

# DATA INTERPRETATION PROBLEMS SOLUTIONS

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# Data Interpretation

## Part 2

Data interpretation is the most scoring and time consuming section in IBPS and other competitive examinations. In quantitative aptitude section you can see at least 2 data interpretation sets each having 5 questions. In IBPS PO there are 50 questions in Quantitative aptitude section and the cutoff remains 18-19. So if you solve those two sets correctly you need to solve 10 questions out of remaining 40 questions. Here are three important techniques to make Data Interpretation calculations fast.

## Exercise 2

**Study the given bar-chart carefully and answer the following questions.**

The graph shows the number of villages in four different states where electrification was done in different years.

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- 29) The number of villages in Nagaland where electrification was done in 2013 is what percentage of the number of villages in Tripura where electrification was done in 2014?
- a) 55.5%                      b) 44.4%                      c) 77.7%
- d) 66.6%                      e) 33.3%
- 30) What is the ratio of the villages in Assam to those in Manipur where electrification was done in 2013?
- a) 1 : 4                      b) 3 : 4                      c) 1 : 2
- d) 4 : 5                      e) 3 : 2
- 31) In which state was the electrification work done in maximum villages during the given three years?
- a) Assam                      b) Manipur                      c) Manipur and Tripura
- d) Nagaland                      e) Manipur and Assam
- 32) If the cost of electrification of a village is Rs.75 lakh then what is the cost of electrification in four states during the given period?
- a) Rs.4319000000                      b) Rs.3825000000                      c) Rs.4143000000
- d) Rs.355700000                      e) Rs.2721000000
- 33) In which year was the electrification work done in maximum number of villages?
- a) 2012                      b) 2013                      c) 2014
- d) 2013 and 2012                      e) 2012 and 2014

Study the given table carefully to answer the following questions.

Field Name	Shape	Side (in m)	Base (in m)	Height (in m)	Radius (in m)	Cost of flooring (in Rs. per sq. metre)	Cost of fencing (in Rs. per m)
A	Triangle		16	12		50	20
B	Rectangle	$10 \times 20$				30	15
C	Square	15				40	18
D	Parallelogram		20	12		60	25
E	Circle				10	45	22

- 34) What is the cost of flooring of A?  
 a) Rs.4000                      b) Rs.4600                      c) Rs.4800  
 d) Rs.5000                      e) Rs.4400
- 35) What is the difference between the cost of fencing of C and that of B?  
 a) Rs.180                      b) Rs.120                      c) Rs.240  
 d) Rs.360                      e) Rs.480
- 36) What is the ratio of the cost of flooring to that of fencing of field D?  
 a) 4 : 1                      b) 6 : 1                      c) 8 : 1  
 d) 9 : 1                      e) 5 : 1
- 37) The cost of fencing of field E is approximately what percent of the cost of flooring of field C?  
 a) 10.5%                      b) 19.46%                      c) 18.71%  
 d) 15.36%                      e) 13.82%
- 38) The cost of fencing of field C is what percent of the cost of fencing of field D?  
 a) 87.54%                      b) 67.5%                      c) 72.13%  
 d) 54.36%                      e) 46.5%

Study the given chart carefully and answer the following questions.

Train A

Station	Arrival time	Departure time	Distance from origin (in km)	Number of passengers boarding at each station	Fare (in Rs.)
Ahmedabad	Starting	5:00 pm	--	400	--
Vadodara	6:30 pm	6:35 pm	100	100	50

Bharuch	8:50 pm	9:00 pm	250	90	120
Mumbai	4:00 am	4:10 am	800	300	400
Pune	7:30 am	7:45 am	1050	150	500
Solapur	10:20 am	Terminates	1280	--	620

Train B

Station	Arrival time	Departure time	Distance from origin	Number of passengers boarding at each station	Fare (in Rs.)
Solapur	Starting	6:00 pm	--	300	--
Pune	7:40 pm	7:45 pm	230	150	120
Mumbai	9:30 pm	9:35 pm	480	270	220
Bharuch	5:40 am	5:55 am	1030	50	500
Vadodara	9:00 am	9:10 am	1180	100	570
Ahmedabad	12:00 noon	Terminates	1280	--	620

39) The number of passengers boarding Train A at Vadodara is what percent of the number of passengers boarding Train B at Mumbai?

- a) 37.03%                      b) 47.03%                      c) 27.03%  
d) 47.30%                      e) None of these

63) What is the difference between the speed of Train A and that of Train B?

- a) 2.73 kmph                      b) 1.97 kmph                      c) 3.6 kmph  
d) 2.62 kmph                      e) 3.9 kmph

64) What is the ratio of the total passengers of Train A to that of Train B?

- a) 102 : 79                      b) 104 : 87                      c) 103 : 87  
d) 110 : 79                      e) 113 : 87

65) The total income of Train A is what percent of the total income of Train B?

