 100 × 9% = 5.85% of total resources.

Assuming the budget to be a zero-deficit one, ie rupee earned - rupee spent = 0, we find the proportion of foreign finance (external borrowings) in industrial development

= 5.85 / 14 × 100 = 42%.

Answer: c)

328). Again, assuming a zero-deficit budget, 18% of rupee earned = 123,000 million.

Extra money pumped = 32% - 23% = 9%, which is 18% = 1,23,000

Extra money pumped = 1,23,000 × (9/18) = Rs 61,500 million.

Answer: c)

329). Internal borrowings are decreased by 50%.

Internal borrowings = 0.5 × 17 = 8.5

External borrowings cannot be increased.

Rupee earned by other resources should increase by (8.5 / 74) × 100 = 11.5%

Answer: a)

330). Total spend on agriculture and industry = 32 + 14 = 46%

If total spending on industry and agriculture are the same then 23% will be spent on each.
Required reduction = 9 / 32 $\times$ 100 = 28.13%
Answer: e)

Solution (331-335):

331). Required no. of college students=8.52 cr $\times$ (18/100) $\times$ (19/100) $\times$ (30/100) = 0.0874152 crore = 874152
Required no. of corporate persons=8.52 cr $\times$ (18/100) $\times$ (17/100) $\times$ (20/100) = 0.0521424 crore = 521424
Required difference = 874152 – 521424 = 352728
Answer: d)

332). Required %=[8.52 $\times$ (20/100) $\times$ (19/100) $\times$ (40/100)] / [8.52$\times$ (22/100) $\times$ (25/100) $\times$ (30/100)] $\times$
100 = [(20$\times$19$\times$40)/(22$\times$25$\times$30)] $\times$ 100 = (760/825) $\times$ 100
= 92.12%
≈ 92%
Answer: a)

333). Total number of corporate persons
=8.52 $\times$ (22/100) $\times$ (18/100) $\times$ (20/100) + 8.52 $\times$ (22/100) $\times$ (18/100) $\times$ (20/100) + 8.52 $\times$ (17/100) $\times$
(18/100) $\times$ (20/100)
= [(8.52$\times$18$\times$20) / (100$\times$100$\times$100)] (22+20+17)
= (8.52$\times$18$\times$20$\times$59)/(100$\times$100$\times$100) = 0.1809648 crore
=1809648
Total number of persons in others category who read Economic Times from city A and E together
= 8.52 (18/100) $\times$ (17/100) $\times$ (10/100) + 8.52 $\times$ (23/100) $\times$ (17/100) $\times$ (10/100)
=[(8.52$\times$17$\times$10) / (100$\times$100$\times$100)] (23+18)
= (8.52$\times$17$\times$10$\times$41)/(100$\times$100$\times$100) = 593844
Reqd. percentage = (1809648 – 593844) / 593844 $\times$100
= 204.73%
Answer: b)

334). Required ratio = [8.52 $\times$ (18/100) x (19/100)] / [8.52$\times$(21/100) x (20/100)] = 18 x 19: 21 x 20 = 57:70
Answer: b)

335). Required difference= 8.52$\times$(23/100) $\times$ (17/100) $\times$ (30/100) - 8.52 $\times$ (20/100) $\times$ (21/100) $\times$ (20/100)
=8.52/(100$\times$100$\times$100){23$\times$17$\times$30 – 20$\times$21$\times$20} crore
=8.52/1000000{11730-8400} crore=8.52$\times$3330$\times$10 = 283716
Answer: a)

Solution (336-340):

336). The number of illiterate female of state C = 180 $\times$ (85 / 100) =153
The number of illiterate female of state B = 240 $\times$ (75 / 100) = 180
The number of literate male of state E = 250 $\times$ (84 / 100) = 210
The number of literate male of state A = 250 $\times$ (82 / 100) = 205
Reqd. percentage = (153 + 180) / (210 + 205) $\times$ 100 = 333 / 415 $\times$ 100 = 80.24%
Answer: d)

337). No. of females in city F = 196 $\times$ (125 / 100) = 245
No. of males in city F = 180 $\times$ (135 / 100) = 243

Total no. of males and females in city F = 245 + 243 = 488

The number of literate male of state B = 180 × (85 / 100) = 153

The number of literate male of state C = 180 × (75 / 100) = 135

The literate males of city B & C = 288

∴ Reqd % = (488 - 288) / 488 × 100 = (200 / 488) × 100 = 40.98%

Answer: e)

338). Total number of illiterate females of all states together

= 200 × (85 / 100) + 240 × (75 / 100) + 180 × (85 / 100) +

196 × (75 / 100) + 240 × (80 / 100)

= 170 + 180 + 153 +147 + 192 = 842

Answer: c)

339). Total number of literate males = 250 × (82 / 100) + 180 × (85 / 100) +

180 × (75 / 100) + 150 × (74 / 100) + 250 × (84 / 100)

= 205 + 153 + 135 + 111 + 210 =814

Answer: e)

340). Literate females in State B, C, D and E = 240 × (25 / 100) + 180 × (15 / 100) + 196 × (25 / 100) + 240 × (20 / 100)

= 60 + 27 + 49 + 48 = 184

Average = 184 / 4 = 46

Literate males in State A, B, C and D = 250 × (82 / 100) + 180 × (85 / 100) + 180 × (75 / 100) + 150 × (74 / 100)

= 205 + 153 + 135 + 111 = 604

Average = 604 / 4 = 151

∴ Reqd difference = (151 - 46) = 105.

Answer: b)

Solution (341-345):

341). Time taken by boat A to travel 200 km = [200 / (18 – 10)] = 25 hrs

Time taken by boat B to travel 312 km = [312 / (14 + 12)[= 12 hrs

∴ Reqd difference = (25 - 12) = 13 hours

Answer: d)

342). Total distance travelled by Shyam = 1000 km

Distance covered by boat A = 1000 × (40 / 100)

= 400 km

Time taken by boat A = [400 / (18 - 10)[= 50 hours

Time taken by boat B = {[1000 × (18 / 100)] / (14 - 12)} = 90 hours

Time taken by boat C = {[1000 × (26 / 100)] / (10 - 6)} = 65 hours

Time taken by boat D = {[1000 × (16 / 100)] / (14 - 10)} = 40 hours

∴Total time taken by Shyam = (50 + 90 + 65 + 40) = 245 hours

Answer: b)

343). Speed of boat C after 40% increase in its speed = [10 × (140 / 100)] = 14 kmph

Speed of stream after 20% decrease = [6 × (80 / 100)] = 4.8 kmph

Now, time taken by boat C = [200 / (14 - 4.8)] = (200 / 9.2) = 21 17/23 hours

Time taken by boat previously = 200 / (10 - 6)

= (200 / 4) = 50 hours

∴Difference = [50 – 21 17/23] = [28 (6 / 23)] hours
Answer: a)

344). New speed of boat D = [14 × (110 / 100)] = 15.4 kmph
Time taken to travel 500 km = [500 / (15.4 ‐ 10)] = 92.59
Time taken to travel 1500 km = [1500 / (15.4 ‐ 10)] = 277.77
Required percentage = 92.59 / 277.77 × 100 = 33.33% ≈ 33%

Answer: b)

345). Time taken by boat C = [x km / (10 + 6)]
Time taken by boat D = [x km / (10 + 14)]
Reqd ratio = (x / 16) : (x / 24) = 3 : 2
Answer: e)

Solution (346-350):
346). In 2010 – 11 = [(99100 ‐ 88600) / 88600] × 100 = 11.85% increase
Similarly, in 2011 –12 = [(99100 ‐ 97500) / 99100] × 100 = 1.6% decrease
In 2012 –13 = [(104500 ‐ 97500) / 97500] = 7.17% increase
In 2013 –14 = [(116100 ‐ 104500) / 104500] × 100 = 11.10% increase
Answer: b)

347). Profit = Income –Expenditure
Profit percentage = Profit / Expenditure × 100
Profit in 2009 – 10 = 88600 – 86000
= Rs. 2600 crore
Reqd. % = 2600 / 86000 × 100 = 3.02%
Similarly, in 2010 – 2011 = 99100 – 87500
= Rs. 11600 cr
Reqd. % = 11600 / 87500 × 100 = 13.25%
In 2011 –12 = 97500 – 78500
= Rs. 19000 cr
Reqd. % = 19000 / 78500 × 100 = 24.20%
In 2012 –13 = 104500 – 95000
= Rs. 9500 cr
Reqd. % = 9500 / 95000 × 100 = 10%
In 2013 –14 = 116100 –105000
= Rs. 11100 cr
Reqd. % = 11100 / 105000 × 100 = 10.57%
Hence the profit % of the Railways in 2011 – 12 is the maximum
Answer: c)

348). Average income of the Railways by Passenger trains
= (25800 + 30500 + 28800 + 35500 + 36100) / 5
= 156700 / 5 = 31340
Hence there are three years in which there is less income than the average income earned by Passenger trains.
Average expenditure of the Passenger + Goods carriage trains
= (86000 + 87500 + 78500 + 95000 + 105000) / 5
= 452000 / 5 = 90400
Hence there are two years in which there is more expenditure than the average expenditure earned by Passenger and Goods carriage trains.
Answer: c)

349). Income of the Railways by Goods carriage trains

= 62800 + 68600 + 68700 + 69000 + 80000

= 349100

Total income of the Railways by Goods carriage & passenger trains

= 25800 + 30500 + 28800 + 35500 + 36100 + 349100

= 505800

Total expenditure of the Railways by Goods carriage & passenger trains

= 86000 + 87500 + 78500 + 95000 + 105000

= 452000

Total income and expenditure = 505800 + 452000 = 957800

Required percentage = 341900 / 957800 × 100

= 35.69% ≈ 36%

Answer: a)

350). Total income of railways from passenger and goods carriage trains in 2015 – 16

= 35500 × 134 / 100 + 69000 × 127 / 100

= 47570 + 87630

= 135200

Total income of railways from passenger and goods carriage trains in 2013 – 14

= 36100 + 80000

= 116100

Reqd ratio = (135200 / 116100) = (1352 / 1161)
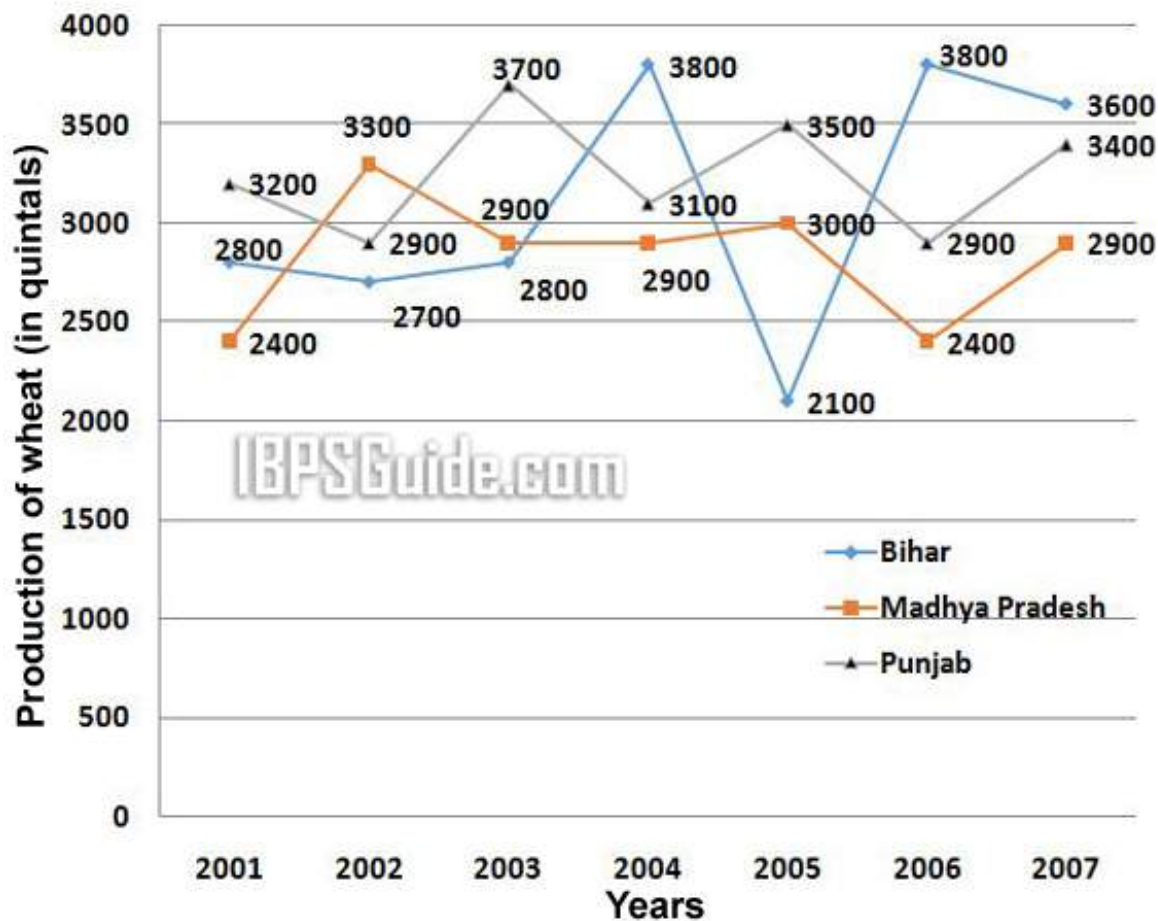
= 1352: 1161

Answer: c)

Questions (Set – 71 to 80)

DI Set- 71:

Direction(351-355):

In the following multiple graphs production of wheat (in quintals) by three states ⁃ Bihar, Madhya Pradesh and Punjab have been given. Study the following graphs carefully to answer the questions.

351). If the production of wheat by Madhya Pradesh in the years 2003, 2004, 2005 and 2007 increase by 30%, 40%, 45% and 40% respectively. What will be the overall percentage increase in the production of wheat in the state in the given years?
a) 22.92% b) 25.65% c) 35.74% d) 16.38%   e) 19.49%

352). What was the percentage of the average production of wheat by all three states in the year 2005 and 2003 together to the average production of wheat by all three states in the year 2001 and 2007 together? (in quintals)
a) 86.61% b) 98.36% c) 68.82% d) 78.81% e) None of these

353). In the given years, what is the average production of wheat in Bihar? (in quintals)
a) 3068 b) 3076 c) 3086 d) 3088 e) None of these

354). If the production of wheat in Bihar in the years 2001, 2002, 2003 and 2004 increase by 20%, 25%, 28% and 35% respectively: what will be the percentage increase in the average production of the state for the given years ?
a) 25.7% b) 15.50% c) 20.7%   d) 22.5% e) None of these

355). By what percent is the total production of wheat by three states in the years 2002, 2003 and 2004 more or less than that in the years 2005, 2006 and 2007 ?
a) 2.52% b) 2.61% c) 1.92% d) 1.81% e) None of these

**DI Set- 72:**

Direction(356-360):

Table I gives percentage of no. of units sold in 4 categories namely Cordless phones, Hair Dryers, Water filters, and Others by five different stores – I, II, III, IV and V in the year 2002. Table II gives the average monthly sales revenue earned per unit. The line graph shows total no. of units sold by each of the five stores, (in 100's) for the year 2002.

Table I

Category →	Cordless phone	Hair Dryer	Water filter	Others
Store I	20	35	22	23
Store II	15	52	21	12
Store III	21	40	26	13
Store IV	17	27	38	18
Store V	33	33	19	15

Table II

Category →	Cordless phone	Hair Dryer	Water filter
Store I	2725	2585	2645
Store II	3190	3195	3220
Store III	3775	3815	3525
Store IV	4460	4480	3880
Store V	4905	5110	4320

Line graph
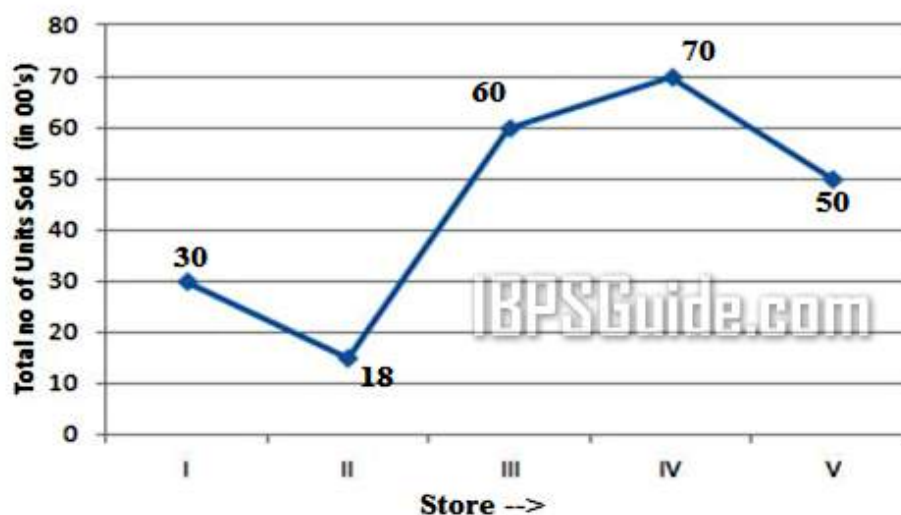
356). The no. of units of cordless phone, sold by all the five stores together is less than what percentage of the no. of units sold by all the five stores in case of hair dryers is
a) 5621 b) 2956 c) 2696 d) 2676 e) None of these

357). By how much percent is the total average monthly sales revenue, earned per unit of store I, III and V together in case of cordless phones more/less than the total average monthly sales revenue earned per unit of store II, III and IV for water fitters?
a) 7.34% b) 8.54% c) 6.84% d) 5.64% e) None of these

358).Find the difference between the total average monthly sales revenue per unit for store III and V together for all the categories except others category and the total average monthly sales revenue per unit for store II and IV together for all the categories except others category.
a) Rs. 3705 b) Rs. 3759 c) Rs. 5739 d) Rs. 3025 e) None of these

359).In case of store I and IV, the annual sales revenue earned for cordless phones is less than that of water filter by
a) Rs. 66.2 lakhs b) Rs. 626 lakhs c) Rs. 666.67 lakhs d) None of these e) Cannot be determined

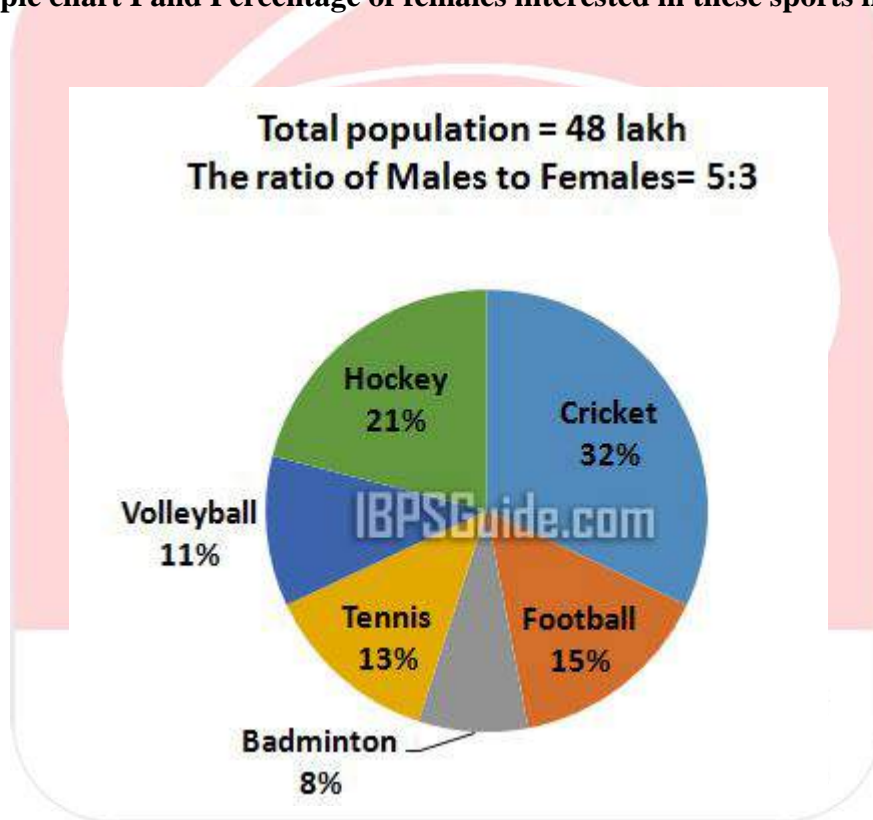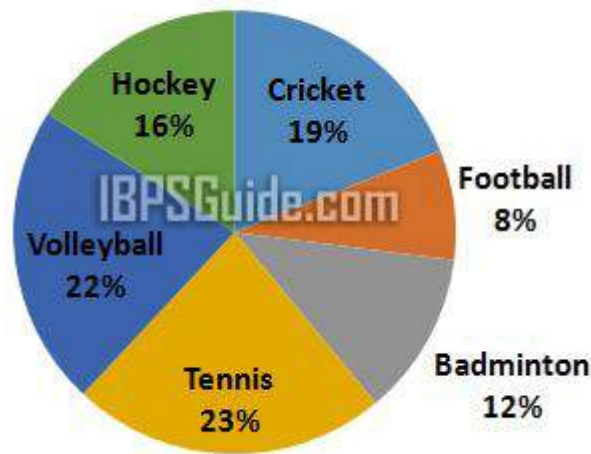**360).Number of units sold, in case of Hair Dryers is highest for**
a) Store II b) Store III c) Store I d) Store IV e) None of these

DI Set- 73:
Direction(361-365):

Percentage of population interested in different sports (cricket, Football, Badminton, Tennis, Volleyball, Hockey), in pie chart I and Percentage of females interested in these sports in pie chart II.

