Smartkeeda
The Question Bank

TESTZONE

बैंक परीक्षाओं के लिए निश्चित रूप से सर्वश्रेष्ठ टेस्ट सीरीज

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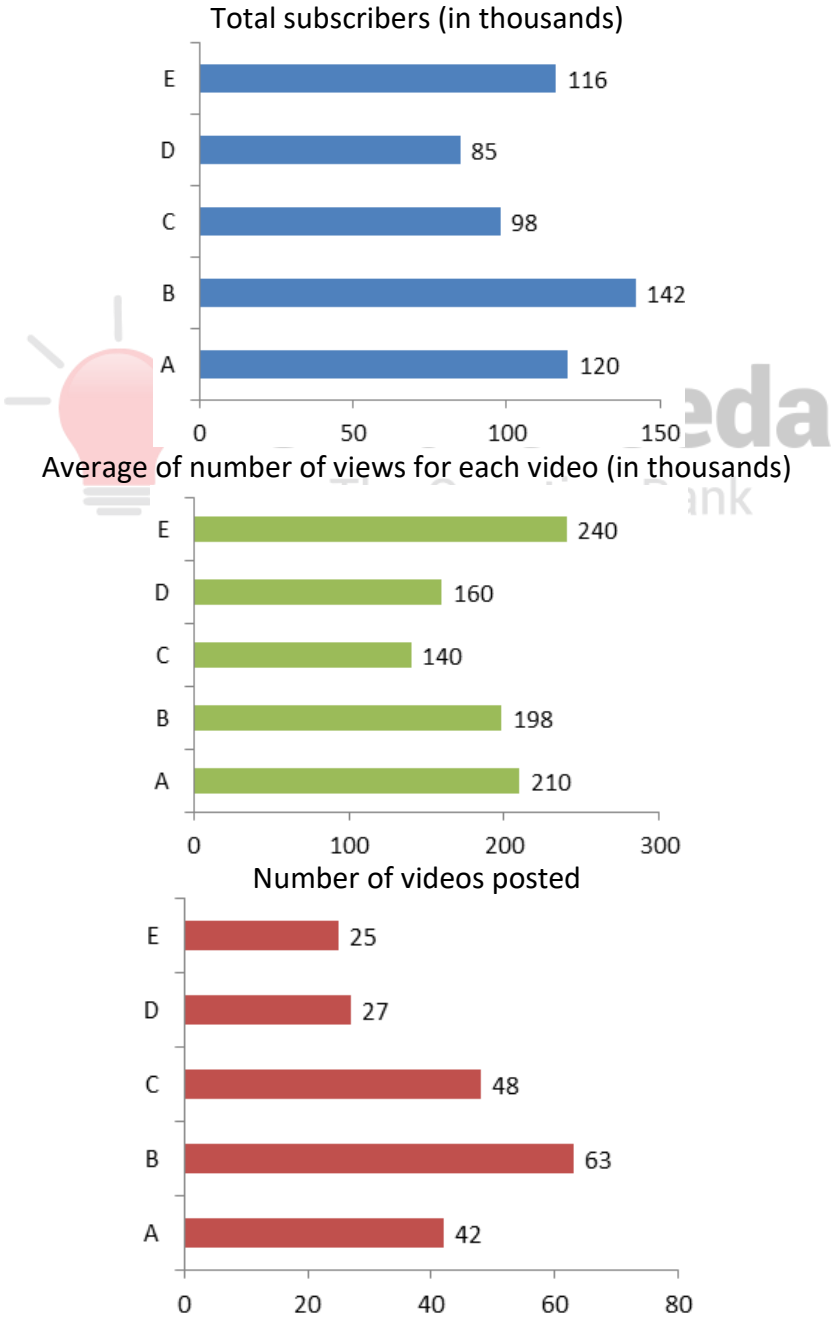
Date Interpretation Questions for Bank PO Pre Exams.

Directions: Study the following bar charts carefully and answer the questions given beside.

The bar graphs provides information about the total number of subscribers of five different YouTube channels, total number of videos posted by each channel, and the average of number of views of each video till 31st May.



1. **Another YouTube channel F has the subscribers equal to the average of number of subscribers of all the given 5 YouTube channels. If 36% of subscribers of channel F are males then find the difference between the number of male subscribers and the number of female subscribers of channel F.**

A. 32462 B. 33420 C. 31416 D. 29470 E. 35560

2. **It is found that the total number of subscribers of channel B and channel E in the month of June was 180 thousand and 160 thousand, respectively. The number of male subscribers of channel B and channel E combined increases by 20% in June as compared to the total number of male subscribers of channel B and channel E combined till 31st May. If the total number of female subscribers of channel B and channel E combined till 31st May was 115 thousand, then find the increase in number of female subscribers of both channels combined in June as compared to the previous month.**

A. 51600 B. 54200 C. 53400 D. 52700 E. 51100

3. **Find the ratio of total views of all videos of channel D and channel E combined to the total views of all videos of channel B and channel C combined.**

A. 1720 : 3199 B. 170 : 199 C. 1522 : 2179 D. 20 : 79 E. None of these

4. **The ratio of the number of male subscribers to the number of female subscribers of channel D and channel E are 27 : 23 and 61 : 64, respectively. If 26% and 25% of male subscribers of channel D and channel E, respectively are below 20 years of age, then find the total number of male subscribers of channel D and channel E combined who are below 20 years of age.**

A. 26086 B. 24120 C. 22452 D. 25648 E. 28128

5. **The amount paid by YouTube per 1000 subscribers is Rs. 42 and per 10000 views is Rs. 85. Find the difference between the amount of money earned by channel A and channel B till 31st May.**

A. Rs. 42246 B. Rs. 39040 C. Rs. 31983 D. Rs. 42578 E. Rs. 44212

SET – 2

Directions : Study the following bubble chart carefully and answer the questions given beside.

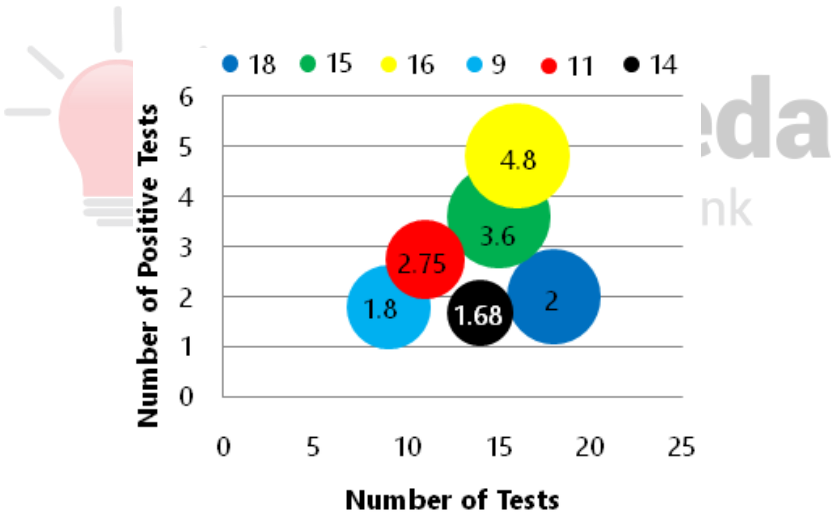
To test people for COVID-19, a city was divided into six zones. Name of zones were on the name of colours – Skyblue Zone, Yellow Zone, Green Zone, Red Zone, Blue Zone, Black Zone as shown below in bubble chart.

The bubble chart below shows numbers of tests that were conducted for COVID-19 and the number of positive outcomes in various zones.

The number of positive outcomes is shown on each bubble for the corresponding zone.

The numbers of tests are represented by small coloured circles (Blue, Green, Yellow, Skyblue, Red and Black) given on the x-axis.

All data is in thousand.



6. Find what percent of people were found positive out of those who were tested in Yellow zone?

A. 10% B. 16% C. 3% D. 30% E. 8%

7. Find the average number of people that were tested in Green Zone, Skyblue Zone, Red Zone and Black Zone.

A. 11550 B. 12250 C. 13125 D. 12500 E. 11950

8. The number of people who were found positive in Yellow Zone was what percent more than the number of people who were found positive in Skyblue Zone?

A. $164\frac{2}{3}\%$ B. $166\frac{1}{3}\%$ C. $166\frac{2}{3}\%$ D. $136\frac{2}{3}\%$ E. $126\frac{2}{3}\%$

9. Find total number of people who were found positive in all the Zones combined.

A. 1663 thousand B. 16.3 thousand C. 13.63 thousand D. 16.6 thousand E. 16.63 thousand

10. A number of new people, which is twice the already tested number of people, are tested in Blue Zone, and the numbers of positive outcomes are more than 50% of previous outcomes. Find approximately what percent people are found positive (old + new positive) in Blue Zone out of total tests.

A. 7.8% B. 8.1% C. 9.2% D. 10% E. 6.4%

SET – 3

Directions: Study the following information carefully and answer the questions given beside.

Bhairav has a bag full of [A] mohurs of three types: Gold, Silver and Bronze. The ratio of number of gold mohurs to the bronze mohurs in the bag is 3 : 2 respectively, and the probability of drawing a bronze mohur from the bag is 3/10.

The ratio of price of a Gold, Silver and Bronze mohur is 15 : 12 : 10, respectively. Total amount obtained by selling all the mohurs is Rs. 5100. Note: price of each mohur is in whole number and total number of mohurs in the bag is less than 45 but more than 30.

With amount earned by selling Gold mohurs, Bhairav bought a 'videogame' at a discount of 20% which was marked 50% above its cost price of Rs. [B].

The amount earned by selling Bronze mohurs is distributed among his three sons in the ratio of [C: D: E] such that E = D + 1 and D = C + 1, the amount received by son getting largest sum is Rs. 200 more than amount received by son getting smallest sum.

Bhairav is fond of drinking mixture of Honey, lemon and water in the ratio of 1 : 2 : 7 respectively and he drinks 450 ml of that mixture every day.

11. What is the cost price of the 'videogame' i.e. [B]?

A. Rs. 1750 B. Rs. 2000 C. Rs. 2250 D. Rs. 2500 E. Rs. 2750

12. Total worth of all the gold mohurs (in Rs.) is what percentage more or less than the total worth of all silver mohurs (in Rs.)?

A. 225% B. 200% C. 175% D. 150% E. 125%

13. What is the value of [C + D + E]?

A. 6 B. 8 C. 10 D. 12 E. 15

14. Find the amount of every day's lemon intake of Bhairav (in grams).

A. 60 grams B. 75 grams C. 90 grams D. 105 grams E. None of these

15. What is the average of number of Gold mohurs and number of Bronze mohurs?

A. 12 B.15 C. 18 D. 20 E. 24

SET – 4

Directions: Study the following tab le chart carefully and answer the questions given beside.

Three districts A, B and C of Agra receive a certain number of N95 masks from manufacturers in five different cities.

The table given below shows the average number of masks received by each district from each city, ratio of masks received by C and that received by A and B together and also the ratio of masks received by A and B.

	Average Masks	C/(A + B)	A : B
Varanasi	4200	1/8	2 : 3
Jaipur	5400	1/5	7 : 2
Bhilwara	2400	2/7	2 : 5
Surat	2650	1/4	3 : 7
Ajmer	2420	2/9	2 : 7

16. The masks received by A from Ajmer is what percent of the masks received by B from Bhilwara?

A. 27.5% B. 25% C. 35% D. 33% E. 32.5%

17. What is the average number of masks received by B from Surat and Ajmer?

A. 4482 B. 4223 C. 4536 D. 4584 E. 4566

18. What is the difference between the masks received by A and B together from Varanasi and Bhilwara?

A. 5600 B. 4200 C. 5240 D. 5800 E. 5400

19. What is the ratio of the total number of masks received by C from Surat and Ajmer to that received by B and C from Jaipur?

A. 97 : 190 B. 82 : 185 C. 17 : 52 D. 32 : 85 E. None of these

20. What is the difference between the number of masks received by A from Jaipur, Bhilwara, and Surat and the number of masks received by B from Varanasi, Surat, and Ajmer?

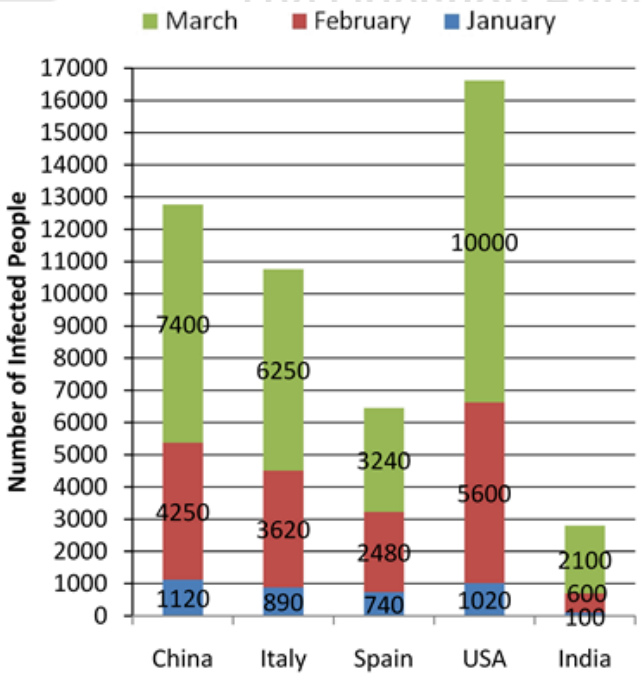
A. 1748 B. 786 C. 1640 D. 1790 E. None of these

SET – 5

Directions : Study the following bar chart carefully and answer the questions given beside.

Data regarding the number of people who were tested positive with COVID-19 during January, February and March in five countries is given in the stack bar chart.

Data of number of People in five countries who were found positive with COVID-19 test



21. Find the average number of people per day who were tested positive in India in March.

A. 60.73 B. 67.74 C. 72.34 D. 76.47 E. 80.55

22. Which countries in February showed more than 3000 positive tests?

A. China and Italy only
B. China and the USA only
C. Italy and the USA only
D. China, Italy and the USA only
E. China, Italy, Spain and the USA only

23. By what percent the number of positive tested people grew in Spain in February from January?

A. 335.13%
B. 235.13%
C. 353.13%
D. 253.13%
E. None of these

24. Japan in January had twice the number of cases that India had in January while 50% more cases in February than India that India had in February. Find the number of cases in Japan in March if cases in March were twice the total cases till February end.

A. 900
B. 1000
C. 2200
D. 2000
E. 1800

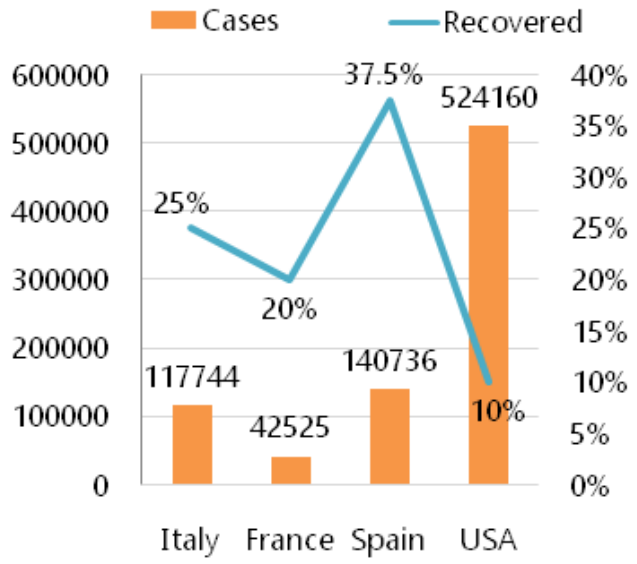
25. Find the ratio of the number of cases in February and March together in USA to the number of cases in China in February and the number of cases in Italy in March together.

A. 41: 52
B. 55 : 47
C. 54 : 35
D. 50 : 33
E. None of these

SET – 6

Directions : Study the following mixed and table chart carefully and answer the questions given beside.

The chart given below shows the total number of COVID-19 cases registered and also the percentage of people who recovered in four countries Italy, France, Spain and USA.



The table given below shows the number of cases per million population in the four countries.

Country	Cases/million
Italy	2453
France	1215
Spain	1466
USA	234

$$\text{Cases per million} = \frac{\text{Total cases}}{\text{Population}} \times 1{,}000{,}000$$

Total cases = Active + Recovered

26. What is the difference between the number of active cases and recovered cases in France?

A. 25815 B. 24155 C. 25515 D. 23850 E. 26255

27. What is the ratio of the population of Italy to the population of Spain?

A. 1 : 2 B. 3 : 7 C. 1 : 3 D. 2 : 5 E. 2 : 3

28. What is the difference between the number of recovered cases in Spain and USA?

A. 420 B. 450 C. 280 D. 345 E. 360

29. If 37.5% of the USA population is uneducated, what is the number (in crores) of educated people in USA?

A. 156 B. 140 C. 160 D. 124 E. 142

30. What is the difference between the Active cases of Italy and Spain?

A. 348 B. 424 C. 328 D. 358 E. 384

SET – 7

Directions: Study the following tab le chart carefully and answer the questions given beside.

Two rivers X and Y flowing in the same direction met at a point C and new river Z is created. After that Z is also flowing in the same direction. In river X, the distance between point A and C is 24 km and in river Y, the distance between B and C is 18 km. D is a point somewhere in river Z. The speed of the stream in all three rivers is equal. The river flows downstream from point A to point C and point B to point C.

The following table shows the swimming speed (in km/hr) of 5 swimmers in still water.

Swimmer	Speed (in km/hr)
Michael Phelps	8
Sun Yang	5
David Nolan	6
Grant Hackett	4
Adam Peaty	10

31. The masks received by A from Ajmer is what percent of the masks received by B from Bhilwara?

A. 27.5% B. 25% C. 35% D. 33% E. 32.5%

32. What is the average number of masks received by B from Surat and Ajmer?

A. 4482 B. 4223 C. 4536 D. 4584 E. 4566

33. What is the difference between the masks received by A and B together from Varanasi and Bhilwara?

A. 5600 B. 4200 C. 5240 D. 5800 E. 5400

34. What is the ratio of the total number of masks received by C from Surat and Ajmer to that received by B and C from Jaipur?

A. 97 : 190 B. 82 : 185 C. 17 : 52 D. 32 : 85 E. None of these

35. Adam Peaty starts swimming from A towards D. At the same time, a boat starts travelling towards point B from D. The time duration that Adam Peaty took to reach point was equal to the time the boat took to finish its trip. Find what could be the minimum speed of the boat. Speed of the stream was 2 kmph.

A. 10 kmph B. 11 kmph C. 13 kmph D. 15 kmph E. 18 kmph

SET – 8

Directions: Study the following pie chart carefully and answer the questions given beside.

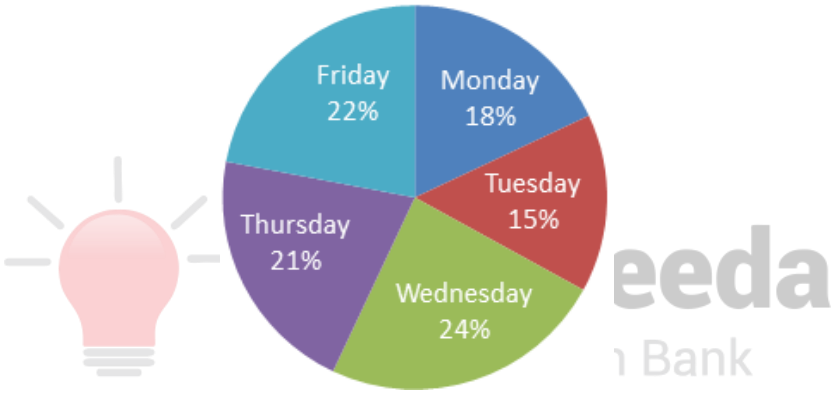
The pie chart shows the percentage of the number of calculators manufactured by Casio on five different days of a week .

The total number of calculators manufactured by Casio on Wednesday is 1680.

Note: Casio is manufacturing two variants of calculators - Desktop calculators and Portable calculators.

The total number of calculators (manufactured in a day) = Number of desktop calculators (manufactured in a day) + number of portable calculators (manufactured in a day)

Percentage of number of calculators manufactured



36. Find the average of the number of calculators manufactured by Casio on Monday, Wednesday and Thursday together?

A. 1370 B. 1470 C. 1540 D. 1610 E. 1680

37. If the ratio of the number of Desktop calculators to the number of Portable calculators manufactured on Friday is 6 : 5, respectively then the number of Portable calculators manufactured on Friday is what percentage of the number of calculators manufactured on Tuesday?

A. 20% B. 33.33% C. 40% D. 50% E. 66.67%

38. The ratio of the number of Desktop calculators to the number of Portable calculators manufactured on Tuesday and the ratio of the selling price of Desktop calculator to the price of Portable calculators on Tuesday is same i.e. 3 : 2. If the revenue earned by selling all the calculators manufactured on Tuesday is Rs. 109200, then find the selling price of each Portable calculator.

A. Rs. 100 B. Rs. 80 C. Rs. 60 D. Rs. 40 E. Rs. 120

39. Find the ratio of number of calculators manufactured on Monday to the number of calculators manufactured on Wednesday.

A. 1 : 2 B. 2 : 3 C. 3 : 4 D. 4 : 5 E. 5 : 6

40. What will be the difference between the average of number of calculators manufactured on Monday and Wednesday together and the average of number of calculators manufactured on Tuesday and Thursday together?

A. 210 B. 240 C. 270 D. 310 E. 340

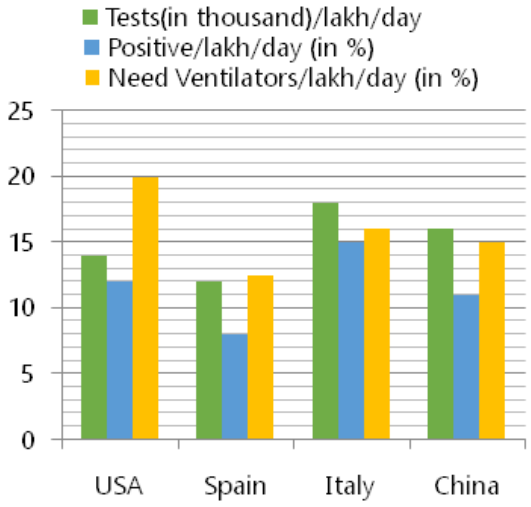
SET – 9

Directions: Study the following bar chart carefully and answer the questions given beside.

To identify and treat people with COVID-19, numbers of tests were conducted on people. The bar chart below shows the data for four countries.

The bar chart gives information about:
Numbers of tests in thousand for each one lakh population in a day,
Number of people as percentage, who were found positive to test, and
The number of people who were found positive and needed Ventilators, as they were critically affected due to the virus.

Data regarding number of Tests, Positive outcomes and Critical Patients who need ventilators in four countries



41. Find average number of tests per day per lakh in the four countries.

A. 12000 B. 10000 C. 14000 D. 15000 E. 16000

42. Find the numbers of tests USA and Italy together conducted if 3012 lakh and 720 lakh people respectively were living in these two countries.

A. 452.18 lakh B. 151.48 lakh C. 231.28 lakh D. 151.48 lakh E. 551.28 lakh

43. China tested 80000 people per day for 20 days. How many people were found positive in China in these 20 days?

A. 162500 B. 176000 C. 168500 D. 212500 E. 222000

44. In Spain, 5760 were found positive on a particular day. Find how many tests were conducted that day.

A. 54000 B. 48000 C. 72000 D. 36000 E. 84000

45. Find average number of ventilators for all the four countries together if 1 lakh people are tested in each of the four countries.

A. 288 B. 336 C. 120 D. 432 E. 264

SET – 10

Directions: Study the following tab le chart carefully and answer the questions given beside.