- a) 180%                      b) 159.51%                      c) 123.29%  
d) 125%                      e) 127.64%

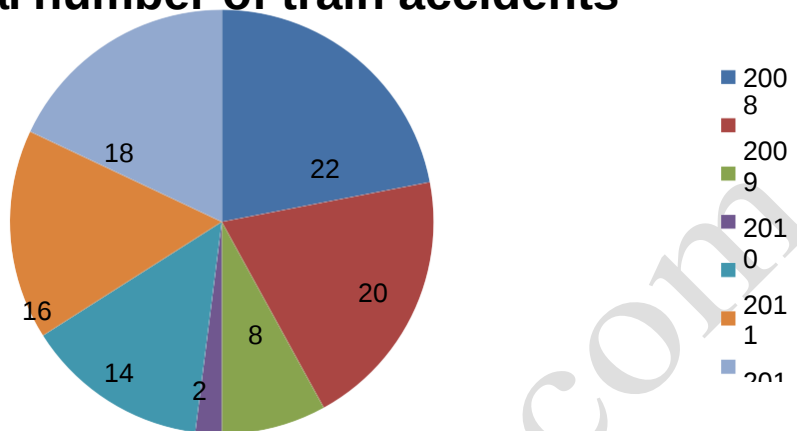
66) If the average speed of Train A increases by 10% then when will it reach to its destination?

- a) 7:45 am                      b) 9:45 am                      c) 8:45 am  
d) 10:45 am                      e) 11:45 am

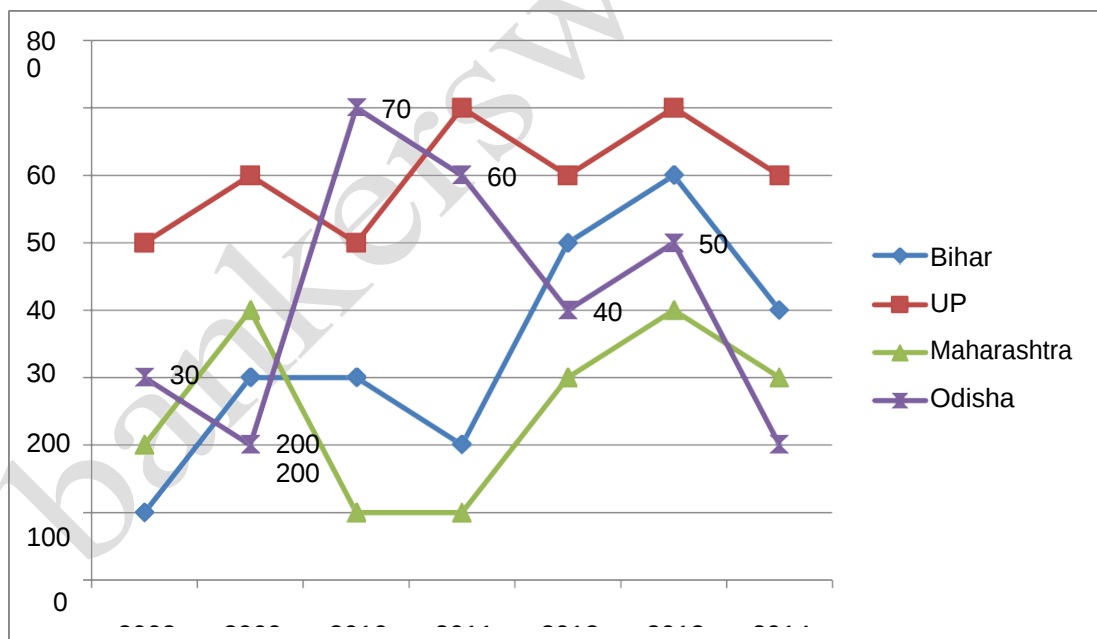
**Study the pie-chart and line graph carefully to answer the given questions.**

The pie-chart shows the percentage of train accidents in different years

## Total number of train accidents



The line graph shows the number of persons who died in train accidents in various states in different years



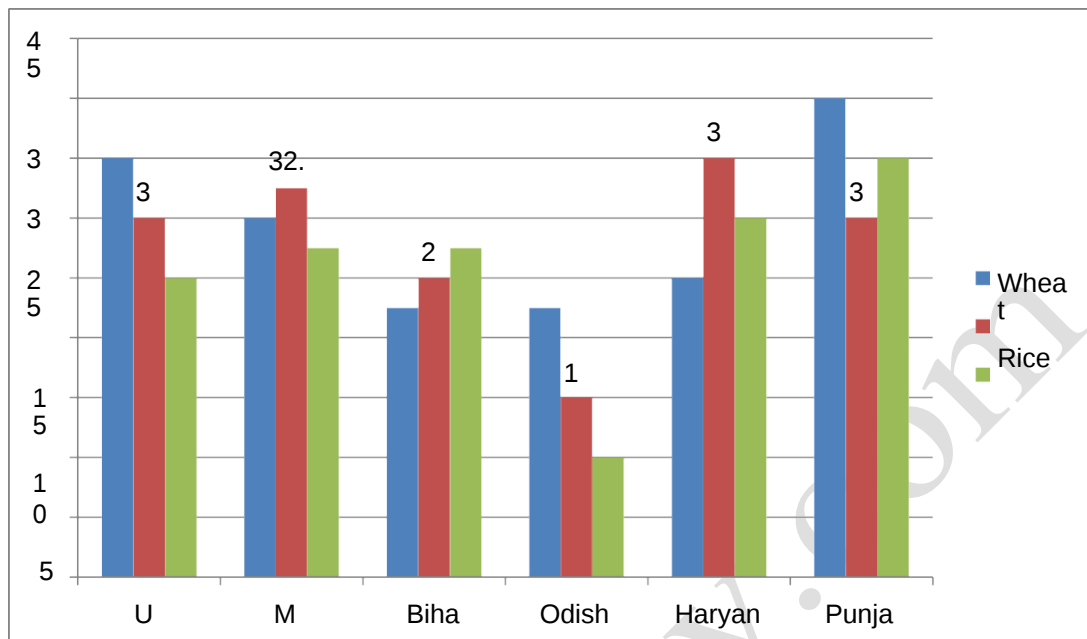
67) The number of persons who died in train accidents in 2013 is how much percent more than the number of persons who died in the train accident in 2011?