361).What is the ratio of the number of people interested in Tennis and Hockey together to the no. of females interested in Cricket and Volleyball together?
a) 123: 232 b) 272: 123 c) 101: 130 d) 246: 132 e) None of these

362).What is the difference between the people interested in Cricket, Football and Volleyball together with respect to that of females interested Hockey, Badminton and Tennis together?
a) 2145000 b) 1865000 c) 1345000 d) 1984000 e) 1866000

363).What is the percentage of the number of males interested in Badminton to that in Volleyball?
a) 136.36% b) 221.21% c) 127.27% d) 194.94% e) None of these

364).For which of the sports, the number of males interested is less than that of females interested?
a) Tennis, Volleyball b) Volleyball, Badminton c) Badminton, Tennis, Hockey
d) Badminton, Tennis, Volleyball e) None of these

365).What is the ratio of the number of males interested in Badminton and Football together to that of females interested in Hockey and Tennis together?
a) 124 : 117 b) 128 : 119 c) 19 : 17 d) 23 : 19 e) None of these

DI Set- 74:

Direction(366-370):

The bar graphs give the percentage increase in income and expenditure of various types of banks during a period of 2 years. Refer to the graphs to answer the questions that follow

% increase in income over the last year

% increase in expenditure over the last year
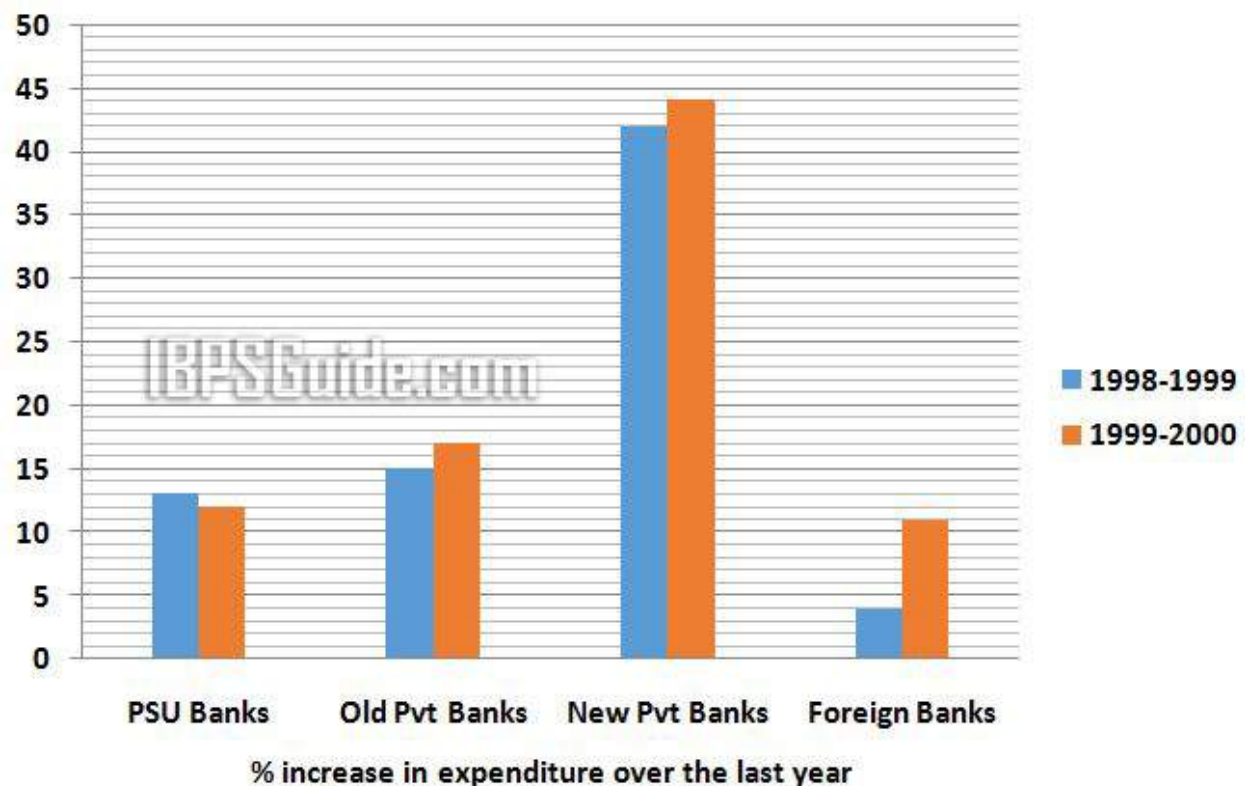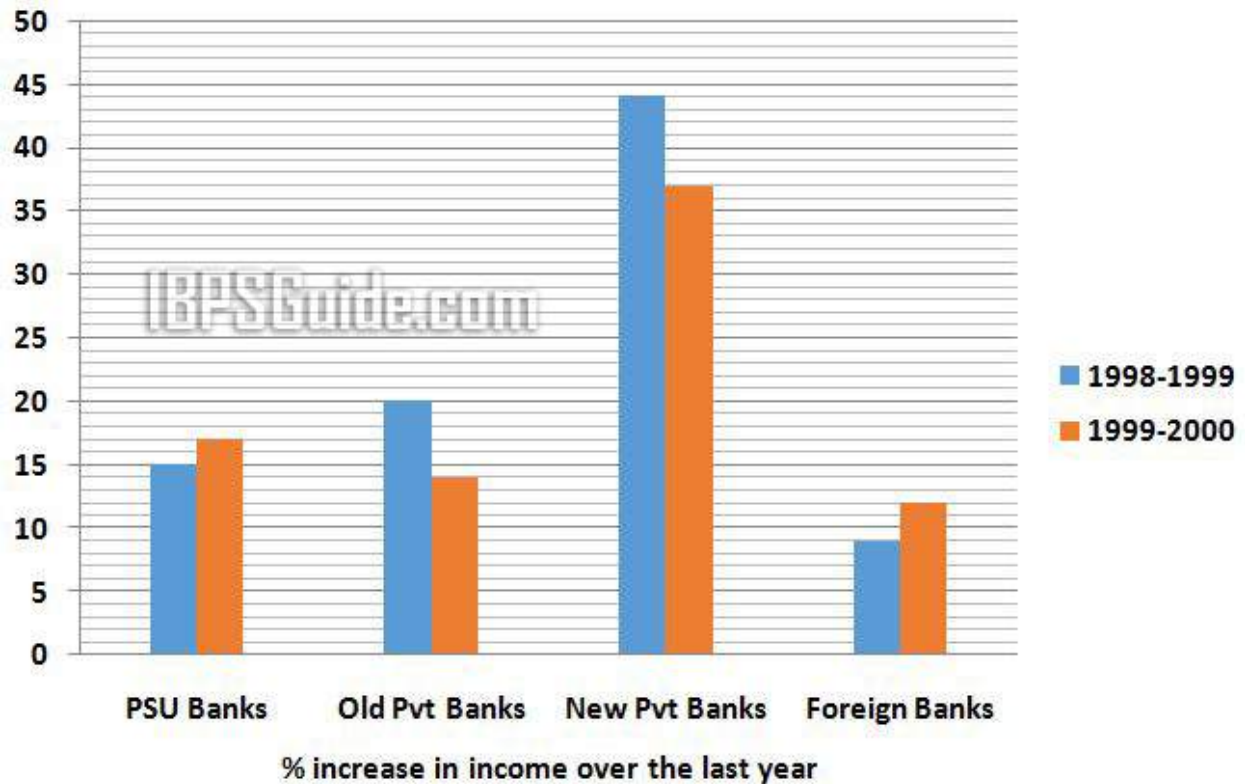
366). If the expenditure of Foreign Banks in 1997-98 is equal to their income in that year and is equal to Rs 30000 crores then, in 1999-00, what is the difference in income and expenditure for the foreign Banks?
a) Rs 1500 crores b) Rs 1992 crores c) Rs 15000 crores d) Rs 20000 crores e) Rs 3000 crores

367). Let the income of New Pvt. Banks in 1998-99 be Rs 4000 crores. If the expenditure of New Pvt. Banks in 1998-99 is the same as their income then the difference in incomes of New Pvt. Banks in 1998-99 and

1999-00 will be approximately what per cent of the difference of expenditures of New Pvt. Banks in 1998-99 and 1999-00?

a) 52% b) 76% c) 84% d) 118% e) 100%

368). In 1998-99, if the income of PSU Banks is twice the expenditure of Foreign Banks then what will be the ratio of the income of PSU Banks to the expenditure of Foreign Banks in 1999-00?

a) 1 : 2 b) 21 : 10 c) 5 : 1 d) 11 : 15 e) 3 : 7

369). In 1998-99, if the income of Foreign Banks is four times their expenditure, then what will be the ratio of the income to the expenditure of the Foreign Banks in 1999-00?

a) 1 : 4 b) 4 : 1 c) 5 : 1 d) 1 : 5 e) 2 : 9

370). If the expenditure of Old Pvt Banks in 1999-00 is half of their income in that year which is equal to Rs 45600 crores then, in 1998-99, what is the difference between income and expenditure for the foreign Banks?

a) Rs 15009.72 crores b) Rs 19926.52 crores c) Rs 15008.42 crores d) Rs 20512.82 crores
e) Rs 30046.32 crores

DI Set- 75:

Direction(371-375):

The following line chart shows the ratio of export to import of five companies A, B, C, D and E in years 2000 to 2004.
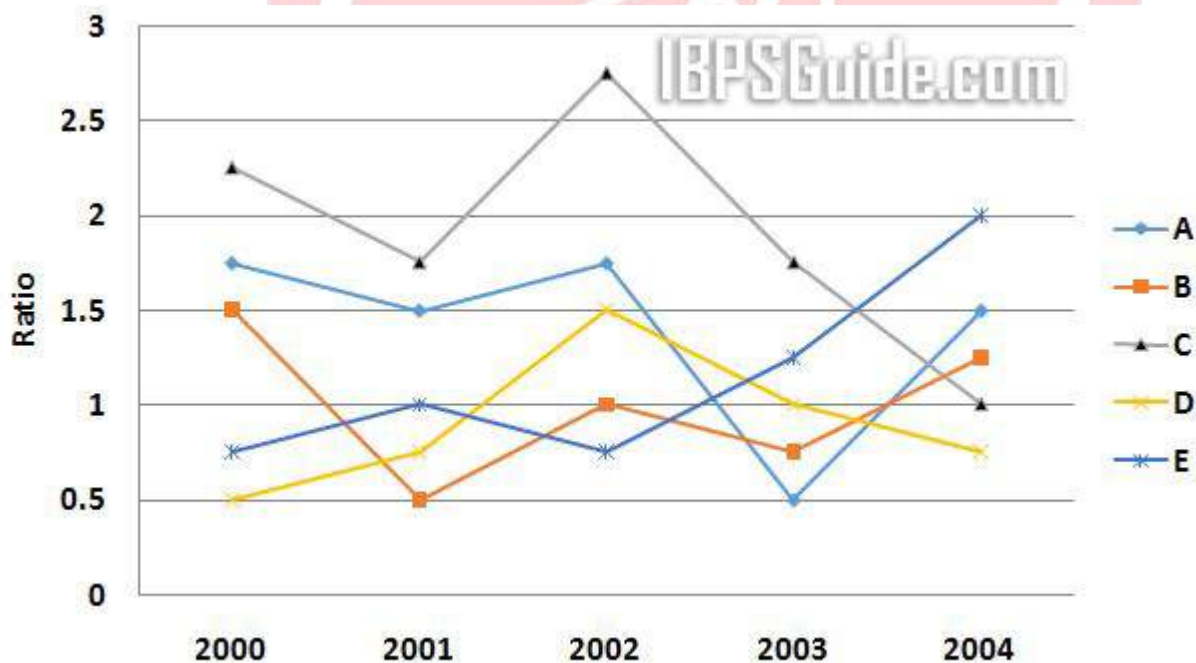
The following Radar graph shows the projected % increase in export in year 2005 with respect to 2004. (It is assumed that the import in year 2005 is equal to the import in year 2004.)

371). The export of company C is twice that of company D in year 2001. The import of company D in year 2001 is 70 million more than the export. The import of company C in year 2001 is
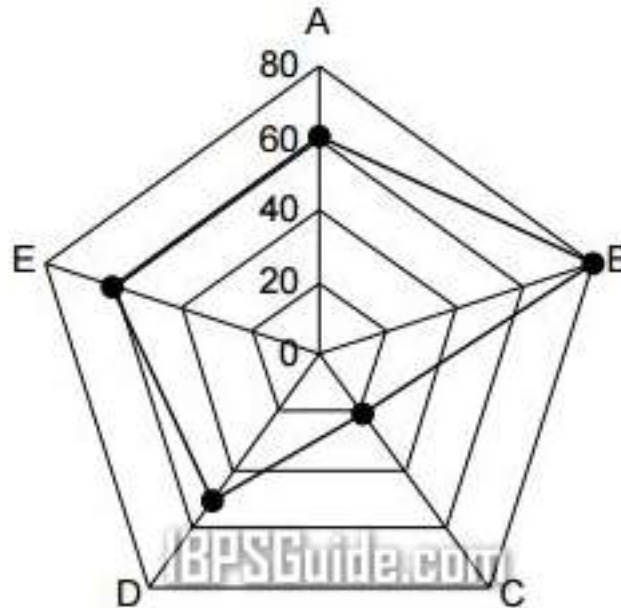a) 280 million   b) 220 million   c) 240 million   d) 180 million   e) None of these

372). The trade deficit of company B in year 2003 is 75% more than the trade deficit of company A. The ratio of import of company B to that of company A in year 2003 is
a) 13 : 5   b) 4 : 9   c) 6 : 3   d) 7 : 2   e) None of these

373). If the ratio of export of company E in 2003 to that in 2004 is 4 : 5, the combined ratio of export to import of company E in year 2003 and 2004 together is
a) 30 : 19   b) 17 : 9   c) 34 : 13   d) 29 : 16   e) None of these

374). The total transactions (export + import) of companies A, B and C in year 2004 are in the ratio 3 : 4 : 2. The export and import of companies A, B and C in year 2004 together are in the ratio of
a) 334 : 213   b) 226 : 179   c) 174 : 97   d) None of these   e) Cannot be determined

375). The ratio of export to import of company C in year 2005 as per the projection is
a) 6 : 7   b) 6 : 5   c) 4 : 3   d) 4 : 5   e) None of these

DI Set- 76:
Direction(376-380):

Refer to the bar graph below and answer the questions that follow.

In the game of basketball, points for the correct throws are 1, 2 or 3. In a match the number of attempts to basket the ball and accuracy are given for all players of the team below. Indian Railways' players are A, B, C, D and E.
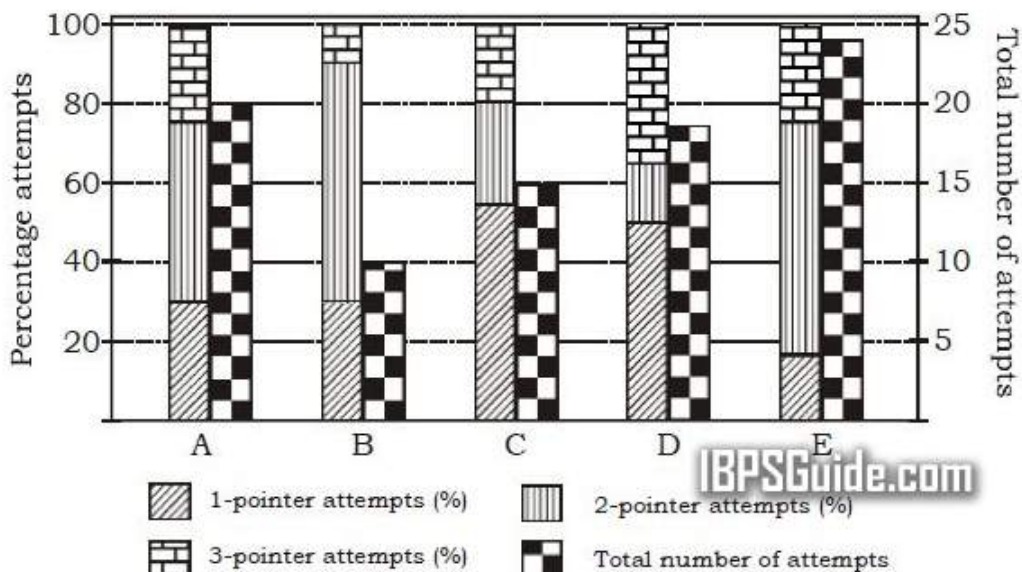
Player	Accuracy		
	1-pointer	2-pointer	3-pointer
A	66.66	33.33	20
B	100	66.66	100
C	75	75	100
D	88.88	100	50
E	100	71.42	83.33

376). How many points were scored by player A?
a) 13   b) 19 c) 21 d) 39 e) None of these

377). What was the maximum accuracy attained by the player(s)? (Accuracy means no. of baskets per attempt.)
a) 78% b) 80% c) 83% d) 87% e) None of these

378). What percentage of total points was scored by player D?
a) 13% b) 21% c) 30% d) 37% e) None of these

379). What percentage of total points was scored through 2-pointers?
a) 22% b) 32% c) 42% d) 52% e) None of these

380). Point scored by all players from 3-pointers is what percentage (approx.) more/less than those from 2-pointers?
a) 15% more b) 10% less c) 15% less d) 10% more e) None of these

DI Set- 77:

Direction(381-385):

**Refer to the graphs below and answer the questions that follow.**
Graph (i) shows volume wise share of various companies in car market in India, for March 2004.
Graph (ii) shows total number of cars sold since October 2003 to March 2004.
Graph (iii) shows ratios of market prices of cars of the companies which are written next to each other, ie (price of Bajaj Car/Price of Toyota Car) = 0.66

Graph (i)

Graph (ii)
Number of cars sold (in thousands)

Graph (iii)
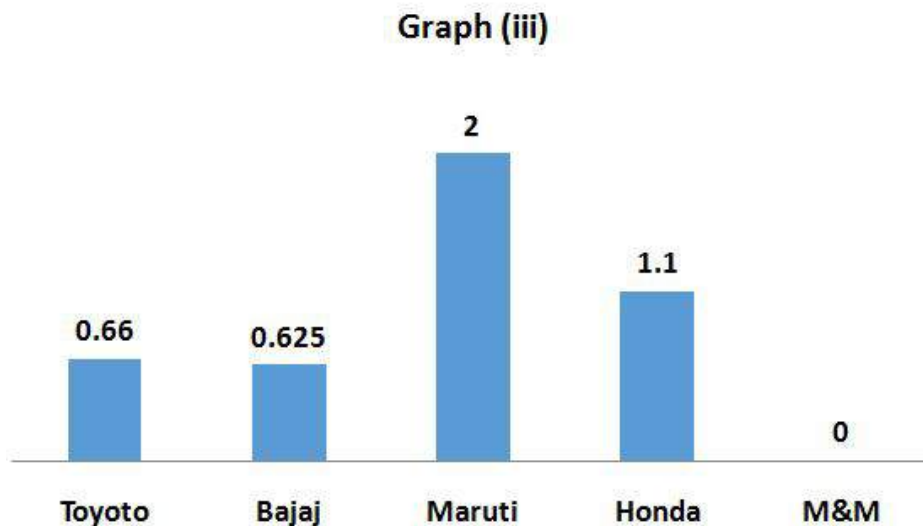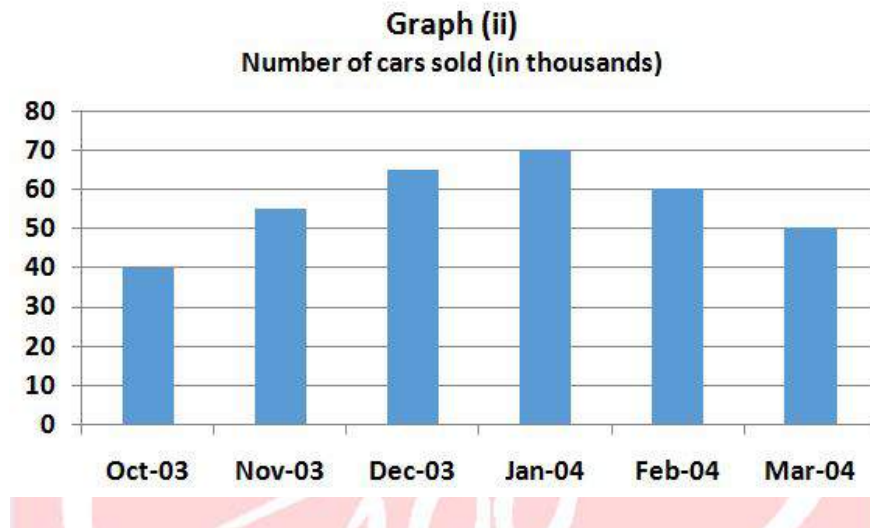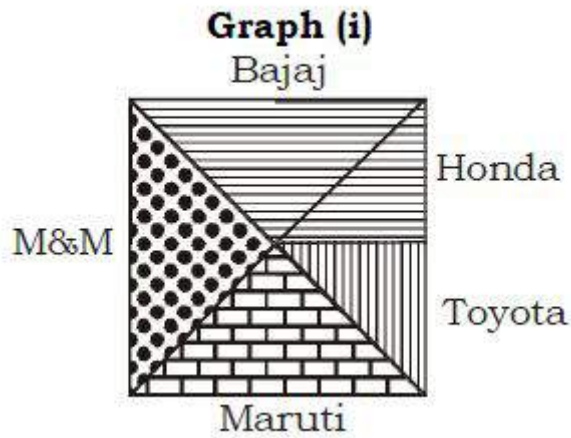
381). What is the share of M&M in total sale (in Rs) of cars in March 2004?
a) 31% b) 48% c) 60% d) Cannot be determined e) None of these

382). If Toyota had 20% and 18% share in volume in November 2003 and December 2003 respectively, then what is the difference between the ratio of its sales (units) in November 2003 to that in March 2004 and the ratio of its sales (units) in December 2003 to that in February 2004 ?
a) 20 b) 2 c) 0.2 d) 0.02 e) Cannot be determined

383). If a Honda car costs Rs 2.5 lakhs, then what were the sales of Bajaj cars in March 2004?

a) Rs 125 crores b) Rs 160 crores c) Rs 250 crores d) Rs 300 crores e) None of these

384). How many cars cost more than the average price of cars in March 2004 among the given group of cars?
a) 1 b) 2 c) 3 d) Cannot be determined e) None of these

385). If the cost of Bajaj car is Rs 108000 less than that of M&M, then the income from the selling of a car by Maruti is what % more/less than that by Honda in March 2004?
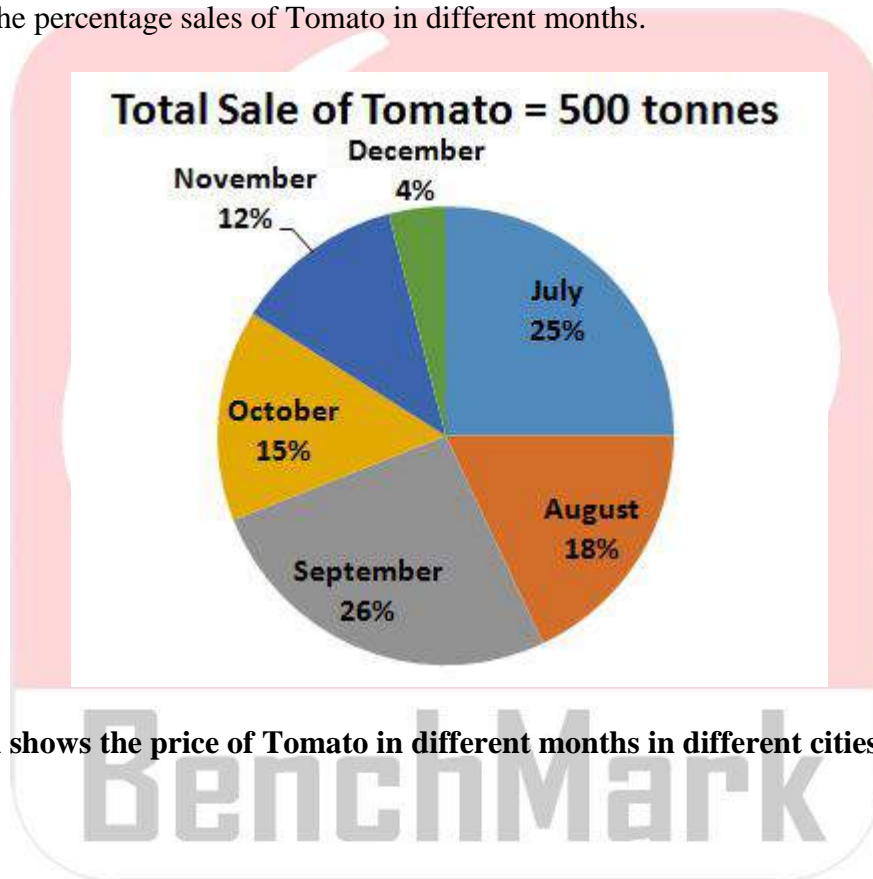a) 60% less b) 50% less c) 40% more d) 25% less e) None of these
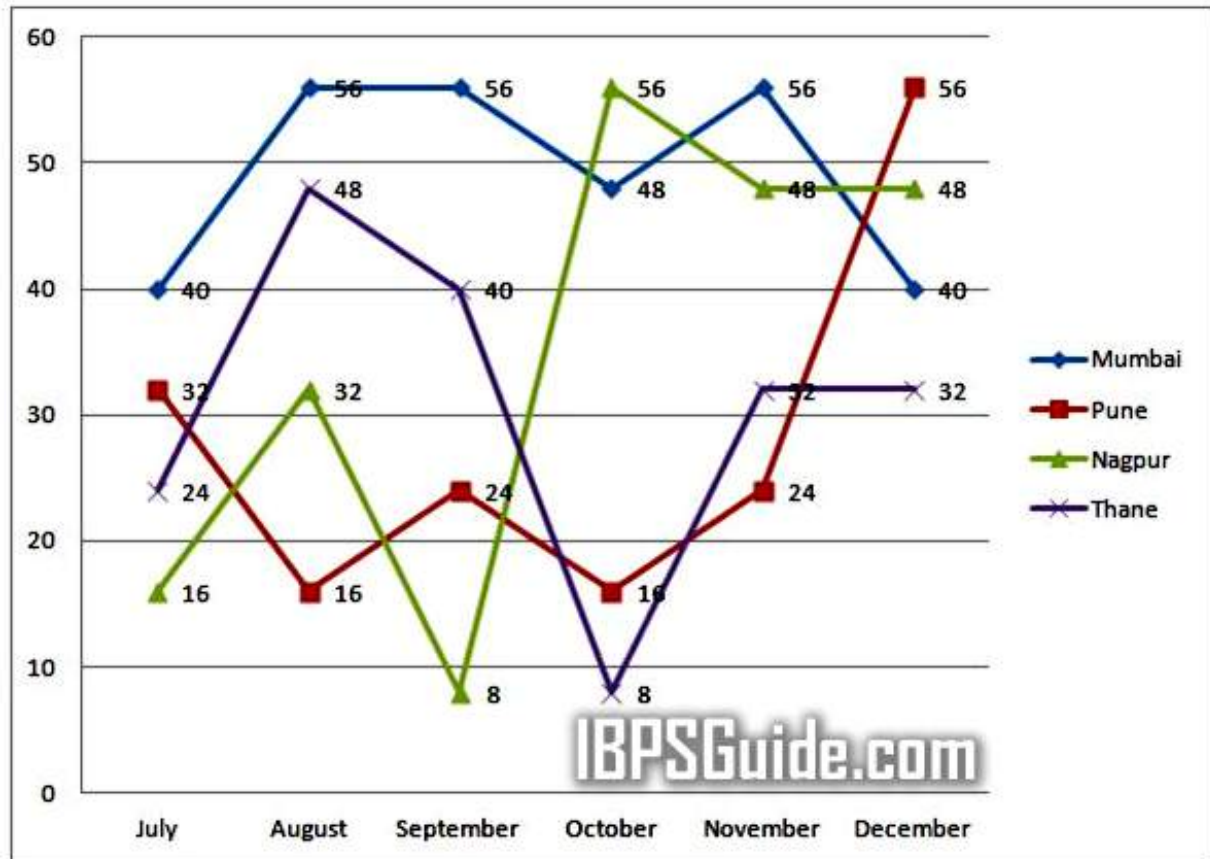
DI Set- 78:

Direction(386-390):

Study the pie-chart and line graph to answer the following questions.
The pie-chart shows the percentage sales of Tomato in different months.