Three buses i.e. Red, Green and Orange run from city A to city B. The number of passengers who travelled on these buses in a particular week is given in the table. Some of the data is given in the table while some are missing.

	Red Bus	Green Bus	Orange Bus	Total number of passengers
Monday	102	–	86	307
Tuesday	–	107	113	315
Wednesday	122	–	108	–
Thursday	90	97	–	262
Friday	85	95	124	–
Saturday	118	–	–	349
Sunday	–	96	100	302
Total	–	712	732	–

46. Find the total fare earned from Red bus in the whole week if the fare per person in the Red bus is Rs. 12.

A. Rs. 8424 B. Rs. 8616 C. Rs. 8748 D. Rs. 8508 E. Rs. 8436

47. Find the total number of passengers who travelled by all the three buses in the whole week.

A. 2155 B. 2196 C. 2177 D. 2184 E. 2162

48. Find the difference between the total number of passengers who travelled by all the three buses on Wednesday and the total number of passengers who travelled by all the three buses on Friday.

A. 19 B. 17 C. 22 D. 29 E. 11

49. The fare for each passenger in the Green bus and in the Orange bus is Rs. 16 and Rs. 19, respectively. Find the difference between the amount earned by the Green bus and the amount earned by the Orange bus in the whole week.

A. Rs. 5214 B. Rs. 2142 C. Rs. 1866 D. Rs. 2516 E. Rs. 3266

50. Find the difference between the number of passengers who travelled by Green bus on Monday and on Wednesday.

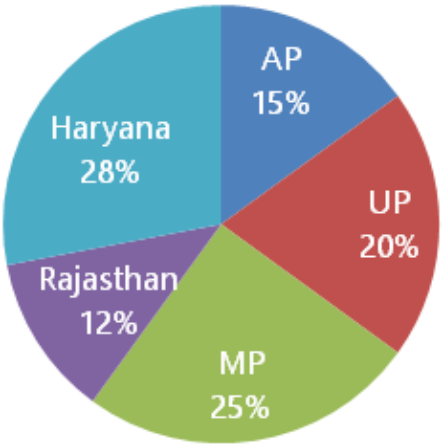
A. 31 B. 21 C. 26 D. 35 E. 22

SET – 11

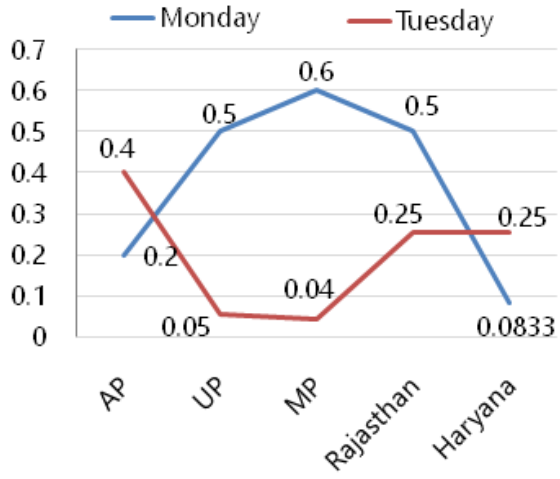
Directions : Study the following pie and line chart carefully and answer the questions given beside.

From a TG congregation in Delhi, 2100 TG members travel to five different states AP, MP, UP, Rajasthan and Haryana. All the members reached their respective states on Monday. All the TG members were COVID-19 positive and when they come in contact with other people those people become COVID-19 suspects.

The pie chart given below shows the percentage breakup of the 2100 members who travel to five different states.



The line chart given below shows the average number of people contacted per TG member in each state on Monday and Tuesday.



The suspects of a particular day are quarantined on that particular day only and they are no longer suspects on next day.

51. What is the total number of suspects in MP on Monday and Tuesday together?

A. 324 B. 296 C. 364 D. 336 E. 318

52. What is the difference between the total suspects of UP and Haryana on Monday and Tuesday together?

A. 35 B. 41 C. 32 D. 45 E. 27

53. The total number of suspects of UP and MP on Tuesday are what percent of the total suspects of Haryana on Monday and Tuesday together?

A. 23.33% B. 18.45% C. 21.42% D. 19.33% E. None of these

54. What is the average number of suspects in AP, MP and UP on Monday?

A. 178 B. 196 C. 204 D. 188 E. None of these

55. What is the difference between the suspects on Monday and Tuesday in Rajasthan?

A. 58 B. 72 C. 63 D. 54 E. None of these

SET – 12

Directions: Study the following information carefully and answer the questions given beside.

Natasha wants to pursue her B. Tech from Massachusetts Institute of Technology, United States, but to be able to afford it, she has to take an education loan. The loan agreement guaranteed to pay 80% of all her expenses. This way she only had to bear the remaining costs. As soon as she landed in the United States, she had to pay the rent for her new apartment. The apartment rent was $550 per month. She then paid her tuition fee for the current semester worth $25000. On an average she spent $340 on utilities and groceries per month. Given that, Natasha's course lasted a total of two years (comprising of 2 semesters per year) and the bank gave 80% of the total expenses of two years at the beginning of her course.

56. How much did the bank have to pay in total for two years on behalf of Natasha?

A. $90308 B. $85428 C. $97088 D. $90288 E. Can't be determined

57. If the bank charges simple interest at the rate of 9% per annum, then find the total interest amount that Natasha paid after 2 years. (Assume she pays off the entire loan after 2 years of completion of course)

A. $17075. 84 B. $17005. 48 C. $17975. 84 D. $16845. 48 E. $17475. 84

58. Find, the annual amount spent on utilities is what percentage less than the annual amount spent on rent? (Approximate)

A. 50% B. 38% C. 30% D. 24% E. 10%

59. Natasha gets an internship for a period of 3 months. The company where she'll be doing internship pays $12000 per month. The utilities and rent for these 3 months is what percentage of the total amount she earns from the internship?

A. 7.41% B. 5.41% C. 17.41% D. 15.41% E. None of these

60. Natasha decides to live with her relatives for 6 months so she will not have to pay for rent and utilities. How much does she save on rent and utilities?

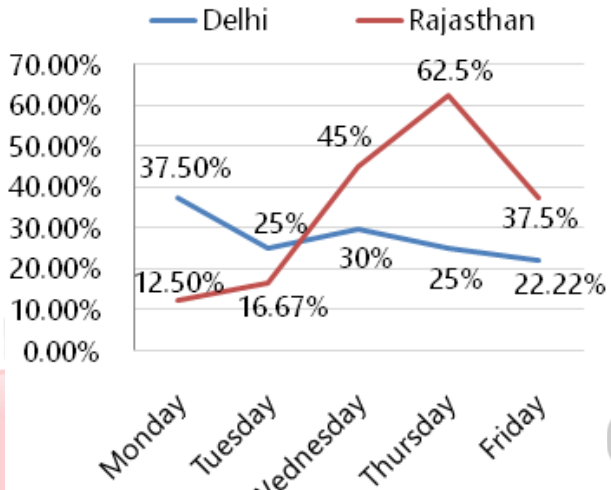
A. $8340 B. $3640 C. $5340 D. $8940 E.Can't be determined

SET – 13

Directions : Study the following line chart carefully and answer the questions given beside.

In Delhi, UP and Rajasthan together there were 80 COVID-19 cases on Monday. On Tuesday cases increased by 80% as compared to Monday. On Wednesday, Thursday and Friday the number of cases of COVID-19, increased by 150%, 220% and 350% as compared to the respective previous day.

The chart given below shows the cases on each day in Delhi and Rajasthan as a percentage of total cases that day in Delhi, UP and Rajasthan together.



61. What is the increase in the number of COVID -19 cases in Delhi and Rajasthan together from Monday to Wednesday?

A. 250 B. 230 C. 225 D. 180 E. 245

62. The number of cases in UP on Thursday is what percent of the number of cases in Delhi on Friday?

A. 9.33% B. 16.67% C. 15% D. 12.5% E. 8.25%

63. What is the difference between the number of cases in Delhi and Rajasthan on Friday?

A. 724 B. 792 C. 1080 D. 856 E. 742

64. What is the ratio of the increase in the number of COVID-19 cases from Tuesday to Thursday in UP to that in Delhi?

A. 5 : 21 B. 7 : 20 C. 11 : 25 D. 5 : 18 E. None of these

65. The percentage increase in UP from Wednesday to Thursday is what percent of the percentage increase in Delhi from Tuesday to Wednesday?

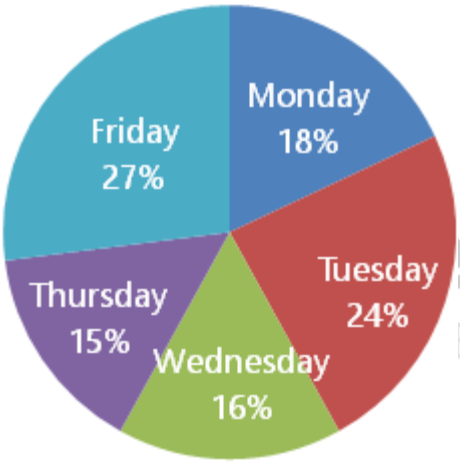
A. 50% B.25% C. 45% D. 37.5% E. 30%

SET – 14

Directions: Study the following pie chart carefully and answer the questions given beside.

Tinka Nupoor was in a country where COVID-19 was widespread. She came to India on Monday, 17 Feb 2020. She was tested and found positive on 22 Feb, Saturday. Within the five days from Monday to Friday, she came in physical contact with 900 people, whose number for each day is given in the pie chart.

Number of People in Physical Contact



Out of those whom she came in contact with during these five days, only 40% were found positive when tested after three days on Tuesday, 25 Feb. Each person, who was found positive, came in physical contact with on an average 12 uninfected people each day in the these three days (i.e. on Saturday, Sunday and Monday) before being tested and isolated on Tuesday.

66. What percent more people Tinka Nupoor came in contact with on Friday than on Tuesday?

A. 10% B. 12% C. 12.5% D. 16.67% E. 20%

67. How many people she infected before being found positive?

A. 900 B. 450 C. 720 D. 540 E. 360

68. **Ratio of men to women she came in contact with on Wednesday was 4 : 5. Number of men who were above age of 50 years were 40% less than those who were equal to or below age of 50 years. None of the men equal to or below age of 50 years was found positive. How many men were found positive?**

A. 40 B. 64 C. 80 D. 24 E. 16

69. **On Monday, number of men she came in contact with were 35% of the number of women. All the men whom she came in contact with on Monday were found positive and number of women who were found positive were equal to the number of men. How many people were found negative, from the people she came in contact with on Monday?**

A. 78 B. 84 C. 42 D. 126 E. None of these

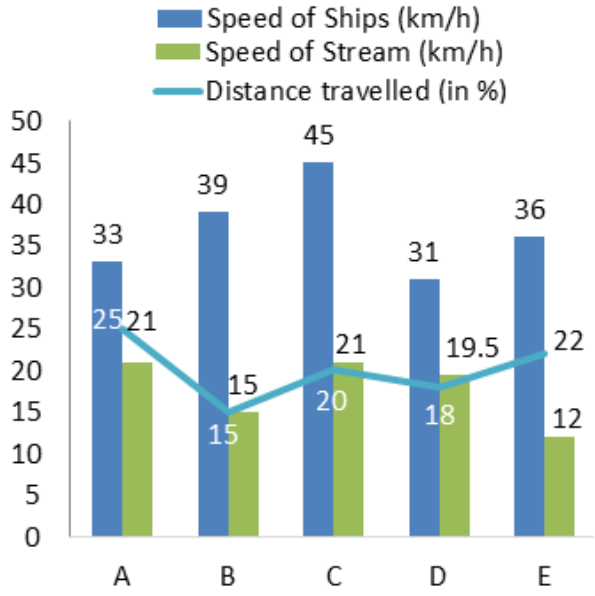
70. **Out of all the people who came in physical contact, from Saturday to Monday, with those who came in physical contact with Tinka Nupoor and were found positive, only 45% were found positive when tested on Wednesday, 26 Feb. How many people were found positive on 26 Feb?**

A. 4562 B. 1296 C. 5832 D. 3257 E. 9612

SET – 15

Directions: Study the following bar chart carefully and answer the questions given beside.

In the following figure, the bar graph shows the speeds (in km/h) of five different ships in a river and the speed of the water (in km/h) and the line graph shows the percentage of distance (in %) travelled by all the five ships.



71. Two friends Nitin and Mukesh decided to travel 675 km till point P in downstream. Nitin is on ship B and Mukesh is on ship D. After 510 km, Mukesh's ship broke down but immediately he got help from Neil, who is travelling in the same direction as Mukesh and is on Ship E.

Quantity I : Time taken by Nitin to reach point P.
Quantity II : Time taken by Mukesh to reach on point P.

A. Quantity I ≥ Quantity II
B. Quantity I ≤ Quantity II
C. Quantity I = Quantity II or No relation
D. Quantity I > Quantity II
E. Quantity I < Quantity II

72. The speed of another ship, F is 11.11% more than the speed of ship C and speed of stream (for Ship F) is 25% more than the speed of stream for ship E.

Quantity I : Find the time taken by ship F to cover a distance of 2625 km in upstream direction.
Quantity II : Find the time taken by ship C to cover a distance of 1860 km in upstream direction.

A. Quantity I ≥ Quantity II
B. Quantity I < Quantity II
C. Quantity I = Quantity II or No relation
D. Quantity I > Quantity II
E. Quantity I ≤ Quantity II

73. The total distance is increased by 25%.

Quantity I : The time taken by ship C to cover the new distance in upstream.
Quantity II : The time taken by ship A to cover old distance in downstream.

A. Quantity I ≥ Quantity II
B. Quantity I ≤ Quantity II
C. Quantity I = Quantity II or No relation
D. Quantity I > Quantity II
E. Quantity I < Quantity II

74. Time taken by ship A and B together to travel their respective destinations in downstream is approximately _____ percent more or less than time taken by ship E to travel its destination in upstream.

A. 23.76% Less
B. 23.76% More
C. 19.2% Less
D. 19.2% More
E. None of these

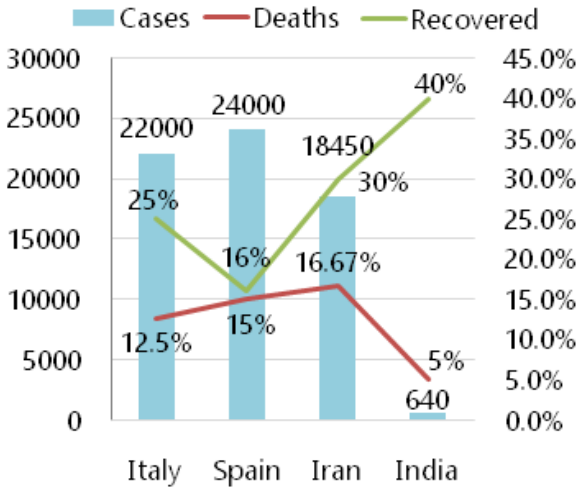
75. Quantity I : The average time taken by all the ships to cover their respective distances in upstream.
Quantity II : Time taken by ship E to travel 1728 km in still water.

A. Quantity I ≥ Quantity II
B. Quantity I ≤ Quantity II
C. Quantity I = Quantity II or No relation
D. Quantity I > Quantity II
E. Quantity I < Quantity II

SET – 16

Directions : Study the following mixed chart carefully and answer the questions given beside.

The chart given below shows the number of positive COVID-19 cases reported in four countries and percentage of people who died and those who recovered from the reported cases. Rest of them are active cases.



76. What is the difference between the death count in Italy and Spain?

A. 890 B. 840 C. 825 D. 750 E. None of these

77. What is the total number of active cases in Spain?

A. 16560 B. 13750 C. 17260 D. 16860 E. 15650

78. What is the total number of deaths in four countries?

A. 10012 B. 9457 C. 9324 D. 9487 E. 9557

79. If 25% of the active cases in Iran are females, what is the number of active male cases in Iran?

A. 7250 B. 7380 C. 6450 D. 7460 E. None of these

80. The number of people who recovered in India are what percent of the people who recovered in Spain?

A. 5.83% B. 7.14% C. 8.25% D. 6.67% E. 6.25%

SET – 17

Directions: Study the following information carefully and answer the questions given beside.

The information given below is the investment of three Venture capitalists in a partnership for the period of 1991 – 1995.

The investments made by an individual are for the same period. The investment of Bikram in 1991 is Rs. 40000 and is equal is to the investment of Chandan in 1993. The total investment in 1994 is Rs. 24000 and the ratio of investments of Arjun, Bikram and Chandan is 8 : 9 : 7 respectively. The investments of Arjun in 1991, 1992 and 1993 are Rs. 32000, Rs. 48000 and Rs. 44000 respectively. The investment of Chandan in 1991 and 1992 are same i.e. Rs. 22000. The investment of Bikram in 1993 is Rs. 6000 more than the investment by him in 1992 i.e. Rs. 30000.

81. Find the share of profit earned by Bikram in the year 1993, if the total profit in 1993 is Rs. 15000?

A. Rs. 4250 B. Rs. 4050 C. Rs. 4500 D. Rs. 4400 E. Rs. 3600

82. Suppose all the VCs invested for one more year i.e. 1995 and the total investment of Arjun and Bikram is Rs. 56000 and invested their amounts for 24 and 16 months respectively, find for how many months Chandan invested his amount of Rs. 64,000? [Given profits of Arjun, Bikram and Chandan are Rs. 12600, Rs. 11200 and Rs. 16800 respectively]

A. 16 months B. 21 months C. 15 months D. 6 months E. 12 months

83. If the share of profit of Chandan in 1991 and 1992 is Rs. 7700 and Rs. 8800 respectively, find the ratio of profit of Arjun in 1991 to that in 1992?

A. 1 : 2 B. 1 : 4 C. 12 : 7 D. 7 : 12 E. 3 : 4

84. If the amount of profit shared by Arjun and Bikram in 1994 is Rs. 4000 and Rs. 4500 respectively and Chandan makes 3/4th of the profit in 1995 as compared to his profit in 1994. Find the amount of Profit shared by Chandan in 1995?

A. Rs. 2625 B. Rs. 3000 C. Rs. 2265 D. Rs. 3500 E. Rs. 6225

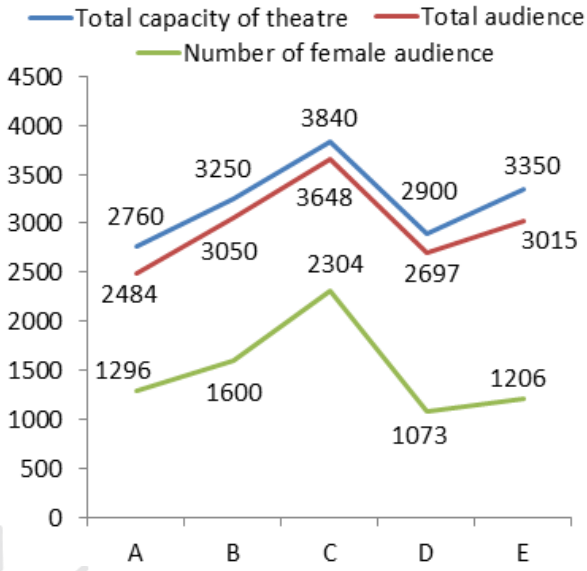
85. The profit earned by Bikram in 1996 is 8% of the investment made by Bikram in 1992 and the profit of Chandan in 1996 is 10% of the investment made by Chandan in 1992. Find the ratio of profit of Chandan in 1996 to that of Bikram in 1996.

A. 12 : 11 B. 11 : 12 C. 1 : 12 D. 15 : 11 E. None of these

SET – 18

Directions : Study the following line chart carefully and answer the questions given beside.

A movie is played in five different theatres after release. The chart represents the total capacity of each theatre, total number of audiences and the number of female audiences in each theatre on the 1st day 1st show after the release of the movie.



86. The total number of male audiences who watched the movie in theatre E is what percentage of the total number of audience who watched the movie in theatre E?

A. 55% B. 65% C. 45% D. 60% E. 70%

87. Find the number of seats which has remained vacant in all the five movie theatres together.

A. 1537 B. 1206 C. 1372 D. 1140 E. 1486

88. What is the difference between the number of males and the number of females who watched the movie in all the five movie theatres together?

A. 64 B. 89 C. 51 D. 30 E. 103

89. What is the ratio of the number of males to the number of females who watched the movie in theatre C?

A. 8 : 13 B. 6 : 13 C. 7 : 12 D. 4 : 9 E. None of these

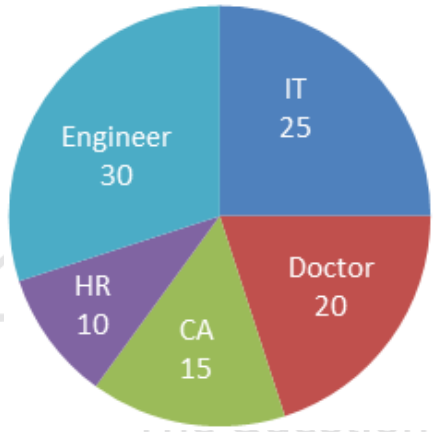
90. **The ratio of the number of audience in the 1st show to the number of audience in the 2nd show in theatre A is 23 : 25 respectively. If the ratio of the number of males to the number of females who have watched the movie in the 2nd show is 4 : 5 respectively then find the number of males who have watched the movie in the 2nd show in theatre A.**

A. 1280 B. 1200 C. 1204 D. 1236 E. 1248

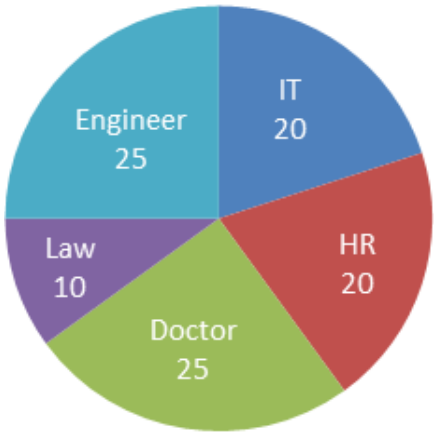
SET – 19

Directions: Study the following pie charts carefully and answer the questions given beside.

Percentage of Male job seekers 'dream profile'



Percentage of Female job seekers 'dream profile'



Note: The ratio of male job seekers to female job seekers is 3 : 2.

91. **If the total number of male job seekers whose dream profile is HR is 54000, then what is the total number of job seekers (male + female)?**

A. 750000 B. 810000 C. 90000 D. 900000 E. None of these

92. If the total number of female job seekers whose dream profile is IT is 75000, then the total number of female job seekers whose dream profile is Law is what percentage less than the total number of male job seekers whose dream profile is IT?

A. 73.33% B. 39.09% C. 67.20% D. 51.19% E. 79.00%

93. If 60% of female doctor job seekers equals 2160, then find the sum of female job seekers whose dream profile is HR and the number of male job seekers whose dream profile is IT?

A. 8100 B. 8280 C. 6500 D. 7135 E. None of these

94. If 80% of male job seekers whose dream profile is CA is 2400, then what is the ratio of 40% of the male job seekers whose dream profile is Engineer to 60% of the female job seekers whose dream profile is Law?

A. 1 : 1 B. 4 : 5 C. 1 : 3 D. 3 : 1 E. None of these

95. If the total number of male job seekers whose dream profile is Engineer is 14400, then what is the difference between total number of male job seekers whose dream profile is IT and the total number of female job seekers whose dream profile is HR?

A. 5600 B. 6400 C. 7300 D. 8100 E. None of these

SET – 20

Directions: Study the following table chart carefully and answer the questions given beside.

Table shows the percentage of students of 4 departments – Mechanical, Civil, Computer Science and Applied with each student in only one department.

The table also shows the number of students in five different colleges of 4 different departments with total students being 2130.