- a) 143.5%                      b) 137.5%                      c) 37.5%  
d) 127.5%                      e) 147.5%
- 68) 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
- 69) 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
- 70) 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
- 71) 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

**Study the given bar graph and pie chart to answer the following questions.**

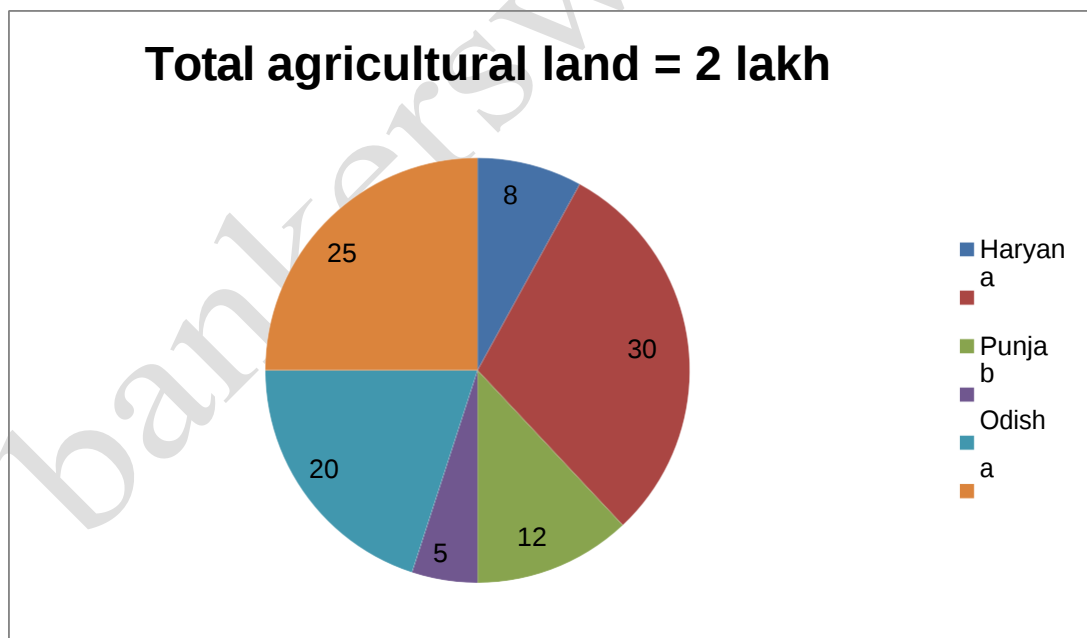
The bar graph shows the production (in thousand tones) of Wheat, Rice and Maize in different states.





The pie-chart shows the percentage of agricultural land in the given six states.

Productivity =  $\frac{\text{Total Production}}{\text{Total Land}}$



72) The productivity of which state is the maximum?

a) Bihar  
d) UP

b) Haryana  
e) MP

c) Punjab

73) The production of which state is the maximum?

- a) Bihar                      b) MP                      c) Haryana  
d) UP                      e) Punjab

74) 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%

75) What is the ratio of the production of Rice in Bihar to the production of Wheat in Haryana?

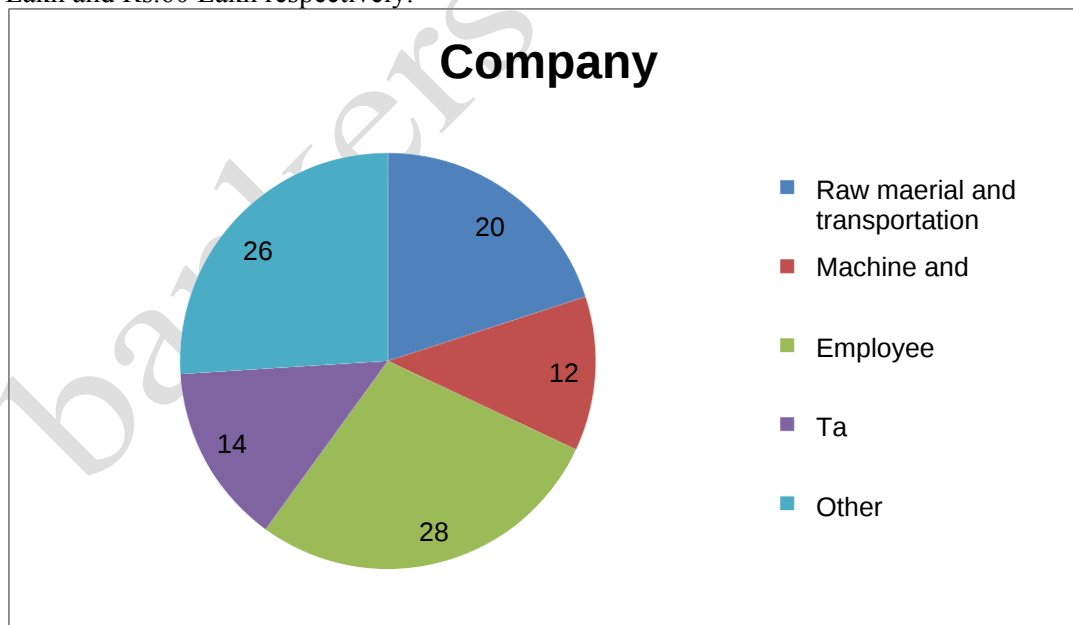
- a) 2 : 3                      b) 3 : 2                      c) 2 : 1  
d) 1 : 1                      e) 1 : 2

76) 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?