Total Sale of Tomato = 500 tonnes

The line graph shows the price of Tomato in different months in different cities (Price ` per kg)

386). In which month is the average price of Tomato per kg the minimum?
a) July   b) December   c) November   d) August   e) October

387). In which city is the average price of Tomato per kg the maximum during the given six months?
a) Mumbai b) Thane   c) Nagpur d) Pune   e) Both Nagpur and Mumbai

388). If the quantity of Tomato sold is the same for all the cities, then what is the difference between the total income from the sale of Tomato in October and that in November?
a) 24   b) 12   c) 0   d) 36   e) 48

389). If 35% of the total sale of Tomato in July is from Pune and 55% of the total sale of Tomato in September is from Thane, then what is the difference between the total income of Pune in July and total income of Thane in September?
a) `1660000  b) `1780000 c) `1500000  d) `1390000 e) `1460000

390). The total price of Tomato in Mumbai in July, August and September together is what per cent of the total price of Tomato in Nagpur in September, October and November together?
a) 136%   b) 175%   c) 58%   d) 149%   e) 183%

DI Set- 79:

Direction(391-395):

Two different finance companies declare fixed annual rate of interest on the amounts invested with them by investors. The rate of interest offered by these companies may differ from year to year depending on the variation in the economy of the country and the banks rate nof interest. The annual rate of interest offered by the two Companies P and Q over the years is shown by the line graph provided below.

391). A sum of Rs. 4.75 lakhs was invested in Company Q in 1999 for one year which was compounded annually, then what is the difference between amount of company Q and the amount of company P which is compounded half - yearly when the sum was same as invested in Company Q?
a) Rs 19,000 b) Rs.14, 250 c) Rs.11, 750 d) Rs. 10,600 e) None of these

392). If two different amounts in the ratio 8:9 & 13:15 are invested in both Companies P and Q in 2002 and in 2001 respectively, then what is the difference between the ratio of the amounts received after one year as interests from Companies P and Q are in 2002 and 2001 respectively?
a) 0.953 b) 0.452 c) 1.617 d) 0.611 e) None of these

393). In 2000, a part of Rs. 30 lakhs was invested in Company P and the rest was invested in Company Q for one year. The total interest received was Rs. 2.43 lakhs. What was the amount invested in Company P?
a) Rs.9 lakh b) Rs.11 lakh c) Rs. 12 lakh d) Rs.18 lakh e) None of these

394). An investor invested a sum of Rs. 12 lakhs in Company P in 1998. The total amount received after one year was re-invested in the same Company for one more year. The total appreciation received by the investor on his investment was?
a) Rs. 2, 96,200 b) Rs. 2, 42,200 c) Rs. 2, 25,600 d) Rs. 2, 16,000 e) None of these

395). An investor invested Rs. 5 lakhs in Company Q in 1996. After one year, the entire amount along with the interest was transferred as investment to Company P in 1997 for one year. What amount will be received from Company P, by the investor?
a) Rs. 5, 94,550 b) Rs. 5, 80,425 c) Rs. 5, 77,800 d) Rs. 5, 77,500 e) None of these

DI Set- 80:

Direction(396-400):
The following line-graph and Bar graph shows the number of males and females of two different towns X and Y during the given years:
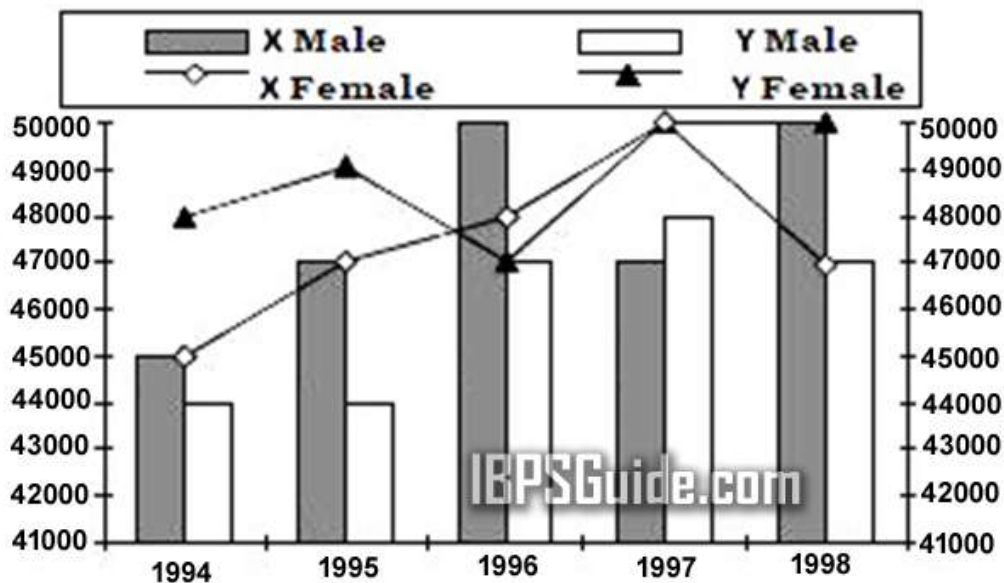
396). By what percent (in approx) the average population of both the towns has increased during the period 1994 to 1998 ?
a) 5% b) 8% c) 7% d) 4% e) None of these

397). Find the percentage of the average number of males of X and Y together to the average number of females of X and Y together for the given period.
a) 83.08% b) 97.50% c) 89.73% d) 96.56% e) None of these

398). The population of X and Y in 1996 and 1998 together is how many times of population 1994 and 1995 together?
a) 1.046 b) 0.942 c) 1.022 d) 0.919 e) None of these

399). Find total the number of years in which the number of females for X and Y are less than their respective average numbers.
a) 0 b) 4 c) 3 d) 5 e) None of these

400). In which of the following year the difference between the number of females in town X an Y together and number of males in town X and Y together is maximum?
a) 1994   b) 1995 & 1997 c) 1998 & 1996 d) 1996 e) 1997 & 1998

Detailed Solution for (Set- 71 to 80)

Solution (351-355):

351). Increase in wheat production:
Year 2003 → (2900 × 130) / 100 = 3770 quintals
Year 2004 → (2900 × 140) / 100 = 4060 quintals
Year 2005 → (3000 × 145) / 100 = 4350 quintals
Year 2007 → (2900 × 140) / 100 = 4060 quintals
Total earlier production of wheat in Madhya Pradesh
= 2400 + 3300 + 2900 + 2900 + 3000 + 2400 + 2900 = 19800 quintals
New wheat production = 2400 + 3300 + 3770 + 4060 + 4350 + 2400 + 4060 = 24340 quintals
Increase = 24340 – 19800 = 4540 quintals
Percentage increase = (4540/19800) × 100 = 22.92%.
Answer : a)

352). Production of wheat by all three states in the year 2005
= 3500 + 3000 + 2100
= 8600
Production of wheat by all three states in the year 2003
= 2800 + 2900 + 3700
= 9400
Required average production
= (8600 + 9400) / 2
= 9000
Production of wheat by all three states in the year 2001
= 2400 + 2800 + 3200
= 8400
Production of wheat by all three states in the year 2007
= 2900 + 3400 + 3600
=9900
Required average production
= (8400 + 9900) / 2
= 9150
Reqd. percentage = 9000 / 9150 × 100
= 98.36%
Answer : b)

353). Average production of Bihar
= (2800 + 2700 + 2800 + 3800 + 2100 + 3800 + 3600) / 7 = 21600/7
= 3085.71
≈ 3086 quintals.
Answer : c)

354). Increase in wheat production in Bihar :
Year 2001 → (2800 × 120) / 100 = 3360 quintals
Year 2002 → (2700 × 125) / 100 = 3375 quintals
Year 2003 → (2800 × 128) / 100 = 3584 quintals
Year 2004 → (3800 × 135) / 100 = 5130 quintals
Total new production = 3360 + 3375 + 3584 + 5130 + 2100 + 3800 + 3600 = 24949 quintals
Total earlier production = 2800 + 2700 + 2800 + 3800 + 2100 + 3800 + 3600 = 21600 quintals
Increase = 24949 - 21600 = 3349 quintals
Average increase = 3349 / 7 quintals
Required percentage increase = [(3349/7) / (21600/7)] × 100 = 15.50%
Answer : b)

355). wheat production by three states :
Year 2002 → 3300 + 2900 +2700 = 8900 quintals
Year 2003 → 2800 + 2900 + 3700 = 9400 quintals
Year 2004 → 2900 + 3100 + 3800 = 9800 quintals
Total production in these years = 8900 + 9400 + 9800 = 28100 quintals
Year 2005 → 2100 + 3000 + 3500 = 8600 quintals
Year 2006 → 2400 + 2900 + 3800 = 9100 quintals
Year 2007 → 2900 + 3400 + 3600 = 9900 quintals
Total production = 8600 + 9100 + 9900 = 27600 quintals
Required percentage =[(28100 - 27600)/27600] × 100 = 1.81%
Answer : d)

Solution (356-360):
356).

Store	I	II	III	IV	V
No. of units of hair Dryers	35% of 3000	52% of 1800	40% of 6000	27% of 7000	33% of 5000
No. of units of cordless phone	20% of 3000	15% of 1800	21% of 6000	17% of 7000	33% of 5000

Subtracting
(1) – (2) = 15% of 3000 + 37% of 1800 + 19% of 6000 + 10% of 7000 + 0% of 5000
= 450 + 666 + 1140 + 700 + 0 = 2956
Answer: b)

357). Total average monthly sales revenue, earned per unit of store I, III and V for cordless phones
= 2725 + 3775 + 4905
= 11405
Total average monthly sales revenue earned per unit of store II, III and IV for water fitters
= 3220 + 3525 + 3880
= 10625
Required percent = [(11405 ‑ 10625) / 10625] $\times$ 100 = 7.34%
Answer: a)

358). Average monthly sales revenue per unit for store III and V together for hair Dryers, cordless phone and water fitters = 3775 + 3815 + 3525 + 4905 + 5110 + 4320
= 25450
Average monthly sales revenue per unit for store II and IV together for hair Dryers, cordless phone and water fitters
= 3190 + 3195 + 3220 + 4460 + 4480 + 3880
= 22425
Required difference = 25450 – 22425 = 3025
Answer: d)

359). In case of Store IV
Annual sales from cordless phones = 4460 $\times$ no. of units sold $\times$ 12
= 4460 $\times$ (17 / 100) $\times$ 7000 $\times$ 12 = 63688800
Annual sales from water filter = 3880 $\times$ (38 / 100) $\times$ (7000) $\times$ 12 = 123849600
In case of Store I
Annual sales from cordless phones = 2725 $\times$ no. of units sold $\times$ 12
= 2725 $\times$ (20 / 100) $\times$ 3000 $\times$ 12 = 19620000
Annual sales from water filter = 2645 $\times$ (22/ 100) $\times$ (3000) $\times$ 12 = 20948400
Total annual sales from cordless phones = 63688800 + 19620000
= 83308800
Total annual sales from water filter = 123849600 + 20948400
= 144798000
Difference = 144798000 – 83308800= Rs. 61489200
Answer: d)

360). Store III
Store I ‑ 35% of 3000 = 35 $\times$ 30 = 1050
Store II ‑ 52% of 1800 = 52 $\times$ 18 = 936
Store III ‑ 40% of 6000 = 40 $\times$ 60 = 2400

Store IV - 27% of 7000 = 27 $\times$ 70 = 1890

Store V – 33% of 5000 = 33 $\times$ 50 = 1650

Answer: b)

Solution (361-365):

361). Number of people interested in Tennis and Hockey together

= 4800000 $\times$ (13 + 21) / 100

= 1632000

No. of females interested in Cricket and Volleyball together

= 1800000 $\times$ (19 + 22) / 100

= 738000

 Required ratio = 1632000: 738000 = 272 : 123

Answer: b)

362). Number of people interested in Cricket, Football and Volleyball together

= 4800000 $\times$ (32 + 15 + 11) / 100

= 4800000 $\times$ 58 / 100

= 2784000

Number of females interested in Hockey, Badminton and Tennis together

= 1800000 $\times$ (16 + 12 + 23) / 100

= 1800000 $\times$ 51 / 100

= 918000

Required difference = 2784000 – 918000

= 1866000

Answer: e)

363). Number of males interested in Badminton

= Number of people interested in Badminton – Number of females interested in Badminton

= 4800000 $\times$ 8 / 100 – 1800000 $\times$ 12 / 100

= 384000 – 216000

= 168000

Number of males interested in Volleyball

= Number of people interested in Volleyball – Number of females interested in Volleyball

= 4800000 $\times$ 11 / 100 – 1800000 $\times$ 22 / 100

= 528000 – 396000

= 132000

Reqd. percentage = 168000 / 132000 $\times$ 100

= 127.27%

Answer: c)

364). The population interested in cricket = [4800000 $\times$ (32 / 100) = 1536000

Similarly, the population interested in football, badminton, tennis, volleyball and hockey are 720000, 384000, 624000, 528000 and 1008000 respectively.   -------- (i)

Now, the no. of females interested n cricket = [1800000 $\times$ (19 / 100)] = 342000

Similarly, the no. of females interested in football, badminton, tennis, volleyball and hockey are 144000, 216000, 414000, 396000, and 288000 respectively -------------- (ii)

Now, the difference of respective nos. of (i) and (ii) will give the no. of males interested in respective sports. We can see that for Badminton, Tennis and volleyball the no.of males interested is less than that of females. [Note: it is mere chance that in these three sports the percentage given in pie charts II is more than that of pie charts I. It means that you need to do actual calculation. You can check for volleyball = 12% in pie chart II]

Answer: d)

365). No.of males interested in Badminton and Football together

= (384000 ‑ 216000) + (720000 ‑ 144000)

= (168000 + 576000) = 744000

No.of females interested in Hockey and Tennis = 414000 + 288000 = 702000

Required ratio = (744000 : 702000) = 124 : 117

Answer: a)

Solution (366-370):

366). Here, expenditure of Foreign Banks in 1997-98 = Rs 30000 crores.

Expenditure of Foreign Banks in 1998-99 = 30000 $\times$ 1.04 = Rs 31200 crores.

Expenditure of Foreign Banks in 1999-2000 = 31200 $\times$ 1.11 = Rs 34632 crores.

And income of Foreign Banks in 1997-98 = Rs 30000 crores.

Income of Foreign Banks in 1998-99 = 30000 $\times$ 1.09 = Rs 32700 crores.

Incomes of Foreign Banks in 1999-2000 = 32700 $\times$ 1.12 = Rs 36624 crores.

Required difference = 36624 - 34632 = Rs 1992 crores.

Answer: b)

367). Income of New Pvt. Banks in 1998-99 = Rs 4000 crores

Income of New Pvt. Banks in 1999-00 = 4000 $\times$ 1.37 = Rs 5480 crores

Difference = 5480 - 4000 = Rs 1480 crores

Again, expenditure of New Pvt. Banks in 1998-99 = Rs 4000 crores

Expenditure of New Pvt. Banks in 1999-00 = 4000 $\times$ 1.44 = Rs 5760 crores

Difference = 5760 - 4000 = Rs 1760 crores

Required percentage =1480 / 1760 $\times$ 100 = 84.09% ≈ 84%

Answer: c)

368). Let the expenditure of Foreign Banks in 1998-99 = Rs x crores

Then income of PSU Banks in 1998-99 = Rs 2x crores

Then income of PSU Banks in 1999-00 = 2x $\times$ 1.17 = Rs 2.34x crores

And expenditure of Foreign Banks in 1999-00 = x $\times$ 1.11 = Rs 1.11x crores

Required ratio = 2.34x / 1.11x = 2. 1 / 1 = 21:10

Answer: b)

369). Let expenditure of Foreign Banks in 1998-99 = P

Then income of Foreign Banks in 1998-99 = 4 P

And income of Foreign Banks in 1999-00 = 4P $\times$ 1.12 = 4.48 P

Expenditure of Foreign Banks in 1999-00 = P $\times$ 1.11 = 1.11 P

Required ratio = 4.48P / 1.11P = 4/1.

Answer: b)

370). Here, expenditure of Old Pvt Banks in 1999-00 = Rs 45600 /2 = Rs. 22800 crores.

Expenditure of Old Pvt Banks in 1998-99 = 22800 $\times$ 100 / 117 = Rs 19487.18 crores.

And income of Old Pvt Banks in 1999-00 = Rs 45600 crores.

Income of Old Pvt Banks in 1998-99 = 45600 $\times$ 100 / 114 = Rs 40000 crores.

Required difference = 40000 – 19487.18 = Rs 20512.82 crores.

Answer: d)

Solution (371-375):

371). Let K1 and K2 be present in the ratio of export to import of company C and company D in year 2001.

Import of company/ Export of company = 1.75 = 7/4

 Export of company C = 7K1

Import of company C = 4K1

Similarly, export of company D = 3K2

Import of company D = 4K2
According to the question,
7K1 / 3K2 = 2
7K1 = 6 K2 → K1/K2 = 6/7 ···(I)
ALSO, 4K2 – 3K2 = 70 → K2 = 70
As per (I) → K1 = 6/7 K2 = 6/7 × 70 = 60
Important of company C = 4K1 = 4 × 60 = 240 million.
Answer: c)

372). Let K1 and K2 be present in the ratio of export to import of company A and company B respectively in year 2003.
Import of company A/ Export of company A = 0.5 = 1/2
Import of company B/ Export of company B = 0.75 = 3/4
Export of company A = K1
Import of company A = 2K1
Export of company B = 3K2
Import of company B = 4K2
Trade deficit (Import – Export) of company A = K1
Trade deficit of company B = K2
According to the question,
K2 = K1(1+(75/100))
K2 = K1 × (7/4)
Import of company B/Import of company A = 4K2 / 2K1 = (4 × (7K1/4)) / 2K1 = 7/2
Required ratio = 7 : 2
Answer: d)

373). Let K1 and K2 be present in the ratio of export to import of company E in 2003 and 2004 respectively.
Export of company E in 2003 = 5K1
Import of company E in 2003 = 4K1
Export of company E in 2004 = 2K2
Import of company E in 2004 = K2
According to the question,
5K1 / 2K2 = 4/5 → 25K1 = 8K2
KI/K2 = 8/25 → K1 = (8K2)/25
Required ratio = {5[(8K2) / 25] + 2K2} / {4[(8K2) / 25] + K2} = 90/57 = 30/19= 30 : 19
Answer: a)

374). Let K1 , K2 and K3 be present in the ratio of export to import of companies A, B and C respectively in year 2004.
Total transaction (export + import) of company A = 3K1 + 2K1 = 5K1
Total transaction (export + import) of company B = 5K2 + 4K2 = 9K2
Total transaction (export + import) of company C = K3 + K3 = 2K3
According to the question,
5K1 / 9K2 = 3/4
20 K1 = 27 K2 → K1 : K2 = 27 : 20
9K2 / 2K3 = 4/2
18K2 = 8K3 → K2 : K3 = 8 : 18 → 4 : 9
27 : 20
    4 : 9
= K1 : K2: K3 = 108 : 80 : 180 = 54 : 40 : 90
Total export of companies A, B and C / Total import of companies A, B and C
= (3K1 + 5K2+ K3) / (2K1 + 4K2 + K3) = (3 × 54 + 5 × 40 + 90) / (2 × 54 + 4 × 40 + 90) = 452/358
= 226/179 → required ratio 226 : 179

Answer: b)

375). Let K1 be present in the ratio of export to import of company C in year 2004.

Export of company C in year 2004 = K1

Import of company C in year 2004 = K1

From the radar graph,

% increase in export of company C = 20%

Export of company C in 2005 = K1 (1+ 20/100) = 6K1 / 5

Import of company C in 2005 = K1 (same as that of 2004)

Required ratio = (6K1 / 5) / K1 = 6/5 = 6 : 5

Answer: b)

Solution (376-380):

Player	No. of attempts for		
	1-pointer	**2-pointer**	**3-pointer**
A	6	9	5
B	3	6	1
C	8	4	3
D	9	3	6
E	4	14	6
Total	30	36	21

Player	Number of baskets		
	1-pointer	**2-pointer**	**3-pointer**
A	4	3	1
B	3	4	1
C	6	3	3
D	8	3	3
E	4	10	5
Total	25	23	13

376). Points scored by player A = $4 \times 1 + 3 \times 2 + 1 \times 3 = 4 + 6 + 3 = 13$

Answer: a)

377).

Player	A	B	C	D	E
Accuracy	8/20=0.4	8/10=0.8	12/15=0.8	14/18=0.77	19/24=0.79

Players B and C have the maximum accuracy of 80%.

Answer: b)

378). Total points = $25 \times 1 + 23 \times 2 + 13 \times 3 = 25 + 46 + 39 = 110$

Points scored by player D = $8 \times 1 + 3 \times 2 + 3 \times 3 = 23$

Percentage of points scored by player D = $(23/110) \times 100 = 20.9\% \approx 21\%$

Answer: b)

379). Number of points scored through 2-pointers = $2 \times 23 = 46$

Percentage of points through 2-pointers = $(46/110) \times 100 = 41.8\% \approx 42\%$.

Answer: c)

380). Total points scored from 3-pointers = $13 \times 3 = 39$

Total points scored from 2-pointers = $23 \times 2 = 46$

Required percentage = $[(46-39)/46] \times 100 = 15.21\% \approx 15\%$.

Answer: c)

Solution (381-385):

381). From graph (iii)

(Price of Bajaj/Price of Toyota) = (2/3); (Price of Maruti/Price of Bajaj) = (5/8); (Price of Honda/Price of Maruthi) = 2; (Price of M & M / Price of Honda) = 1.1

If price of Bajaj car is 8x, then prices of Toyota, Maruti, Honda and M&M cars are 12x, 5x, 10x and 11x respectively.

From graph (i),

Percentage shares of Honda and Toyota are 12.5% each while those of Bajaj, M&M and Maruti are 25% each.

Sales of M&M cars (in value) in 2004 = $11x \times (25/100) \times 50000 = 137500$

Total sales (in value) = $(8x + 11x + 5x) \times (25/100) \times 50000 + (12x + 10x) \times (12.5/100) \times 50000$

$= (24x + 11x) \times (25/100) \times 50000 = 35x \times (25/100) \times 50000 = 437500$

Percentage share of sales of M&M cars = $137500 / 437500 \times 100 = 31.428\% \approx 31\%$.

Answer: a)

382). (Sales of Toyota in November 2003 / Sales of Toyota in March 2004)

$= [(20/100) \times 55000] / [(12.5/100) \times 50000]$

$= 220/125 = 44/25 = 1.76$

Sales of Toyota in December 2003 / Sales of Toyota in February 2004

$= [(18/100) \times 65000] / [(12.5/100) \times 60000]$

$= 1170/750 = 117/75 = 1.56$

Required difference = $1.76 – 1.56 = 0.2$

Answer: c)

383). If a Honda car costs Rs 2.5 lakhs,

Then a Bajaj car will cost → Honda / Maruti = 2 → Maruti = 2.5/2 = 5/4

Maruti / Bajaj = 0.625 → Bajaj = $5/ (4 \times 0.625)$ = 2 lakhs

Sales of Bajaj cars in March 2004 = $(25/100) \times 50000 \times 2 = 25000$ lakhs.

Answer: c)

384). Ratio of price of all the given companies is

Toyoto : Bajaj : Maruti : Honda : M & M

3 : 2

   8 : 5

     1 : 2

       10 : 11

$= (3 \times 8 \times 1 \times 10) : (2 \times 8 \times 1 \times 10) : (2 \times 5 \times 1 \times 10) : (2 \times 5 \times 2 \times 10) : (2 \times 5 \times 2 \times 11)$

$= 240 : 160 : 100 : 200 : 220 = 12 : 8 : 5 : 10 : 11$

Volumes of production of Toyota, Bajaj, Maruti, Honda and M&M in March 2004 are in the ratio 1 : 2 : 2 : 1 : 2

Let x be present in the ratio of the price of each of the cars.