College	Students	Mechanical	Civil	Computer Science	Applied
IIT Delhi	450	-	18%	-	28%
IIT Kanpur	380	15%	-	30%	-
IIT Bombay	-	18%	20%	-	32%
IIT Madras	-	-	25%	18%	35%
IIT Guwahati	350	20%	22%	-	20%

96. What is the total number of students in Computer Science departments of IIT Kanpur and IIT Guwahati?

A. 237 B. 227 C. 287 D. 247 E. None of these

97. If in IIT Delhi, students who are studying in Applied department are 40% more than the students in the Mechanical department, then what is the number of students who are studying in Computer Science in IIT Delhi?

A. 133 B. 153 C. 173 D. 143 E. 183

98. If number of students in IIT Bombay is 10% less than the number of students in IIT Madras, then what is the difference between the total number of students who study in Applied department in these 2 colleges and who study in Civil department in these 2 colleges?

A. 114 B. 104 C. 204 D. 134 E. 124

99. If number of students in IIT Bombay is 10% less than the number of students in IIT Madras, then in which college the total students who study in Civil and Applied departments is most?

A. Delhi B. Kanpur C. Bombay D. Madras E. Guwahati

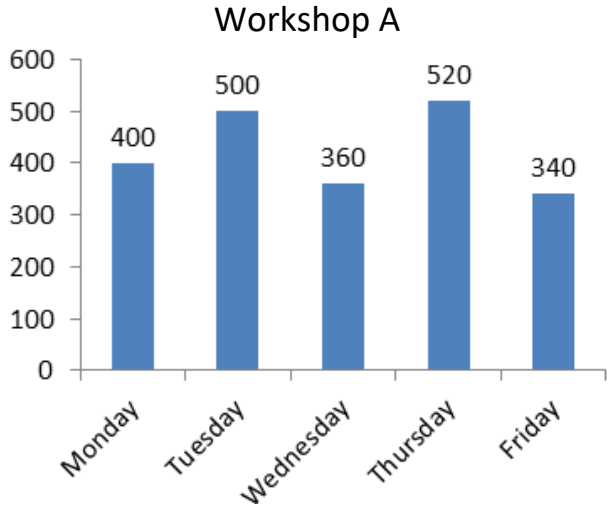
100. If in IIT Kanpur, number of students who study in Applied department is 19 more than the number of students who study in Computer Science department in IIT Guwahati, then what is the number of students who study in Civil department in IIT Kanpur?

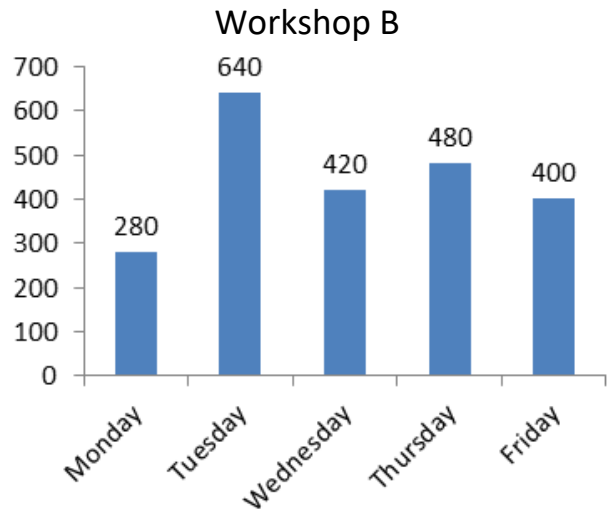
A. 67 B. 57 C. 77 D. 87 E. 27

SET – 21

Directions: Study the following bar chart carefully and answer the questions given beside.

The following graph shows the number of people who attended the workshop A and B on 5 different days of a week.





101. The number of people who attended the workshop A on Monday, Tuesday and Wednesday together is what percentage less than the number of people who attended the workshop B on Tuesday, Wednesday and Thursday together.

A. 15.80% B. 10.40% C. 18.18% D. 22.20% E. 33.33%

102. What is the ratio of the number of people who attended the workshop A and B together on Monday to that of A and B together on Wednesday?

A. 35 : 37 B. 34 : 39 C. 13 : 17 D. 5 : 17 E. 43 : 46

103. If the number of females who attended the workshop A and B together on Tuesday is 460 and the ratio of male to female who attended the workshop A on Tuesday is 3 : 2, then how many male members attended the workshop B on Tuesday?

A. 400 B. 360 C. 380 D. 420 E. 340

104. What is the difference between the total number of people who attended the workshop A on Monday and Thursday together and the number of people who attended the workshop B on the same days together?

A. 160 B. 180 C. 140 D. 200 E. 220

105. The total male members who attended the workshop A and B together on Saturday is 470. The total male members who attended the workshop A and B together on Friday is 60 more than the total female members who attended the workshop A and B together on Friday. What is the difference between the number of males who attended the workshop A and B together on Friday to the number of males who attended the workshop A and B together on Saturday?

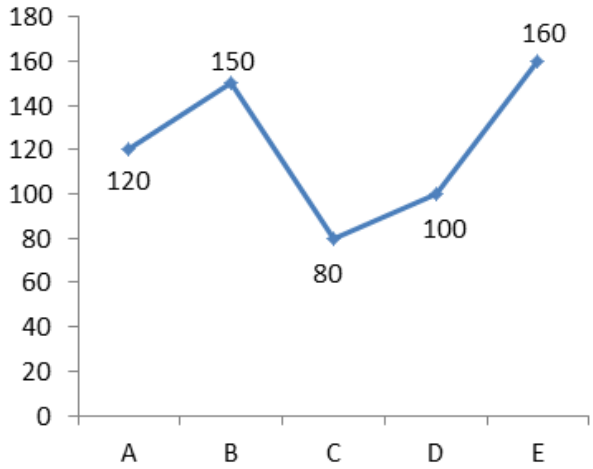
A. 60 B. 80 C. 90 D. 110 E. 70

SET – 22

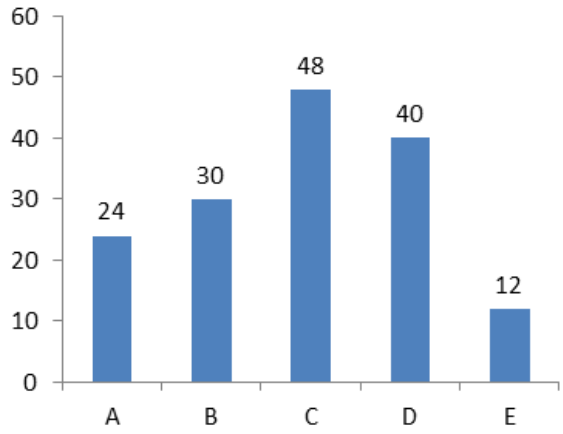
Directions : Study the following line and bar chart carefully and answer the questions given beside.

The following line graph shows the volume of different types of chemical (A, B, C, D and E) produced by a chemical factory and the bar graph represents the percentage of alcohol present in the chemical.

Volume Produced (In litres)



Percentage of alcohol in the chemical



Note : The chemical consists of water and alcohol.

106. Find the ratio between the volume of water present in a mixture of 10 litres of chemical A, 5 litres of chemical C and 20 litres of chemical E and total volume of alcohol brewed for making chemicals B and D.

A. 139 : 425 B. 19 :45 C. 3 : 5 D. 9 : 4 E. None of these

107. The concentration of chemical C is to be made 44% by adding chemical E to it. Find the ratio in which the two chemicals have to be mixed to get the desired concentration.

A. 4 : 1 B. 18 : 1 C. 2 : 9 D. 8 : 1 E. None of these

108. Find the percentage by which the total volume of alcohol in chemicals A and B together is higher than the total volume of alcohol in chemicals D and E together.

A. 27.56% B. 28.6% C. 42.6% D. 24.67% E. None of these

109. A new cocktail is prepared by mixing chemicals A, B, C and E in the ratio 2 : 1 : 3 : 4. Find the percentage of alcohol content in the new cocktail.

A. 56% B. 37% C. 27% D. 17% E. None of these

110. Alcohol from Chemical A and D are mixed in the ratio of 1 : 3 to form a new chemical P. 36 litre of chemical P should be mixed with what quantity of chemical C so that the resulting chemical has 60% water?

A. 24 B. 12 C. 21 D. 15 E. 18

SET – 23

Directions: Study the following tab le chart carefully and answer the questions given beside.

In a One day Series of five matches with Australia, total five batsman, one all-rounder and five bowlers played the matches from India. Following table gives the Information about number of runs scored by Different Batsmen including all-rounder of India in Different Matches.

In the following table, only Ravindra Jadeja was all – rounder and the remaining were batsmen.

It is known that :

Total runs in any match = Total runs by all batsmen (Including all – rounder) + total runs by bowlers

Run Rate = Total runs scored by a team/total number of overs they played

If in any question, it is written that total runs scored by batsmen, then include runs scored by all-rounder also and if it is written that runs scored by bowlers, then exclude the runs scored by all-rounders and consider the runs scored by five bowlers only.

	Match 1	Match 2	Match 3	Match 4	Match 5
Rohit Sharma	92	135	14	69	25
Shikhar Dhawan	8	29	105	45	89
Virat Kohli	102	85	111	98	3
Ajinkya Rahane	10	8	34	9	0
MD Dhoni	43	21	4	108	127
R Jadeja	45	34	76	3	49

111. In Match 1, Australia won the toss and decided to bowl first. Number of runs scored by Indian bowlers is 10% of the runs scored by Indian batsmen (Including all-rounder). If Australia scored 241 runs in 42 overs. What will be the required run rate for Australia in remaining 8 overs to win the match?

A. 13.75 B. 12.50 C. 9 D. 11.25 E. 10.50

112. If total runs scored by all bowlers (excluding all-rounder) in any match is less than 35, then Which of the total runs by Indian team is not possible?

A. 376 B. 349 C. 380 D. 322 E. 344

113. Total runs scored by Virat Kohli is what percent more than the total score of Rohit Sharma?

A. 19.10% B. 22.22% C. 26.67% D. 13.33% E. 29.90%

114. In the fourth match Australia won the toss and decided to bat first. They set a target of some runs. In the Second Inning, ratio of runs scored by Indian bowlers to that of batsmen is 9.5 : 83. India lost the match by 19 runs. If the Australian bowlers scored 22 more than that of Indian bowlers, then find the percentage contribution of Australian Batsmen in total runs?

A. 77.77% B. 87.47% C. 92.67% D. 84.57% E. 81.77%

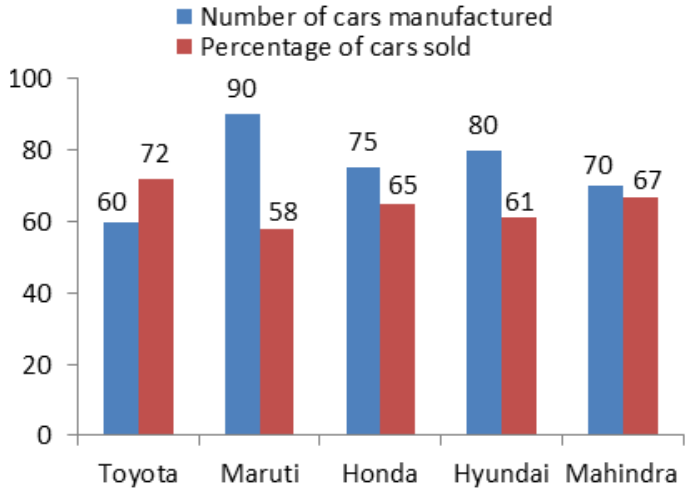
115. What is the difference between average of runs scored by Shikhar Dhawan and average of runs scored by MS Dhoni in five matches ?

A. 5.4 B. 3.8 C. 5.9 D. 5.1 E. 4.75

SET – 24

Directions: Study the following bar chart carefully and answer the questions given beside.

The bar graph given below shows the number of cars manufactured (in thousands) and the respective percentage of those cars sold by five different companies in 2017.



116. What is the difference between the cars sold by Maruti and cars sold by Mahindra in 2017?

A. 4900 B. 4700 C. 5100 D. 5300 E. None of these

117. What is the ratio of the number of Toyota cars that remained unsold in 2017 to the number of Honda cars that remained unsold in 2017?

A. 4 : 5 B. 16 : 25 C. 5 : 6 D. 25 : 36 E. 4 : 7

118. In 2018 the number of cars manufactured by Hyundai increased by 15% and the number of cars sold by Hyundai also increased by 22% with respect to the previous year. Find the number of cars that remained unsold in 2018.

A. 32464 B. 32564 C. 32664 D. 32764 E. 32864

119. What is the average number of unsold cars by all the five companies together in 2017?

A. 26730 B. 26830 C. 26930 D. 27030 E. None of these

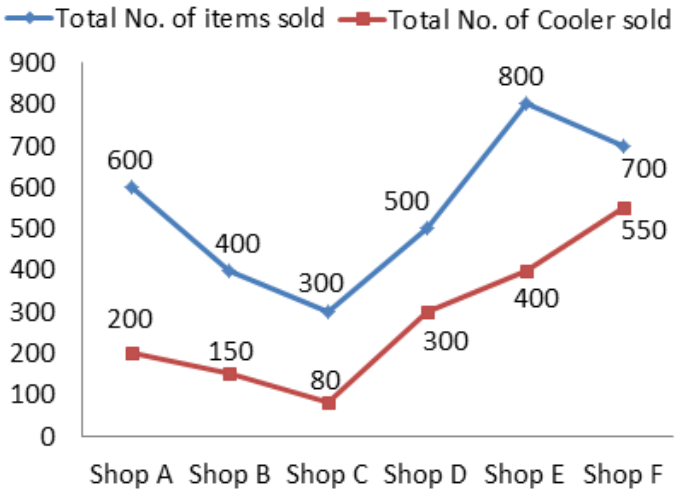
120. Total number of cars manufactured by Toyota and Honda together in 2017 is what percentage of the number of cars manufactured by Hyundai and Mahindra together in 2017?

A. 10% B. 80% C. 90% D. 20% E. 25%

SET – 25

Directions : Study the following line and table chart carefully and answer the questions given beside.

The following line graph shows the total number of items sold by different shops from January to June 2019.



The following table shows the ratio of defective Cooler sold to the defective AC sold

Shops	Cooler : AC
Shop A	2 : 1
Shop B	5 : 6
Shop C	1 : 2
Shop D	4 : 1
Shop E	1 : 1
Shop F	3 : 1

Note: The total number of items = Cooler + AC + Others

121. In shop A, the ratio of total number of AC sold to that of the total number of Others items sold is 1 : 3 and the total number of non-defective AC sold by shop A is 40, then find the total number of defective Coolers sold by shop A?

A. 50 B. 120 C. 130 D. 140 E.160

122. If the total number of others items sold by shop B and shop C together is 180, then find the difference between the total number of AC sold by shop B and shop C together to that of the total number of Coolers sold by shop E and shop F together?

A. 660 B. 720 C. 740 D. 680 E. 590

123. The total number of defective AC sold by shop D is "X" and the total number of others items sold by shop D is "4X". If the total number of non-defective Coolers sold by shop D is 220, then find the value of "4X".

A. 100 B. 80 C. 60 D. 120 E. 40

124. If in shop F, 10% of the others items were sold out of the total number of items sold. The total number of AC sold by shop F is equal to the total number of Others items sold by Shop C, then the total number of AC sold by shop C is what percentage of the total number of Coolers sold by shop C?

A. 225% B. 150% C. 100% D. 175% E. 115%

125. If the average number of AC sold by all shops is 140, then find the difference between the total number of Coolers sold by all shops together to that of the total number of Others items sold by all shops together?

A. 850 B. 950 C. 900 D. 1100 E. 1050

SET – 26

Directions: Study the following information carefully and answer the questions given beside.

A train started running from source station P to its destination station Q. There were three intermediate stations i.e. A, B and C between station P and station Q in the given order and the fare between any two consecutive stations was Rs. 5. The total number of passengers boarded at station P was 2280. The ratio of the number of passengers boarded and left the train at station A was 9 : 7, respectively and the total tickets sold for station Q at station B was 140 and the total number of Rs. 5 tickets sold at station B was 210. The ratio of the total number of passengers who left the train at station A and at station B was 7 : 6, respectively. The total amount earned by selling Rs. 5 tickets at station P was Rs. 2800 and the total number of passengers left the train at the station Q was 1740. The total amount earned by selling tickets at the station C was Rs. 1250.

126. How many passengers had left the train at station C?

A. 780 B. 820 C. 850 D. 940 E. 760

127. The ratio of the number of Rs. 5, Rs. 10, Rs. 15 and Rs. 20 tickets sold at the station P was 14: 6 : 8 : 29, respectively. Find the number of Rs. 5 tickets sold at the station A.

A. 228 B. 270 C. 240 D. 300 E. 264

128. How many passengers were on the train between station B and station C?

A. 2190 B. 2580 C. 2640 D. 2310 E. 2420

129. The per person average weight of the passengers travelling in the train from station A to station B was 35 kg and the resultant weight of the train (including the passengers) was 200 ton then find the weight of the train only. (1 ton = 1000 kg)

A. 114.6 ton B. 118.4 ton C. 115.2 ton D. 116.8 ton E. 124.2 ton

130. Find the total amount collected at the station B on selling all the tickets.

A. Rs. 2250 B. Rs. 2450 C. Rs. 2600 D. Rs. 3000 E. Rs. 2500

SET – 27

Directions: Study the following table chart carefully and answer the questions given beside.

The chart shows the number of employees in various department in 5 companies.

	ABC Group	JMD	BCGI	Younker	Zelman
TECHNICAL	200	350	270	70	120
OPERATIONS	175	200	150	340	180
H.R	50	30	25	35	20
FINANCE	300	50	120	100	75

131. Find the ratio of employees of Technical, Operations and Finance between BCGI and Younker companies.

A. 18 : 17 B. 17 : 16 C. 19 : 21 D. 32 : 33 E. None of these

132. What percentage of total employees are in Operations department for all companies?

A. 36.53% B. 35.23% C. 37.42% D. 29.82% E. None of these

133. Find the average number of employees from the Technical department hired by all companies taken together.

A. 200 B. 205 C. 198 D. 198 E. None of these

134. What is the percentage of technical and operations employees in BCGI as compared to operations and H.R employees in Younker?

A. 12% B. 108% C. 114% D. 96% E. None of these

135. What is the percentage of H.R employees in Zelman?

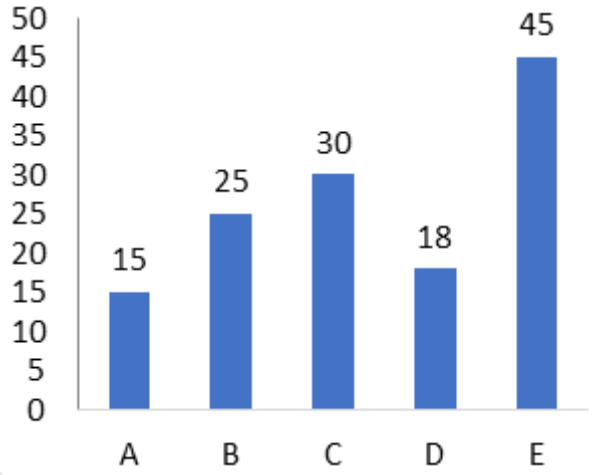
A. 7% B. 5.06% C. 4.98% D. 5.6% E. None of these

SET – 28

Directions: Study the following bar chart carefully and answer the questions given beside.

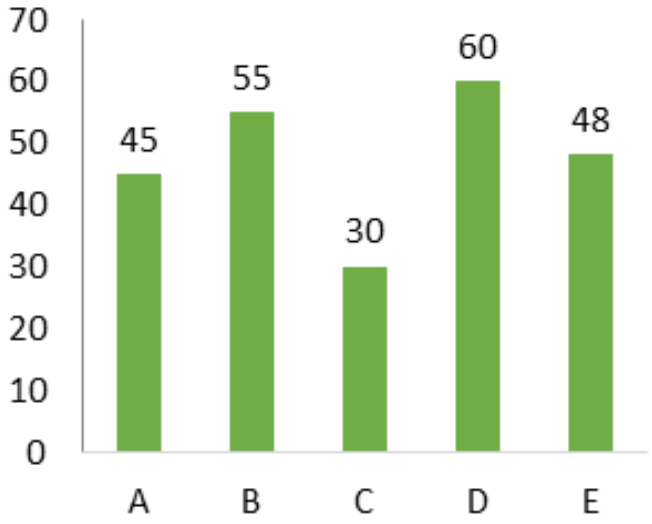
Below chart shows the City wise Population in thousands.

Total Population In thousands



Below chart shows percentage of Male population out of total population of that particular village.

Percentage of Males



136. What is the ratio of Number of Males of City C to that of City E?

A. 5 : 12 B. 4 : 7 C. 1 : 5 D. 2 : 7 E. 8 : 5

137. What is the approximate average number of Males from City A, B and D?

A. 10966 B. 10433 C. 11533 D. 12677 E. 13400

138. Number of Females in City C is what percent more or less than number of males in City D?

A. 55.55% B. 66.67% C. 47.44% D. 94.44% E. 37.5%

139. Population of City F is 25% more than population of Village E. If the ratio of Males to Females in F is 7 : 8, then Females of City F is what percent of Females of City A ?

A. 343.43% B. 437.63% C. 369.69% D. 363.63% E. 400%

140. If 70% Male and 30 % Female population in City B are literate, then what is the total number of illiterate persons in City B?

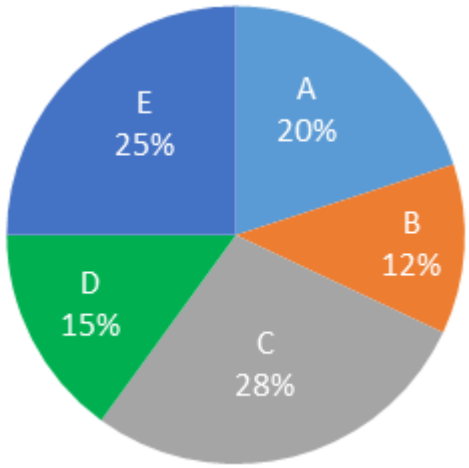
A. 12000 B. 13000 C. 12750 D. 14250 E. 10500

SET – 29

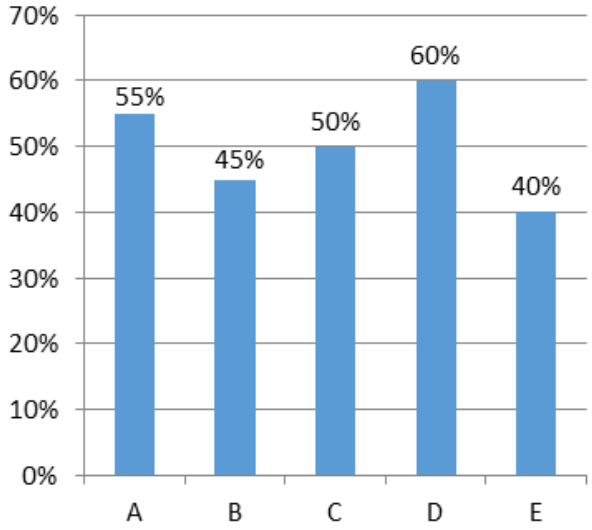
Directions : Study the following pie and bar chart carefully and answer the questions given beside.

The pie chart below shows the number of students in each school A, B, C, D and E as percentage of total number of students in five schools together. Total number of students in all five schools together is 7500.

Number of students as percentage



The bar chart below shows the percentage of girls in each school as total number of students in each school.



141. What is the difference between number of boys in school B and number of girls in school D?

A. 160 B. 140 C. 180 D. 120 E. 150

142. Out of total number of students in schools A and C, 20% and 30% of girls respectively and 40% and 22% of boys respectively got A+ grade in annual exam. How many students from these two schools together got A+ grade?