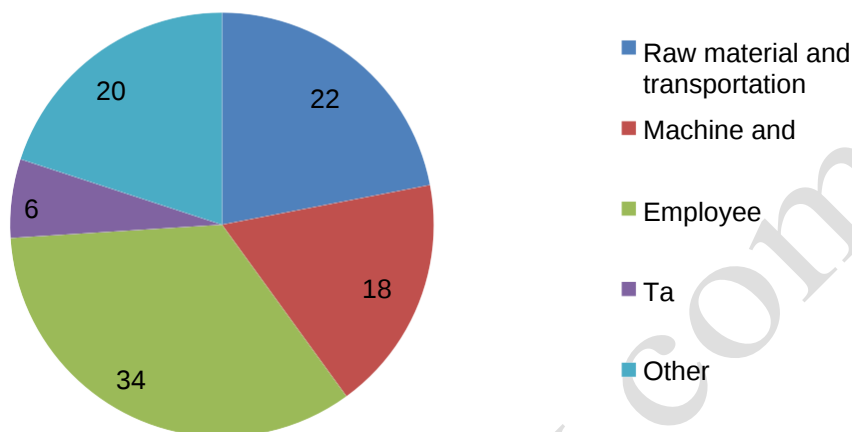
- a) 65 : 48                      b) 31 : 42                      c) 43 : 54  
d) 57 : 62                      e) 1 : 2

**Study the following pie charts to answer the following questions.**

The pie charts show the expenditure of two companies A and B, which are Rs.50 Lakh and Rs.60 Lakh respectively.