Average price in March 2004 = $(12x \times 1 + 8x \times 2 + 5x \times 2 + 10x \times 1 + 11x \times 2) / (1+2+2+1+2) = 70x/8 = 8.75x$

Therefore the prices of Toyota, Honda and M&M are greater than the average price of all cars in March 2004.

Answer: c)

385). From Graph (iii) : Ratio of market prices is Bajaj : M&M = 8x : 11x

$11x - 8x = 3x = 1,08,000$

$x = 36,000$

Now market price of Maruti = 5x = 180,000

Market price of Honda = 10x = 3,60,000

Required percentage = (3,60,000 - 180,000) / 3,60,000 × 100

= 180,000 / 3, 60,000 × 100

Required percentage = 50%.

Quicker Approach:

Ratio of price of Honda to Maruti = 2 : 1

Required ratio = (2-1)/2 × 100 = 50%

Note: There is no need of the cost of Bajaj car in March 2004.

Answer: b)

Solution (386-390):

386). Average price of Tomato in July

= 1 / 4 × (16 + 24 + 32 + 40) = 28 per kg

Average price of Tomato in August

= 1 / 4 × (16 + 32 + 48 + 56) = 38 per kg

Average price of Tomato in September

= 1 / 4 × (8 + 24 + 40 + 56) = 32 per kg

Average price of Tomato in October

= 1 / 4 × (8 + 16 + 48 + 56) = 32 per kg

Average price of Tomato in November

= 1 / 4 × (24 + 32 + 48 + 56) = 40 per kg

Average price of Tomato in December

= 1 / 4 × (32 + 40 + 48 + 56) = 44 per kg

In December the average price of Tomato per kg is the maximum and in July the average price of Tomato is the minimum.

Answer: a)

387). Average price of Tomato in Mumbai

= 1 / 6 × (40 + 56 + 56 + 48 + 56 + 40)

= `49.33 kg

Average price of Tomato in Pune

= 1 / 6 × (32 + 16 + 24 + 16 + 24 + 56)

= `28 per kg

Average price of Tomato in Nagpur

= 1 / 6 × (16 + 32 + 8 + 56 + 48 + 48)

= `34.66 per kg

Average rate of Tomato in Thane

= 1 / 6 × (24 + 48 + 40 + 8 + 32 + 32)

= `30.66 per kg

Thus the maximum average price is in Mumbai.

Answer: a)

388). Total sale of Tomato in October

= 500 × 15 / 100 = 75 tonnes

Total sale of Tomato in November = 500 × 12 / 100 = 60 tonnes

Total income in a month = (average rate that month in all cities × total quantity)

Total income in October = 32 × 75 × 1000 = `2400000

Total income in November = 40 × 60 × 1000 = `2400 000

Required difference = 2400000 - 2400000 = 0

Answer: c)

389). Total sale of Tomato in July = 500 $\times$ 25 / 100 = 125 tonnes

Total sales in Pune in July = 125 $\times$ 35 / 100 = 43.75 tonnes

Its total cost = 43.75 $\times$ 1000 $\times$ 32 = 1400000

Total sale of Tomato in September = 500 $\times$ 26 / 100 = 130 tonnes

Total sales in Thane in September = 130 $\times$ 55 / 100 = 71.50 tonnes

Its total cost = 71.50 $\times$ 1000 $\times$ 40 = 2860000

Required difference = 2860000 – 1400000

= 1460000

Answer: e)

390). Price of Tomato in July, August and September in Mumbai = `40 + 56 + 56 per kg

= 152 kg

Price of Tomato in September, October and November in Nagpur = `8 + 56 + 48 per kg

= 112 kg

Required % = 152 $\times$ 100 / 112 = 135.71% ≈ 136%

Answer: a)

Solution (391-395):

391). DIFFERENCE = $[4.75 \times (1+(10/2/100))]^2$ - 4.75 $\times$ (1+8/100)

= $[4.75 \times (105/100)]^2$ – 4.75 $\times$ (108/100)

= 5.236 – 5.13

= 0.106 lakhs

= 10600

Answer: d)

392). Let the amounts invested in 2002 in Companies P and Q be Rs. 8x and Rs. 9xrespectively.

Then, interest received after one year from Company P = Rs. (6% of 8x)

= Rs. (48x/100)

and interest received after one year from Company Q = Rs. (4% of 9x)

= Rs. (36x/100)

Required ratio = 4/3 = 1.33

Let the amounts invested in 2001 in Companies P and Q be Rs. 13x and Rs. 15xrespectively.

Then, interest received after one year from Company P = Rs. (6.5% of 8x)

= Rs. (52x/100)

and interest received after one year from Company Q = Rs. (8% of 9x)

= Rs. (72x/100)

Required ratio = 52/72 = 13/18 = 0.722

Required difference = 1.33 – 0.722 -= 0.611

Answer: d)

393). Let amount invested in company P be Rs. x and the amount invested in company Q will be Rs. (30 – x).

Then,

7.5/100 $\times$ x $\times$ 1 + 9/100 $\times$ (30 – x) $\times$ 1 = 2.43

0.075x + 2.7 – 0.9x = 2.43

- 0.015x = - 0.27

x = 270 / 15 = 18 lakhs

Answer: d)

394). Amount received from Company P after one year (i.e., in 1999) on investing Rs. 12 lakhs in it

= Rs. [12 + (8% of 12)] lakhs

= Rs. 12.96 lakhs.

Amount received from Company P after one more year i.e ., in 2000 on investing Rs. 12.96 lakhs in it

= Rs. [12.96 + (10% of 12.96)] lakhs

= Rs. 14.256 lakhs.

Appreciation received on investment during the period of two years

= Rs. (14.256 - 12) lakhs

= Rs. 2.256 lakhs = Rs. 2, 25,600

Answer: c)

395). Amount received from Company Q after one year on investment of Rs. 5 lakhs in the year 1996

= Rs. [5 + (6.5% of 5)] lakhs

= Rs. 5.325 lakhs.

Amount received from Company P after one year on investment of Rs. 5.325 lakhs in the year 1997

= Rs. [5.325 + (9% of 5.325)] lakhs

= Rs. 5.80425 lakhs

= Rs. 5, 80, 425

Answer: b)

Solution (396-400):

396. Average population (in thousands) of both the towns in 1994

= (45 + 44 + 48 + 45)/2

= 182 / 2 = 91 and

Average population (in thousands) of both the towns in 1998

= (50 + 47 + 50 + 47)/ 2

= 194 / 2 = 97

:. Required percentage increase = (97-97) / 91 $\times$ 100

= 6.59%

$\approx$ 7%.

Answer: c)

397. No. of males in X and Y together

= 45 + 44 + 47 + 44 + 50 + 47 + 47 + 48 + 50 + 47

= 469 thousand

No. of females in X and Y together

= 45 + 48 + 47 + 49 + 47 + 48 + 50 + 50 + 47 + 50

= 481 thousand

Required percentage = 469 / 481 $\times$ 100

= 97.50%

Answer: b)

398. Population of X and Y in 1996 and 1998

= (50 + 47 + 47 + 48 + 50 + 50 + 47 + 47) $\times$ 1000 = 386000

Population of X and Y in 1994 and 1995

= (45 + 44 + 48 + 45 + 47 + 47 + 44 + 49) $\times$ 1000 = 369000

Now, 386 $\times$ 1000 = x $\times$ 369 $\times$ 1000

:. x = (386/369) = 1.046

Answer: a)

399. Average number of females for

X =1/5 (45 + 47 + 48 + 50 + 47) $\times$ 1000

= 237 $\times$ 200 = 47400

Y =1/5 (48 + 49 + 47 + 50 + 50) $\times$ 1000

= 244 $\times$ 200 = 48800

So, 1994, 1995 and 1998 are the three desired years for X and 1994 and 1996
are the two desired years for Y. Hence the required number of years is four
(1994, 1995, 1996 and 1998).
Answer: b)

400.
In 1994 → (92000 – 89000) = 3000
In 1995 → (96000 – 91000) = 5000
In 1996 → (97000 – 95000) = 2000
In 1997 → (100000 – 95000) = 5000
In 1998 → (97000 – 97000) = 0
Answer: b)

Questions (Set- 81 to 90)

DI Set- 81:

Direction(401-405):
Amar, Akbar and Anthony are brothers who make investments in business every year. The below table gives the details about their monthly investments, and the share of profit realized by them during the period 2011-2015. Only in 2012 and 2015 the three of them did not invest for the entire year. All values are in Rs.

Year	Investment			Return		
	Amar	Akbar	Anthony	Amar	Akbar	Anthony
2011	7500	9000	12000	42500		
2012	6000	5000	4000		25500	27200
2013	5500		9000			45000
2014		6000			31500	25200
2015				40500	40500	36000

401). What is the difference between the returns of Akbar and Anthony in the year 2011?
a) Rs 15000 b) Rs 13500 c) Rs 16000 d) Rs 17000 e) Rs 12500

402). If the total return in 2012 was Rs. 86700 and Anthony invested for all 12 months, for how long did Amar invest during the year?
a) 8 months b) 9 months c) 10 months d) 6 months e) Cannot be determined

403). If Akbar increased his investment in 2013 from previous year by 50%, what is the total return of the three in 2013?
a) Rs 105000 b) Rs 110000 c) Rs 100000 d) Rs 125000 e) Cannot be determined

404). If in 2014, the ratio of investments of Amar and Anthony is 3:2, what is the total monthly investment by the three in 2014?
a) Rs 19500 b) Rs 19200 c) Rs 20400 d) Rs 22500 e) Rs 18000

405). If in 2015, Amar, Akbar and Anthony invested for 12, 8 and 8 months respectively, find the ratio of their monthly investment.
a) 6:9:8 b) 8:9:10 c) 8:9:12 d) 6:9:10 e) Cannot be determined.

DI Set- 82:
Direction(406-410):

Below line graph shows number of employee recruited in 2016 working in three sectors in thousand

80
75.5
70
65
62
60
58
50
46.5
45.8
42
40
38.5
38.2
36.6
38.2
35
34
30
27.5
24.8
22.4
20
18.5
18.4
10
0

IT   Accounts   Marketing   Medical   Clerk   Production

◆ Central Govt
■ State Govt
▲ Private
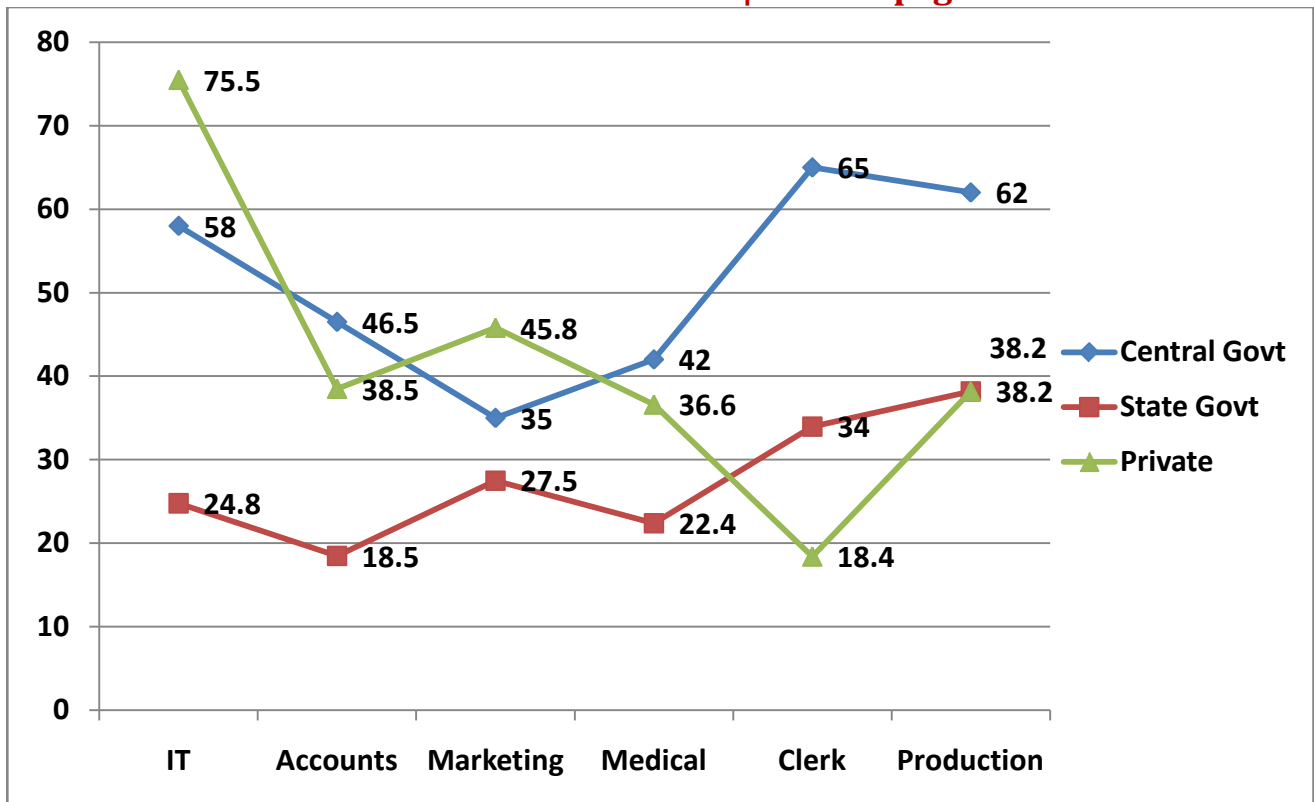
Below table shows percentage of male to female employees

Department	Central Govt %		State Govt %		Private %	
	Male	Female	Male	Female	Male	Female
IT	52	48	56	44	45	55
Accounts	46	54	58	42	35	65
Marketing	74	26	75	25	72	28
Medical	38	62	45	55	48	52
Clerk	47	53	43	57	55	45
Production	68	32	77	23	51	49

406). What is the average male employees from private sector taken all departments together?
a) 24335   b) 21266   c) 22453   d) 24678   e) 21875

407). What is the ratio of central govt. employees from IT and Medical to that of state govt. employees from Accounts and Marketing departments?
a) 50:23   b) 52:23   c) 48:33   d) 23:50   e)None of these

408). What is difference of Average Male and female central govt. employees taken all departments together?
a) 3865   b) 2675   c) 2778   d) 3957   e) 3678

409). total IT and Medical employees are what percent of Clerk arid Production taken all Sectors together?
a) 108.5%   b) 112.6%   c) 104.2%   d) 106.8%   e) 101.4%

410). Which sector has highest number of employees?
a) State Govt.   b) Central Govt.   c) Private Sector   d) Private and Central Govt.   e) None of these

DI Set- 83:

Direction(411-415):

Jethalal is the owner of Gada Electronics. The below graph shows the number of itens he purchased and sold during the year 2015.
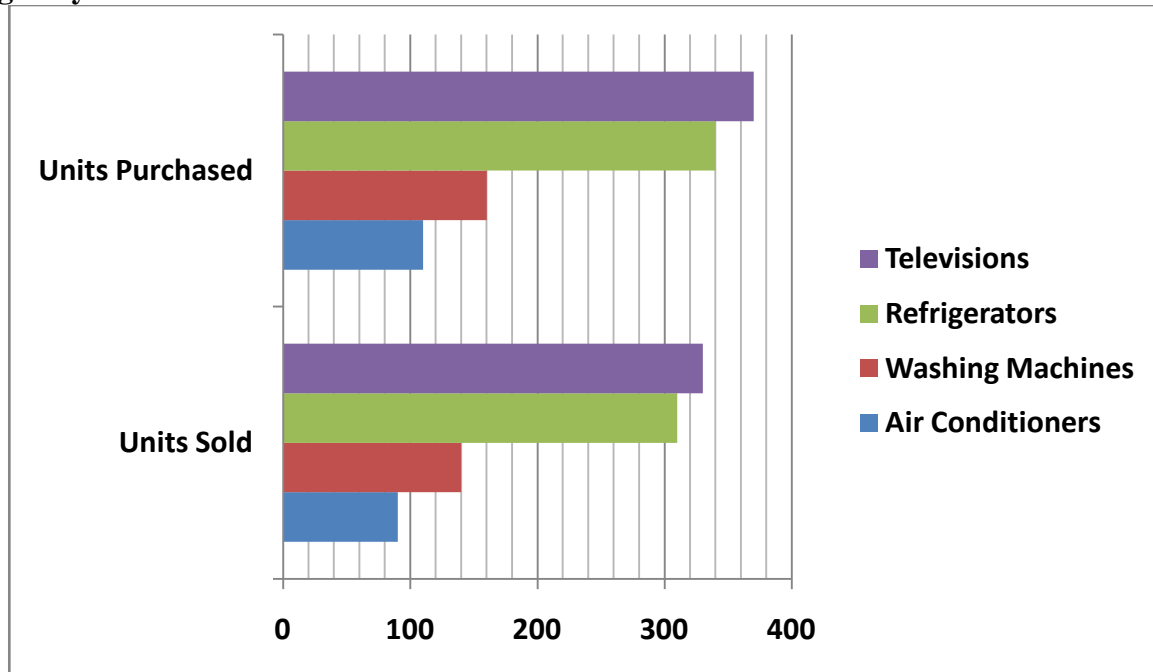
The below graph gives the details of the average cost price and the average selling price of the 4 types of items that he sold. All prices are multiples of Rs.500
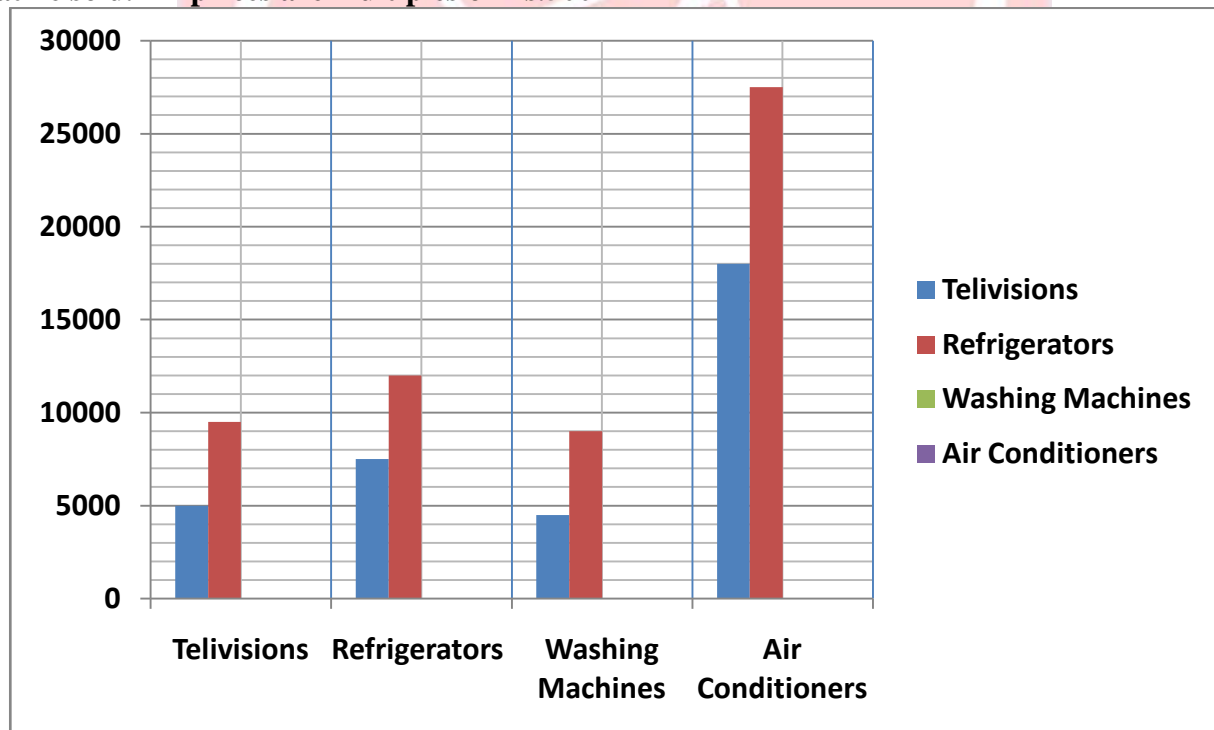
411). **What is total profit percentage on the refrigerators?**
a) 60%   b) 56.72%   c) 49.69%   d) 45.88%   e) 37.28%

412). **What is the total revenue of Gada Electronics for the given year?**
a) Rs 7100000   b) Rs 10590000   c) Rs 9860000   d) Rs 8960000   e) Rs 9325000

413). **What is the total cost of the unsold items?**
a) Rs 910000   b) Rs 975000   c) Rs 875000   d) Rs 830000   e) Rs 790000

414). Find the average selling price of the sold items (rounded off to the nearest 100)
a) Rs 12200   b) Rs 12500   c) Rs 12900   d) Rs 13100   e) Rs 14500

415). Had he sold all the products, what would have been his profit percentage in that case?
a) 49.15%   b) 58.97%   c) 62.13%   d) 74.64%   e) 69.86%

DI Set- 84:
Direction(416-420):
Directions [Set of 5 questions]: Read the following data carefully and answer the following questions based on that.
Number of students pursuing higher studies from six cities are 16000, out of which 4% are females from city P. Ratio of male to female students are 3:2 and 9% of total males are from S. Ratio of male to female students in city T is 4:3 and females from city R is 10% of total females. Male students from Q is twice the females from city P. Total students from city S is 1324 and females from city Q is twice the male from city T, total students from city T is equal to 2100. Male students from city U is 15% of the entire students from all the six cities. 25% of the remaining male students are from P.

416). What is the ratio of male from T and U to female from Q and U?
a) 45:48   b) 43:45   c) 47:48   d) 45:47   e) 43:46

417). Total students from P, Q and R is approximately what percentage of the total students from S, T and U?
a) 125.5%   b) 123.6%   c) 125.8%   d) 122.7%   e) 121.4%

418). Male students from all the cities taken together is what percentage of the total students?
a) 62%   b) 65%   c) 60%   d) 68%   e) 75%

419). Which city has the same female students pursuing higher studies?
a) R and S   b) P and S   c) P and R   d) T and S   e) None have same students.

420) Which city has second highest difference of male to female students?
a) Q only b) U Only c) S only d) Both Q and U e) R only

DI Set- 85:

Direction(421-425):

The Following table shows the marks obtained by four students in different subjects in different tests conducted by a school throughout the year.