A. 920 B. 960 C. 941 D. 981 E. 962

143. What is the ratio of number of boys in schools C and D together to number of girls in schools A and D together?

A. 5 : 3 B. 2 : 3 C. 1 : 1 D. 1 : 4 E. 8 : 5

144. School fee of each student in schools B and E is Rs. 2500 and Rs. 3200 respectively per month. Find the sum of revenue earned by both schools together.

A. Rs. 82.5 lakhs B. Rs. 78.5 lakhs C. Rs. 72.5 lakhs D. Rs. 88.5 lakhs E. Rs. 85.5 lakhs

145. 23%, 28% and 32% of total number of students from schools A, B and E use school bus to travel for school from their homes. What is the number of students who use school bus in these three schools?

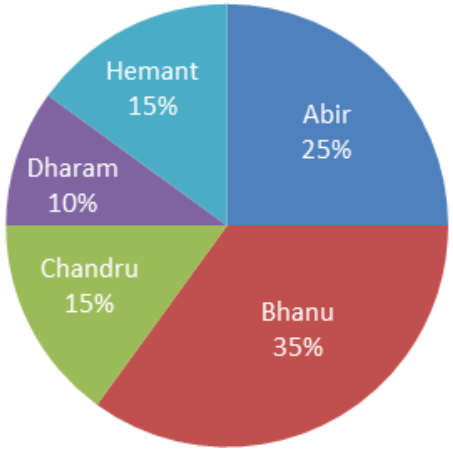
A. 1126 B. 1197 C. 1127 D. 1156 E. 1184

SET – 30

Directions: Study the following pie chart carefully and answer the questions given beside.

Pie-chart given below shows investment (in terms of percentage) out of total investment of five different persons.

Total Investment = Rs. 160,000



146. Bhanu and Hemant started a business together. Bhanu left the business 9 months after starting of business but Hemant continued for the entire year. Find the difference between profit shares of Bhanu and Hemant if total profit at the end of the year is Rs. 15400?

A. Rs. 4200 B. Rs. 4500 C. Rs. 4800 D. Rs. 3600 E. None of these

147. Abir and Dharam started a business together but after 6 months Abir is replaced by Hemant. Dharam left the business 2 months after Abir while Hemant worked for total 'x' months. Out of total profit of Rs. 13050, Abir got Rs. 6750, and then find the value of 'x'?

A. 3 B. 6 C. 5 D. 4 E. 7

148. Abir, Sanjay and Chandru started a business together. Sanjay invested Rs. 4000 more than amount invested by Chandru. Sanjay left the business after 6 months of starting of business. After 2 months more, Chandru left the business. Out of the annual profit if Abir and Chandru together got Rs. 8736, then find total annual profit?

A. Rs. 12200 B. Rs. 13300 C. Rs. 11400 D. Rs. 16500 E. None of these

149. Find the average of the investment of Abir, Bhanu, Dharam and Hemant together?

A. Rs. 40000 B. Rs. 34000 C. Rs. 24000 D. Rs. 45000 E. Rs. 28000

150. The investment of Chandru is how much percent more/less than the investment of Dharam?

A. 50% more B. 33.33% more C. 33.33% less D. 50% less E. None of these

SET – 31

Directions: Study the following table chart carefully and answer the questions given beside.

The following table chart shows the initial investment of three business partners over the years:

Years	A	B	C
2014	4500	2200	4800
2015	4000	2800	4500
2016	5000	2500	4000
2017	8000	3000	3000
2018	6500	4200	3800

151. In 2016, if A invested Rs. 1000 more after 4 months and B invested Rs. 2000 more after 6 months and C did not participate, the profit after one year was Rs. 24750. Find the difference between the share of profit of A and B.

A. Rs. 5820 B. Rs. 5850 C. Rs. 4850 D. Rs. 5580 E. None of these

152. In 2018, A and B tied up together in the business and they did not invest after initial investment. If the share of C was Rs. 1368, what was the total profit in that year?

A. Rs. 5220 B. Rs. 2520 C. Rs. 3860 D. Rs. 4750 E. Rs. 3220

153. Whose initial investment was decreasing continuously for 3 years?

A. A B. B C. C D. A & C E. None of these

154. The average investment of C is approximately what percentage of the average investment of A , for the given years?

A. 92% B. 84% C. 64% D. 72% E. 78%

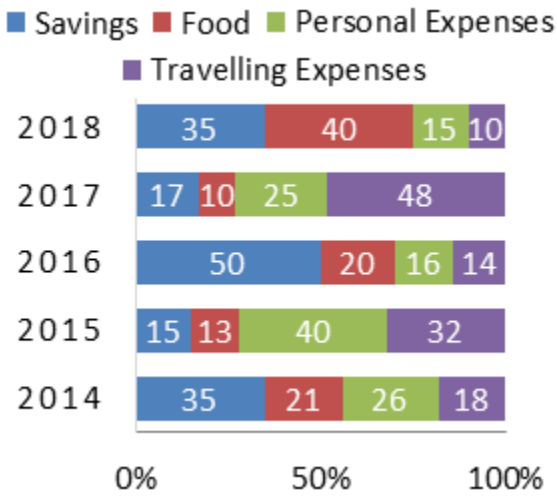
155. In 2015, A invested Rs. 2000 more after 6 months, B invested Rs.1200 more after 4 months and C took back Rs. 500 after 4 months. If the profit at the end of the year was Rs. 19150, what was the share of B?

A. Rs. 5000 B. Rs. 4200 C. Rs. 5400 D. Rs. 5800 E. Rs. 4800

SET – 32

Directions: Study the following bar chart carefully and answer the questions given beside.

The following bar graph shows the percentage break-up of Nitin's salary from year 2014 to 2018.



156. If the ratio of savings in the year 2015 and 2018 are in the ratio of 3 : 5, then what is the ratio of personal expenses in the year 2015 and 2018.

A. 56 : 5 B. 8 : 15 C. 56 : 15 D. Can't be determined E. None of these

157. If the saving in 2014 is 80% of the saving in 2016, then what is the total expenditure on food in 2014. (Given that total expense in 2016 is INR 1,85,000)

A. INR 40, 400 B. INR 44, 400 C. INR 21, 100 D. INR 45, 100 E. None of these

158. Every year if there is an increase of 100% in monthly salary as compared to previous year's monthly salary, then what is the ratio of monthly salary in 2018 to the expenses on travelling in 2015.

A. 8 : 1 B. 1 : 25 C. 80 : 3 D. 25 : 1 E. None of these

159. If the total salary in the year 2013 is INR 3,00,000 and there is an increase of 18% in the year 2014, then find his travelling and personal expenses combined in the year 2014?

A. INR 1,53,740 B. INR 1,40,330 C. INR 1,50,740 D. INR 92,400 E. INR 1,55,760

160. What is the percentage of average money spent by Nitin on food of average money saved by him during all these years, if his salary per annum for each year was INR 5,00,000?

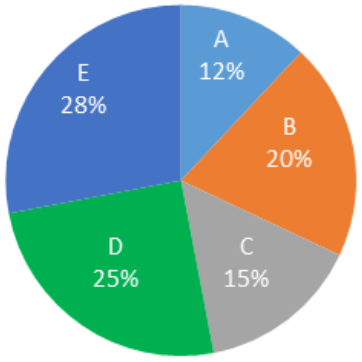
A. 65.54% B. 70.38% C. 68.42% D. 63.15% E. 66.24%

SET – 33

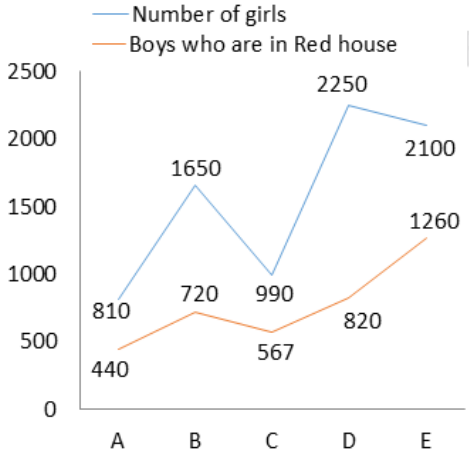
Directions : Study the following pie and line chart carefully and answer the questions given beside.

The pie chart shows the number of students study in five different schools as percentage of total number of students study in all five schools A, B, C, D and E. All the students of the schools are divided in two houses Red and Green. Total student in all five schools is 15000.

Percentage of students



The line graph shows the number of girls and number of boys who are in red house in each of the five schools.



161. If ratio of number of girls in green house to red house in school B is 16:17 then find difference between number of boys and girls in green house.

A. 140 B. 180 C. 120 D. 170 E. 210

162. What is the ratio of girls in red house to green house in school C if total number of students in green house of school C is 1083?

A. 18 : 11 B. 11 : 15 C. 20 : 13 D. 24 : 19 E. 10 : 3

163. Number of boys in green house of school A is what percent of number of girls in green house of school A if total students in red house of school A is 750?

A. 110% B. 120% C. 90% D. 70% E. 150%

164. What is the total number of students in red house of school E if number of girls in green house of school E is 1155?

A. 2245 B. 2205 C. 2285 D. 2175 E. 2255

165. What percent of girls are in green house out of total girls of school D if number of girls in red house of school D is 305 more than the boys in same house?

A. 40% B. 50% C. 20% D. 60% E. 80%

SET – 34

Directions: Study the following table chart carefully and answer the questions given beside.

The following table shows the number of different items in different shops and their respective Selling Price.

Shops	Total No. of Items	AC : Cooler : Fan	Selling Price		
			AC	Cooler	Fan
A	5000	4 : 5 : 1	8000	25000	8500
B	1800	3 : 2 : 4	10000	20000	16000
C	3400	6 : 4 : 7	6000	42000	15000
D	3600	4 : 2 : 3	12000	32000	8000
E	4000	5 : 1 : 4	8000	26500	12200
F	1210	2 : 4 : 5	11000	28000	11100

166. Find the number of Fans in all the shops together.

A. 8052 B. 6050 C. 7582 D. 9622 E. None of these

167. Find the percentage of total income which comes from Cooler from shop D.

A. 47.05% B. 59.12% C. 42.15% D. 39.31% E. None of these

168. Find the total income earned by shop C?

A. Rs. 23,560,000 B. Rs. 61,450,000 C. Rs. 61,800,000 D. Rs. 32,654,000 E. None of these

169. How much percent Income in Shop F is from AC?

A. 11.6% B. 18.18% C. 16.24% D. 319.89% E. None of these

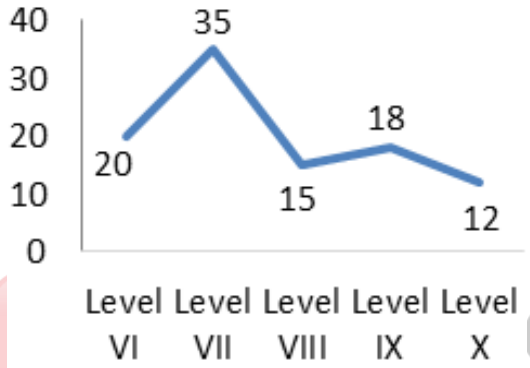
170. What is the ratio between the earnings by sale of Fan in shop B and shop E?

A. 20 : 51 B. 39 : 70 C. 40 : 61 D. 64 : 91 E. None of these

SET – 35

Directions : Study the following line chart carefully and answer the questions given beside.

The following line graph shows the percentage breakup of students studying in DPS Dehradun, from level VI to X in the year 2019.



Note : The total number of students in the school is 2200.

171. The total number of students in level VI and level IX together is what percentage more than that of the total number of students in level X?

A. 125.33% B. 215.33% C. 216.67% D. 316.67% E. None of these

172. If in level VI, the ratio of boys to girls is 6 : 5 and the total number of girls in level VI is 50 less than that of the total number of girls in level VII, then find the ratio of the total number of boys in level VI to level VII.

A. 5 : 7 B. 7 : 11 C. 9 : 13 D. 6 : 13 E. 4 : 5

173. If in 2020, the total number of students in level VI and level VII is increased by 10% each and the total number of students in level VIII is decreased by 20% then what is the difference between the total number of students in level VI and VII together in 2020 to that of the total number of students in level VIII in 2020?

A. 976 B. 1067 C. 1156 D. 1078 E. 878

174. The total number of boys in level VIII is "x" and the total number of boys in level IX is "x + 40". If the total number of girls in level VIII and level IX together is 306, then find the value of "x".

A. 190 B. 210 C. 174 D. 184 E. 196

175. What is the difference between the total number of students in level VII and level VIII together to that of the total number of students in level IX and level X together?

A. 480 B. 520 C. 440 D. 400 E. 560

SET – 36

Directions: Study the following information carefully and answer the questions given beside.

There are 5600 students in KIIT University in the academic year 2017. The ratio of the boys to the girls in the University is 4 : 3. All the students are enrolled in different extra-curricular activities (Singing, Dancing, Debating, Painting and Athletics) and one student is enrolled in only one extra-curricular activity. The number of boys enrolled in the Painting is 612. The ratio of the number of boys who enrolled in Singing to the number of boys who enrolled in Dancing is 72 : 89. 32% of the students are enrolled in Athletics. The number of boys enrolled in Debating is 12.5% to the total number of boys. The number of girls enrolled in Athletics is 570 which is 150 less than the number of girls enrolled in Dancing. The number of girls enrolled in Singing is 186 more than the number of boys enrolled in the same activity. The total number of students enrolled in Painting is 816.

176. The difference in the number of boys and girls who are enrolled in Painting is what percentage of the total number of students who are enrolled in Debating?

A. 45% B. 59% C. 65% D. 55% E. 71%

177. Find the percentage of students of the university who are enrolled in Singing.

A. 14% B. 24% C. 22.25% D. 18.75% E. 17.25%

178. Find the ratio of the number of boys enrolled in Dancing to the number of girls enrolled in the same activity.

A. 7 : 11 B. 117 : 139 C. 89 : 120 D. 57 : 71 E. None of these

179. The total number of girls in Athletics is what percentage of the total number of students in Athletics?

A. 22% B. 28% C. 32% D. 39% E. 45%

180. Find the number of girls who are enrolled in Debating.

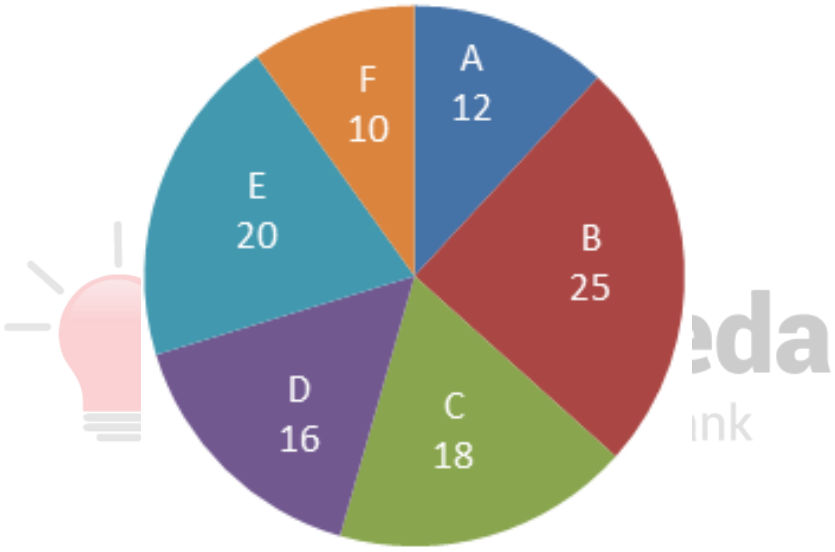
A. 304 B.288 C.324 D. 372 E. 254

SET – 37

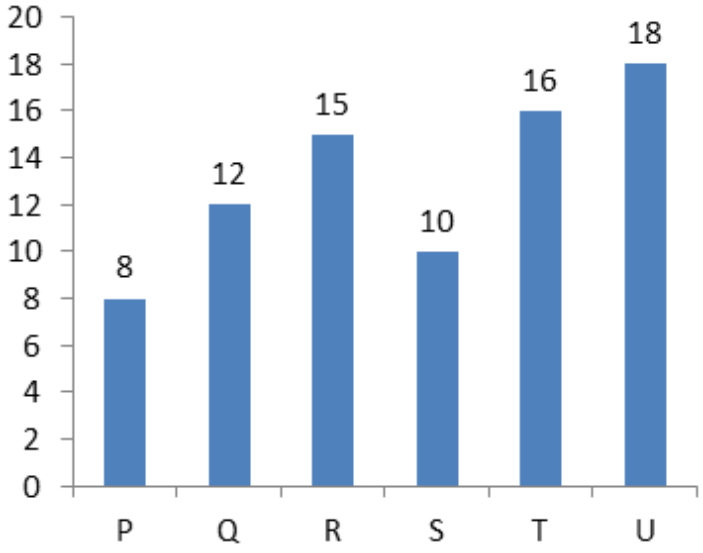
Directions : Study the following pie and bar chart carefully and answer the questions given beside.

The following pie chart shows time (in hrs) taken by the different pipes to fill a swimming pool and the bar graph shows time (in hrs) taken by different pipes to empty the same pool.

Time taken by different pipes to fill the pool



Time taken by different pipes to empty the pool



181. Pipes A, C and E were opened together at 2:00 pm to fill the pool but at 3:00 pm the Pipe C was closed and both the remaining pipes were opened till 4:00 pm, then find the percentage of pool that was filled during this time?

A. 30.15% B. 35.22% C. 25.67% D. 32.22% E. 20.33%

182. Pipes D and F were opened together to fill the pool but after 4 hours pipe Q was also opened, then find the total time taken to fill the pool?

A. 12.23 hours B. 8.42 hours C. 13.24 hours D. 15.44 hours E. 16.32 hours

183. If the Pipes A, B and E were opened for 1 hour alternatively starting with Pipe A, then Pipe E and then Pipe B, then find the time required by these pipes to fill the pool?

A. 12 hours B. 15 hours C. 17 hours D. 20 hours E. 26 hours

184. Two pipes E and F were opened together to fill a pool. After 3 hours pipe D was also opened to fill the pool but by mistake Pipe S was opened in place of Pipe D. When it was noticed after 1-hour Pipe S was closed and the pipe D was opened. What is the total time required to fill the pool?

A. 6.35 hours B. 4.54 hours C. 9.04 hours D. 8.25 hours E. None of these

185. Pipes P, Q and T were used together to empty a full pool. Find the time after which Pipe T should be closed so that the pool gets emptied in 4.5 hours.

A. 3 hours B. 2 hours C. 1 hour D. 4 hours E. 8 hours

SET – 38

Directions: Study the following table chart carefully and answer the questions given beside.

The table shows the Ratio of the Marked price and cost price of the items and the discount % and the profit earned by Mohit. Some data is missing.

Items	Marked price : Cost price	Discount %	Profit (Rs)
Gulab Jamun	25 : 18	-	63
Rasgulla	-	8%	48
Ras Malai	-	20%	-
Kajju Katli	6 : 5	-	-
Laddu	25 : 18	-	45

186. Cost price of Ras Malai is as same as the cost price of Rasgulla. The marked price of Rasgulla is 25% more than the cost price. Find the profit earned by Mohit after selling the Ras Malai if the marked price of Ras Malai is 56.25% more than the cost price of Ras Malai.

A. Rs. 60 B. Rs. 80 C. Rs. 100 D. Rs. 120 E. None of these

187. If the difference between the cost price and the marked price of Kajju Katli is Rs 100 and profit earned by Mohit is Rs 70. Find the ratio of the discount % and profit %.

A. 5 : 14 B. 6 : 11 C. 4 : 9 D. 3 : 10 E. None of these

188. The discount given by Mohit is Rs 40 less than the profit earned by Mohit on Kajju Katli. If the Marked price of Kajju Katli is Rs 600, find the discount %.

A. 5% B. 15% C. 8% D. 12% E. 10%

189. If the Discount given by Mohit on Gulab Jamun is Rs 35, find the difference between the discount % and profit% given by Mohit on Gulab Jamun.

A. 20% B. 12% C. 15% D. 22% E. None of these

190. With the help of information given in previous questions, find the average profit earned by Mohit on selling all the sweets.

A. Rs. 50.5 B. Rs. 75 C. Rs. 58.3 D. Rs. 63 E. None of these

SET – 39

Directions: Study the following information carefully and answer the questions given beside.

In the year 2017, India produces 125000 tons of Apples and exports it to five countries named China, US, Italy, Chile and France in the ratio 45 : 35 : 30 : 24 : 16. In the next year India increased its export quantity by 20% thereby increasing the export share to 80% from 60% while the remaining Apples were kept by India. India ranked these 5 countries according to the Quantity of Apples they imported (Rank 1 – Maximum, Rank – 5 Minimum). In 2018 the sum of percentage share of top 4 countries was 88. These percentage shares were in consecutive prime numbers. Later on, France declined its share and it was distributed equally among remaining four countries. Also, there was no upset in ranking of the countries in both the years.

191. Find the percentage increase in final Quantity of Apple in Chile from 2017 to 2018.

A. 50% B. 27.5% C. 35% D. 32.5% E. None of these

192. What was the additional Quantity of Apples(in tons) imported to Italy when France declined its share in 2018.

A. 2000 B. 2700 C. 3000 D. 2250 E. None of these

193. What was the percent Change in the production of Apples in 2018?

A. 10% B. 11.11% C. 21% D. 12.5% E. None of these

194. Which of these can be the percentage share of China in 2018?

A. 32% B. 26% C. 22% D. 20% E. Can't be determined

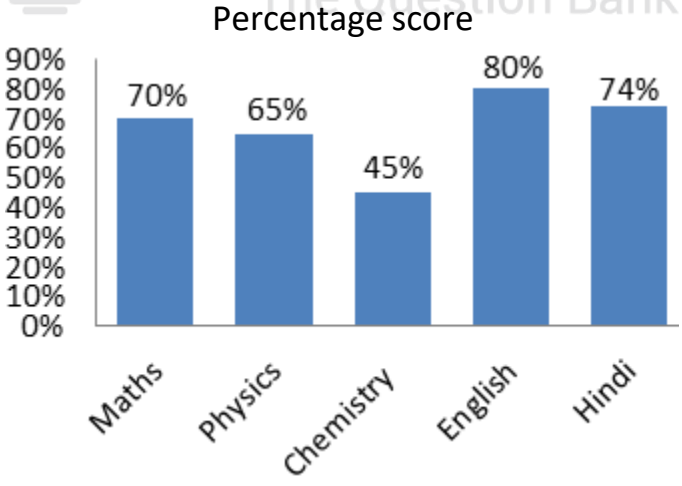
195. Profit earned by Indian in exporting Apples to China, US, Italy Chile and France is 180, 176, 224, 92 and 98 rupees/tonne respectively. Find the total profit earned by India in 2017?

A. 12378×10^3 B. 13287×10^3 C. 13286×10^3 D. 14478×10^3 E. None of these

SET – 40

Directions: Study the following bar chart carefully and answer the questions given beside.

The chart given below shows the percentage marks of a student in five different subjects. The maximum marks in each subject are 150.



196. What is the aggregate percentage score of all the subjects combined?

A. 62.5% B. 75% C. 66.8% D. 70% E. 68%

197. What is the average score of Physics, Chemistry and English?

A. 102 B. 105 C. 90 D. 85 E. 95

198. The total score of Physics and Chemistry is what percent of the score of English?

A. 120% B. 137.5% C. 140% D. 125% E. 115%

199. The total marks deducted in Maths and Hindi is what percent of the score obtained in Maths?

A. 75% B. 90% C. 80% D. 85% E. 72%

200. The difference between the total obtained score in English and Maths is what percent of the difference between the deducted score in Physics and Chemistry?