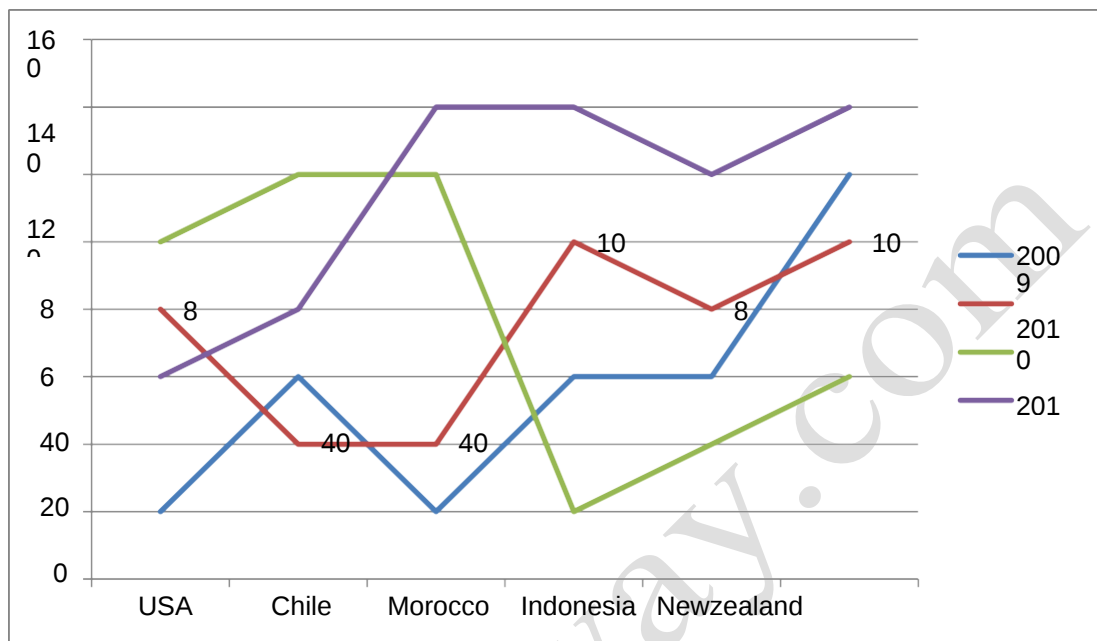
## Company



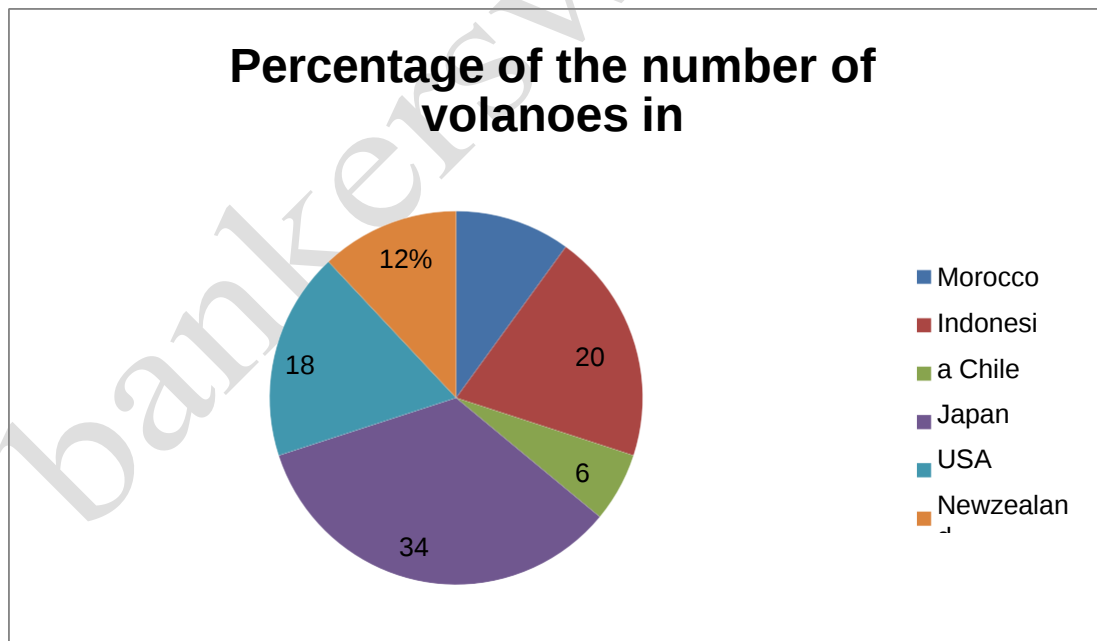
- 77) If the incomes of the Company A and B are in the ratio of 4 : 5 and the income of Company B is 180% of its expenditure, then what is the difference between the income of Company B and the income of Company A?
- a) Rs.2200000      b) Rs.1900000      c) Rs.2160000  
d) Rs.1850000      e) Rs.2250000
- 78) If the number of employees in Company A is a hundred then what is the average salary of the employees in Company A?
- a) Rs.14,000      b) Rs.16,000      c) Rs.13,000  
d) Rs.15,000      e) Rs.15,500
- 79) What is the ratio of tax paid by Company A to that by Company B?
- a) 35 : 18      b) 34 : 37      c) 42 : 41  
d) 31 : 27      e) 27 : 25
- 80) What is the difference between the expenditure on employees of Company B and that of Company A?
- a) Rs.4300000      b) Rs.640000      c) Rs.5900000  
d) Rs.8700000      e) Rs.7800000
- 81) The expenditure on Machine and Electricity of Company B is what percent more than that on the same item of Company A?
- a) 67%      b) 84%      c) 75%  
d) 77%      e) 80%

**Study the following graph and pie chart carefully to answer the given questions.**

**Number of volcano eruptions in various countries in different years**



**Percentage of the number of volcanoes in**



Total number of volcanoes = 1000

82) What is the ratio of the number of volcanic eruptions in the year 2009 to that in 2011?

- a) 31 : 47                      b) 23 : 31                      c) 17 : 23  
d) 47 : 43                      e) 43 : 39

83) The total number of volcanic eruptions in Japan during the given four years is what percent of the total number of volcanoes in Japan?

- a) 139.5%                      b) 137.78%                      c) 132.91%  
d) 123.52%                      e) 104.2%

84) What is the difference between the number of volcanoes in Indonesia and the number of volcanoes in Morocco?

- a) 120                      b) 100                      c) 150  
d) 80                      e) 170

85) The total number of volcanic eruptions in Chile is what percent of the total number of volcanic eruptions in USA during the given four years?

- a) 109.5%                      b) 95.51%                      c) 80.42%  
d) 115.38%                      e) 125.78%

86) What is the ratio of the total volcanoes in Newzealand during the given four years?

- a) 5 : 3                      b) 7 : 5                      c) 2 : 5  
d) 3 : 4                      e) 4 : 7

**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.1			
Pulse	Rs.70	Rs.10		Rs.90		6% loss

87) If the percentage of profit on sold Ghee is 10%, then what is its cost of packaging?

- a) Rs.24.90                      b) Rs.23.50                      c) Rs.22  
d) Rs.21.09                      e) Rs.27.80

88) 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

89) 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

90) 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%

91) 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%

**Study the information carefully to answer these questions.**

There are 960 books in a library in which 40% are in Hindi; one-fourth are in English; and the remaining are in other languages. In Hindi books one-fourth are novels and 50% are epics while in English books one-third are novels and 40% are epics.

92) What is the ratio of Hindi to English books which are neither novels nor epics?

- a) 2 : 5                              b) 8 : 7                              c) 3 : 2  
d) 5 : 7                              e) 3 : 7

93) What is the number of books which are in other languages?

- a) 84                                  b) 192                                  c) 330  
d) 336                                  e) 96

94) What is the difference between the number of Hindi novels and that of English epics?

- a) 10                                  b) 20                                  c) 0  
d) 40                                  e) 60

**Study the chart carefully to answer the following questions.**

	Temperature				
	Durban	Quito	Columbus	Lisbon	Riyadh
January	20°C	15°C	20°C	22°C	35°C
February	21°C	16°C	18°C	20°C	30°C
March	22°C	18°C	16°C	22°C	32°C
April	25°C	20°C	15°C	25°C	36°C
May	28°C	22°C	14°C	18°C	38°C

95) What is the difference between the average temperature of Durban and that of Quito?