Niara				
Subject	Unit test 1 (40)	Half Yearly (80)	Unit Test 2 (50)	Annual Exam (100)
Hindi	30	76	42	97
English	35	69	43	89
Maths	40	64	49	85
Science	27	73	41	78
Social Studies	28	74	45	94

Nihaan				
Hindi	37	65	47	90
English	39	71	44	95
Maths	34	80	39	99
Science	36	78	40	85
Social Studies	31	63	30	88

Nitara				
Hindi	36	59	35	92
English	37	69	32	83
Maths	38	78	45	96
Science	29	75	30	77
Social Studies	27	72	50	84
Norah				
Hindi	24	70	32	78
English	31	65	33	86
Maths	37	57	50	88
Science	32	59	48	90
Social Studies	38	75	40	92

421). Who scored the 2nd lowest marks in the half yearly exams?
a) Niara b) Nihaan c) Nitara d) Norah e) Either Niara or Nihaan

422). Which of the following has highest difference in Maths and Science marks across all the tests?
a) Niara b) Nihaan   c) Nitara   d) Norah e) Either Niara or Nihaan

423) If the marks for all the tests is normalized as follows, 10% of Unit test 1, 20% of unit test 2, 30% of Half Yearly test and 40% of Annual test, then what is the difference of marks in Social Studies between Niara and Norah?
a) 0.7 b) 0.5 c) 0.9 d) 1.1 e) None of the above

424) The difference in the average marks of Hindi in Unit Test 1 and Unit Test 2 is:
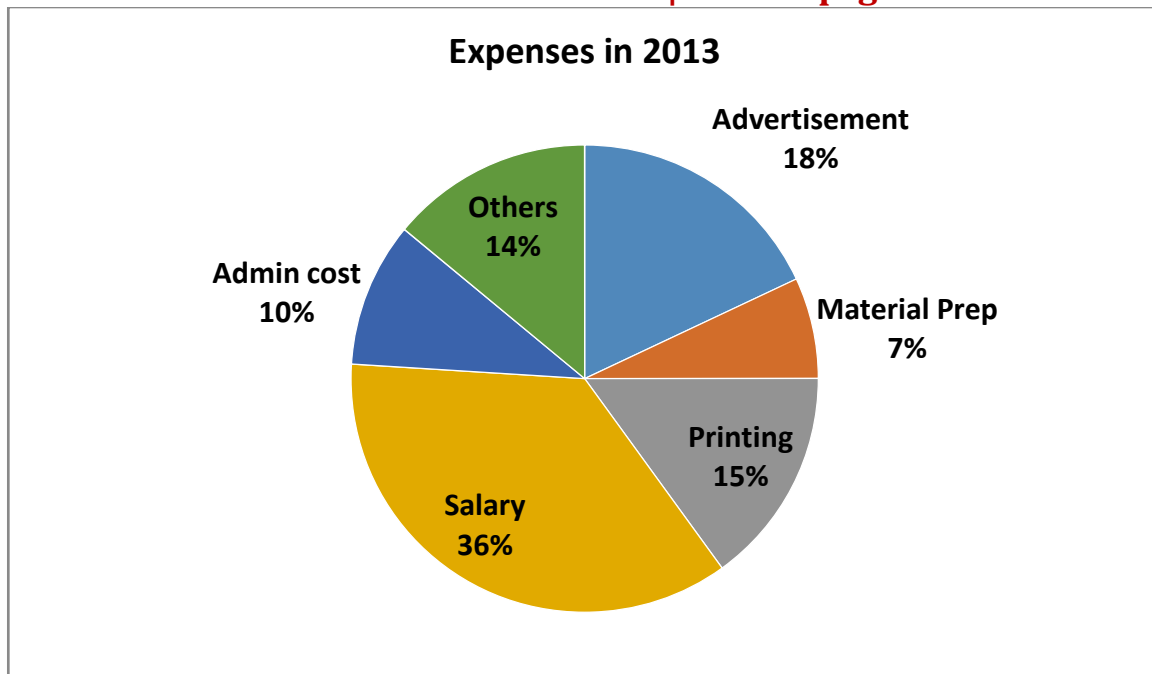a) 7.25   b) 0.69   c) 2.75   d) 0.45 e) None of the above

425) In which of the following test did Nitara obtained highest percentage of marks in English?
a) Unit Test 1   b) Unit Test 2   c) Annual Exam d) Half Yearly Exam
e) Either Half Yearly or Annual Exam

DI Set- 86:

Direction(426-430):

The below pie chart gives the expenses of a coaching institute in 2013:

Expenses in 2013

The total expenses in **2013** were **30000000**. Further, the rise in expenses of the individual categories from 2012 to 2013 and from 2013 to 2014 are given in the below table

	% Increase from 2012	% Increase from 2013
Advertisement	35%	10%
Material Prep	5%	0%
Printing	12.5%	20%
Salary	8%	25%
Admin Cost	0%	15%
Others	12%	20%

426). What was the percentage increase in expenditure from 2012 to 2013?
a) 10.83%   b) 15.33%   c) 12.15%   d) 18.1%   e) 22.22%

427). Which component had the highest percent increase in the expenditure from 2012 to 2014?
a) Advertisement   b) Printing   c) Salary   d) Others   e) Admin Costs

428). What % of the total expenditure in 2012 was used in printing?
a) 11.42%   b) 12.48%   c) 13.82%   d) 14.95%   e) 16.12%

429). If the number of employees in the institute have increased by 25% from 2012 to 2014, what is the rise in the average salary of an employee from 2012 to 2014?
a) 10%   b) 8%   c) 7.5%   d) 6%   e) Cannot be determined
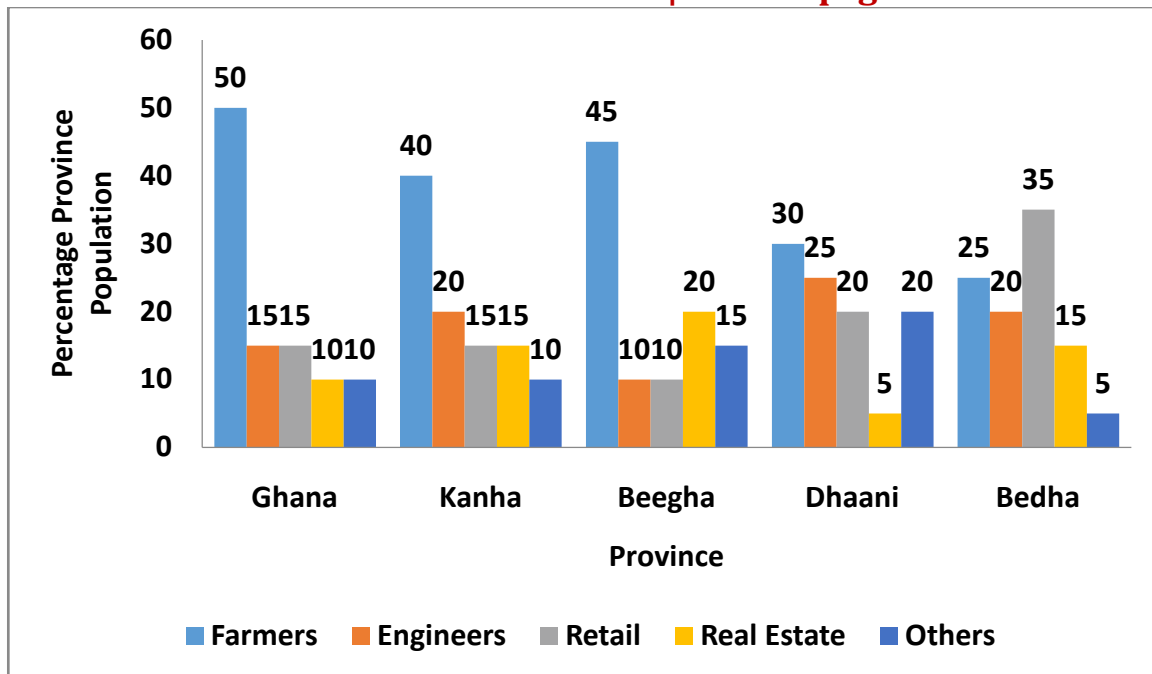
430). What percent of the expenses in 2014 were allocated in advertisement?
a) 18.27%   b) 16.77%   c) 15.24%   d) 14.18%   e) 13.67%

DI Set- 87:

Direction(431-435):

A kindly named Utopia has 5 provinces, namely, Ghana, Kanha Beegha, Dhaani and Bedha. The total population of the kingdom is 100000 people. Study the data given below and answer the questions that follow

	Percent of Total Population	Ratio of Males	Ratio of Females
Ghana	25	4	1
Kanha	15	3	2
Beegha	35	3	4
Dhaani	5	6	4
Bedha	20	3	7

431). Which province has the highest female population?
a) Ghana   b) Beegha   c) Dhaani   d) Bedha   e) Both 2 and 4

432). If 20% of the farmers of Beegha are females, then what percentage of the total female population of Beegha are farmers?
a) 14.50%   b) 15.75%   c) 16.25%   d) 18.75%   e) None of these

433). From a study, it was found that the retail and the real estate sectors had the highest fraction of black money in the Kingdom. The Anti-Corruption Number (ACN) for a province is measured as the total population employed in these two sectors. Which province has the highest ACN?
a) Ghana   b) Kanha   c) Beegha   d) Dhaani   e) Bedha

434). Read the following statements and choose the correct option: (I) The total population of Ghana working in the Real Estate and "Other" sectors is equal to the total population of Dhaani province. (II) The total population of Beegha working in Engineering and Retail sectors is greater than the male population of Kanha province.
a) Only (I) is true   b) Only (II) is true   c) Both (I) and (II) are true   d) Both (I) or (II) are false
e) None of these

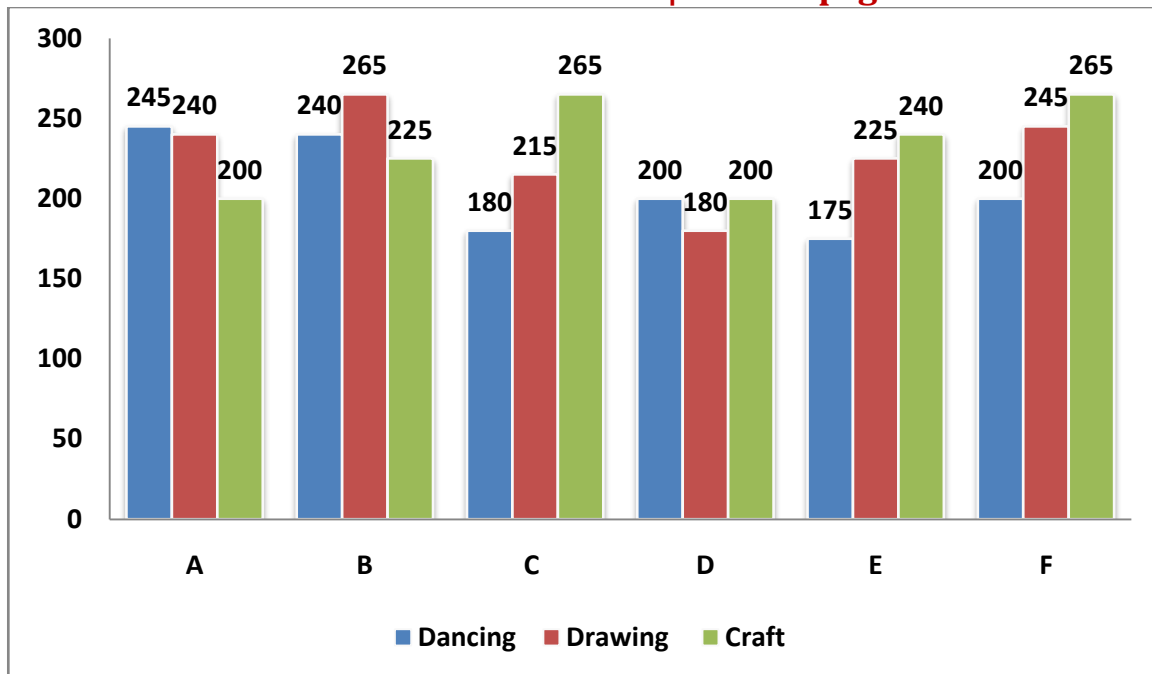**435). What is the overall ratio of male population to female population in the kingdom?**
a) 41/59   b) 57/43   c) 51/49   d) 49/51   e) 53/47

DI Set- 88:

Direction(436-440):

Read data carefully and answer the following questions
Below bar graph shows number of students enrolled in hundreds in three different activities at various cities

Below pie Chart shows percent breakup of professional students enrolled in activities from various cities.
Total Professional students = 85000
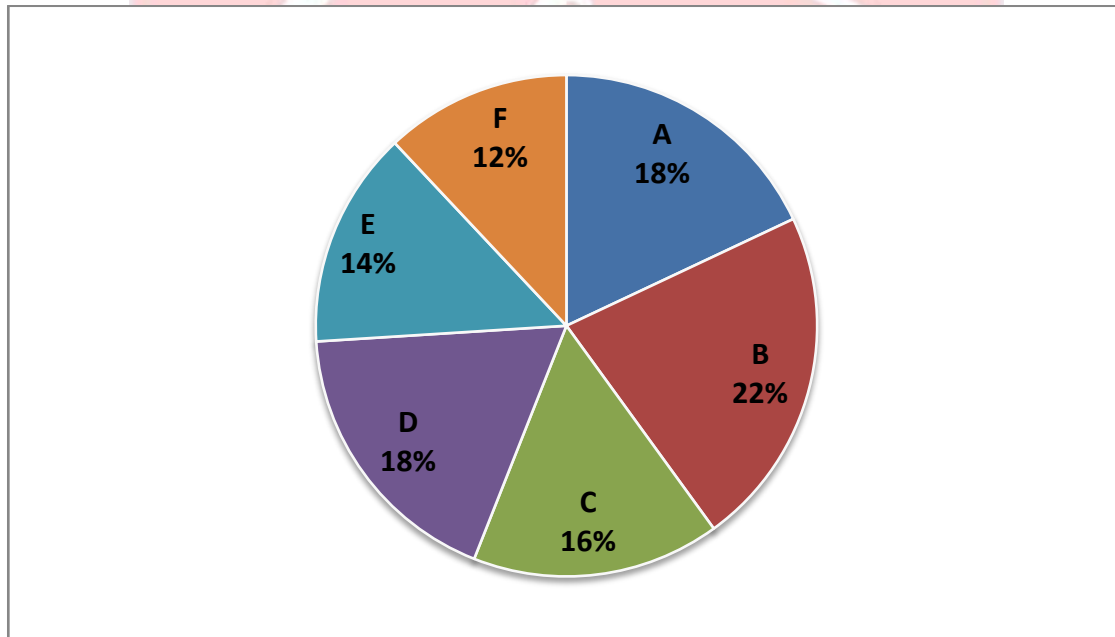
436). What is the ratio of students enrolled in Dancing from city A and E to Craft from city B and C taken together?
a) 5:6   b) 5:9   c) 6:7   d) 7:9   e) 9:5

437). What is average enrollment in craft taken in all cities together?
a) 23500   b) 24350   c) 23250   d) 24800   e) 25500

438). If 45%, 40% and 42% of students enrolled from city C in Dancing, Drawing and Craft are female then what is difference of male to female students enrolled taken all three activities together?
a) 12450   b) 10340   c) 14580   d) 12665   e) 13560

439). If 18% and 25% students in city D and 20% and 25% of students in city A respectively from dancing and Drawing are professional then what is the ratio of professional students enrolled in craft from A to D?
a) 12:17   b) 15:19   c) 11:14   d) 15:17   e) 11:18

440). Total enrollment from city B and F is approximately what percent more than that of C and E taken all activities together?
a) 12%   b) 15%   c) 11%   d) 18%   e) 8%

DI Set- 89:

Direction(441-445):

Study the following graphs carefully and answer the questions given below it
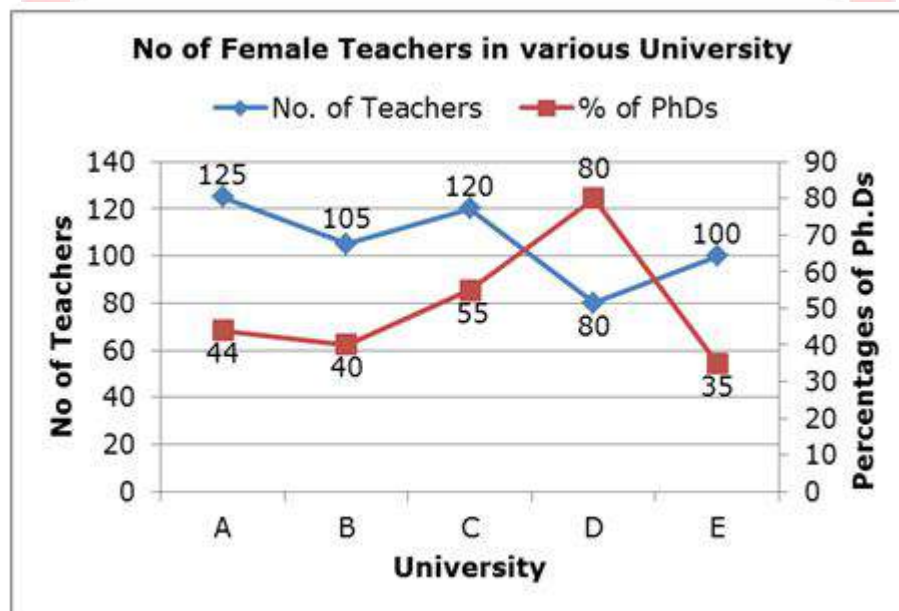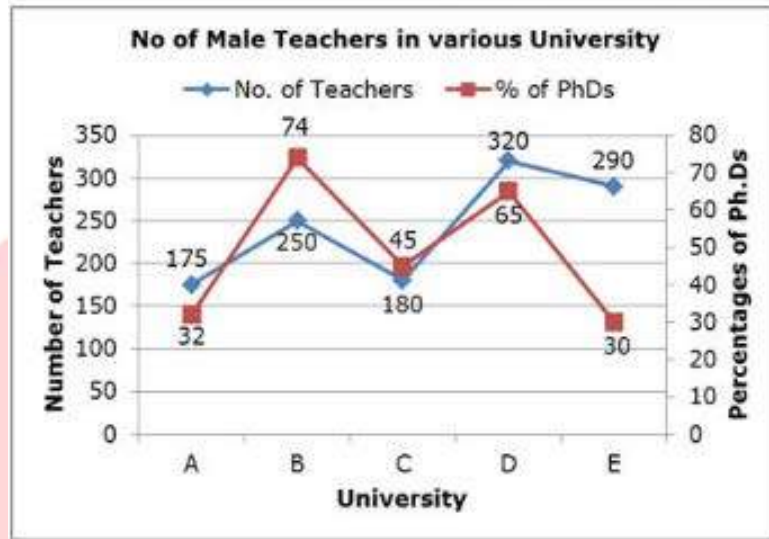
441). What is the average number of female PhDs in all the Universities together?
a) 64   b) 50   c) 52   d) 60   e)None of these

442). What is the total number of non-PhD male teachers from University A, B and C together?
a) 297   b) 208   c) 245   d) 283   e) None of these

443). What is the respective ratio of the non-PhD male teachers from University D and E to the non-Ph.D. female teachers from the University D and E?
a) 35 : 9   b) 34 : 35   c) 35 : 4   d) 36:33   e) None of these

444). What is the difference between the number of female PhD teachers from University E and male non-PhD teachers from the same University?
a) 165   b) 52   c) 168   d) 75   e) None of these

445). The number of PhD teachers in University B (Both males and females) is approximately what per cent of the total number of teachers in the same University?(Both males and females)
a) 54   b) 68   c) 64   d) 52   e) 58

DI Set- 90:

Direction(446-450):
Study the following graph and table carefully and answer the questions given below it
Percentage of Obese men, Obese women and Obese Children in a State in Various years
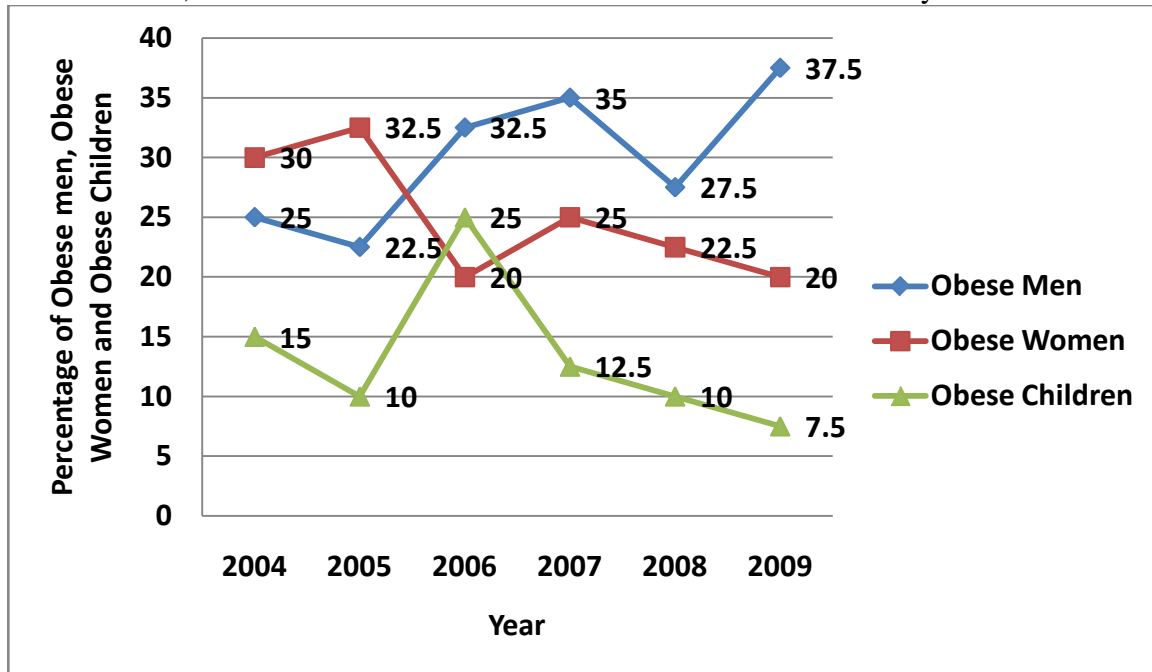
Total Number of men, Women and Children in the State over the Years
The Number of men, Women and Children in the state over the years

Years	Men	Women	Children
2004	54000	38000	15000
2005	75000	64000	21000
2006	63000	60000	12000
2007	66000	54000	16000
2008	70000	68000	20000
2009	78000	75000	45000

446). What was the approximate average of obese men, obese women and obese children in the year 2007?
a) 12,683   b) 12,795   c) 12,867   d) 12,843 e) 12,787

447). The number of obese men in the year 2009 was what per cent of the men not suffering from obesity in the same year?
a) 55   b) 60   c) 50.5   d) 65.5   e) None of these

448). What was the respective ratio of the obese women in the year 2006 to the obese men in the year 2008?
a) 6:7   b) 21 : 65   c) 15 : 73   d) 48 : 77   e)None of these

449) What is the difference between the no of obese women and obese children in 2006 and the no of bese men in 2006?
a) 5475 b) 5745 c) 5875 d) 5574 e) None

450). What was the total number of children not suffering from obesity in the year 2004 and 2005 together?

a) 4,350   b) 31,560   c) 4,530   d) 31,650   e) None of these

Detailed Solution for (Set- 81 to 90)

Solution (401-405):

401). Answer: D)

Since the investment in 2011 is for the entire year,

Ratio of return of Amar, Akbar and Anthony = 7500:9000:12000 = 5:6:8

Return of Akbar = 42500 x 6/5 = Rs 51000

Return of Anthony = 42500 x 8/5 = Rs 68000

Required difference = 68000-51000 = Rs 17000

402). Answer: C)

Amar's return in 2012 = 86700-(25500+27200) = 34000

Suppose Amar invested for n months.

Ratio of profit realized by Amar and Anthony = 6000n : 4000x12 = n:8

n:8 = 34000:27200 = 10:1

Thus, n = 10

403). Answer: B)

Since the investment in 2013 is for the entire year, ratio of investment = ratio of return.

Akbar's monthly investment in 2013 = 5000 x 1.5 = Rs 7500

Amar's return = 45000 x 5500/9000 = 27500

Akbar's return = 45000 x 7500/9000 = 37500

Total return = 27500+37500+45000 = Rs 110000

404). Answer: E)

Since the investment in 2014 is for the entire year, ratio of investment = ratio of return.

Suppose Anthony invested Rs N.

6000:N = 31500:25200 = 5:4

=> N = 4800

So, Amar invested 4800 x 3/2 = 7200

Total investment = 7200+6000+4800 = Rs 18000

405). Answer: A)

Suppose the amounts invested by Amar, Akbar and Anthony are A, B and C respectively.