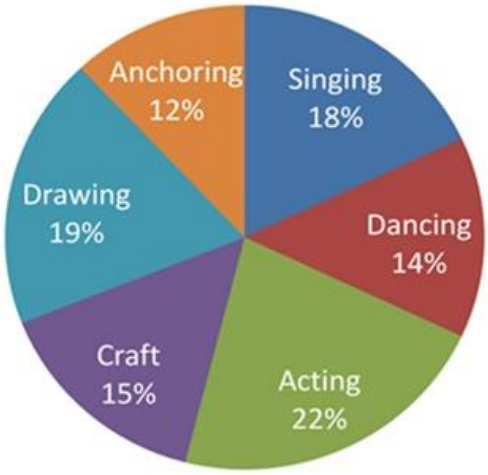
A. 37.5% B. 40% C. 36% D. 60% E. 50%

SET – 41

Directions : Study the following pie and table chart carefully and answer the questions given beside.

The pie chart show the percentage of the students who took part in different activities and table shows the ratio of the boys and girls.

Total Students = 5400



Activity	Boys : Girls
Singing	4 : 5
Dancing	3 : 4
Acting	6 : 5
Craft	3 : 2
Drawing	1 : 2
Anchoring	3 : 1

201. What is the ratio of the boys who participate in craft and singing together and the girls who participate in Dancing and Drawing together?

A. 49 : 61 B. 51 : 62 C. 40 : 51 D. 62 : 41 E. None of these

202. What is the average number of boys participate in all activity?

A. 469 B. 502 C. 453 D. 463 E. 526

203. If 25% of the students who participate in Dancing, also participate in Craft and 20% of the students who participate in Craft, also participate in Dancing, find the ratio of the students who participate in only Dancing and only Craft.

A. 7 : 8 B. 2 : 3 C. 11 : 10 D. 13 : 17 E. None of these

204. The number of boys who participate in Anchoring is what percent of the girls who participate in Acting?

A. 85% B. 90% C. 92% D. 75% E. None of these

205. If the age of the 50% of the boys participate in Acting and 40% of the girls participate in Acting is below 16 years, find the number of students whose age is above 16 years participate in Acting.

A. 650 B. 465 C. 684 D. 556 E. None of these

SET – 42

Directions: Study the following information carefully and answer the questions given beside.

Five persons A, B, C, D and E were employed to complete a piece of work.

⇒ All the five persons A, B, C, D and E worked for different number of days, i.e. 5, 4, 4, 4 and 'n' days respectively.

⇒ The percentage of work done by A, B, C and E is 25%, 20%, 10% and 20% respectively and the remaining percentage of work is done by D.

206. In how many days, A and D will do the whole work?

A. $\frac{80}{9}$ days B. $\frac{73}{9}$ days C. $\frac{70}{9}$ days D. $\frac{86}{9}$ days E. None of these

207. B and E together do the work in 100/11 days. In how many days E can do the whole work alone?

A. $\frac{20}{3}$ days B. $\frac{50}{3}$ days C. 25 days D. $\frac{100}{3}$ days E. 15 days

208. A & B, B & C, C & D do the work in the given combination and order as given respectively and the cycle repeats, then in how many days 40% work will be done?

A. 5.50 days B. 3.25 days C. 4.50 days D. 7.25 days E. None of these

209. 20% of the work was done by A and B, then 50% of the left work was done by D and at last the rest of work was done by B and C. Find the number of total days taken to do the whole work.

A. 15 days B. 16.43 days C. 13.73 days D. 12.5 days E. 14.48 days

210. F alone takes 15 more days than A alone to complete the whole work. If F works with 50% more efficiency, then in how many days he can do the whole work alone?

A. $\frac{78}{5}$ days B. $\frac{76}{3}$ days C. $\frac{73}{5}$ days D. $\frac{70}{3}$ days E. None of these

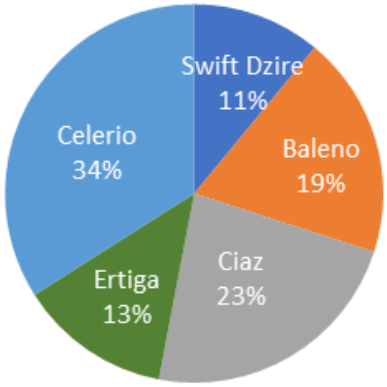
SET – 43

Directions: Study the following pie chart carefully and answer the questions given beside.

Maruti Suzuki manufactured 17,500 cars in the year 2018. Company has manufactured five different cars : Swift Dzire, Baleno, Ciaz, Ertiga and Celerio

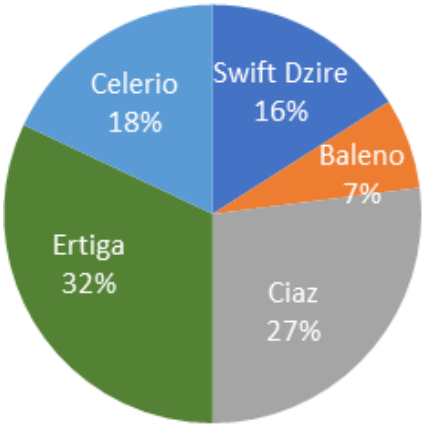
Following Pie Chart gives information about percentage wise distribution of different cars manufactured by Maruti.

Manufactured (Total 17,500)



Below pie chart gives the information about percentage wise breakup of cars sold in 2018.

Sold (Total 12,500)



211. What is the difference between numbers of Baleno & Ertiga Cars Sold together to number of Swift Dzire and Ciaz Manufactured together?

A. 1075 B. 1150 C. 1275 D. 2325 E. 1750

212. Celerio cars sold by Marutiis what percent less (approximate) than the Ciaz Cars manufactured by Maruti?

A. 39% B. 42% C. 44% D. 48% E. 51%

213. What is the ratio of Ertiga cars sold to that of Celerio Cars Manufactured?

A. 80 : 113 B. 80 : 119 C. 119 : 76 D. 113 : 84 E. None of these

214. If X denotes the average of Baleno, Ciaz and Ertiga Cars Sold by Maruti and Y denotes average of Swift Desire and Baleno cars manufactured by Maruti, then Y is what percent of X ?

A. 90.55% B. 97.50% C. 93.15% D. 95.45% E. 96.80%

215. In 2019, Maruti Manufactured 225 more Ertiga Cars than the Previous Year. Manufacturing of every other car in 2019 was increased by 175 than the previous year. What is the ratio between Ertiga Cars manufactured in 2019 to that of Ciaz Car manufactured in 2019 ?

A. 25 : 42 B. 25 : 44 C. 42 : 17 D. 23 : 18 E. None of these

SET – 44

Directions: Study the following table chart carefully and answer the questions given beside.

The following chart shows the percentage of people who bought different cars from 2013 to 2018.

Cars	Year					
	2013	2014	2015	2016	2017	2018
Bentley	10%	15%	20%	15%	10%	10%
BMW	5%	10%	25%	25%	20%	15%
Nissan	15%	15%	10%	20%	25%	20%

216. The population of the city increased by 20% from 2013 to 2014 and also from 2014 to 2015. The total number of people buying Bentley in these three years is what percent of the sum of the population of city in these three years?

A. 14.4% B. 19.2% C. 15.6% D. 18% E. 16.8%

217. The number of people buying BMW in 2016 and 2017 were same. If Nissan buyers increased by 5850 from 2016 to 2017, then what was the population of the city in 2017?

A. 60000 B. 58500 C. 55000 D. 65000 E. 52500

218. If the number of Bentley buyers doubled from 2014 to 2017, then the number of BMW buyers in 2017 was what percent more than the number of BMW buyers in 2014?

A. 250% B. 200% C. 500% D. 400% E. None of these

219. The ratio of the number of persons who bought BMW in 2013 and 2018 was 2 : 9. The population is expected to rise by the same percentage from 2018 to 2020 as it increased from 2013 to 2018. BMW targets to sell to 18% people in 2020. If this target is met, what will be the ratio of BMW buyers in 2020 and 2018?

A. 9 : 5 B. 5 : 2 C. 7 : 3 D. 9 : 4 E. 8 : 3

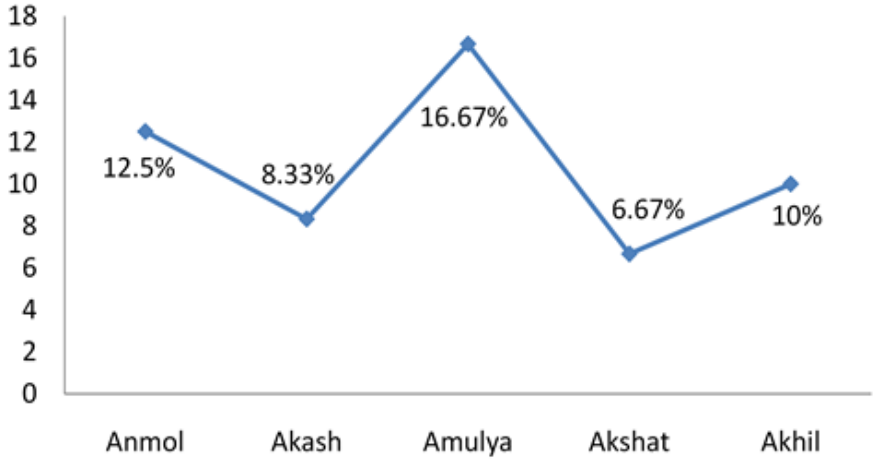
220. If the number of Nissan buyers doubled from 2013 to 2016, then find the ratio between the number of Bentley buyers in 2016 and the number of BMW buyers in 2013?

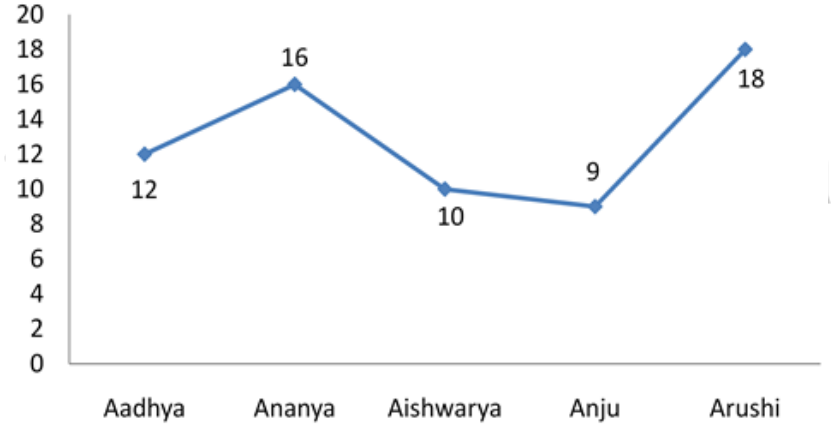
A. 9 : 2 B. 9 : 4 C. 9 : 5 D. 9 : 7 E. None of these

SET – 45

Directions : Study the following line chart carefully and answer the questions given beside.

The 1st graph shows the percentage efficiency of different boys and the 2nd one shows the number of days taken by different girls to do a certain piece of work.





221. If Amulya starts the work alone and after 2 days Aadhya joins him and after 1 day later Aarushi joins them, then, in how many days will the whole work be completed?

A. 4 days B. $4\frac{4}{11}$ days C. $5\frac{6}{11}$ days D. 6 days E. None of these

222. Akshat's efficiency is approximately how much percentage less than Anju's efficiency?

A. 46% B. 50% C. 40% D. 60% E. 65%

223. Akshat started the work alone but after 6 days he found that he had done only 30% of the work. If he wants to complete the work on time, by how much (percentage) should he increase his efficiency?

A. $16\frac{2}{3}$% B. 12% C. $37\frac{1}{3}$% D. 20% E. None of these

224. Anmol and Akhil start working together and after 3 days Anmol leaves the work and Ananya joins him and completes the work. If instead of Ananya, Aishwarya would have joined, find the difference between the number of days taken in both cases.

A. $\frac{1}{5}$ B. $\frac{3}{8}$ C. 1 D. $\frac{1}{2}$ E. None of these

225. What is the ratio of the number of days required if Aishwarya and Anmol work together to the number of days required if Akash and Arushi work together?

A. 81 : 50 B. 21 : 44 C. 40 : 63 D. 2 : 1 E. None of these

SET – 46

Directions: Study the following bar chart carefully and answer the questions given beside.

The value of exports/imports of a country (Rs. in 000' crores)

Trade Surplus = Exports – Imports
Trade deficit = Imports – Exports

226. For the period 2010 to 2014, what percentage of average exports is the cumulative trade deficit?

A. 17% B. 15% C. 16% D. 18% E. None of these

227. During the year 2013, the average cost of exports is Rs. 7000 per ton and that of imports is Rs. 6000 per ton. By what percent is the total tonnage of exports less than the total tonnage of imports in that year?

A. 25% B. 50% C. 66.67% D. 83.33% E. 33.33%

228. The percentage decrease of trade surplus from 2014 to 2015 is same as that from 2012 to 2014. Imports in 2015 increases by 20%. What is the value of exports in 2015 in thousands of crores?

A. 180 B. 185 C. 190 D. 195 E. 210

229. It is decided to increase the exports by 10% every year over its previous year for the next three years from 2014 and also decrease the imports by 10% in the same way. What will be the value of total trade(sum of export and import) after three years, approximately in thousands of crores of rupees?

A. 306 B. 414 C. 450 D. 470 E. 322

230. What is the ratio of the average of the Trade Surplus for the years – 2010, 2012 and 2014 to the average of the Trade Deficit for the years – 2011, 2013?

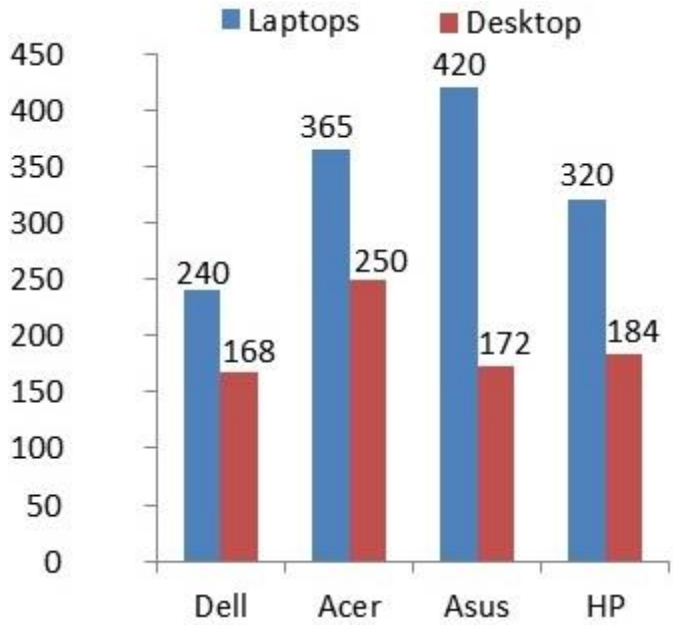
A. 15 : 8 B. 5 : 2 C. 8 : 15 D. 7 : 15 E. None of these

SET – 47

Directions : Study the following pie and bar chart carefully and answer the questions given beside.

Four companies Asus, Dell, Acer and HP sell Laptops, Desktops and Printers.

The chart given below shows the number of Laptops and Desktops sold by each company.



The table given below shows the printers sold as a percentage of the sum of Desktops, Laptops and Printers sold by each company.

Company	Printers
Dell	15%
Acer	18%
Asus	26%
HP	28%

231. The total number of printers sold by Dell is what percent of total number of printers sold by Acer?

A. 45.55% B. 53.33% C. 62.5% D. 48.75% E. None of these

232. What is the average number of products (Laptops, Desktops & Printers) sold by Acer and Asus?

A. 785 B. 765 C. 775 D. 780 E. 795

233. What is the difference between the total laptops sold by Dell, Acer and Asus and the total Desktops sold by Acer, Asus and HP?

A. 421 B. 429 C. 389 D. 431 E. None of these

234. What is the difference between the total number of Desktops and Printers sold by Acer and Asus together and the total number of Laptops, Desktops and Printers sold by HP?

A. 55 B. 75 C. 72 D. 65 E. None of these

235. The total printers sold by Asus and HP together are what percent of the total Laptops sold by Asus and Desktops sold by Acer?

A. 62.75% B. 63.125% C. 65.25% D. 58.125% E. None of these

SET – 48

Directions: Study the following information carefully and answer the questions given beside.

Three online hotel booking website A, B and C listed some hotels on their websites. The all listed 3 star, 4 star and 5 star hotels. One hotel can be listed on exactly one website.

Further it is known that
(I) Total number of hotels listed on all three website together is 720.

(II) Total number of 4 star hotels is twice the total number of 3 star hotels on all the three websites taken together. Further, total number of 5 star hotels is thrice the total number of 4 star hotels on all three sites together.

(III) Out of 200 hotels listed on Websites A, 30% are 3 star hotels.
(IV) Ratio of 5 star hotels on sites A,B and C are 1 : 1 : 2.

(V) Number of 5 star hotels on B website is 20% more than number of 4 star hotels on the same website.
(VI) Number of 3 star hotels on website B and C are same.

236. What is the total number of 4 star hotels from website A and C together ?

A. 80 B. 70 C. 60 D. 360 E. 50

237. What is the difference between 3 star hotels on site A and 4 star hotels on site C ?

A. 20 B. 10 C. 30 D. 50 E. 80

238. 4 Star Hotels on Site B is what percent of total number Hotels on Site A ?

A. 25% B. 75% C. 80% D. 20% E. 50%

239. What is the total number of Hotels listed on Website C ?

A. 290 B. 230 C. 200 D. 190 E. None of these

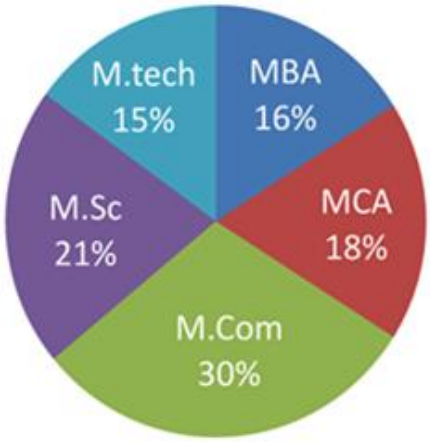
240. Website D also started listing of Hotels on their site. Number of 3 star hotels on site D is 50% more than number of 4 star hotels on site A. Total number of hotels (3 star, 4 star and 5 star) on site D are 500, out of which 50% are 4 star. Find the number of 5 star hotels listed on site D.

A. 210 B. 220 C. 250 D. 190 E. None of these

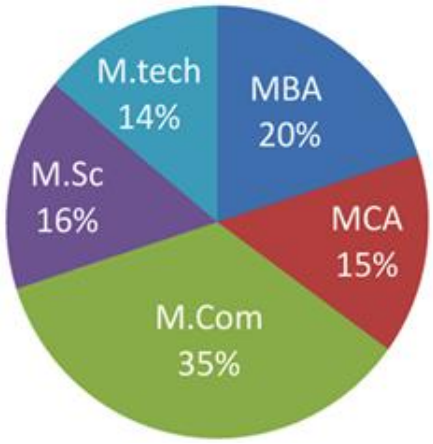
SET – 49

Directions: Study the following pie chart carefully and answer the questions given beside.
The charts show the number of students who applied for different courses and qualified in that courses.

Total number of students who applied = 21000



Total number of students who qualified = 15000



241. The number of students who qualified in M. Tech is approximately how much % of the number of students who applied for M. Tech?

A. 33% B.. 67% C. 50% D. 75% E. None of these

242. If the number of female students who applied for M.com is 50% more than the number of male students who applied for M.com, find the numbers of male students who applied for M.com.

A. 2650 B. 2590 C. 2450 D. 2520 E. None of these

243. Find the difference between the number of students who applied for M.Sc. and MBA and the number of students who qualified in the same course.

A. 2520 B. 2460 C. 2390 D. 2100 E. None of these

244. What is the ratio between the number of students who applied for MCA and the number of students who qualified in the same course?

A. 42 : 25 B. 25 : 49 C. 25 : 19 D. 21 : 25 E. 42 : 29

245. What is the average of the number of students who qualified in M.Tech, M.Sc. and MCA course?

A. 2150 B. 2220 C. 2250 D. 2050 E,. None of these

SET – 50

Directions: Study the following table chart carefully and answer the questions given beside.

Two movies Bahubali and Robot 2.0 are released in three theatres INOX, PVR and Galaxy. On Friday a total of 4500 people watched Bahubali and 4000 people watched Robot 2.0.

The table below shows the percent distribution of total viewers of a particular movie into three theatres.

Theatre	Bahubali	Robot 2.0
INOX	40%	35%
PVR	35%	25%
Galaxy	25%	40%

The viewers are classified on the basis of age as adults and children. The table below shows the percentage of children out of the total viewers in each theatre for each movie.

Theatre % of Children	Bahubali	Robot 2.0
INOX	15%	20%
PVR	16%	18%
Galaxy	20%	17%

246. What is the ratio of the number of children who watched Bahubali in PVR to the children who watched Robot in PVR?

A. 9 : 11 B. 7 : 13 C. 9 : 7 D. 7 : 5 E. None of these

247. The number of children who watched Bahubali in INOX is what percent of the number of adults who watched Bahubali in Galaxy?

A. 32% B. 30% C. 45% D. 27% E. None of these

248. What is the difference between the total viewers in INOX and PVR?

A. 625 B. 650 C. 480 D. 520 E. None of these

249. What is the ratio of the sum of adults and children who watched Robot in INOX and PVR respectively to the sum of adults and children who watched Bahubali in Galaxy and INOX respectively?

A. 14 : 11 B. 11 : 9 C. 10 : 9 D. 13 : 7 E. None of these

250. The average number of children who watched Robot is what percent of the average number of adults who watched Bahubali?

A. 21.33% B. 15.78% C. 18.67% D. 19.50% E. None of these

SET – 51

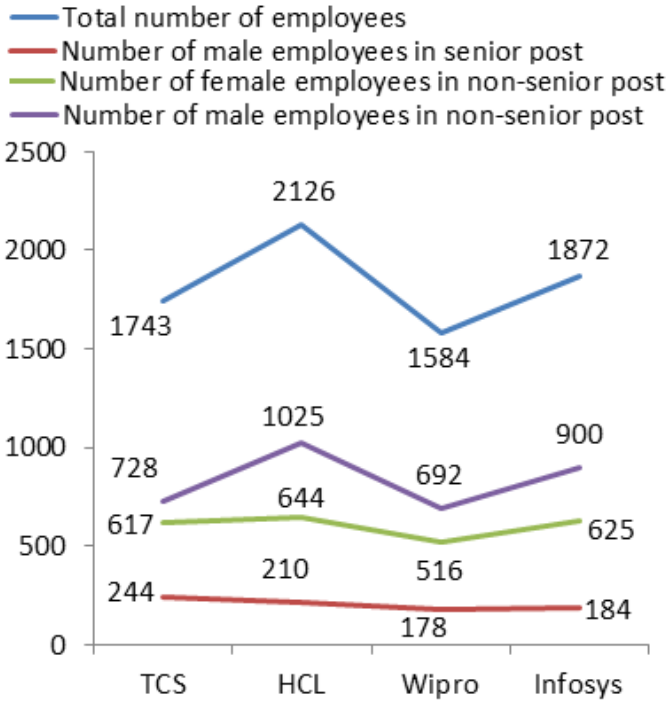
Directions : Study the following line chart carefully and answer the questions given beside.

The line chart below shows the number of employees and the number of male employees in four different companies.

Note 1: Total number of employees = Number of (male + female) employees

Note 2: Total number of male employees = number of male employees in senior post + number of male employees in non-senior post

Note 3: Total number of female employees = number of female employees in senior post + number of female employees in non-senior post



251. The total numbers of male employees in all the companies together is what percentage of the total number of employees in all the given companies together?

A. 64.2% B. 56.8% C. 53.6% D. 61.2% E. None of these

252. Find the difference between the total number of males in non-senior post in all the companies together and the total number of females in non-senior post in all the companies together.