- a) 8°C                                  b) 11°C                                  c) 9°C

d) 7°C

e) 5°C

96) What is the difference between the average temperature of all cities in May and that if February?

a) 10°C

b) 13°C

c) 3°C

d) 2°C

e) 5.8°C

97) The average temperature of Riyadh is approximately what percent more than that of Columbus?

a) 105%

b) 106%

c) 93.5%

d) 87.21

e) 110.52%

98) What is the ratio of the average temperature of Lisbon to that of Quito?

a) 91 : 89

b) 107 : 91

c) 57 : 47

d) 103 : 95

e) 2 : 3

99) The average temperature in May is what percent of the average temperature in March of the given five cities?

a) 89.91%

b) 103.51%

c) 120%

d) 109.09%

e) 105.21%

**Solutions:**

51. Option E

Required % =  $\frac{20}{60} \times 100 = 33.3\%$  of electrification of villages in Tripura in the year 2014

52. Option D

Number of villages in Assam where electrification was done in 2013 = 40

Number of villages in Manipur where electrification was done in 2013 = 50

So, required ratio = 4 : 5

53. Option C

In Assam, the number of villages where electrification was done = 30 + 40 + 30 = 100

In Manipur = 40 + 50 + 60 = 150

In Tripura = 40 + 50 + 60 = 150

In Nagaland = 40 + 20 + 50 = 110

So, maximum electrification in both Tripura and Manipur.

54. Option B

Total number of villages in four states where electrification was done = 100 + 150 + 150 + 110 = 510



So, cost of electrification =  $7500000 \times 510 = \text{Rs.}3825000000$

55. Option A

Number of villages where electrification was done in 2012 =  $50 + 30 + 60 + 40 = 180$

Number of villages where electrification was done in 2013 =  $20 + 40 + 50 + 50 = 160$

Number of villages where electrification was done in 2014 =  $40 + 30 + 40 + 60 = 170$

In 2012 maximum electrification work was done.

56. Option C

A is a triangle

So, area of A =  $\frac{1}{2} \times 16 \times 12 = 96 \text{ sqm}$

So, cost of flooring of A =  $96 \times 50 = \text{Rs.}4800$

57. Option A

Perimeter of B =  $2(10 + 20) = 60 \text{ m}$

So, cost of fencing of B =  $60 \times 15 = 900$

Perimeter of C =  $4 \times 15 = 60 \text{ m}$

So, cost of fencing of C =  $60 \times 18 = \text{Rs.}1080$

So, required difference =  $1080 - 900 = \text{Rs.}180$

58. Option D

Area of D = Base  $\times$  Height  
=  $20 \times 12 = 240 \square^2$

So, cost of flooring of D =  $240 \times 60 = \text{Rs.}14400$

Perimeter of D =  $2(20 + 12) = 64 \text{ m}$

So, cost of fencing of D =  $64 \times 25 = \text{Rs.}1600$

So, required ratio =  $14400 : 1600 = 9 : 1$

59. Option D

Perimeter of E =  $2\pi r = 2 \times \frac{22}{7} \times 10 = \frac{440}{7} \text{ m}$

Cost of fencing of E =  $\frac{440}{7} \times 22 = \text{Rs.}1382.85$

Area of C =  $(15)^2 = 225 \square^2$

So, cost of flooring of C =  $225 \times 40 = \text{Rs.}9000$

So, required % =  $\frac{1382.85 \times 100}{9000}$   
= 15.36% of flooring cost of C.

60. Option B

Fencing cost of C = Rs.1080

Fencing cost of D = Rs.1600

$$\text{Required \%} = \frac{1080}{1600} \times 100 = 67.5\%$$

61. Option A

$$\text{Required percentage} = \frac{100}{270} \times 100 = 37.03\%$$

63. Option A

$$\text{Speed of Train A} = \frac{1280}{10:20 \square\square - 5:00 \square\square}$$

$$= \frac{1280}{17 \text{ h} \square\square\square\square 20 \square\square\square\square\square\square}$$

$$= \frac{1280 \times 3}{52} = 73.84 \text{ kmph}$$

$$\text{Speed of train B} = \frac{1280}{12:00 \square\square\square\square - 6:00 \square\square}$$

$$= \frac{1280}{18} \text{ hours} = 71.11 \text{ kmph}$$

So, difference between the speed of train A and train B =  $73.84 - 71.11 = 2.73$  kmph

64. Option B

Total passengers in train A =  $400 + 100 + 90 + 300 + 150 = 1040$

Total passengers in train B =  $300 + 150 + 270 + 50 + 100 = 870$

So, required ratio =  $1040 : 870 = 104 : 87$

65. Option E

Total income of train A =  $(400 \times 50) + (500 \times 70) + (590 \times 280) + (890 \times 100) + (1040 \times 120) = \text{Rs.}434000$

Total income of train B =  $(300 \times 120) + (450 \times 100) + (620 \times 280) + (670 \times 70) + (770 \times 50) = \text{Rs.}340000$

$$\text{So, required \%} = \frac{434000 \times 100}{340000}$$

= 127.64% of the total income of train B.