Ratio of investment x time = ratio of return

For Amar and Akbar, 12A:8B = 40500:40500 = 1:1

=> A:B = 2:3

For Akbar and Anthony

8B:8C = 40500:36000 = 9:8

=> B:C = 9:8

Hence A:B:C = 6:9:8

Solution (406-410):

406) Answer: B)

Male and female employees across different department can be calculated as:

Central Govt.:

Total IT employee = 58000

Male = 58000 x 52/100 =30160; Female = 58000 - 30160 = 27840

State Govt.:

Total IT employee = 24800

Male = 24800 x 56/100 = 13888; Female = 24800 -13888 = 10912
Private:
Total IT employee = 75500
Male = 75500 x 45/100 = 33975; Female = 41525
Based on Line graph and tabular data we get following results:

Department	Central Govt			State Govt			Private		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
IT	30160	27840	58000	13888	10912	24800	33975	41525	75500
Accounts	21390	25110	46500	10730	7770	18500	13475	25025	38500
Marketing	25900	9100	35000	20625	6875	27500	32976	12824	45800
Medical	15960	26040	42000	10080	12320	22400	17568	19032	36600
Clerk	30550	34450	65000	14620	19380	34000	10120	8280	18400
Production	42160	19840	62000	29414	8786	38200	19482	18718	38200
Total	166120	142380	308500	99357	66043	165400	127956	125404	253000

Male from IT = 75500 x 45/100 = 33975
Male from Accounts = 38500 x 35/100 = 13475
Male from Marketing = 45800 x 72/100 = 32976
Male from medical = 36600 x 48/100 = 17568
Male from Clerk = 18400 x 55/100 = 10120
Male from Production = 38200 x 51/100 = 19482
Total employee = 33975 + 13475 + 32976 + 17568 + 10120 + 19482 = 127596
Required Average = 127596/6 = 21266

407). Answer: A)
Central govt. employee from IT and Medical = 58000 + 42000 = 100000
State govt. employee from Accounts and Marketing = 18500 + 27500 = 46000
Required Ratio = 100000/46000 = 50:23

408). Answer: D)
Total male = 30160 + 21390 + 25900 + 15960 + 30550 + 42160 = 166120
Average = 166120/6 ≈ 27687
Total female = 27840 + 25110 + 9100 + 26040 + 34450 + 19840 = 142380
 Average = 142380/6 = 23730
Required difference = 27687 - 23730 = 3957

409). Answer: E)
Total IT employee = 58000 + 24800 + 75500 = 158300
Total Medical employee = 42000 + 22400 + 36600 = 101000
Total = 158300 + 101000 = 259300
Total clerk = 65000 + 34000 + 18400 = 117400
Total Production employee = 62000 + 38200 + 38200 = 138400
Total = 117400 + 138400 = 255800
Required Percentage = 259300/255800 x 100 = 101.4%

410). Answer: B)

Total central govt. employee = 308500

Total State govt. employee = 165400

Total Private sector employee = 253000

Solution (411-415):

Items	Purchased	CP/unit	Total CP	Sold	SP/unit	Total SP
Televisions	370	5000	1850000	330	9500	3135000
Refrigerators	340	7500	2550000	310	12000	3720000
Washing Machines	160	4500	720000	140	9000	1260000
Air Conditioners	110	18000	1980000	90	27500	2475000
Total			7100000			10590000

411). Answer: D)

Total CP of refrigerators = 2550000

Total SP of refrigerators = 3720000

Profit % = (3720000 - 2550000)/2550000 x 100 = 117/255 x 100 = 45.88%

412). Answer: B)

Total revenue = Rs. 10590000

413). Answer: C)

Items	Units Unsold	CP/unit	Total CP
Televisions	40	5000	200000
Refrigerators	30	7500	225000
Washing Machines	20	4500	90000
Air Conditioners	20	18000	360000

Total cost of unsold items = 200000+225000+90000+360000 = Rs. 875000

414). Answer: A)

Total number of sold items = 330 + 310 + 140 + 90 = 870

Total selling price = Rs 10590000

Hence, average selling price of the sold items = 10590000/870 = Rs 12172.41

Approx= Rs 12200

415). Answer: E)

Items	Units Sold	SP/unit	Total SP
Televisions	370	9500	3515000
Refrigerators	340	12000	4080000
Washing Machines	160	9000	1440000
Air Conditioners	110	27500	3025000
Total			12060000

Now, total CP = Rs. 7100000

Hence profit % = (12060000-7100000)/7100000×100

= 4960000/7100000 × 100 = 69.86%

Solution (416-420):

416) Answer: D)

Total students pursuing higher education = 16000.

Male = 16000 x 3/5 = 9600;

Female = 16000 - 9600 = 6400

Female from P = 16000 x 4/100 = 640

Male from S = 9600 x 9/100 = 864

Ratio of male to female in T = 4:3 ...... (i)

Female from R = 6400 x 10/100 = 640
Male from Q = 2 x female from P
Male from Q = 2 x 640 = 1280
Total students from S = 1324 ...... (ii)
Female from S = 1324 - 864 = 460
Female from Q = 2 x male from T (iii)
Total student from T = 2100
Male from T = 2100 x 4/7 = 1200 (from i)
Female from T = 2100 -1200 = 900
Female from Q = 2 x 1200 = 2400 (from iii)
Male from U = 15/100 x 16000 = 2400
Remaining male = 9600 - (1280 + 864 + 1200 + 2400) = 3856
Male from P = 3856 x 25/100 = 964
Mlale from R = 3856-964 = 2892
Female from U = 6400 – (640 + 2400 + 640 + 460 + 900) + 1360
Based on the above data we get the following results:

City	Male	Female	Total
P	964	640	1604
Q	1280	2400	3680
R	2892	640	3532
S	864	460	1324
T	1200	900	2100
U	2400	1360	3760
Total	9600	6400	16000

Male from T and U = 1200 + 2400 = 3600
Female from Q and U = 2400 + 1360 = 3760
Required ratio = 3600/3760 = 45: 47

417) Answer: D)
Total student from P, Q and R = 1604 + 3680 + 3532 = 8816
Total students from S, T and U = 1324 + 2100 + 3760 = 7184
Required percentage = 8816/7184 x 100 = 122.7%

418) Answer: C)
Total male = 16000 x 3/5 = 9600
Total students = 16000
Required percentage = 9600/16000 x 100 = 60%

419) Answer: C)
City P and R has the Same female students

420) Answer: A)
From P = 964 - 640 = 324
From Q = 2400 - 1280 = 1120
From R = 2892 - 640 = 2252
From S = 864 - 460 = 404
From T = 1200 - 900 = 300
From U = 2400 -1360 = 1040
Clearly, Q has the second highest difference.

Solution (421-425):
421). Answer: C)

The following tables shows the marks obtained by five students in half yearly exams
Here, marks scored by Nitara is 2nd Lowest

Subject	Niara	Nihaan	Nitara	Norah
Hindi	76	65	59	70
English	69	71	69	65
Maths	64	80	78	57
Science	73	78	75	59
Social Studies	74	63	72	75
Total	356	357	353	326

422). Answer: C)
The following table shows the marks obtained by all four students in all the tests.
The required difference is highest for Nitara (257-211=46)

Subject	Names	Unit Test 1 (40)	Half Yearly (80)	Unit Test 2 (50)	Annual Exam (100)	Total
Maths	Niara	40	64	49	85	238
	Nihaan	34	80	39	99	252
	Nitara	38	78	45	96	257
	Norah	37	57	50	88	232
Science	Niara	27	73	41	78	219
	Nihaan	36	78	40	85	239
	Nitara	29	75	30	77	211
	Norah	32	59	48	90	229

423). Answer: B)
The normalized marks of Niara and Norah in social studies is:

Names	Unit Test 1 (40)	Half Yearly (80)	Unit Test 2 (50)	Annual Exam (100)	Total
Niara	2.8	22.2	9	37.6	71.6
Norah	3.8	22.5	8	36.8	71.7

The Required difference is = 71.6 – 71.1 = 0.5

424). Answer: B)
To find the average marks, we need to convert unit test 1 marks out of 50 or unit test two marks out of 40.
Here, unit test 1 marks is converted out of 50

Names	Unit Test 1 (50)	Unit test 2 (50)
Niara	37.5	42
Nihaan	46.25	47
Nitara	45	35
Norah	30	32
Total	158.75	156

Required Difference = (158.75-156)/4 = 0.6875 = 0.69

425). Answer: A)
The following table shows the marks obtained Nitara and total marks obtained by her in the particular test
She had highest percentage of marks in English in unit Test 1

Subjects	English	Total Marks	Required %
UT 1	37	40	92.5
HY	69	80	86.25
UT 2	32	50	64
Annual Exam	83	100	83

Solution (426-430):
426). Answer: C)
First of all calculate the expense in each category using the pie chart given for the year 2013.

Component	Expenditure
Advertisement	5400000
Material Prep	2100000
Printing	4500000
Salary	10800000
Admin Cost	3000000
Others	4200000

Now using the table we can calculate the expenses in 2012 and 2014.

For example the increase in expenditure in advertisement from 2012 was 35%. Hence expenditure in 2012 = 5400000 x 100/135 = 4000000

And from 2013 to 2014 it was 10%. Hence expenditure in 2014 = 5400000 x 1.1 = 5940000

Similarly we can calculate the expenses in other categories as well.

Component	Expenditure		
	2012	2013	2014
Advertisement	4000000	5400000	5940000
Material Prep	2000000	2100000	2100000
Printing	4000000	4500000	5400000
Salary	10000000	10800000	13500000
Admin Cost	30000000	3000000	3450000
Others	3750000	4200000	5040000
Total	26750000	30000000	35430000

Expenditure in 2012 = 26750000
Expenditure in 2013 = 30000000
% increase = (3000-2675)/2675 x 100 = 12.15%

427). Answer: A)
This can be identified without even doing actual calculation. The increase in expenditure on advertisements was 35% from 2012 to 2013 and 10% from 2013 to 2014.

428). Answer: D)
Required % = 4000000/26750000 x 100 = 14.95%

429). Answer: B)
Suppose there were 4n employees in 2012
So the average salary = 10000000/4n = 2500000/n
Now there are 5n employees in 2014
Average salary = 13500000/5n = 2700000/n
Percentage increase = (27-25)/25 x 100 = 8%

430). Answer: B)
Required percentage = 5940000/35430000 x 100 = 16.77%

Solution (431-435):

431) Answer: B)
Number of females in a province = (% share of the province in total population) * (fraction of female population in that province) Doing the above calculation for:
Number of females in Ghana = (25)*(1/5) = 5% of total population
Number of females in Kanha = (15)*(2/5) = 6% of total population
Number of females in Beegha = (35)*(4/7) = 20% of total population
Number of females in Dhaani = (5)*(4/10) = 2% of total population

Number of females in Bedha = (20)*(7/10) = 14% of total population
So, the female population of Beegha is the highest..

432) Answer: B)
Population of Beegha = 35% of kingdom population = (35*100,000)/100 = 35000
Population of Farmers in Beegha = 45% of Beegha's population = (45*35000)/100 = 15750
Population of female farmers in Beegha = 20% of farmers of Beegha = (20*15750)/100 = 3150 Total female population of Beegha = (4/7)*35000 = 20,000
=> Percentage of total female population of Beegha, who are farmers = (3150/20000)*100 => = 15.75%

433) Answer: C)
From the definition of ACN, its formula can be written as:
ACN for a province = (% of population in Retail + % of population in Retail)* Total poplin of the province
Calculating ACN for each province:

Province	ACN
Ghana	6250
Kanha	4500
Beegha	10500
Dhaani	1250
Bedha	10000

Beegha has the highest ACN.

434) Answer: A)
Solving for (I), Total population of Ghana working in Real Estate sector = (10% of Ghana population) = (10/100)*(25/100)*100,000
= 2500----- ------ ----(i)
Total population of Ghana working in "Other" sector = (10% of Ghana population)
= 2500---- (ii)
Total population of Ghana working in the Real Estate and "Other" sectors = (i) + (ii)
= 5000---- ------ ---(iii)
Total population of Dhaani province = (5% of kingdom population)
= (5/100)*(100,000)
= 5000------------(iv)
Since, (iii) = (iv), therefore, (I) is true Now, solving for (II),
Total population of Beegha working in Engineering sector = (10% of Beegha province)
= (10/100)*(35/100)*100,000
= 3500 (i)
Total population of Beegha working in Retail sector = (10% of Beegha province)
= 3500 (ii)
Total population of Beegha working in Engineering and Retail sectors = (i) + (ii) = 7000
(iii) Male population of Kanha province = (3/5)*(Population of Kanha Province)
= (3/5)*(15/100)*100,000 = 9000 (iv)
Since, (iii) < (iv), therefore (II) is false.

435) Answer: E)
Male population in a province = [ratio of males/(ratio of males+ratio of females)]*(Population of the province)
Similarly,
Female population in a province = [ratio of females/(ratio of males+ratio of females)]*(Population of the province)
The populations of males and females in different provinces is calculated below:

Provice	Male Population	Female Population
Ghana	20000	5000

Kanha	9000	6000
Beegha	15000	20000
Dhaani	3000	2000
Bedha	6000	14000
Total	53000	47000

Therefore, required ratio = (53000/47000)
= (53/47) So, option 5 is the correct answer.

Solution (436-440):
436). Answer: C)
Students enrolled in various activities from various cities can be calculated as:
 From A: Dancing = 24500
Drawing = 24000
Craft = 20000
Enrolled student = (24500 + 24000 + 20000) = 68500
Professional student = 85000 x 18/100 = 15300
Based on above data we gets following results:

City	Dancing	Drawing	Craft	Total	Professional
A	24500	24000	20000	68500	15300
B	24000	26500	22500	73000	18700
C	18000	21500	26500	66000	13600
D	20000	18000	20000	58000	15300
E	17500	22500	24000	64000	11900
F	20000	24500	26500	71000	10200
Total	**124000**	**137000**	**139500**	**400500**	**85000**

Students enrolled in Dancing from city A and E = (24500 + 17500) = 42000
Students enrolled in Craft from city B and C = (22500 + 26500) = 49000
Required ratio = 42000/49000 = 6:7
437). Answer: C)
Total enrollment in craft = (20000 + 22500 + 26500 + 20000 + 24000 + 26500) = 139500
Required average = 139500/6 = 23250
438). Answer: B)
 Difference in dancing = 18000 x (55 - 45)/100 = 1800
Difference in drawing = 21500 x (60 - 40)/100 = 4300
Difference in craft = 26500 x (58 - 42)/100 = 4240
Required difference = (1800 + 4300 + 4240) = 10340
439). Answer: E)
From city A:
Dancing professional = 24500 x 20/100 = 4900
Drawing professional = 24000 x 25/100 = 6000 Total = (4900 + 6000) = 10900
Total professional = 15300 Craft professional = (15300 - 10900) = 4400
From city D:
Dancing professional = 20000 x 18/100 = 3600
Drawing professional = 18000 x 25/100 = 4500
Total = (3600 + 4500) = 8100
Total professional = 15300
Craft professional = (15300 - 8100) = 7200
Required ratio = 4400/7200 = 11:18
440) Answer: C)
Total enrollment from B and F = (73000 + 71000) = 144000
Total enrollment from C and E = (66000 + 64000) = 130000

Required percent = (144000 - 130000)/130000 x 100 ≈ 11%

Solution (441-445):
441). Answer: C)
Total number of female PhDs in all the universities = (0.44 x 125) + (0.4 x 105) + (0.55 x 120) + (0.8 x 80) + (0.35 x 100) = 262 Average = 262/5 = 52

442). Answer: D)
Total number of male teachers from University A, B and C = 175 + 250 + 180 = 605
Total number of male PhDs from University A, B and C = (0.32 x 175) + (0.74 x 250) + (0.45 x 180) = 322
Therefore, the total number of non-PhDs male teachers from University A, B and C = 605 - 322 = 283

443). Answer: A)
The number of non-PhD male teachers from University D and E = (0.35 x 320) + (0.7 x 290) = 315
The number of non-PhD female teachers from University D and E = (0.2 x 80) + (0.65 x 100) = 81 Ratio = 315 : 81 = 35 : 9

444). Answer: C)
Number of PhD female teachers from University E = 0.35 x 100 = 35
Number of male non-PhD teachers from the University E = 0.7 X 290 = 203
Difference = 203 - 35 = 168

445). Answer: C)
Number of PhD teachers in University B(both males and females) = (0.74 x 250) + (0.4 x 105) = 227
Total number of teachers from University B = 250 + 105 = 355
Required percentage = (227/355) x100 = 63.94%

Solution (446-450):

446). Answer: C)
Number of obese men in 2007 = 35% of 66000 = 23100
Number of obese women in 2007 = 25% of 54000 = 13500
Number of obese children in 2007 = 12.5% of 16000 = 2000
Total number of obese men, obese women and obese children in the year 2007 = 231 00 + 13500 + 2000 = 38600
Average = total/3 = 38600/3 = 12867

447). Answer: B)
Number of obese men in 2009 = 37.5% of 78000 = 0.375 X 78000
Number of men not suffering from obesity in 2009 = 62.5% of 78000 = 0.625 X 78000
Required percentage = {(0.375x78000)/ (0.625x78000) }X100 = 60%

448). Answer: D)
Number of obese women in 2006 = 20% of 60000
Number of obese men in 2008 = 27.5% of 70000
Required ratio = (0.2x60000) / (0.275x70000) = 8x6 / 11x7 = 48 / 77

449). Answer: A)
Number of obese women and obese children in 2006 = 20% of 60000 + 25% of 12000 = 12000 + 3000 = 15000
Number of obese men in 2006 = 32.5% of 63000 = 20475
Difference = 20475 - 15000 = 5475

450). Answer: D)
Number of children not suffering from obesity in 2004 = 85% of 15000 = 12750
Number of children not suffering from obesity in 2005 = 90% of 21000 = 18900

Total = 12750 + 18900 = 31 650
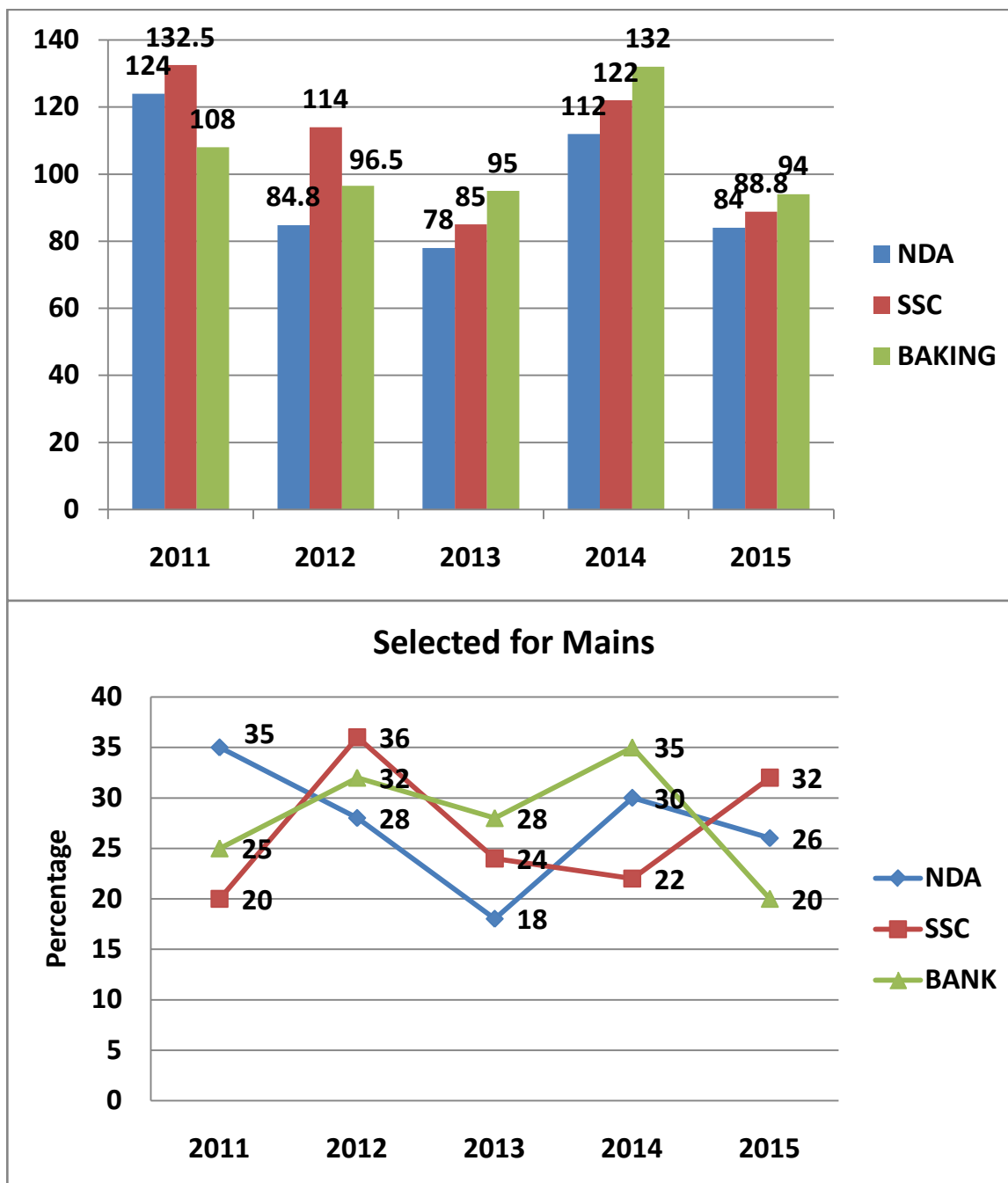
Questions (Set – 91 to 100)

DI Set- 91:

Direction(451-455):
Following graph shows the number of aspirants appeared in three different national level examination in (thousand) over the years and percentage of students selected for Mains Exam.

Selected for Mains

451). What is the average of aspirants from SSC over the years taken together?
a) 116740   b) 95855   c) 105465   d) 108460   e) 112800

452). If 30%, 25%, 25% of aspirants finally appointed from banking over the year 2012, 2013, 2014 respectively, then What is total selection for given years?
a) 28324   b) 27464   c) 27644   d) 28634   e) 26540

453). Total aspirants from NDA is what percent of banking aspirants over the years?
a) 108%   b) 85%   c) 92%   d) 96%   e) 88%

454). What is the average of aspirants appeared in mains from NDA over the years?
a) 25480   b) 27325   c) 24650   d) 24500   e) 25700

455). What is the ratio aspirants selected for mains in banking from the year 2013 to 2015?
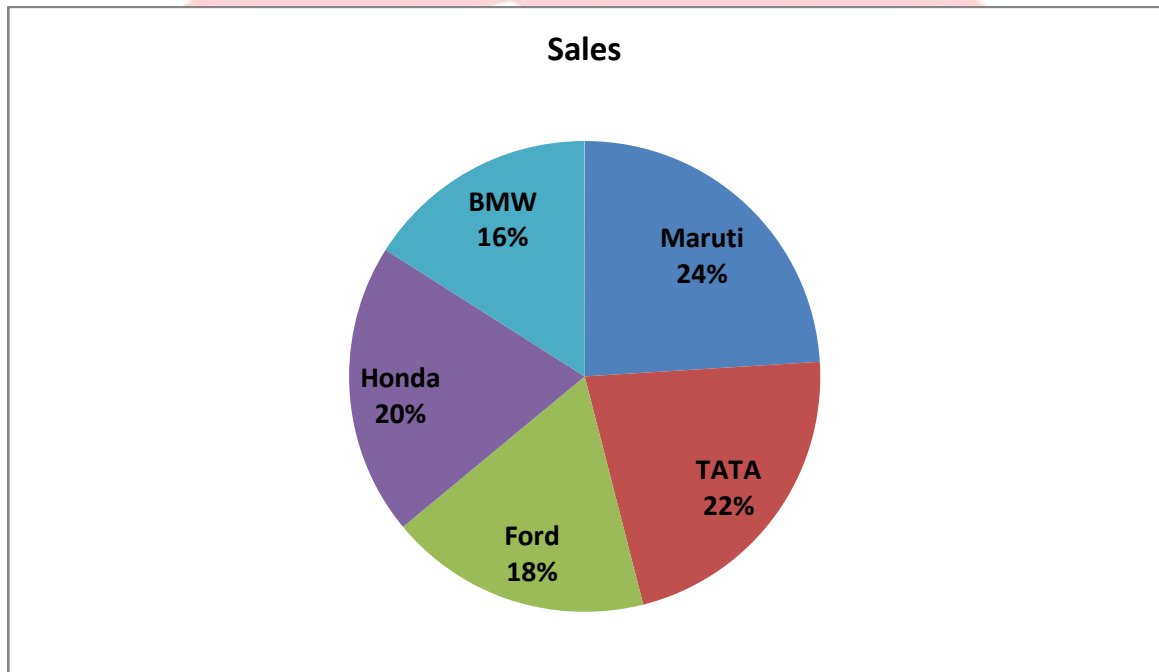a) 133:94 b) 132:93   c) 94:133   d) 133:96   e) 132:95

DI Set- 92:
Direction(456-460):