A. 911 B. 824 C. 778 D. 943 E. None of these

253. Find the ratio of the total number of male employees in senior post in all the companies together to the total number of female employees in senior post in all the companies together.

A. 14 : 11 B. 141 : 130 C. 136 : 127 D. 47 : 77 E. None of these

254. Find the average number of female employees in each company.

A. 818 B. 743 C. 791 D. 798 E. None of these

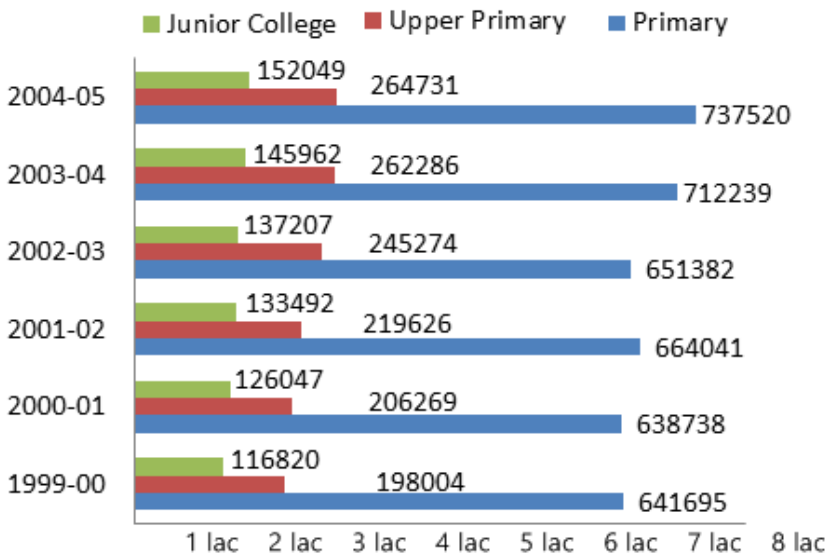
255. Find the difference between the number of male employees in senior post in TCS and HCL together and the number of female employees in senior post in Wipro and Infosys together.

A. 87 B. 93 C. 81 D. 97 E. None of these

SET – 52

Directions: Study the following bar chart carefully and answer the questions given beside.

Number of educational institutions in India



256. Which of the following year has seen the maximum percentage growth in the number of upper primary institutions over the previous year?

A. 2000 – 01 B. 2001 – 02 C. 2002 – 03 D. 2003 – 04 E. 2004 – 05

257. Which of the following statement is definitely true?

A. The increase in percentage share of Upper Primary Institutions in the year 2000–01 over the previous year is more than the decrease in percentage share of Primary Institutions in the same period
B. The decrease in percentage share of Upper Primary Institutions in the year 2004–05 over the previous year is less than the decrease in percentage share of Primary Institutions in the same period
C. The only year that has seen a decline in the percentage share of Primary Institutions over the previous year is 2001–02
D. The decrease in percentage share of Junior colleges in the year 2003 – 04 over the previous year is less than the decrease in percentage share of Primary Institutions in the same period
E. Only 1 and 3

258. Which of the following statement(s) is/are definitely true?

A. The number of primary institutions first decreased and then increased over the years
B. The number of Junior Colleges increased consistently over the years
C. The number of Upper primary institutions increased consistently over the years
D. Both II and III
E. None of these

259. What is the number of years in which the total number of Upper Primary schools and Junior Colleges were less than the total number of Primary schools?

A. 1 B. 2 C. 3 D. More than 3 E. None of these

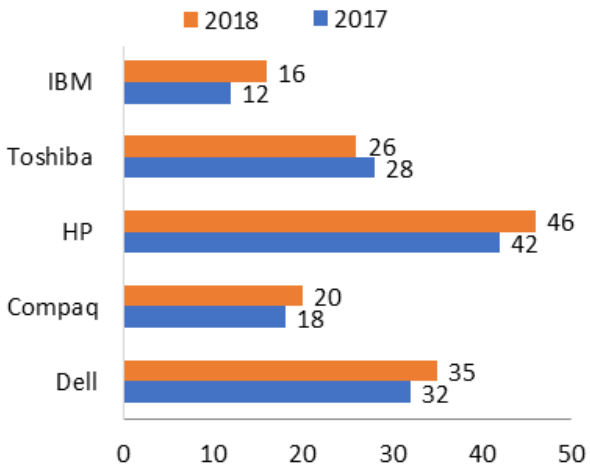
260. Which year has witnessed the highest percentage growth in the number of primary institutes over the previous years?

A. 2000 – 01 B. 2001 – 02 C. 2002 – 03 D. 2003 – 04 E. 2004 – 05

SET – 53

Directions : Study the following bar and table chart carefully and answer the questions given beside.

The bar graph given below gives the information about the number (in lakhs) of personal computers sold worldwide in 2017 and 2018.



The table given below gives the information about the percentage of personal computers sold in India over the total number of personal computers sold worldwide.

Company/Year	2017	2018
Dell	20%	18%
Compaq	15%	12%
HP	26%	30%
Toshiba	8%	7%
IBM	9%	12%

261. Of all the five companies together, the total number of personal computers sold in India in 2018 was how many more than that of 2017?

A. 3 lakhs B. 3.1 lakhs C. 2.9 lakhs D. 2.7 lakhs E. None of these

262. In 2017 and 2018 together, the number of Toshiba personal computers sold in worldwide except India was how much more than that of IBM personal computers sold in worldwide except India?

A. 26.84 lakhs B. 24.94 lakhs C. 22.82 lakhs D. 18.24 lakhs E. None of these

263. In 2017 and 2018 together, the number of Dell personal computers sold in India was how much less than that of HP personal computers sold in India?

A. 12.02 lakhs B. 12.12 lakhs C. 13.42 lakhs D. 14.62 lakhs E. None of these

264. From 2017 to 2018, what was the percentage decrease in sales of Toshiba personal computers in India?

A. 24.25% B. 30.25% C. 18.75% D. 17.75% E. None of these

265. In 2018, number of personal computers sold by which of the following companies was second lowest in India?

A. Toshiba B. Dell C. HP D. Compaq E. IBM

SET – 54

Directions: Study the following information carefully and answer the questions given beside.

Aman, Binoy and Chintu are three friends who go out to explore the city. They ate their breakfast, lunch and dinner in the market and split the total bill. The amount spent by Aman on breakfast and lunch is in the ratio 3 : 4, while that spent by Chintu on lunch and dinner is in the ratio 11 : 7.

The amount paid by Aman on Dinner and Chintu on breakfast is equal. In lunch, the share of Binoy is the average of Aman and Chintu. The money spent by Aman on Breakfast and lunch is 700/9% of the money spent by Chintu on lunch and dinner. The ratio of breakfast, lunch and dinner in the total bill is 58 : 57 : 65. In the end Aman gives Chintu Rs. 20, to make the share of each of them equal.

266. What is the ratio of amount spent by Aman on breakfast and dinner to the amount spent by Chintu on breakfast and dinner?

A. 19 : 21 B. 7 : 11 C. 22 : 15 D. 20 : 21 E. None of these

267. The amount spent on dinner by Binoy is what percent of the total amount spent by him?

A. 38.33% B. 35% C. 29% D. 37.66% E. None of these

268. What is difference between the total amount spent on breakfast and dinner?

A. Rs. 20 B. Rs. 25 C. Rs. 45 D. Rs. 30 E. Rs. 35

269. The amount spent by Aman on breakfast, Binoy on lunch and Chintu on dinner is what percent of the total expenditure of all three?

A. 29% B. 23.33% C. 22% D. 25% E. None of these

270. What would have been the ratio of total amount spent by Aman and Binoy, had they split the dinner amount paid by Chintu between them evenly?

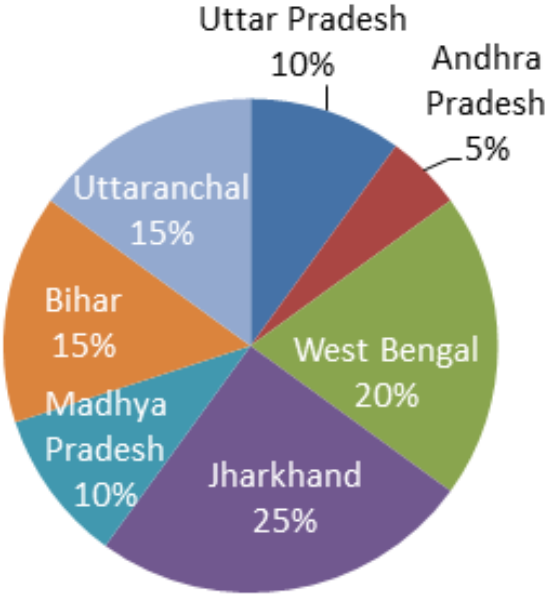
A. 6 : 7 B. 14 : 37 C. 63 : 67 D. 9 : 11 E. None of these

SET – 55

Directions: Study the following pie chart carefully and answer the questions given beside.

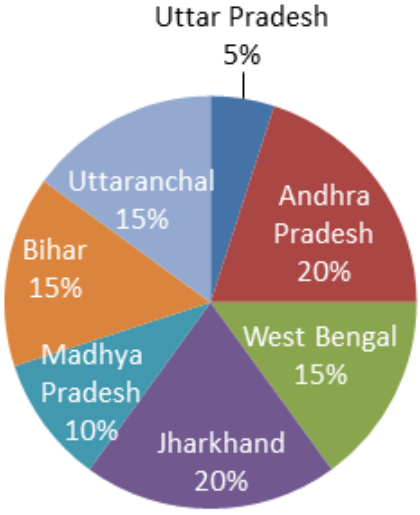
The pie charts give the percentage distribution of the iron ore produced in India in 2005-2006 and 2006-2007.

2005 – 2006



2005 – 2006
Total = 720 million tonnes

2006 – 2007



Total = 1080 million tonnes

271. From 2005 – 2006 to 2006 – 2007, which of the following states showed the maximum percentage increase in the iron ore production?

A. Andhra Pradesh B. Madhya Pradesh C. Bihar D. Uttar Pradesh E. Can't be determined

272. From 2005 – 2006 to 2006 – 2007, which of the following states showed the minimum percentage increase in the iron ore production?

A. Uttar Pradesh B. West Bengal C. Madhya Pradesh D. Jharkhand E. Can't be determined

273. In each of 2005-06 and 2006-07, 40% of the total iron ore production is exported. What is the percentage increase in the iron ore exported from 2005-06 to 2006-07?

A. 25% B. 10% C. 50% D. 75% E. 100%

274. What is percentage increase in the production of iron ore in Andhra Pradesh from 2005 – 06 to 2006 – 07?

A. 100% B. 200% C. 300% D. 400% E. 500%

275. In the pie chart for 2006-07, only 50% of the iron ore produced in West Bengal was included, and if new pie chart is drawn after correcting this, all other values remaining the same, then what percentage of the total iron ore produced in India was produced in West Bengal?

A. 18% B. 22% C. 26% D. 28% E. 30%

SET – 56

Directions: Study the following table chart carefully and answer the questions given beside.

Given below is a table that provides information about the number of pools in different states during different years.

	2012	2013	2014	2015
Delhi	-	80	88	-
Punjab	20	36	-	60
Goa	-	-	136	140

The average of number of pools in the 3 states in 2015 is 100. The ratio of number of pools in Goa in 2012 and 2013 was 9: 10 and the total number of pool in Goa in the 4 years combined was 504. The number of pools in Delhi in 2012 was half of the number of pools in Goa in 2012. The number of pools in Punjab in 2014 was 2/3 of the number of pools in Punjab in 2015.

276. What was the average of the number of pools in Punjab during the period 2012 to 2015?

A. 60 B. 39 C. 44 D. 41 E. None of these

277. The number of pools in Delhi in 2012 was what percentage of the number of pools in Goa in 2013 and 2014 combined?

A. 49.07% B. 21.09% C. 51.02% D. 30.17% E. 39.25%

278. What was the ratio of the total number of pools in the 3 states combined in 2014 to the total number of pools in the 3 states combined in 2013?

A. 33 : 28 B. 46 : 43 C. 91 : 71 D. 14 : 5 E. 66 : 59

279. What was the difference between the total number of pools of all the three given cities in 2012 and in 2015?

A. 216 B. 78 C. 118 D. 202 E. 188

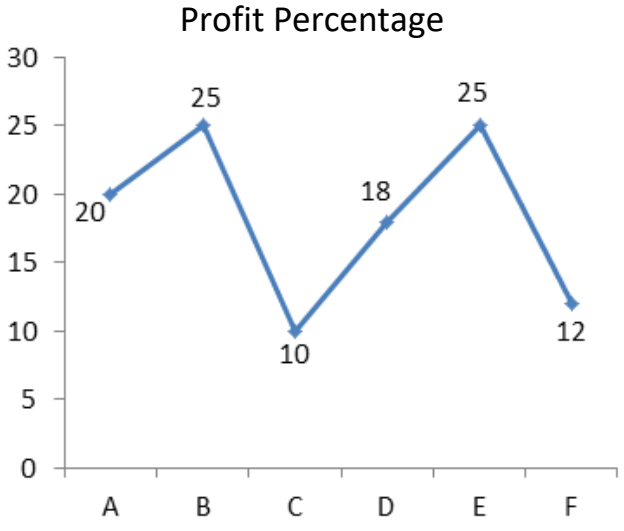
280. If in 2016, the number of pools in Delhi and Punjab was increased by 20% and 10%, respectively as compared to the previous year, then what was the total number of pools in Delhi and Punjab combined in 2016?

A. 128 B. 186 C. 250 D. 152 E. 198

SET – 57

Directions : Study the following line chart carefully and answer the questions given beside.

The graph below shows percentage profit earned by a shopkeeper on different articles.



281. If the profit earned by the shopkeeper in article D is equal to Rs 144 then the find the marked price of article D, if 20% discount was allowed?

A. Rs. 4000 B. Rs. 1180 C. Rs. 2000 D. Rs. 1200 E. Rs. 1800

282. The cost price of article F is twice the cost price of article C and the profit earned on article F is equal to Rs.156. Find the profit earned in article C.

A. Rs. 80 B. Rs. 74 C. Rs. 28 D. Rs. 52 E. Rs. 65

283. If the marked price of article A is Rs.640 while the discount allowed in article A is 10% then find the cost price of article A?

A. Rs. 400 B. Rs. 480 C. Rs. 200 D. Rs. 420 E. Rs. 180

284. In article E, an additional 20% of cost price was paid by the seller for transportation which is equal to Rs.120, then find the selling price of article E.

A. Rs. 950 B. Rs. 920 C. Rs. 200 D. Rs. 900 E. Rs. 800

285. 12% discount was allowed on article B which is equal to Rs.240, then find the profit percentage, if no discount is allowed in article B.

A. 40.04% B. 42.04% C. 20.67% D. 28.56% E. 18.04%

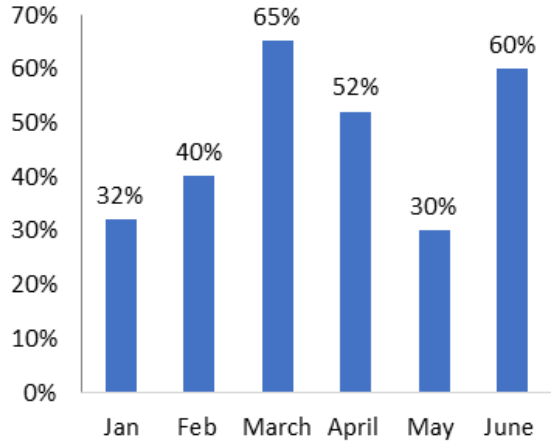
SET – 58

Directions : Study the following bar chart carefully and answer the questions given beside.

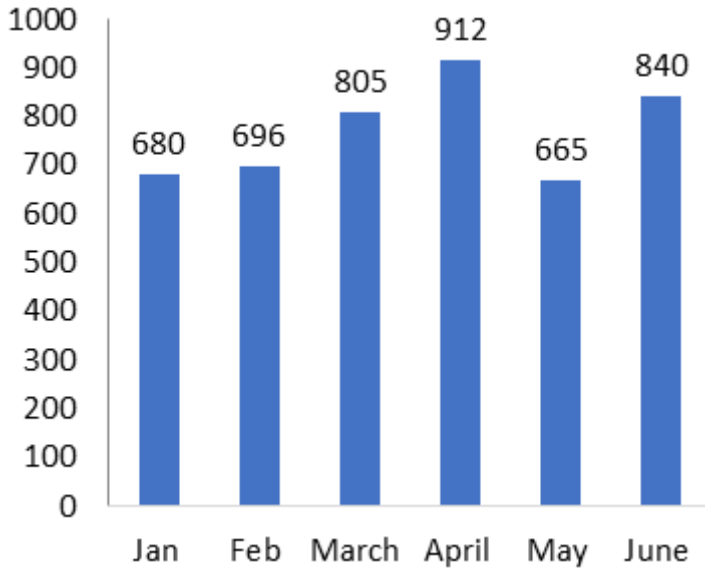
GOGOAGONE PVT. LTD, is a travel service company which plans for a trip for its customers. The Bar Chart 1 given below gives the information about the percentage of customers out of total customers who went to Goa in every month from Jan to June in the year 2018. The Bar Chart 2 given below gives the information about the number of customers who didn't go to Goa in each of the 6 months.

Total number of customers of the respective months = The ones who went to Goa + The ones who didn't go to Goa

Bar chart 1



Bar chart 2



286. The total number of customers in June was how many more than that of Jan?

A. 1100 B. 1300 C. 900 D. 750 E. None of these

287. In April, the ratio of males to female customers was 3 : 2. If 40% of the total number of male customers went to Goa, then among the customers who didn't go to Goa how many of them were females?

A. 225 B. 348 C. 216 D. 228 E. None of these

288. The number of customers who went to Goa in Jan and Feb together was how many less than the number of customers who didn't go to Goa in March and April together?

A. 853 B. 933 C. 756 D. 923 E. None of these

289. In the first three months of the year 2018, the total number of female customers was 800, then what was the total number of male customers in these months together?

A. 3430 B. 3840 C. 2960 D. 3660 E. 3420

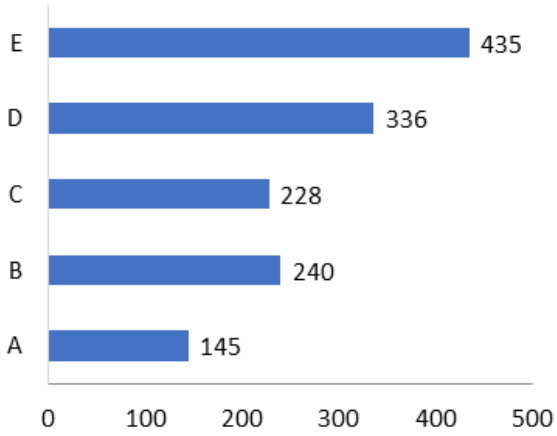
290. How many customers of GOGOAGONE Pvt ltd had gone to Goa in the first six months of the year 2018?

A. 4652 B. 4482 C. 4812 D. 4962 E. None of these

SET – 59

Directions : Study the following bar and table chart carefully and answer the questions given beside.

The bar graph given below gives the information about the total runs scored by top five players in the Asia cup tournament 2018. The table given below gives the information about batting strike rate of each player in the tournament.



Player	A	B	C	D	E
Batting Strike Rate	$48\frac{1}{3}$	75	200	150	125

Batting strike rate = (Total runs scored × 100) / Total balls faced

291. The number of balls faced by the player C was how many less than that by Player D?

A. 115 B. 120 C. 110 D. 95 E. None of these

292. What was the average of the number of balls faced by all the players together?

A. 265.8 B. 261.2 C. 248.6 D. 272.4 E. None of these

293. Which of the following player had faced highest number of balls?

A. B B. A C. E D. D E. C

294. If we combine the scores of A and E together then approximately what will be the new strike rate?

A. 85 B. 100 C. 110 D. 90 E. 94

295. What is the difference between the average of runs scored by all the players together to the average of balls faced by all the players together?

A. 15.6 B. 14.4 C. 18.8 D. 24.6 E. None of these

SET – 60

Directions: Study the given information carefully to answer the questions.

Abhishek and Vishal are two friends working in a company. Both live in two different places and their houses are in opposite directions at a distance of 57 km. Their office is situated somewhere between their houses. Vishal leaves for office at 9.45 AM with a speed of 40 km/hr while Abhishek leaves for office at 10.03 AM with a speed of 60 km/h. Both reach office at the same time at [A] AM. After reaching office, both started doing a project which they can do together in 90/11 hours. Vishal alone can do the project in 18 hours but with the help of Vivek, he can complete the project in 72/7 hours. Abhishek and Vivek together can do the same project in [B] hours. In office, Abhishek takes 10/13 hours for lunch break. Abhishek leaves the office on time after completing the project with Vivek. Vivek and Abhishek leave office at the same time and go to a bar where Abhishek and Vivek take [C] and [D] ml of drink respectively. The ratio of alcohol to water in Abhishek's drink is 4: 1 while in Vivek's drink is 11: 2. Both pay a total of Rs. 8280 and the price of each ml of drink is Rs. 18. If Abhishek mixes 60 ml of water in his drink then the quantity of his drink becomes equal to that of Vivek's drink. After leaving office, Vishal buys a lottery ticket which are numbered from 1 to 72. Vishal buys a ticket in which the number is odd and multiple of 3. The probability that Vishal wins the lottery is [E]. Vishal gets Rs. [F] as lottery price and deposits it at 15% compound interest after investing 52% of prize amount in a business which is started by Abhishek. Vishal will get Rs. 7740 as compound interest after 2 years. Salary of Abhishek is Rs. 3000 per day. Abhishek invests his 24 days' salary in a business and Vishal joins him after 3 months. After one year of completion of business, Abhishek gets a profit of Rs. [G] out of Rs. 51545.

296. One day, Rajan who also works with Vishal was late for his office by 16 minutes. At what time did Rajan reach his office on that day?

A. 10 : 56 AM B. 10 : 46 AM C. 10 : 36 AM D. 11 : 16 AM E. 11 : 01 AM

297. What is the office timing?

A. 10 : 30 AM to 9 : 00 PM B. 10 : 30 AM to 7 : 30 PM C. 10 : 30 AM to 7 : 00 PM
D. 10 : 30 AM to 8 : 00 PM E. 10 : 30 AM to 8 : 30 PM

298. 75% of drink taken by Abhishek is how much more/less than 50% of drink taken by Vivek?

A. 20 ml more B. 18 ml more C. 10 ml less D. 24 ml less E. 19 ml more

299. If another person Anupam also buys a lottery ticket in the casino and his ticket number is multiple of 8 then find the difference between winning probability of Vishal and Anupam.

A. $\frac{1}{12}$ B. $\frac{3}{34}$ C. $\frac{1}{24}$ D. $\frac{5}{24}$ E. $\frac{5}{72}$

300. If Vishal deposits his entire lottery prize at 29% simple interest per annum then how much interest will he get after 6 years?

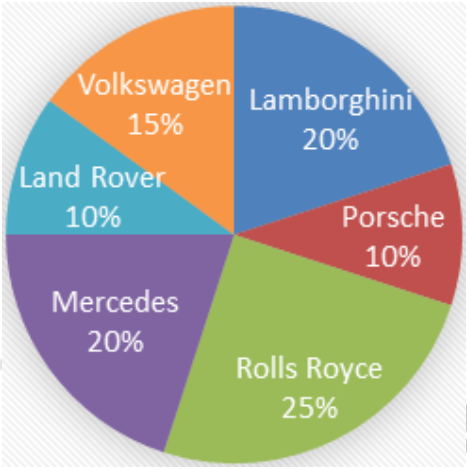
A. Rs. 98000 B. Rs. 87000 C. Rs. 96000 D. Rs. 78000 E. Rs. 92000

SET – 61

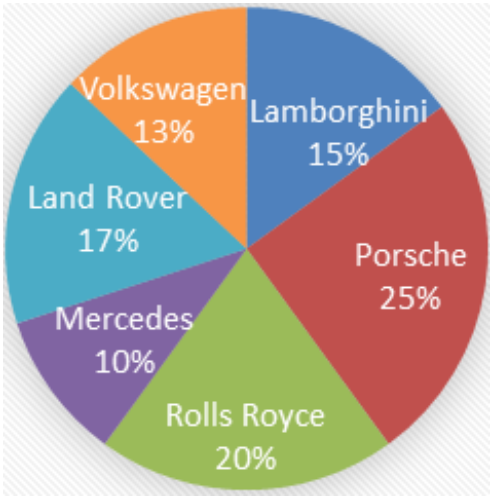
Direction : Study the following pie chart carefully and answer the questions given beside.