66. Option C

If the average speed of train A increases by 10%

$$\text{then its new speed} = 73.84 \times \frac{110}{100}$$

$$= 81.22 \text{ kmph}$$

Time taken by train A during the journey =  $\frac{1280}{81.22} = 15.75 \text{ hours} = 15 \text{ hours } 45 \text{ minutes}$

The time when the train will reach its destination = 5 pm + 15 hours 45 minutes  
= 8:45 am

67. Option 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 % =  $\frac{(2200 - 1600) \times 100}{1600} = 37.5\%$

68. Option C

Average number of people who died in train accidents in all states in 2008 =  $\frac{1}{4}$   
 $\times (100 + 200 + 300 + 500)$   
 $= \frac{1100}{4} = 275$

69. Option 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.

70. Option D

The number of train accidents in 2014 =  $200 \times \frac{18}{100} = 36$

The number of train accidents in 2012 =  $200 \times \frac{14}{100} = 28$

So, required difference = 36 - 28 = 8

71. Option 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

72. Option B

Productivity =  $\frac{\text{□□□□□}}{\text{□□□□□□□□□□}}$

Productivity of UP =  $\frac{(35+30+25) \times 1000}{2 \text{ □□□□} \times \text{□□}}$

100

$\frac{90000}{60000}$

= 1.5 tonnes per sq km

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$$\text{Productivity of MP} = \frac{(30+32.5+27.5) \times 1000}{2 \times 100} = \frac{90000}{50000} = 1.8 \text{ tonne per sq km}$$

$$\text{Productivity of Bihar} = \frac{(22.5+25+27.5) \times 1000}{2 \times 100} = \frac{75000}{40000} = 1.875 \text{ tonnes per sq km}$$

$$\text{Productivity of Odisha} = \frac{(22.5+15+10) \times 1000}{2 \times 100} = \frac{47.5 \times 1000}{10000} = 4.75 \text{ tonnes per sq km}$$

$$\text{Productivity of Haryana} = \frac{(25+35+30) \times 1000}{2 \times 100} = \frac{90000}{16000} = 5.625 \text{ tonnes per sq km}$$

$$\text{Productivity of Punjab} = \frac{(40+30+35) \times 1000}{2 \times 100} = \frac{105000}{24000} = 4.375 \text{ tonnes per } 100^2$$

So, productivity of Haryana is the maximum

73. Option E

Production of Punjab is maximum = 105000 tonnes

74. Option C

Production of Wheat in Punjab = 40000 tonnes

Production of Maize in Odisha = 10000 tonnes

$$\text{So, required \%} = \frac{40000 - 10000}{10000} \times 100\% = 300\%$$

75. Option D

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

76. Option A

Income of MP from export of 40% of Rice at the rate of Rs.30 per kg = 32500

$$\times \frac{40}{100} \times 1000 \times 30 = \text{Rs.39 Crore}$$

Income of UP from export of 30% of Rice at the rate of Rs.32 per kg = 30000 × 1000 ×  $\frac{30}{100}$  × 32 = Rs.28.8 Crore

So, required ratio = 39 : 28.8 = 390 : 288 = 65 : 48

77. Option C

Expenditure of Company B = 60 lakh

$$\text{Income of Company B} = 60 \text{ lakh} \times \frac{180}{100} = 108 \text{ lakh} = 1 \text{ Crore } 8 \text{ lakh}$$

$$\text{Income of Company A} = 10800000 \times \frac{4}{5} = \text{Rs.8640000}$$

$$\text{So, required difference} = 1080000 - 8640000 = \text{Rs.2160000}$$

78. Option A

Total expenditure on the employees of Company A =  $5000000 \times \frac{28}{100} =$   
 Rs.1400000  
 Average salary of the employees =  $\frac{1400000}{100} =$  Rs.14000

79. Option A

Tax paid by Company A : Tax paid by Company B  
 $= 5000000 \times \frac{14}{100} : 6000000 \times \frac{6}{100} = 700000 : 360000 = 35 : 18$

80. Option B

Difference =  $6000000 \times \frac{34}{100} - 5000000 \times \frac{28}{100} = 2040000 - 1400000 =$   
 Rs.640000

81. Option E

Expenditure on Machine and Electricity of Company B =  $6000000 \times \frac{18}{100} =$

Rs.1080000 = 10.8 lakh

Expenditure on Machine and Electricity of Company A =  $5000000 \times \frac{12}{100} =$

Rs.600000 = 6 lakh

So, required % =  $\frac{1080000 - 600000}{600000} \times 100\%$

$= \frac{48}{60} \times 100\% = 80\%$

Hence, expenditure of Company B is 80% more than Company A.

82. Option C

Total number of volcanic eruptions in the year 2009 =  $20 + 60 + 20 + 60 + 60 + 120 = 340$

Total number of volcanic eruptions in the year 2011 =  $100 + 120 + 120 + 20 + 40 + 60 = 460$

So, required ratio =  $340 : 460 = 17 : 23$

83. Option D

Total number of volcanic eruptions in Japan during the given four years =  $60 + 100 + 120 + 140 = 420$

Total number of volcanoes in Japan =  $1000 \times \frac{34}{100} = 340$

So, required % =  $\frac{420 \times 100}{340} = 123.52\%$

84. Option B

Difference between the number of volcanoes in Indonesia and the number of volcanoes in Morocco =  $1000 \times \frac{20}{100} - 1000 \times \frac{10}{100} = 200 - 100 = 100$

85. Option D

Total number of volcanic eruptions in Chile =  $40 + 60 + 80 + 120 = 300$

Total number of volcanic eruptions in USA =  $20 + 60 + 80 + 100 = 260$

So, required % =  $\frac{300 \times 100}{260} = 115.38\%$

Hence, volcanic eruptions in Chile is 115.38% of the total number of volcanic eruptions in USA.