Read data carefully and answer the following questions.
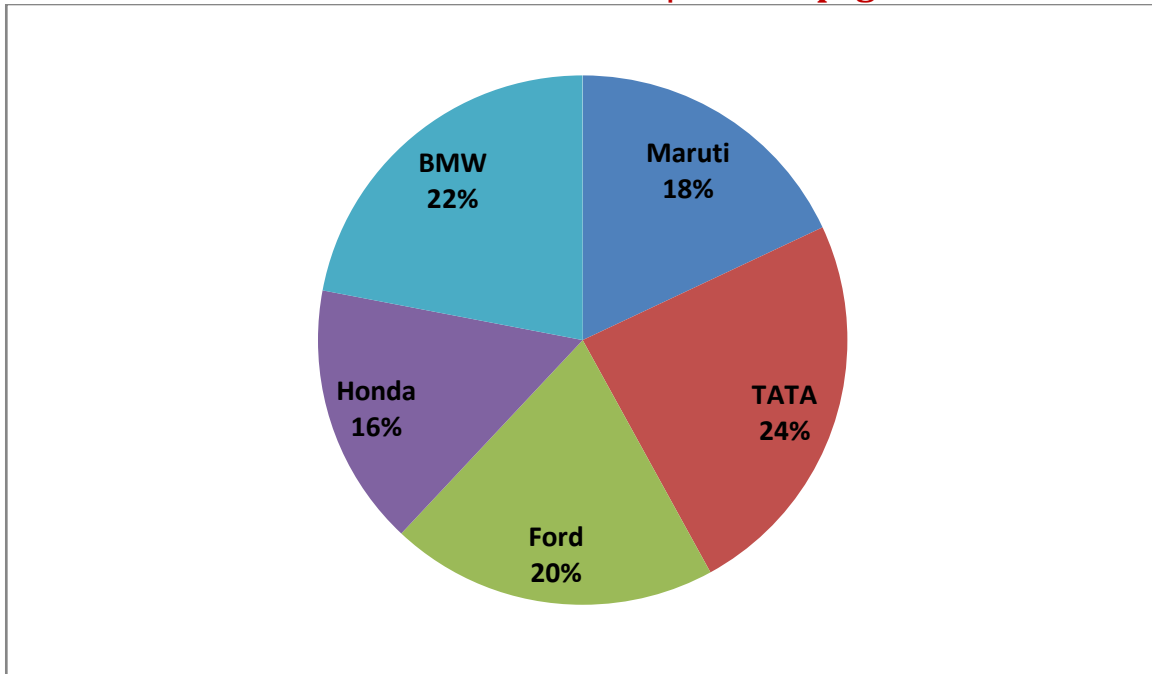Below pie chart shows percentage breakup of sales of cars from various brands in Delhi.
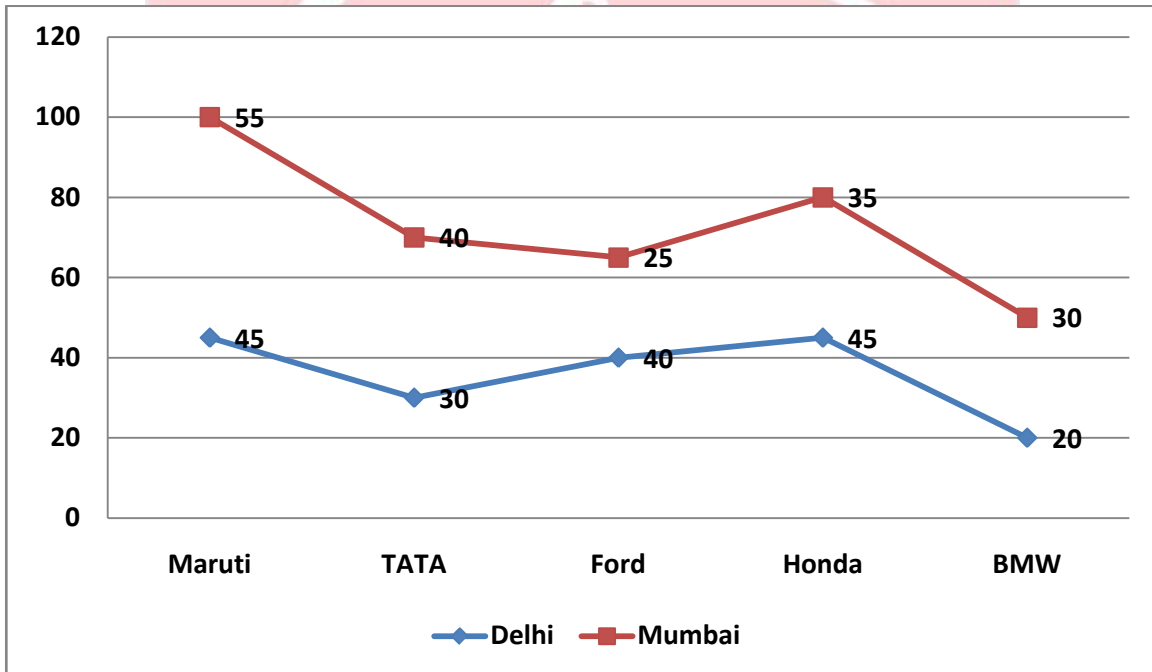
Total cars sold = 45000

Sales

Below pie chart shows percent breakup of sales of cars from various brands in Mumbai.
Total cars sold = 65000

Below line graph shows percentage of diesel cars sold from varios brands across city. Note: Only Diesel and Petrol cars are available in the market.

456) What is the ratio of sales of maruti and BMW cars from delhi to that of the same from Mumbai?
a) 9 : 13   b) 12:13   c) 8 : 9   d) 13: 15   e) 11:12

457) What is the average number of petrol cars sold from delhi of all brands?
a) 5680   b) 4580   c) 5688   d) 5480   e) 4560

458) Sales of cars from BMW and TATA from delhi is approximate what percentage of the sales of cars from BMW and TATA from mumbai?
a) 45%   b) 42%   c) 57%   d) 63%   e) 48%

459) What is the central angle formed by Maruthi, TATA and Ford from Mumbai?
a) 223.2^0 b) 228.5^0 c) 1118.8^0 d) 115.4^0 e) 108.5^0

460) If 45%, 30% and 45% of cars from TATA, Ford and Honda brands respectively from Mumbai are of red color, then what is the average number of red color cars of these three brands from Mumbai?
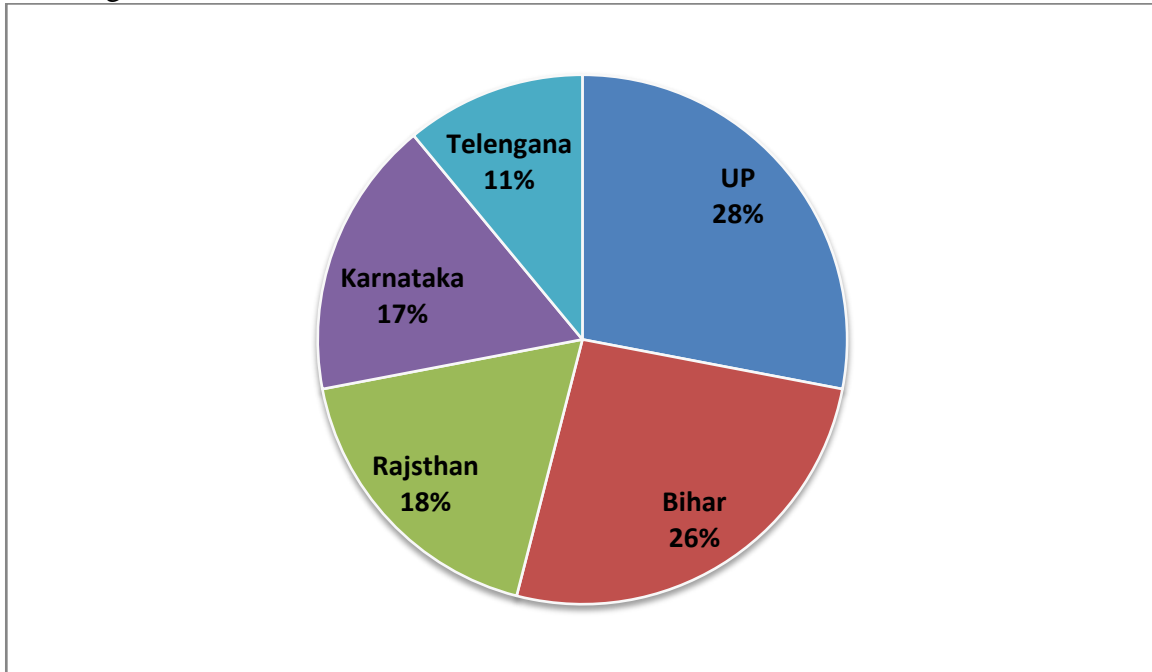
a) 5450   b) 5400   c) 5250   d) 5200   e) 5540

DI Set- 93:

Direction(461-475):
Read data carefully and answer the following questions.
Below pie chart shows percentage breakdown of workers in India across different states.
Total number of Registered Workers = 850000

Below line Graph shows percentage of degree of workers:
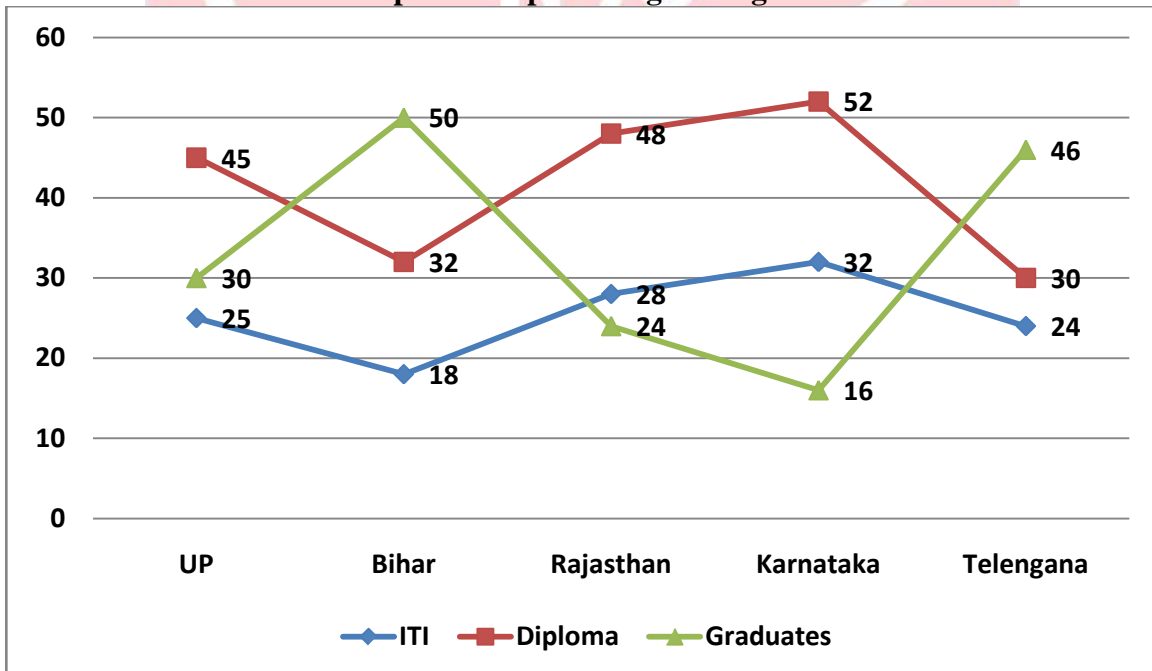
461). What is average diploma holders taken all states together?
a) 72850   b) 70890   c) 78650   d) 72770   e) 78890

462). Total ITI holders from UR Bihar are what percent more than that of Rajasthan and Karnataka?
a) 24.5%   b) 18.85%   c) 11.45%   d) 15.54%   e) 14.5%

463). What is the difference between ITI and Graduate workers taken all state together in thousand?
a) 84.64 b) 75.2 c) 74.84 d) 74.75 e) 73.95

464). If 25%, 24% and 20% of Graduate workers from UP, Bihar and Rajasthan are science graduate, then find total science graduates?
a) 51714 b) 51876 c) 56890 d) 54321 e)57656

465). What is the central angle inscribed by workers from UP and Karnataka?
a) 140° b) 145° c) 175° d) 162° e) None of these

DI Set- 94:

Direction(466-470):
Below tabular data shows details of percentage marks scored by six students in different subjects with maximum marks of the respective subjects mentioned in brackets. While preparing report card, some data were left by mistake. Read data carefully and answer the following questions.
Note: Marks obtained by Jaya in English is equal to marks obtained by Divya in Economics.

Name	History (150)	English (150)	Math (200)	Economics (150)	Science (150)	Total (800)
Sanjay	72%	64%	78%	80%	88%	76.5%
Rekha	68%	74%	--	72%	74%	76%
Jaya	85%	--	82%	65%	70%	73%
Divya	80%	80%	74%	--	84%	--
Ajay	65%	--	75%	65%	68%	66%
Jay	74%	76%	64%	--	78%	74.5%

466). What are the average marks obtained in English of all the six students?
a) 104 b) 106 c) 102 d) 98 e) 112

467). Total marks of Rekha and Ajay is what percentage of total marks obtained by Divya and Jaya?
a) 94.8% b) 95.6% c) 94.2% d) 93.8% e) 95.2%

468). What is the ratio of marks obtained by Sanjay and Jay in History to that of marks obtained by both of them in Economics?
a) 75:83 b) 73:82 c) 78:83 d) 73:85 e) 72:83

469). What is the difference between marks obtained in History and Economics of all the six students?
a) 28 b) 38 c) 27 d) 32 e) 35

470). Marks obtained by Jay in History, English and Math is what approximate percentage more than marks obtained by Ajay in History, Economics and Science?
a) 22% b) 24% c) 19% d) 27% e) 15%

DI Set- 95:

Direction(471-475):
Answer the following question based on the information given below. On a daily basis, there are two flights from India to Japan - flights A and B. Both flights provide three types of services - First Class, Business Class and Economy Class. On a certain day, flight B has 700 passengers and flight A has 25% more passengers than flight B. 8% of the total passengers of flight B are overseas First Class passengers. The number of Indian to overseas First Class passengers in flight B is in the ratio 3:2. The number of Indian Business Class passengers in flight A is one-ninth of the total passengers travelling to Japan on that day. Out of the 335 Economy Class passengers in flight A, 115 are overseas passengers. 20% of the total travelers to Japan travel by Business Class in flight A. 20% of the passengers in flight B are Indians in the Economy Class. The First Class of flight A has Indian and overseas passengers in the ratio 5:4. The total number of first class passengers in flight A is 9/10th of the total

Economy Class passengers in flight B. The Business Class of flight B has 10 more Indians than overseas passengers.

471). What is the difference between the total overseas passengers and the number of Indian passengers in flight A?
a) 131   b) 151   c) 152   d) 144   e) 121

472).The number of Business Class passengers in both flights is approximately what percentage of the number of overseas passengers in all Classes, except Business Class?
a) 151%   b) 173%   c) 169%   d) 164%   e) 183%

473). What is the ratio of the Indian passengers in the First and Business Class of flight A to all the overseas passengers of flight B?
a) 75:73 b) 74:75   c) 75:79   d) 76:75   e) Cannot be determined

474). The Economy Class passengers of both flights form what approximate percent of the total passengers travelling to Japan?
a) 37%   b) 32%   c) 44%   d) 39%   e) None of the above

475). Owing to bad weather, all flights to Japan got cancelled. The same airline operated both flights. If the reimbursement amount is 25%, 30% and 35% for Economy, Business and First Class passengers respectively, then what amount did the airline pay as reimbursement?
a) Rs. 15 Lakhs   b) Rs. 14.80 Lakhs   c) Rs. 15.20 Lakhs   d) Rs. 15.75 Lakhs   e) Cannot be determined

DI Set- 96:

Direction(476-480):

The profit percentage of two different companies is shown below. Study the graph carefully to answer the questions that follow:
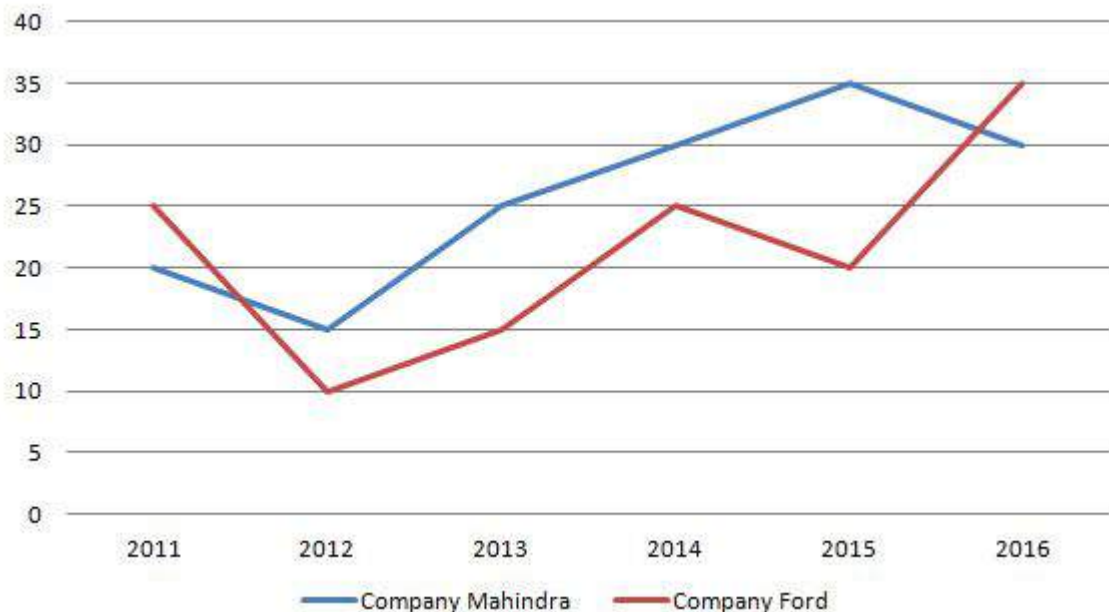
476). If the profit earned by Company Mahindra in the year 2015 was 4.52 lakhs and the profit earned by Company Ford in the year 2015 was 4.36 lakhs, then what was the ratio of profit of both companies in the year 2016?
a) 587: 588 b) 594: 605 c) 601 : 593 d) 592 : 597 e) 585 : 599

477). If the profit earned by Company Mahindra in the year 2012 was 1.84 lakhs which is also equal to the profit earned by Company Ford in the year 2015. Then find the difference between the amount of profit earned by the Mahindra in the year 2013 and the profit earned by the Ford in the year 2014?
a) 1.25 lakhs b) 0.83 lakhs c) 0.87 lakhs d) 1.20 lakhs e) None of these

478). What is the percentage of profit amount earned by Ford in the year 2013 to that of profit amount earned by Ford in the year 2015, if the profit earned by Company Ford in the year 2015 was 3. 63 lakhs?
a) 74.28 % b) 49.35 % c) 78.52 % d) 58.64 % e) 69.42 %

479). The profit earned by Company Mahindra in the year 2011 was 5.98 lakhs and the profit earned by Company Ford in the year 2014 was 4.76 lakhs. Then what is the difference between the average of profit amount earned by Mahindra in the year 2011, 2012, 2013 and the average of profit amount earned by Ford in the year 2014, 2015, 2016?
a) 2.09 lakh b) 3.09 lakh c) 2.39 lakh d) 0.59 lakh e) None of these

480). What is the difference between the percentage rise in profit of Company Ford in the year 2016 from the previous year and the percentage rise in profit of Company Mahindra in the year 2013 from the previous year?
a) 8.66 % b) 9.99 % c) 15.66 % d) 8.33 % e) None of these

DI Set- 97:

Direction(481-485):

Directions (Q. 6-10): Study the given table carefully to answer the questions that follow:
   Number of People Staying in Five Different cities and the Percentage Breakup of Men, Women and Children in them

City	Total number of people	Percentage		
		Men	Women	Children
Chennai	5640	55	35	10
Mumbai	4850	34	44	22
Bangalore	5200	48	39	13
Hyderabad	6020	65	25	10
Jaipur	4900	42	41	17

481). The number of men and women together staying in which city is the highest?
a) Bangalore b) Mumbai c) Chennai d) Hyderabad e) None of these

482). Total number of men staying in Jaipur and total number of women staying in Hyderabad together forms approximately what percent of the total number of people staying in Chennai?
a) 73.17 b) 56.82 c) 63.17 d) 60.28 e) 83.15

483). What is difference between the total number of women staying in Chennai and Mumbai together and the total number of children staying in Bangalore and Hyderabad together?
a) 2731 b) 2830 c) 2053 d) 2537 e) 2391

484). What is the total number of men staying in Chennai and number of children staying in Hyderabad together?
a) 3700 b) 3804 c) 3704 d) 3904 e) 3708

485). What is the respective ratio of number of men staying in Chennai and Jaipur together to the number of women staying in Bangalore and Mumbai together?
a) 2580 : 2081 b) 2081 : 2580 c) 2590 : 2071 d) 2580 : 2061 e) None of these

DI Set- 98:

Direction(486-490):
Study the following graph carefully to answer the given questions.
Number of People taking Fresh Loans from Different Banks over the Year and the Percentage of Defaulters Amongst them each Year

Year	Banks				
	Andra Bank	Canara Bank	Indian Bank	Syndicate Bank	Vijaya Bank
2011	27361	26345	25467	28246	30164
2012	32081	27456	32461	29435	35128
2013	25361	28637	32652	29565	32443
2014	23654	29045	32561	28314	36152
2015	36125	30467	25495	23764	35463
2016	35465	31963	27649	24356	33214
2017	34135	31974	28283	26553	31264

Approximate Percentage of Defaulters among them

Year	Banks				
	Andra Bank	Canara Bank	Indian Bank	Syndicate Bank	Vijaya Bank
2011	12	9	15	13	19
2012	24	8	17	20	23
2013	22	13	16	21	25
2014	18	11	18	22	19
2015	12	10	13	23	18
2016	11	20	11	22	21
2017	9	21	12	21	23

486). In which of the following years was the number of defaulters of Indian Bank, the maximum among the given years?
a) 2012 b) 2013 c) 2014 d) 2017 e) None of these

487). Approximately how many people taking a loan from Syndicate Bank in the year 2013 were defaulters?
a) 6560 b) 6210 c) 4760 d) 6210 e) 6020

488). Approximately what was the total number of defaulters of Vijaya Bank in the years 2014 and 2015 together?

a) 11250 b) 13580 c) 13250 d) 14250 e) 15960

489). Approximately what was the difference between the number of defaulters of Canara Bank in the year 2011 and 2012?
a) 175 b) 180 c) 170 d) 185 e) 165

490). In which of the following years was the difference in number of people taking loan from Andhra Bank from the previous year the highest?
a) 2015 b) 2013 c) 2014 d) 2012 e) None of these

DI Set- 99:

Direction(491-495):

Study the following graph carefully to answer the given questions.
There are 7200 students in an arts and science college. The ratio of boys of girls is 7:5, respectively. All the students are enrolled in six different specialization viz., B.Sc. (Agriculture), B.Sc. (Computer science), B.Sc. (Biology), B.Sc. (Chemistry), B.Sc. (Mathematics), B.Sc. (Physics). 22% of the total students are in B. Sc. (Mathematics). 16% of the girls are in B.Sc. (computer science). 18% of boys are in B.Sc. (Biology). Girls in B.Sc. (Physics) are 30% of the girls in B. Sc. (computer science). 15% of boys are in B. Sc. (Agriculture). Boys in B.Sc (Computer Science) are 50% of the girls in the same. 15% of girls are in B.Sc. (Chemistry). The ratio of boys to girls in B.Sc. (Physics) is 3:1 respectively. 24% of the total numbers of students are in B.Sc. (Agriculture). The ratio of boys to girls in B.Sc. (Chemistry) is 12:5, respectively.