The following pie charts show the percentage of distance (in km) travelled by different cars and percentage of time (in hours) taken by different cars: -

Distance travelled



Time taken



301. If the difference between the distance travelled by Rolls Royce and Volkswagen is 160km while the speed of Rolls Royce is 80 km/hr, then find the speed of Mercedes?

A. 128 km/hr B. 148 km/hr C. 228 km/hr D. 328 km/hr E. 148 km/hr

302. If the total distance travelled by all the cars is 1800 km and the time taken by Volkswagen is 2 hours less than the time taken by Land Rover, then find the percentage by which the speed of Mercedes is more/less than the speed of Rolls Royce?

A. 60% less B. 80% more C. 80% less D. 60% more E. 70% less

303. If the speed of Lamborghini is 80 km/hr and the total distance travelled by all the cars is 1600 km, then find the speed of Rolls Royce?

A. 75 km/hr B. 55 km/hr C. 65 km/hr D. 45 km/hr E. None of these

304. If the total distance travelled by all the cars is 2000 km while Porsche travelled 3/5 of the distance at a speed of 60 km/hr and the remaining at a speed of 20 km/hr then find the total time taken by Porsche?

A. 8 hours B. 7 hours C. 6 hours D. 5 hours E. 4 hours

305. If the total time taken by all the cars is 40 hours and the difference between the speed of Lamborghini and Rolls Royce is 5 km/hr, then find the distance travelled by Volkswagen?

A. 260 km B. 390 km C. 460 km D. 340 km E. 360 km

SET – 62

Directions: Study the following table chart carefully and answer the questions given beside:

Ram has 5000 litres of pure milk. He sells 40% of the total milk to six different persons (A, B, C, D, E, F) and the remaining 60% of total milk he utilizes in his own shop. Each person, A, B, C, D, E, and F mixes water in pure milk. The following table given below shows the sales of milk to six different persons by Ram as a percentage of total sales and it also shows the concentration of water after adding water in pure milk by each of the six persons.

Person	Sales of Milk	The concentration of water (After adding water in pure milk)
A	24%	24%
B	10%	10%
C	12%	18%
D	7%	15%
E	28%	25%
F	19%	12%

306. What is the difference between the total quantity of water added by Person A and that of Person C? (approximately)

A. 105 liters B. 99 liters C. 91 liters D. 95 liters E. 102 liters

307. What is the respective ratio of the total quantity of water added by Person C and the total quantity of water added by Person E?

A. 81 : 287 B. 9 : 32 C. 3 : 11 D. 85 : 287 E. None of these

308. Who among the following added least quantity (In litres) of water in pure milk?

A. A B. B C. C D. E E. F

309. Suppose, A, B, and C mix their solutions in one can then what would be the concentration of milk in the new solutions? (approximately)

A. 75.2% B. 78.21% C. 80.25% D. 85.24% E. 72.68%

310. How many total litres of water was added by all the persons together? (approximately)

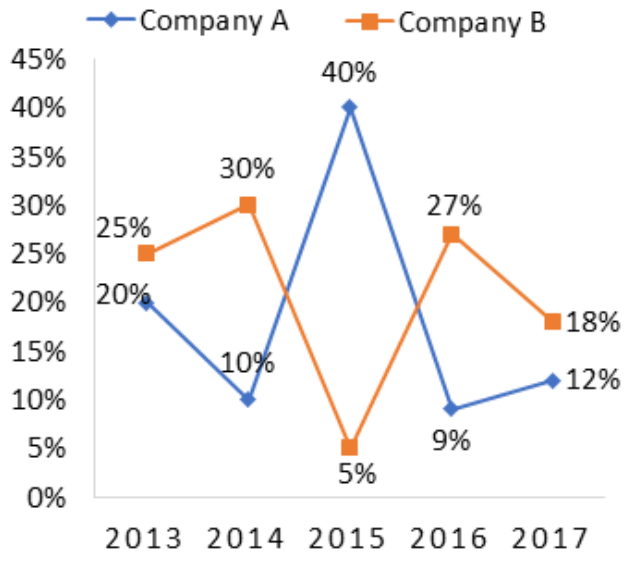
A. 500 litres B. 550 litres C. 450 litres D. 490 litres E. 520 litres

SET – 63

Directions: Study the following information carefully and answer the questions given beside:

The following line graph shows the percentage of net profit of company A and Company B.

$$\text{Net profit percentage} = \frac{\text{Income} - \text{Expenditures}}{\text{Expenditures}} \times 100$$



311. If the total income of company A in the year 2015 was Rs. 40,000 then approximately what was the total expenditures of the company in that year?

A. Rs. 28571 B. Rs. 28642 C. Rs. 29456 D. Rs. 28222 E. None of these

312. **If the total income of company B in the year 2014 and 2015 together was Rs. 5 lakhs then what was the total expenditures of the company B in the year 2014 and 2015 together?**

A. Rs. 2.8 lakhs B. Rs. 2.73 lakhs C. Rs. 2.78 lakhs D. Rs. 2.92 lakhs E. Can't be determined

313. **In the year 2014, the total income of company A and B together was Rs. 80000 and the income of company A was 40% less than the income of company B then the expenditures of company A was approximately what percent less than the expenditures of company B?**

A. 34% B. 39% C. 24% D. 29% E. 19%

314. **In the year 2015, the ratio of the expenditures of company A to the expenditures of company B was 4 : 5 then what was the ratio of the income of company A to the income of company B?**

A. 12 : 11 B. 16 : 15 C. 13 : 12 D. 19 : 18 E. None of these

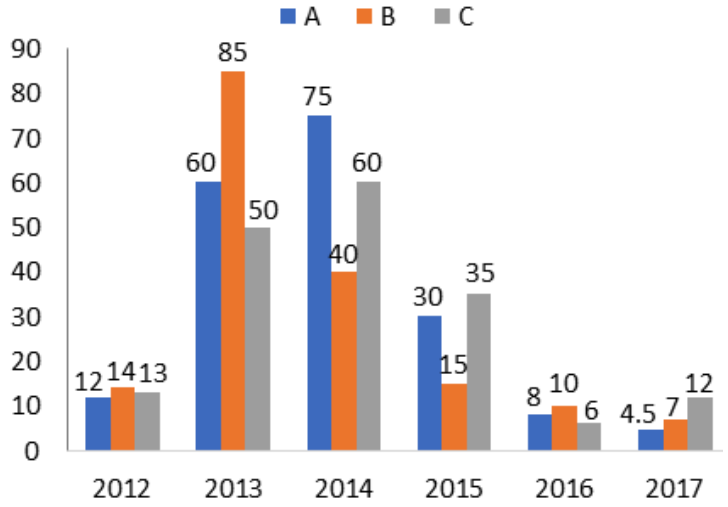
315. **In the year 2013, the income of both the companies were same, then what was the ratio of the expenditures of company A to the expenditures of company B?**

A. 24 : 25 B. 5 : 4 C. 10 : 9 D. 15 : 14 E. None of these

SET – 64

Directions : Study the following bar chart carefully and answer the questions given beside.

The following bar graph gives the information about the number of staffs recruited (in thousand) in three different banks A, B and C in six consecutive years.



316. **What is the difference between the average number of staffs recruited by the Bank A over all the years together and that by Bank Cover all the years together?**

A. 2.5 thousand B. 2.33 thousand C. 2.25 thousand D. 2.45 thousand E. None of these

317. The number of staffs recruited by Bank B in the year 2012 and 2017 together was what percentage of the number of staffs recruited by that bank in all other years together?

A. 12.28% B. 13.5% C. 12.98% D. 14% E. None of these

318. The total number of staffs recruited in the year 2013 by all the three banks together was what percent more than that in the year 2014 by all the three banks together?

A. $11\frac{3}{7}\%$ B. $12\frac{1}{7}\%$ C. $13\frac{4}{7}\%$ D. $10\frac{5}{7}\%$ E. None of these

319. If 40% of the staffs recruited in the year 2015 in the bank C was female and 70% of the total number of staffs recruited in that year by all the three banks together was male then in that year, what was the total number of females recruited by the bank A and B together?

A. 35 thousand B. 25 thousand C. 15 thousand D. 10 thousand E. None of these

320. The respective ratio of the number of females recruited in the bank A over all the years together to the number of males recruited in the bank B over all the years together was 4 : 5. In the bank B, 40% of the total number of staffs recruited over all the years together was females, then what was the total number of males recruited by the bank A over all the years together?

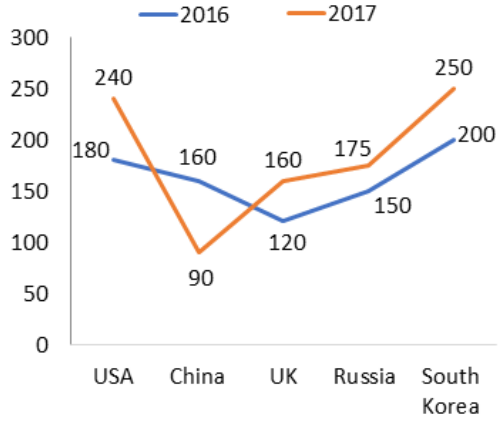
A. 82.08 thousand B. 98.42 thousand C. 107.42 thousand D. 102.86 thousand E. None of these

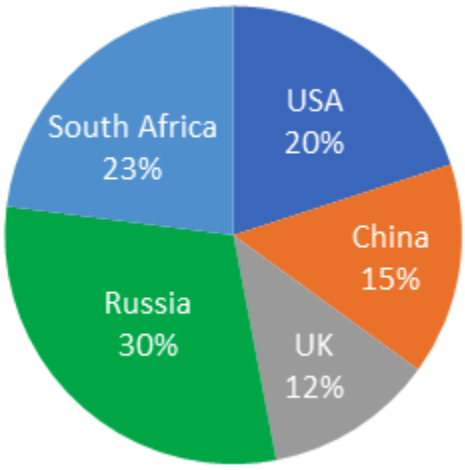
SET – 65

Directions : Study the following line and pie chart carefully and answer the questions given beside.

The line graph given below gives the information about exports into five different countries from India during the two consecutive years. The pie chart given below gives the information about the percentage distribution of imports from the five different countries into India in the year 2017. Consider India imports only from the given five countries.

(All values are in billion dollars)





321. **In the year 2017, the total imports into India from China was 120 billion dollars then the imports into India from Russia was how much more (In billion dollars) than that of exports into Russia from India?**

A. 95 B. 65 C. 55 D. 75 E. None of these

322. **In the year 2016, It was trade balance between India and UK and in that year, the import into India from UK was 10% less than that of the year 2017. In the year 2017, what was the difference (In billion dollars) between export from India into USA and that imports into India from USA?**

A. 80 B. 60 C. 75 D. 90 E. None of these

323. **In the year 2017, the exports into China from India was same as the imports from China into India then in that year, the exports into south Korea from India was how much (In billion dollars) more than that of Imports into India from south Korea?**

A. 191 B. 241 C. 151 D. 112 E. None of these

324. **In the year 2017, the total imports into India was 1200 billion dollars then in that year, with how many of countries it was trade deficits? (Assume that when imports overweight the value of exports, it is called trade deficits)**

A. 5 B. 4 C. 3 D. 2 E. 1

325. **The sum of total exports in the year 2017 from India into the given five countries was how much more than (In billion dollars) that of the year 2016?**

A. 115 B. 105 C. 125 D. 140 E. None of these

SET – 66

Directions: Study the given information carefully to answer the questions.

A father divided his property between two sons A and B and one daughter C. The person has Rs. 80000 in cash, Rs. 5 lakhs as land and Rs. 6 lakhs as gold. He gave half of the gold to his daughter and remaining gold divided between sons in equal proportion. He gave only 20% of total land to his daughter and divided the remaining land between sons A and B in the ratio of 3 : 1 respectively on the condition that the child who received highest share of land will give Rs. 2500 per month to his father. He gave 75% of the total cash amount to his daughter and remaining cash amount was divided between sons in equal proportion.

326. How much total property (in cash, land and Gold together) did C get?

A. Rs. 4.9 lakhs B. Rs. 4.6 lakhs C. Rs. 4.7 lakhs D. Rs. 4.8 lakhs E. None of these

327. The share of son A in total property was how much more than that of son B in total property?

A. Rs. 2 lakhs B. Rs. 2.1 lakhs C. Rs. 1.9 lakhs D. Rs. 2.2 lakhs E. None of these

328. After dividing the property, the father had lived for another 10 years, then the son who had received the highest share of land was left with how much total property after 10 years ?

A. Rs. 2.6 lakhs B. Rs. 1.4 lakhs C. Rs. 1.65 lakhs D. Rs. 1.6 lakhs E. None of these

329. The share of land received by Son A was how much percentage more than that by daughter C?

A. 300% B. 200% C. 150% D. 100% E. None of these

330. What was the respective ratio of the total property received by son A and that by son B?

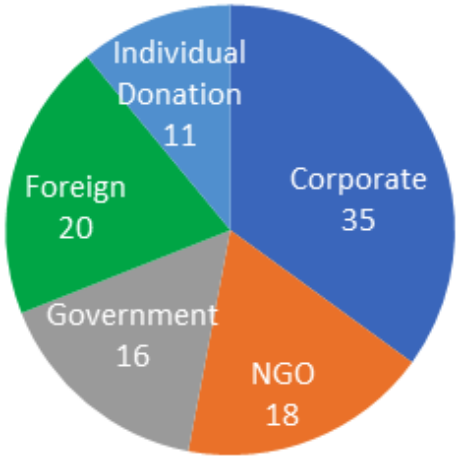
A. 21 : 11 B. 2 : 1 C. 25 : 13 D. 23 : 13 E. None of these

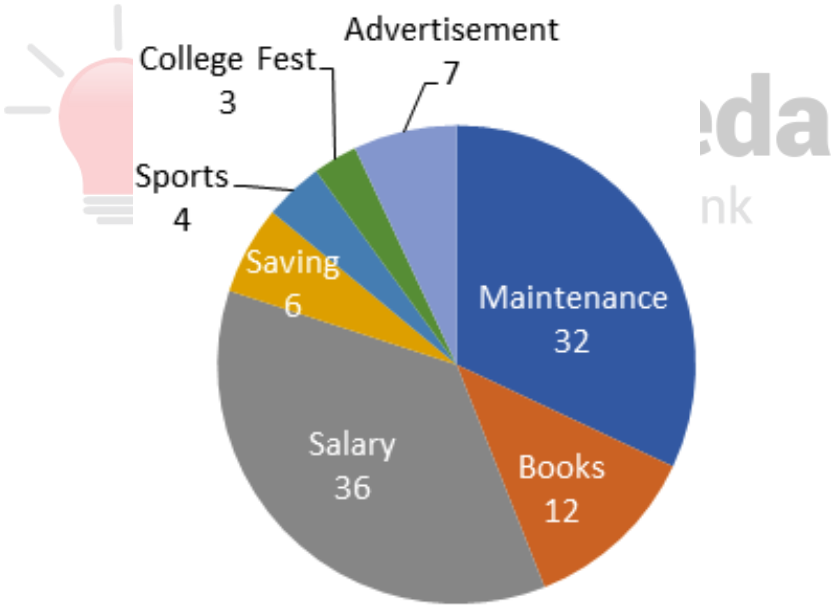
SET – 67

Direction : Study the following pie charts carefully and answer the questions given beside.

The pie chart1 given below gives the information about the percentage distribution of the funds received from various sources by XYZ College. The pie chart 2 given below gives the information about the percentage distribution of the expenditures of the college.

Total funds collection = Total expenditures





331. Only foreign donation was spent on sports, college fest and advertisements then what percent of foreign donation was spent on other parts?

A. 30% B. 25% C. 40% D. 35% E. None of these

332. The expenditures on college fest was Rs. 12000 less than that on sports then corporate funds was how much more than that of foreign funds?

A. Rs. 1.75 lakhs B. Rs. 2.4 lakhs C. Rs. 1.8 lakhs D. Rs. 1.6 lakhs E. None of these

333. The total individual donation was Rs. 1.32 lakhs then what was the expenditures of the college on the salary payment?

A. Rs. 3.85 lakhs B. Rs. 3.96 lakhs C. Rs. 4.32 lakhs D. Rs. 4.68 lakhs E. None of these

334. If the college had saved Rs. 30 thousand then what was the funds received from NGO and government together?

A. Rs. 185 thousand B. Rs. 170 thousand C. Rs. 145 thousand D. Rs. 175 thousand E. None of these

335. What was the ratio between the funds collected from NGO to the expenditures of the college on books?

A. 4 : 3 B. 6 : 4 C. 8 : 5 D. 9 : 7 E. None of these

SET – 68

Directions: Study the following table chart carefully and answer the questions given beside.

The table chart given below gives the information about human resource of SBI bank across eight states of India.

States	Total Number of Branches	Total number of employees	The respective ratio of male and female employees	Percentage of post graduate employees
Bihar	196	4488	7 : 5	75%
Utter Pradesh	205	4595	3 : 2	40%
Delhi	98	2205	11 : 10	60%
Madhya Pradesh	198	4752	13 : 11	50%
Maharashtra	168	3328	17 : 15	25%
Karnataka	152	3680	11 : 9	55%
Andhra Pradesh	84	1485	8 : 7	60%
Kerala	102	2296	20 : 21	25%

336. What is the respective ratio between the total number of male employees and the total number of female employees across the given eight states of India?

A. 14808 : 12021 B. 14807 : 12021 C. 14808 : 12023 D. 14809 : 12025 E. None of these

337. In which of the following states, the total number of post graduates is second highest?

A. Madhya Pradesh B. Bihar C. Karnataka D. Uttar Pradesh E. None of these

338. What is the difference between the sum of post graduate employees in states Bihar, Utter Pradesh, Delhi together and the number of post graduate employees in states Karnataka, Andhra Pradesh, Kerala together?

A. 3039 B. 3029 C. 3028 D. 3038 E. 3038

339. It is given that across other states of India SBI has 200% number of branches than it has in the given eight states and the average number of employees per branch across India is 32. Then find how many number of total employees SBI has in India?

A. 115588 B. 124488 C. 115488 D. 123498 E. None of these

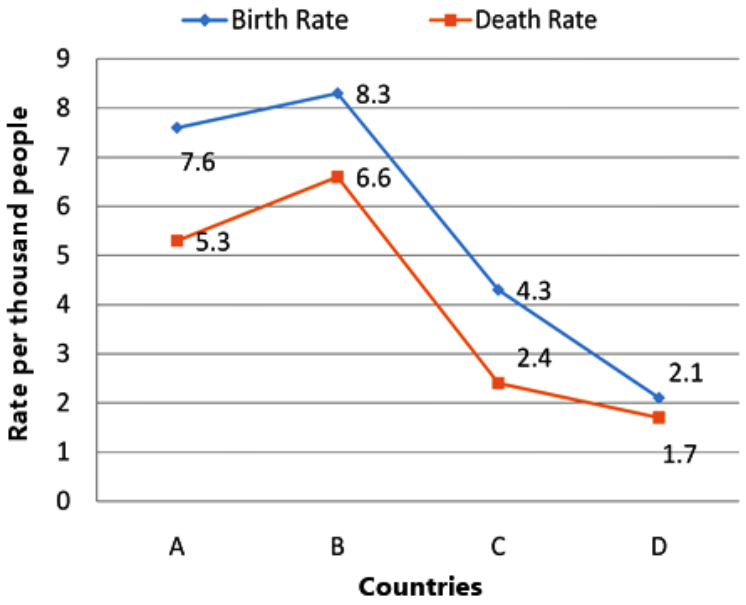
340. Which of the following states has highest number of total employees per branch?

A. Karnatka B. Uttar Pradesh C. Madhya Pradesh D. Bihar E. None of these

SET – 69

Directions: Study the following information carefully and answer the questions given beside:

The following line chart that shows the birth rate (per thousand persons) and death rate (per thousand persons) of countries A, B, C and D in the year 2014.



$$\text{Population Increase} = \frac{[\text{Population increase rate} \times \text{Population}]}{1000}$$

341. If the population of country B is 20 million at the beginning of year 2014, by how much would its population increase in this year?

A. 17 thousand B. 34 thousand C. 20 thousand D. 19 thousand E. None of these

342. By what percentage is the birth rate of country B is more than that of country C?

A. 7.5% B. 93.02% C. 23.27% D. 63.33% E. Can't be determined

343. The population increase in countries A and C during year 2014 was same. What was the ratio of populations of countries A and C at the beginning of year 2014?

A. 11 : 17 B. 17 : 13 C. 19 : 23 D. 4 : 11 E. 4 : 19

344. Populations of countries B and D at beginning of year 2014 were 20 million and 30 million respectively. If these countries are considered as one country, what will be the effective death rate (in per thousand persons) of the combined country?

A. 2.44 B. 1.83 C. 3.66 D. 1.5 E. 2.25

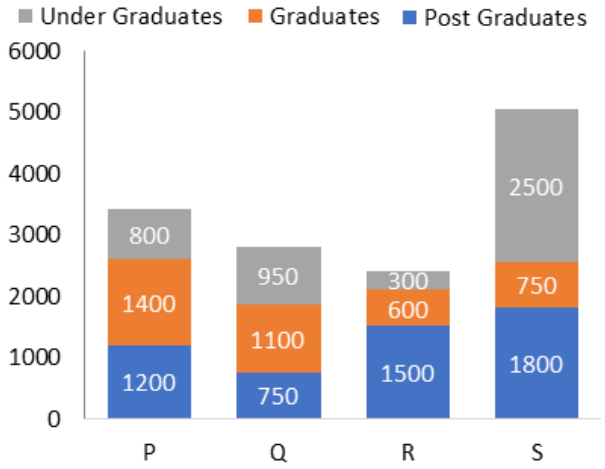
345. What will be the ratio of number of deaths in country A to number of births in country C?

A. 19 : 11 B. 5 : 9 C. 11 : 17 D. None of these E. Can't be determined

SET – 70

Directions : Study the following bar chart carefully and answer the questions given beside.

The following bar graph gives the information about the number of post graduates, graduates, and under graduates employed in various banks P, Q, R, and S.



346. The difference between graduates and undergraduates employed in the bank R forms what percentage of the total number of people employed in that bank?

A. 15% B. 25% C. 12.5% D. 10.25% E. None of these

347. What is the average number of post graduates employed in all the banks together?

A. 1285.5 B. 1302.5 C. 1312.5 D. 1325.5 E. None of these

348. The number of under graduates employed in all the banks together is how much more than the number of graduates employed in all the banks together?

A. 650 B. 750 C. 600 D. 700 E. None of these

349. If the number of post graduates employed, increased by 10% in each bank and the number of under graduates employed, increased by 20% in each bank then what will be the difference between the sum of the number of post graduates and under graduates of all the banks together after increasing its number and, the total number of graduates employed in all the given banks together?