86. Option C

Total volcanoes in Newzealand =  $1000 \times \frac{12}{100} = 120$

Total number of volcanic eruptions in Newzealand =  $40 + 60 + 80 + 120 = 300$

So, required ratio =  $120 : 300 = 2 : 5$

87. Option D

Selling price of Ghee = Rs.120 per kg

Profit = 10%

So, total cost price =  $120 \times \frac{100}{110} = \text{Rs.}109.09$

So, cost of packing = Cost price - Cost of production - Cost of transportation  
=  $109.09 - 80 - 8 = \text{Rs.}21.09$

88. Option C

Selling price of Rice =  $40 \times \frac{105}{100} = \text{Rs.}42$

Selling price of Sugar =  $45 + 5 + 50 = \text{Rs.}100$

So, required difference =  $100 - 42 = 48$

89. Option E

Selling price of Pulse = Rs.90

Loss = 6%

Total cost price =  $90 \times \frac{100}{94} = \text{Rs.}95.74$

So, cost of packaging of pulse = Total cost price - Cost of production - Cost of transportation =  $95.74 - 70.10 = \text{Rs.}15.74$

90. Option A

Cost price of Rice = Rs.40

Selling price of Milk =  $40 \times \frac{80}{100} = \text{Rs.}32$

Cost price of Milk = Cost of production + transportation + packaging =  $20 + 3 + 2 = \text{Rs.}25$

$$\text{So, \% profit} = \frac{32 - 25}{25} \times 100 = 28\%$$

91. Option C

Cost price of 4 kg Ghee + 3 kg Rice + 5 kg Milk

$$= [4 \times (80 + 8) + 3 \times 40 + 5 \times (20 + 3)]$$

$$= 352 + 120 + 115 = \text{Rs.} 587$$

Selling price of 4 kg Ghee + 3 kg Rice + 5 kg Milk =  $4 \times 120 + 3 \times 42 + 5 \times 32$   
 $= 480 + 126 + 160 = \text{Rs.} 766$

$$\text{So, \% profit} = \frac{766 - 587}{587} \times 100 = 30.49\%$$

92. Option C

Total books = 960

$$\text{Number of Hindi books} = 960 \times \frac{40}{100} = 384$$

$$\text{Number of English books} = 960 \times \frac{1}{4} = 240$$

Number of books in other languages =  $960 - (384 + 240) = 336$

$$\text{Number of Hindi novels} = 384 \times \frac{1}{4} = 96$$

$$\text{Number of Hindi epics} = 384 \times \frac{50}{100} = 192$$

$$\text{Number of English novels} = 240 \times \frac{1}{3} = 80$$

$$\text{Number of English epics} = 240 \times \frac{40}{100} = 96$$

Number of Hindi books that are neither novels nor epics =  $384 - (96 + 192) = 96$

Number of English books that are neither epics nor novels =  $240 - (80 + 96) = 64$

Required ratio =  $96 : 64 = 3 : 2$

93. Option D

Number of books in other languages = 336

94. Option C

Difference between Hindi novels and English epics =  $96 - 96 = 0$

95. Option E

$$\text{Average temperature of Durban} = \frac{(20+21+22+25+28)}{5} = 23.2^{\circ}\text{C}$$

$$\text{Average temperature of Quito} = \frac{(15+16+18+20+22)}{5} = 18.2^{\circ}\text{C}$$

So, required difference =  $(23.2^{\circ} - 18.2^{\circ}\text{C}) = 5^{\circ}\text{C}$

96. Option C



$$\text{Average temperature in May} = \frac{(28^\circ + 22^\circ + 14^\circ + 18^\circ + 38^\circ)}{5} = 24^\circ\text{C}$$

$$\text{Average temperature in Feb.} = \frac{(21^\circ + 16^\circ + 18^\circ + 20^\circ + 30^\circ)}{5} = 21^\circ\text{C}$$

$$\text{So, required difference} = (24^\circ\text{C} - 21^\circ\text{C}) = 3^\circ\text{C}$$

97. Option B

$$\text{Average temperature of Riyadh} = \frac{(35^\circ + 30^\circ + 32^\circ + 36^\circ + 38^\circ)}{5} = 34.2^\circ\text{C}$$

$$\text{Average temperature of Columbus} = \frac{(20^\circ + 18^\circ + 16^\circ + 15^\circ + 14^\circ)}{5} = 16.6^\circ\text{C}$$

$$\text{So, required \%} = \frac{34.2^\circ - 16.6^\circ}{16.6^\circ} \times 100\%$$

$$= 106.02\%$$

106% more than average temperature of Columbus

98. Option B

$$\text{Average temperature of Lisbon} = \frac{(22^\circ + 20^\circ + 22^\circ + 25^\circ + 18^\circ)}{5} = 21.4^\circ\text{C}$$

$$\text{Average temperature of Quito} = \frac{(15^\circ + 16^\circ + 18^\circ + 20^\circ + 22^\circ)}{5} = 18.2^\circ\text{C}$$

$$\text{So, required ratio} = 21.4 : 18.2 = 107 : 91$$

99. Option D

$$\text{Average temperature in May} = 24^\circ\text{C}$$

$$\text{Average temperature in March} = \frac{(22^\circ + 18^\circ + 16^\circ + 22^\circ + 32^\circ)}{5} = 22^\circ\text{C}$$

$$\text{So, average temperature in May is } \frac{24 \times 100}{22} = 109.09\% \text{ of average temperature in March}$$