491). Number of girls enrolled in B.Sc. (Agriculture) forms approximately. What per cent of total number of students in the college?
a) 10% b) 12% c) 15% d) 19% e) 22%

492). What is the total number of students enrolled in B.Sc. (Biology)?
a) 1062 b) 1080 c) 1098 d) 1262 e) 1162

493). What is the total number of boys enrolled in B. Sc. (Physics)?
a) 200 b) 432 c) 392 d) 680 e) 720

494). What is the total number of girls enrolled in B.Sc. (Mathematics)?
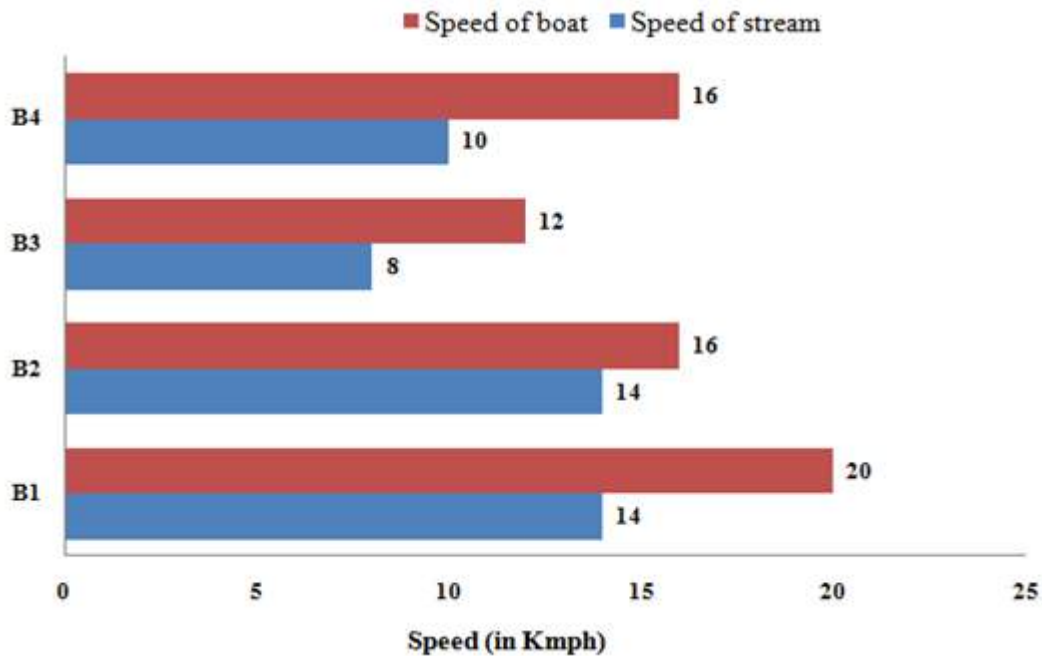a) 756 b) 422 c) 264 d) 580 e) 522

495). Number of boys enrolled in B.Sc. (Chemistry) forms, what per cent of the total number of girls enrolled in B.Sc. (computer science)?
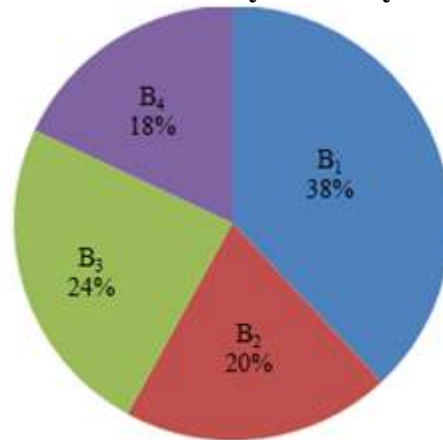a) 217% b) 190% c) 230% d) 225% e) 237%

DI Set- 100:

Direction(496-500):
Directions (Q.1-5): Study the following bar graph and pie-chart carefully and answer the questions given below:

Speed of boat ■ Speed of stream

Speed (in Kmph)

Percentage of distance covered by Mohit by four different boats

Total distance travelled = 1500 km

496).What is the time taken by Mohit to reach his destination upstream?
a) 380 hrs b) 370 hrs c) 368 hrs d) 375 hrs e) 365 hrs

497).What is the ratio of time take by boat B_3 to that taken by boat B_4 to reach their respective destinations? (Assume that the boats travel in the same directions of as that of the stream.)
a) 13:9 b) 11:10 c) 26:15 d) 13:11 e) 12:11

498).If the speed of boat B_4 increases by 15% then what is the approximate time taken by Mohit to reach 756 km by boat B_4? (Assume opposite direction of stream)
a) 90 hrs   b) 92 hrs c) 87 hrs d) 82 hrs e) 85 hrs

499).What is the difference between the time taken by boat B_1 and boat B_2 to travel 300 km upstream?
a) 100 hrs   b) 101 hrs   c) 99 hrs   d) 98 hrs   e) 102 hrs

500).If the speed of boat B_3 is increased by 30% and the speed of the stream decreases by 15% then what is the difference between the time taken by the boat now and that taken previously to travel 440 km? (Assume opposite direction of stream in either case)
a) 70 hrs   b) 68 hrs   c) 60 hrs   d) 55 hrs   e) 64 hrs

Solution (451-455):
451). Answer: D)
 In 2011:
Total NDA aspirants: 124000; Selected for Mains = 124000*35/100 = 43400
Total SSC aspirants: 132500; Selected for Mains = 132500*20/100 = 26500
Total Banking aspirants: 108000; Selected for Mains = 108000*25/100 = 27000
In 2012:
Total NDA aspirants: 84800; Selected for Mains = 84800*28/100 = 23744
Total SSC aspirants: 114000; Selected for Mains = 114000*36/100 = 41040
Total Banking aspirants: 96500; Selected for Mains = 96500*32/100 = 30880
In 2013:
Total NDA aspirants: 78000; Selected for Mains = 78000*18/100 = 14040
Total SSC aspirants: 85000; Selected in mains = 85000*24/100 = 20400
Total Banking aspirants: 95000; Selected in mains = 95000*28/100 = 26600
In 2014:
Total NDA aspirants: 112000; Selected for Mains = 112000*30/100 = 33600
Total SSC aspirants: 122000; Selected in mains = 122000*22/100 = 26840
Total Banking aspirants: 132000; Selected in mains = 132000*35/100 = 46200
In 2015:
Total NDA aspirants: 84000; Selected for Mains = 84000*26/100 = 21840
Total SSC aspirants: 88800; Selected in mains = 88800*32/100 = 28416
Total Banking aspirants: 94000; Selected in mains = 94000*20/100 = 18800

Year	NDA		SSC		BANKING	
	Applied	Mains	Applied	Mains	Applied	Mains
2011	124000	43400	132500	26500	108000	27000
2012	84800	23744	114000	41040	96500	30880
2013	78000	14040	85000	20400	95000	26600
2014	112000	33600	122000	26840	132000	46200
2015	84000	21840	88800	28416	94000	18800

Required Average = (132500+114000+85000+122000-F88800)/5 = 108460

452). Answer: B)
Total appointment in 2012 = 96500*32/100*30/100 = 9264
Total appointment in 201 3 = 95000*28/100*25/100 = 6650
Total appointmen-t in 2014 = 132000*35/100*25/100 = 11550
Required Number = (9264+6650+11550) = 27464

453).Answer: C)
 Total aspirants from NDA = (124000+84800+78000+112000+84000) = 482800
Total aspirants from Banking = (108000+96500+95000+132000+94000) = 525500
Required percentage = (482800/525500)*100 = 91.87%

454).Answer: B)
 Selected for Mains in 2011 = 124000*35/100 = 43400
Selected for Mains in 2012 = 84800*28/100 = 23744
Selected for Mains in 2013 = 78000*18/100 = 14040
Selected for Mains in 2014 = 112000*30/100 = 33600
Selected for Mains in 2015 = 84000*26/100 = 21840
Required Average = (43400+23744+14040+33600+21840)/5 = 27324.8

455). Answer: A)
Total banking aspirants selected for mains from 2013: 95000*28/100 = 26600

Total banking aspirants selected for mains from 2015: 94000*20/100 = 18800
Required Ratio = 26600/18800 = 133:94

Solution (456-460):

456) Answer: A)
Sales of cars from various brands across city can be calculated as:
From Delhi: Maruti = 45000 x 24/100 = 1 0800
Diesel = 10800 x 45/100 = 4860
Petrol = (10800 - 4860) = 5940
TATA = 45000 x 22/100 = 9900
 Diesel = 9900 x 30/100 = 2970
Petrol = (9900 - 2970) = 6930
Based on above data we get fol owing results:

Brand	Delhi			Mumbai		
	Diesel	Petrol	Total	Diesel	Petrol	Total
Maruti	4860	5940	10800	6435	5265	11700
TATA	2970	6930	9900	6240	9360	15600
Ford	3240	4860	8100	3250	9750	13000
Honda	4050	4950	9000	3640	6760	10400
BMW	1440	5760	7200	4290	10010	14300
Total	16560	28440	45000	23855	41145	65000

Sales of Maruti and BMW from Delhi = (10800 + 7200) = 18000
Sales of Maruti and BMW from Mumbai = (11700 + 14300) = 26000
Required ratio = 18000/26000 = 9:13

457) Answer: C)
Total petrol cars = (5940 + 6930 +4860 + 4950 + 5760) = 28440
Required average = 28440/5 = 5688

458) Answer: C)
Cars from BMW + TATA in delhi = 7200 + 9900 = 17100
Cars from BMW + TATA in Mumbai = 15600 + 14300 = 29900
Approximate percentage = 17100/29900 * 100 = 57%

459) Answer: A)
Total percent = (18 + 24 + 20) = 62%
Required angle = 62/100 x 360 = 223.2°

460) Answer: D)
Red cars from TATA = 15600 x 45/100 = 7020
Red cars from Ford = 13000 x 30/100 = 3900
Red cars from Honda = 10400 x 45/100 = 4680

Required average = (7020 + 3900 + 4680)/3 = 5200

Solution (461-465):
461) Answer: B)
Number of workers and their specialization can calculated as :
From UP:
Total Number of workers = 850000 x 28/100 = 238000
Total ITI = 238000 x 25/100 = 59500
Total Diploma = 238000 x 45/100 = 107100
Total Graduate = 238000 x 30/100 = 71400
From Bihar:
Total number of workers = 850000 x 26/ 100 = 221000
Total ITI = 221000 x 18/100 = 39780
Total Diploma = 221000 x 32/100 = 70720
Total Graduate = 221000 x 50/100 = 110500
From Pie chart and line graph, we get following Results:

State	Total	ITI	Diploma	Graduate
UP	238000	59500	107100	71400
Bihar	221000	39780	70720	110500
Rajasthan	153000	42840	73440	36720
Karnataka	144500	46240	75140	23120
Telengana	93500	22440	28050	43010
Total	850000	210800	354450	284750

Diploma from UP = 238000 x 45/100 = 107100
Diploma from Bihar = 221000 x 32/100 = 70720
Diploma from Rajasthan = 153000 x 48/100 = 73440
Diploma from Karnataka = 144500 x 52/100 = 75140
Diploma from Telengana = 93500 x 30/100 = 28050
Total Diploma = 354450 Average = 354450/5 = 70890

462). Answer: C)
Total ITI from UP and Bihar = 59500 + 39780 = 99280
Total ITI from Rajasthan and Karnataka = 42840 + 46240 = 89080
Required Average = (99280 - 89080)/89080 x 100 = 11.45%

463). Answer: E)
Total ITI = 59500 + 39780 + 42840 + 46240 + 22440 = 210800
Total Graduate = 71400 + 110500 + 36720 + 23120 + 43010 = 284750
Required Difference = 284750 - 210800 = 73950

464). Answer: A)
Science Graduate from UP = 71400 x 25/100 = 17850
Science Graduate from Bihar = 110500 x 24/100 = 26520
Science Graduate from Rajasthan = 36720 x 20/100 = 7344
Total Science Graduate = 17850 + 26520 + 7344 = 51714

465). Answer: D)

Central angle = (total percent)/100 x 360°

Total percentage by UP and Karnataka = 28 + 17 = 45%

Central angle = 45/100 x 360° = 162°

Solution (466-470):

Missing data can be calculated as:

Rekha:

Total marks = 800 x 76/100 = 608

Math's marks = (608 - (102 + 111 + 108 + 111)) = 176

Jaya:

Total marks = 800 x 73/100 = 584

English = (584 - 0 27.5 + 164 + 97.5 + 105)) = 90

Divya:

Marks of Divya in Economics is equal to marks of Jaya in English.

Economics = 90

Total marks = (120 + 120 + 148 + 90 + 126) = 604

Percentage = 604/800 x 100 = 75.5%

Ajay:

Total marks = 800 x 66/100 = 528

English = (528 - (97.5 + 150 + 97.5 + 102)) = 81

Jay:

Total marks = 800 x 74.5/100 = 596

Economics = 596 - 0 11 + 114 + 128 + 117) = 126

Based on above data we get following results:

Subject	History	English	Maths	Economics	Science	Total
Sanjay	108	96	156	120	132	612
Rekha	102	111	176	108	111	608
Jaya	127.5	90	164	97.5	105	584
Divya	120	120	148	90	126	604
Ajay	97.5	81	150	97.5	102	528
Jay	111	114	128	126	117	596
Total	666	612	922	639	693	

466). Answer: C)

Total marks = (96 + 111 + 90 + 120 + 81 + 114) = 612

Required average = 612/6 = 102

467). Answer: B)

Rekha = 800 x 76/100 = 608

Ajay = 800 x 66/100 = 528

Total = (608 + 528) = 1136

Divya = 604

Jaya = 800 x 73/100 = 584

Total = (604 + 584) = 1188

Required percent = 1136/1188 x 100 = 95.6%

468). Answer: B)

Marks by Sanjay and Jay in History = 108 + 111 = 219

Marks by Sanjay and Jay in Economics = 120 + 126 = 246

Required ratio = 219/246 = 73:82

469). Answer: C)

Total marks in History = (108 + 102 + 127.5 + 120 + 97.5 + 111) = 666
Total marks in Economics = (120 + 108 + 97.5 + 90 + 97.5 + 126) = 639
Required difference = (666 - 639) = 27

470). Answer: C)
Marks by Jay = 111 + 114 + 128 = 353
Marks by Ajay = 97.5 + 97.5 + 102 = 297
Required percentage = (353 - 297)/297 x 100 = 19%

Solution (471-475):
Number of passengers in flight B = 700
Number of passengers in flight A = 1.25 X 700 = 875
Total passengers going to Japan on that day = 700 + 875 = 1575
Number of overseas First Class passengers in flight B = 0.08 X 700 = 56
Number of Indian to overseas First Class passengers in flight B is in the ratio 3:2 • Number of Indian First Class passengers in flight B = (3/2) X 56 = 84
Total First Class passengers in flight B = 56 + 84 = 140
The number of Indian Business Class passengers in flight A is one-ninth of the total passengers going to Japan and the number of Business Class passengers in flight A is 20% of the total passengers going to Japan.
Number of Indian Business Class passengers in flight A = (1/9) X 1575 = 175 Similarly, number of Business Class passengers in flight A = 0.2 X 1575 = 315
Number of overseas Business Class passengers in flight A = 315 -175 = 140
There are 335 Economy Class passengers in flight A, of which 115 are overseas passengers.
Number of Indian Economy Class passengers in flight A = 335 -115 = 220 Similarly, total number of First Class passengers in flight A = 875 - (335 + 315) = 225
Similarly, total number of First Class passengers in flight A = 875 - (335 + 315) = 225 The First Class of flight A has Indian and overseas passengers in the ratio 5:4
Number of Indian First Class passengers in flight A = (5/9) X 225 = 125
Similarly, number of overseas First Class passengers in flight A = 225 -125 = 100
The total number of First Class passengers in flight A is 9/10th of the total Economy Class passengers in flight B.
Total Economy Class Passengers in flight B = (10/9) X 225 = 250 20% of the passengers in flight B are Indians in the Economy Class.
Number of Indian Economy Class passengers in flight B = 0.2 X 700 = 140
Number of overseas Economy Class passengers in flight B = 250 -140 = 110
Number of Business Class passengers in flight B = 700 - (250 + 140) = 310
Let there be x Indian passengers in the Business Class of flight A.
Hence, there are (x - 10) overseas passengers in the Business Class of flight A. ...x+x-10 =310 x = 160
Hence, number of Indian and overseas Business Class passengers in flight B are 160 and 150 respectively. Thus, the number of passengers in each flight and for each type is as shown below:

Flight	Classes	Types		
A	First	Indian	125	225
		Overseas	100	
	Business	Indian	175	315
		Overseas	140	
	Economy	Indian	220	140
		Overseas	56	
B	First	Indian	84	140
		Overseas	56	

		Indian	160	
	Business			310
		Overseas	150	
		Indian	140	
	Economy			250
		Overseas	110	

471). Answer: B)
Total Indian passengers in flight A = 125 + 175 + 220 = 520
Total overseas passengers in both flights = 100 + 140 + 115 + 56 + 150 + 110 = 671
Required difference = 671 - 520 = 151

472).Answer: D)
Number of Business class passengers in both flights = 175 + 140 + 160 + 150 = 625
Number of overseas passengers in all Classes except Business Class implies passengers in Economy Class and First Class. Number of overseas passengers in Economy Class and First Class = 100 + 115 + 56 + 110 = 381
Required % = 100 x (625/381) = 164%

473). Answer: C)
Indian passengers in the First and Business Class of flight A = 125 + 175 = 300 Overseas passengers of flight B = 56 + 150 + 110 = 316
Required ratio = 300 : 316 = 75 : 79

474). Answer: A)
Total passengers traveling to Japan = 1575 Number of Economy Class passengers in both flights = 220 + 115 + 140 + 110 = 585
Required percentage = 100 x (585/1575) = 37%

475). Answer: E)
Since the original cost of the tickets is not known, the reimbursement amount cannot be found. Hence, option 5 is correct.

Solution (476-480):
476). Profit of Company Mahindra in the year 2016
= (4.52 × 130/100) lakh
= 5.87 lakh
Profit of Company Ford in the year 2016
= (4.36 × 135/100) lakh
= 5.88 lakh
Ratio = 5.87 : 5.88
= 587 : 588
Answer is: a)

477). The profit earned by Company Mahindra in the year 2012 = 1.84 lakhs
Profit of Company Mahindra in the year 2013
= (1.84 × 125/100) lakh
= 2.30 lakh
The profit earned by Company Ford in the year 2015 = 1.84 lakhs
Profit of Company Ford in the year 2014
= (1.84 × 100/125) lakh
= 1.47 lakh
Reqd. Difference = 2.3 – 1.47 = 0.83 lakh.
Answer is: b)

478). Profit of Company Ford in the year 2013.
= (3.63 × 100/115 × 100/125) lakh
=2.52 lakh
Reqd. Percentage = 2.52 / 3.63 × 100 = 69.42%
Answer is: e)

479). Profit of Company Mahindra in the year 2011 = 5.98 lakhs
Profit of Company Mahindra in the year 2012 = (5.98 × 115/100) lakh = 6.87 lakh
Profit of Company Mahindra in the year 2013 = (6.87 × 125/100) lakh = 8.58 lakh
Average of profit amount earned by Mahindra in the year 2011, 2012, 2013
= (5.98 + 6.87 + 8.58) / 3 = 7.14 lakhs
Profit of Company Ford in the year 2014 = 4.76 lakhs
Profit of Company Ford in the year 2015 = (4.76 × 120/100) lakh = 5.71 lakh
Profit of Company Ford in the year 2016 = (5.71 × 135/100) lakh = 7.70 lakh
Average of profit amount earned by Ford in the year 2014, 2015, 2016
= (4.76 + 5.71 + 7.70) / 3 = 6.05 lakhs
Reqd. Difference = 7.14 – 6.05 = 1.09 lakh
Answer is: e)

480). Required percentage rise in Company Ford 2016
= (35 – 20)/20 × 100
= 75 %
Required percentage rise in Company Mahindra 2013
= (25 – 15)/15 × 100
= 66.67 %
Difference = 75 – 66.67
= 8.33 %
Answer is: d)

Solution (481-485):

City	Number of Men	Number of Women	Number of Children
Chennai	3102	1974	564
Mumbai	1649	2134	1067
Bangalore	2496	2028	676
Hyderabad	3913	1505	602
Jaipur	2058	2009	833

481). Number of men and women together in Chennai = 3102 + 1974 = 5076
Number of men and women together in Mumbai = 1649 + 2134 = 3783
Number of men and women together in Bangalore = 2496 + 2028 = 4524
Number of men and women together in Hyderabad = 3913 + 1505 = 5418
Number of men and women together in Jaipur = 2058 + 2009 = 4067
Number of men and women together in Hyderabad is highest.
Answer is: d)

482). Total number of men staying in Jaipur = 2058
Total number of women staying in Hyderabad = 1505
Total = (2058 + 1505) = 3563
 Required percentage
= 3563/5640 × 100
= 63.17%
Answer is: c)

483). Number of Women's staying in Chennai and Mumbai together
= 1974 + 2134 = 4108
Number of children in the Bangalore and Hyderabad together
= 676 + 602 = 1278
Difference = 4108 – 1278
= 2830
Answer is: b)

484). Number of men in Chennai and number of children in Hyderabad
= 3102 + 602
= 3704
Answer is: c)

485). Number of men staying in Chennai and Jaipur together
= 3102 + 2058 = 5160
Number of women staying in Bangalore and Mumbai together
= 2028 + 2134 = 4162
Required ratio
= 5160 : 4162
= 2580 : 2081
Answer is: a)

Solution (486-490):

486). Number of defaulters of Indian Bank in the year
$2011 = 25467 \times 15/100 = 3820.05$
$2012 = 32461 \times 17/100 = 5518.37$
$2013 = 32652 \times 16/100 = 5224.32$
$2014 = 32561 \times 18/100 = 5860.98$
$2015 = 25495 \times 13/100 = 3314.35$
$2016 = 27649 \times 11/100 = 3041.39$
$2017 = 28283 \times 12/100 = 3393.96$
Hence, maximum number of defaulters of Indian Bank is in the year 2014.
Answer is: c)

487). Required number of people
$= 29565 \times 21/100$
= 6208.65
= 6210
Answer is: b)

488). Required number of defaulters
= 19% of 36152 + 18% of 35463
$= 36152 \times 19/100 + 35463 \times 18/100$
= 6868.88 + 6383.34
= 13252.22
= 13250
Answer is: c)

489). Required difference
= 9% of 26345 – 8% of 27456

= (16345 × 9/100) – (27456 × 8/100)

= 2371.05 – 2196.48

= 174.57

= 175

Answer is: a)

490). Difference of number of people taking loan from Andra Bank from the previous year in the year

2012 = 32081 – 27361 = 4720

2013 = 32081 – 25361 = 6720

2014 = 25361 – 23654 = 1707

2015 = 36125 – 23654 = 12471

2016 = 36125 – 35465 = 660

2017 = 35465 – 34135 = 1330

Hence, the year is 2015.

Answer is: a)

Solution (491-495):

Number of students in the college = 7200

Number of boys =7/12 × 7200 = 4200

Number of girls = 5/12 × 7200 = 3000

Number of student in B. Sc. (Mathematics)

= 22% of 7200 = 1584

Number of girls in B. Sc. (computer science)

= 16% of 3000 = 480

Number of boys in B.Sc. (Biology) = 18% of 4200 = 756

Number of girls in B.Sc. (Physics) = 30% of 480 = 144

Number of boys in B.Sc. (Agriculture) = 15% of 4200 = 630

Number of boys in B.Sc. (computer science) = 50% of 480 = 240

Number of girls in B.Sc. (Chemistry) = 15% of 3000 = 450

Number of boys in B.Sc. (Physics) = 3/1 × 144 = 432

Number of students in B. Sc (Agriculture) = 24% of 7200 = 1728

Number of girls in B.Sc. (Agriculture) = 1728 – 630 =1098

Number of boys in B.Sc. (Chemistry) = 12/5 × 450 = 1080

Number of boys in B.Sc. (Mathematics) =Total Boys- Remaining Number of boys

= 4200–(756+630+240+432+1080)

= 4200–3138=1062

Number of girls in B.Sc. (Mathematics)

=1584 – 1062 = 522

Number of girls in B.Sc. (Biology) =Total girls- Remaining Number of girls

= 3000 – (480 + 144 + 450 + 1098 + 522)

= 3000 – 2694 = 306

Tabular form of above information is shown below.

Subjects	Number of boys	Number of girls
B.Sc. (computer science)	240	480
B.Sc. (Biology)	756	306
B.Sc. (Physics)	432	144
B.Sc. (Agriculture)	630	1098
B.Sc. (Chemistry)	1080	450
B.Sc. (Mathematics)	1062	522
Total	4200	3000

491). Number of girls enrolled in B.Sc. (Agriculture) = 1098
Required percentage = $1098/7200 \times 100\%$
=15.25%
= 15%
Answer is: c)

492). From the table, it is clear that total number of students enrolled in B.Sc. (Biology)
Answer is: a)

493). Total number of boys enrolled in B.Sc. (Physics) = 432
Answer is: b)

494). Number of girls enrolled in B.Sc. (Mathematics) = 522
Answer is: e)

495). Number of boys enrolled in B.Sc. (Chemistry) = 1080
Number of girls enrolled in B.Sc. (computer science) = 480
Required percentage = $1080/480 \times 100\% = 225\%$
Answer is: d)

Solution (496-500):
496). Answer: a)
Total distance travelled by Mohit = 1500 km
Distance covered by Boat B_1 =1500×(38/100) = 570 km
Time taken by Boat B_1= 570/(20-14) = 285/3 = 95 hrs
Distance covered by Boat B_2 = (20/100)×1500 = 300 km
Time taken by Boat B_2= 300/(16-14) = 150 km
Similarly, time taken by Boat B_3 = (24×15)/(12-8) = 90 hrs
Time taken by Boat B_4 = (18×15) / (16-10) = 45 hrs
Total time taken by Mohit = 95+150+90+45 = 380 hrs
497). Answer: c)
Speed of B_3= 12+8 = 20 kmph
Speed of B_4 = 16+10 = 26 kmph
Time taken by Boat B_3 = 360/20
Time taken by Boat B_4= 270/26
Required ratio = 18×(26/270) = 26:15
498). Answer: a)
New speed of Boat B_4
= 16×(115/100) = 18.4 kmph

Time taken to travel 756 km

= 756/(18.4-10) = 756/8.4 = 90 hrs

499). Answer: a)

Time taken by Boat B_1

= 300/(20-14) = 300/6 = 50 hrs

Time taken by Boat = 300/(16-14) = 300/2

= 150 hrs

Required difference = 150-50=100 hrs

500). Answer: c)

Speed of boat B_3 after 30% increase in its speed = 12×(130/100) = 15.6 kmph

Speed of stream after 15% decrease = 8×(85/100) = 6.8 kmph

Now, the time taken by Boat B_3

= 440 / (15.6-6.8) = 50 hours

Time taken by boat B_3 previously (Before increase in speed)

= 440 / (12-8) = 110 hrs

Difference = 110 – 50 = 60 hrs

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