A. 7465 B. 7385 C. 7275 D. 7365 E. None of these

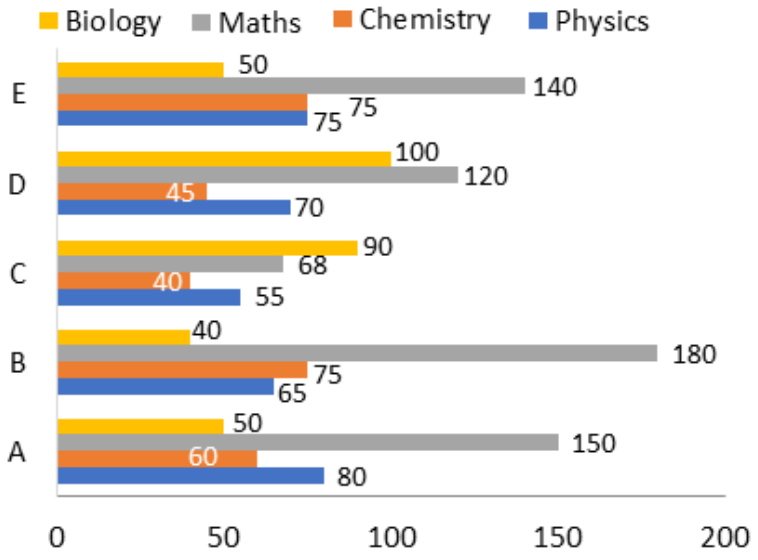
350. In the bank P, the number of post graduates increased by 15%, the number of graduates was increased by 12% and, the number of under graduates was increased by 33% then what will be the increase in the total number of employees in that bank?

A. 4012 B. 724 C. 722 D. 612 E. None of these

SET – 71

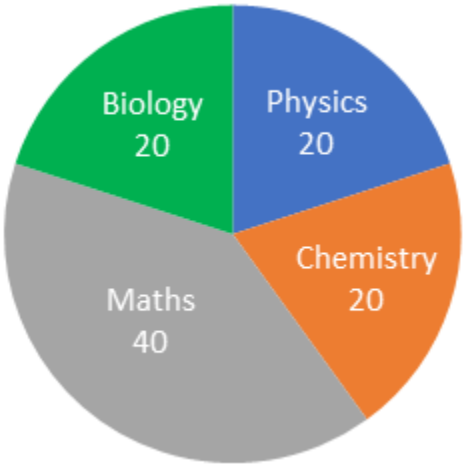
Directions : Study the following bar and pie chart carefully and answer the questions given beside.

The bar graph given below gives the information about the number of marks obtained by five different students, A, B, C, D and E in four different subjects Physics, Chemistry, Maths and Biology in an examination.



The pie chart given below gives the information about percentage distribution of maximum marks of each subject over the total marks.

Maximum total marks = 500



351. The total number of marks obtained by B was how much more than that by the student who had scored lowest in all the subjects together?

A. 109 B. 107 C. 111 D. 108 E. None of these

352. If any of the students scored less than 35% in any of the subjects or overall then he will be declared as failed. How many of the students had failed in the examination?

A. 0 B. 2 C. 3 D. 1 E. 4

353. If a student scored overall above 70% then his division will be FCD (First class with distinction). How many of the students have got FCD?

A. 2 B. 3 C. 4 D. 5 E. 1

354. What percentage of total marks did A score in the examination?

A. 69% B. 70% C. 68% D. 65% E. None of these

355. What was the average percentage of marks obtained by all the students in Maths?

A. 71.2% B. 70.8% C. 64.8% D. 65.8% E. None of these

SET – 72

Directions: Study the given information carefully to answer the questions.

In an Island called Nucolar, only two tribes Bhainaa and Koliya lives. The populatin of Bhainaa is 50% more than that of Koliya. In the island, the ratio of males to females is 11 : 9 and in Koliya tribe the number of females is 40% less than that of male population and in Bhainaa tribe, the male populations are equal to that of female populations. The total number of female populations in Koliya tribe is 1200.

356. What is the ratio of the total population of the island to the total male populations of the Bhainaa tribe?

A. 5 : 2 B. 10 : 3 C. 15 : 7 D. 12 : 5 E. None of these

357. What is the total number of male populations in the island?

A. 4200 B. 4400 C. 4600 D. 4500 E. None of these

358. In the island, the total number male populations are how much more than that of female population?

A. 600 B. 1000 C. 1200 D. 800 E. None of these

359. 20% of the total population of the island are below eighteen then total how many of people are above eighteen?

A. 8000 B. 6400 C. 5600 D. 7200 E. None of these

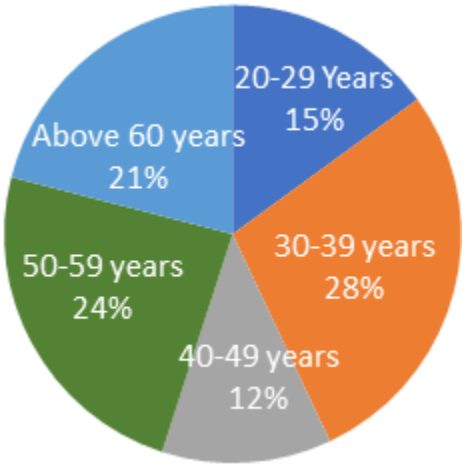
360. The total number of female population in Bhainaa tribe is how much percentage more than that of Koliya tribe?

A. 200% B. 250% C. 150% D. 50% E. None of these

SET – 73

Direction : Study the following pie chart carefully and answer the questions given beside.

The following pie chart gives the information about the percentage distribution of central government employees by age profile.



361. Out of 2.68 lakhs central government employees, how many are above 60 years old?

A. 34.26 thousand B. 38.96 thousand C. 3.216 lakhs D. 32.16 thousand E. None of these

362. Out of 6.8 lakhs seats, only 4.2 lakhs are employed. If the government plans to fill all the empty seats by giving 20% reservation for ex-servicemen of the age profile of 30 – 49 years and remaining seats are filled by freshers of the age profile of 20 – 29 years then total how many freshers will be hired by the government?

A. 2.08 lakhs B. 2.18 lakhs C. 0.52 lakhs D. 1.06 lakhs E. None of these

363. 2.6 lakhs candidate were to be selected out of the 18.6 lakhs candidates who had applied for government job. Out of the applied candidates 20% of them were ex-servicemen and the number of seats reserved for them was 20%, then approximately what percentage of the number of ex-servicemen applicants will be selected ?

A. 12% B. 14% C. 17% D. 19% E. 10%

364. The number of central government employees of age profile of 50 years or greater than 50 years is how much percentage more than that of 20 – 29 years?

A. 300% B. 350% C. 200% D. 250% E. None of these

365. By what percent the number of central government employees of age profile of 40 – 49 years is less than that of 30 – 39 years?

A. 42.34% B. 55.12% C. 61.42% D. 57.14% E. 52.28%

SET – 74

Directions: Study the following table chart carefully and answer the questions given beside:

The table given below gives the information about the flight fare (In Rs.) of travelling from one city to another.

City	Bangalore	Chennai	Hyderabad	Kolkata	Delhi	Patna
Bangalore	-------	1250	1500	1700	2200	3400
Chennai	1250	---------	1800	2100	2600	3500
Hyderabad	1500	1800	---------	2800	2850	3000
Kolkata	1700	2100	2800	-------	3600	1400
Delhi	2200	2600	2850	3600	---------	1500
Patna	3400	3500	3000	1400	1500	---------

366. A person goes from Bangalore to Delhi again return to Bangalore via Hyderabad then how much money (In Rs.) will he spend in the whole Journey?

A. 6480 B. 6550 C. 7250 D. 7750 E. None of these

367. If the price of flight ticket is directly proportional to that of distance then which of the following city is farthest from Delhi?

A. Bangalore B. Chennai C. Hyderabad D. Kolkata E. None of these

368. If a person goes from Delhi to Hyderabad again from Hyderabad to Patna then how much more money will he spend if he had gone directly from Delhi to Patna? (consider only flight fare)

A. Rs. 4480 B. Rs. 4350 C. Rs. 5250 D. Rs. 5400 E. None of these

369. Instead of going directly from Delhi to Kolkata, one person goes via one more city. Via which of the following city should he go to minimise the expenditure on flight ticket?

A. Patna B. Hyderabad C. Chennai D. Bangalore E. It is not possible

370. How much money on flight tickets, a person will spend if he wants go directly from Kolkata to Hyderabad but come back to Kolkata via Delhi?

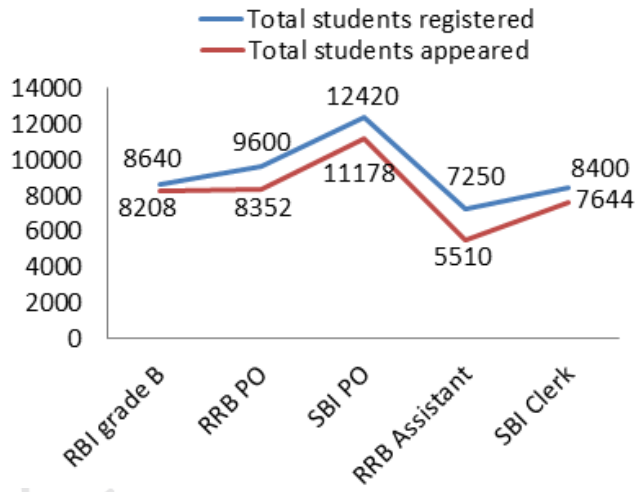
A. Rs. 10050 B. Rs. 9250 C. Rs. 8650 D. Rs. 12450 E. None of these

SET – 75

Directions : Study the following line graph carefully to answer the questions that follow.

The line graph represents the total number of students registered and appeared in five different exams from city Agra.

Total number of students registered and appeared



371. The total number of students who did not appeared in RBI grade B is approximately what percentage of the total number of students who did not appeared in SBI PO exam?

A. 39% B. 44% C. 32% D. 35% E. 28%

372. How many students from the given five exams had not appeared in the exam?

A. 5418 B. 6218 C. 5118 D. 5618 E. 5818

373. 80% and 75% of the students who appeared for RRB assistant exam and RRB PO exam respectively had qualified for the tier II exam. If 25% of the students who qualified for tier II from both the exams, had qualified for interview then find the difference between the number of students who qualified for interview from RRB PO and from RRB assistant.

A. 554 B. 434 C. 464 D. 274 E. 244

374. For which exam, the percentage of the number of students who did not appeared in the exam is second lowest?

A. RBI Grade B B. RRB PO C. SBI PO D. RRB Assistant E. SBI Clerk

375. The registration of $(4/55)^{th}$ of total number of students of the given five exams had been cancelled. Find the number of students whose registration was cancelled.

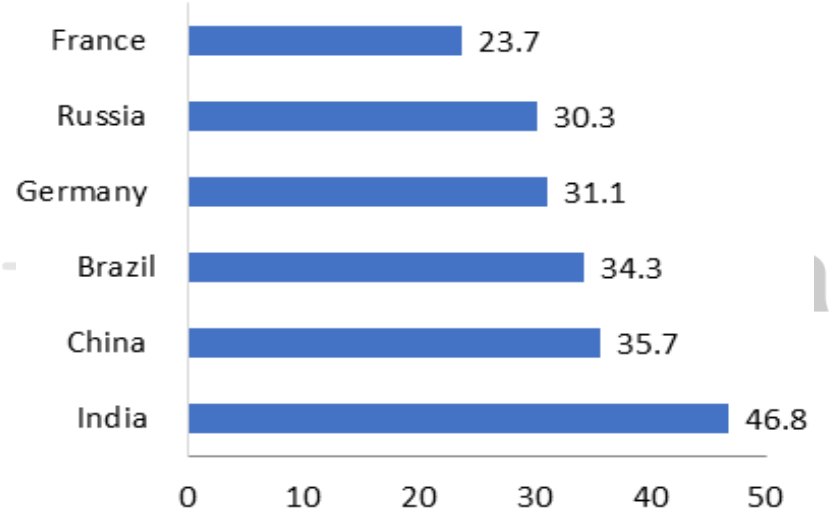
A. 3478 B. 3368 C. 3648 D. 3538 E. 3228

SET – 76

Directions : Study the following bar chart carefully and answer the questions given beside.

The following graph gives the information of milk production (in billion litres) in 6 different countries of the world.

(Assume that there are only six countries in the world which produce milk)
1 billion = 100 crore = 10000 lakhs
Global Milk Production (2017)



376. What percentage of the total milk production in the world in 2017 is contributed by India's total milk production in that year?

A. 28.22% B. 23.17% C. 18.28% D. 26.24% E. 19.91%

377. What is the difference between the total quantity of milk produced by France, Russia, and Germany together in the year 2017 and that by Brazil, China, and India together in that year?

A. 31.6 billion litres B. 32.1 billion litres C. 30.9 billion litres D. 31.7 billion litres E. None of these

378. Find the maximum difference between the quantity of milk produced by any two countries?

A. 22.4 billion litres B. 23.1 billion litres C. 8.28 billion litres D. 18.23 billion litres E. None of these

379. Find the average of the total quantity of milk produced in the world in the year 2017?

A. 34.85 billion litres B. 33.65 billion litres C. 32.28 billion litres D. 28.15 billion litres E. None of these

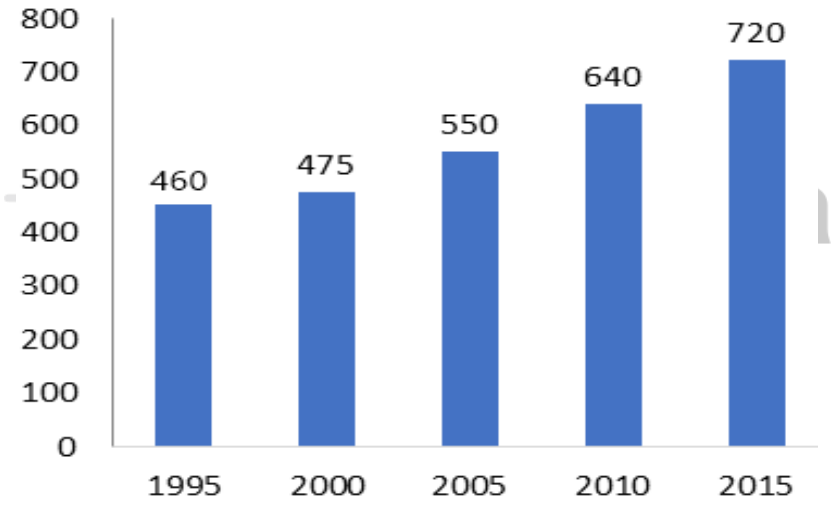
380. The quantity of milk produced by India in the year 2017 is what percentage more than that of Russia in that year?

A. 86.24% B. 42.86% C. 79.21% D. 51.85% E. 54.45%

SET – 77

Directions : Study the following bar and table chart carefully and answer the questions given beside.

The bar graph given below gives the information about the number of voters (in lakhs) in five different election. The table given below gives the information about election turnout rate and the percentage of female voters among election turnout during the five-given election.



Year	Election turnout rate	Percentage of female voters among election turnout
1995	70	40
2000	40	50
2005	60	30
2010	85	55
2015	80	60

381. What is the difference between (in lakhs) the number of male voters turnout in the year 1995 and that in the year 2015?

A. 43.6 B. 42.2 C. 37.2 D. 40.4 E. None of these

382. What is the sum of election turnout (in lakhs) in the year 2000 and 2015 together?

A. 766 B. 546 C. 786 D. 776 E. None of these

383. In the year 2015, 10% of the total number of votes got invalid out of which 80% was of females then how many male votes were valid in that year?

A. 268.88 lakhs B. 238.48 lakhs C. 246.38 lakhs D. 218.88 lakhs E. None of these

384. What is the number of total male voter turnout in 2015?

A. 230.4 lakhs B. 236.2 lakhs C. 224.8 lakhs D. 228.4 lakhs E. None of these

385. Find the ratio of the total election turnout in the years 2005 and 2010 together to the number of male voter turnout in the years 2005 and 2000 together?

A. 435 : 142 B. 437 : 141 C. 423 : 141 D. 437 : 163 E. None of these

SET – 78

Directions: Study the given information carefully to answer the questions.

A father divided his property between two sons A and B and one daughter C. The person has Rs. 80000 in cash, Rs. 5 lakhs as land and Rs. 6 lakhs as gold. He gave half of the gold to his daughter and remaining gold divided between sons in equal proportion. He gave only 20% of total land to his daughter and divided the remaining land between sons A and B in the ratio of 3 : 1 respectively on the condition that the child who received highest share of land will give Rs. 2500 per month to his father. He gave 75% of the total cash amount to his daughter and remaining cash amount was divided between sons in equal proportion.

386. How much total property (in cash, land and Gold together) did C get?

A. Rs. 4.9 lakhs B. Rs. 4.6 lakhs C. Rs. 4.7 lakhs D. Rs. 4.8 lakhs E. None of these

387. The share of son A in total property was how much more than that of son B in total property?

A. Rs. 2 lakhs B. Rs. 2.1 lakhs C. Rs. 1.9 lakhs D. Rs. 2.2 lakhs E. None of these

388. After dividing the property, the father had lived for another 10 years, then the son who had received the highest share of land was left with how much total property after 10 years?

A. Rs. 2.6 lakhs B. Rs. 1.4 lakhs C. Rs. 1.65 lakhs D. Rs. 1.6 lakhs E. None of these

389. The share of land received by Son A was how much percentage more than that by daughter C?

A. 300% B. 200% C. 150% D. 100% E. None of these

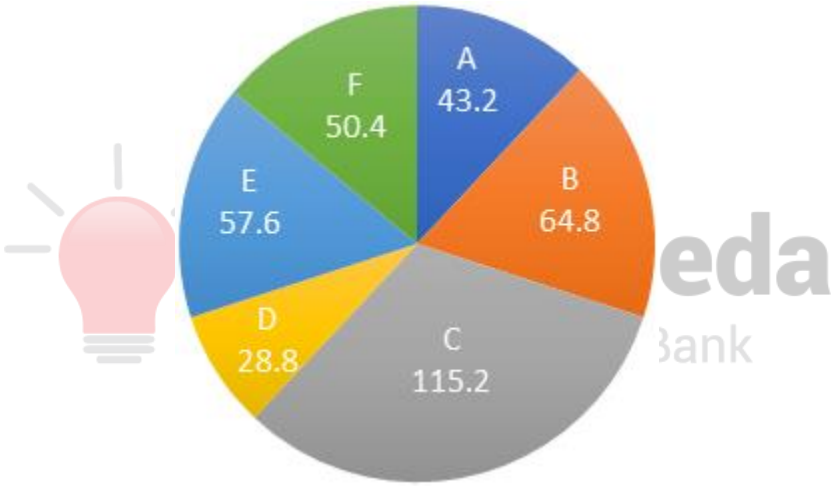
390. What was the respective ratio of the total property received by son A and that by son B?

A. 21 : 11 B. 2 : 1 C. 25 : 13 D. 23 : 13 E. None of these

SET – 79

Direction : Study the following pie chart carefully and answer the questions given beside.

There are six types of employees working in an organization. The pie chart given below shows the different types of employees working in the organization in the year 2017.



391. In the year 2017, total number of 500 employees was working in the organization. In the year 2018, 50 more joined the organization out of which 20 was F type employees then in the year 2018, total number of F type employees was what percentage of the total number of employees? (rounded off two decimal)

A. 18.33% B. 18.67% C. 17.33% D. 16.37% E. None of these

392. In the year 2017, the difference between B type employees and D type employees was 40, then find the total number of F type employees working in the organization?

A. 58 B. 42 C. 56 D. 55 E. None of these

393. In the year 2017, the number of D type employees was what percent less than the number of A type employees?

A. 34.28% B. 33.33% C. 32.67% D. 32.98% E. None of these

394. In the year 2018, the ratio of the number of B type employees to the number of E type employees was 11: 9 then what is the total percentage increase in the number of B type employee and E type employees together?

A. 15% B. 17.65% C. 18.24% D. 19% E. Can't be determined

395. In the year 2017, the difference between C type employees and F type employees was 126 then in that year what was the difference between F type employees and D type employees?

A. 25 B. 35 C. 42 D. 49 E. None of these

SET – 80

Directions: Study the following table chart carefully and answer the questions given beside:
The table1 given below gives the information about reduction in fuel prices (In Rs. per litre) on September 17, 2017 in the given four cities.

Table 1: (The price of fuel per litre after adding VAT)

City	Petrol		Diesel	
	Old	New	Old	New
Chennai	74.80	62.10	62.72	54.20
Bangalore	72.40	57.92	65.50	60.00
Delhi	84.25	78.50	74.28	70.40
Kolkata	75.75	70.00	68.90	62.40

396. On September 17, 2017, what was the percentage decrease in the new price of petrol per litre over that of the old price of petrol per litre in the city Bangalore?

A. 25% B. 20% C. 10% D. 30% E. None of these

397. What is the average new price of diesel (Rs. per litre) in all the given cities together?

A. 64.50 B. 58.75 C. 63.75 D. 61.75 E. None of these

398. In Kolkata, on diesel, the old VAT percentage was 30% of the diesel price but the new VAT percentage is 20% of the diesel price. In that city, if a person purchases 10 litres of diesel on new price then how much less VAT (In Rs.) does he pay?

A. Rs. 85 B. Rs. 55 C. Rs. 75 D. Rs. 125 E. None of these

399. What is the respective ratio of the old price of petrol in Chennai to that the new price of Diesel in Delhi?

A. 3 : 2 B. 25 : 24 C. 17 : 16 D. 19 : 24 E. None of these

400. The highest amount decrease (In Rs.) on the price of petrol in any of the four cities is how much more than the lowest amount decrease (In Rs.) on the price of diesel in any of the four cities?

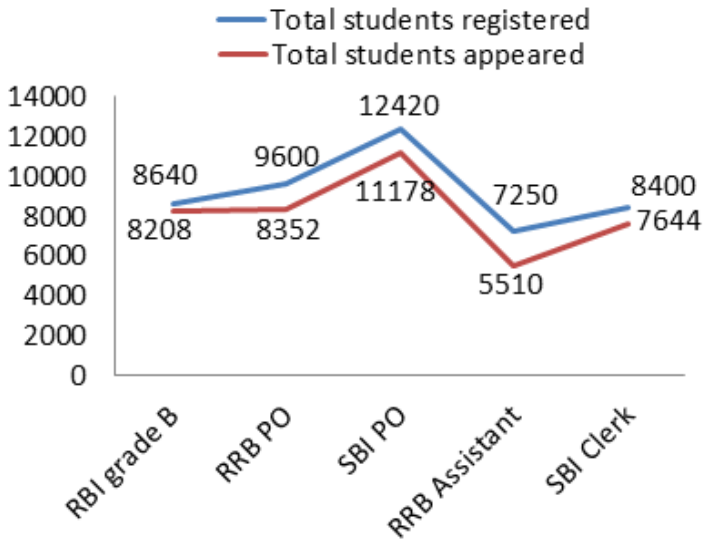
A. Rs. 10.6 B. Rs. 8.82 C. Rs. 10.98 D. Rs. 8.72 E. None of these

SET – 81

Directions : Study the following line graph carefully to answer the questions that follow.

The line graph represents the total number of students registered and appeared in five different exams from city Agra.

Total number of students registered and appeared



401. The total number of students who did not appeared in RBI grade B is approximately what percentage of the total number of students who did not appeared in SBI PO exam?

A. 39% B. 44% C. 32% D. 35% E. 28%

402. How many students from the given five exams had not appeared in the exam?

A. 5418 B. 6218 C. 5118 D. 5618 E. 5818

403. 80% and 75% of the students who appeared for RRB assistant exam and RRB PO exam respectively had qualified for the tier II exam. If 25% of the students who qualified for tier II from both the exams, had qualified for interview then find the difference between the number of students who qualified for interview from RRB PO and from RRB assistant.

A. 554 B. 434 C. 464 D. 274 E. 244

404. For which exam, the percentage of the number of students who did not appeared in the exam is second lowest?

A. RBI Grade B B. RRB PO C. SBI PO D. RRB Assistant E. SBI Clerk

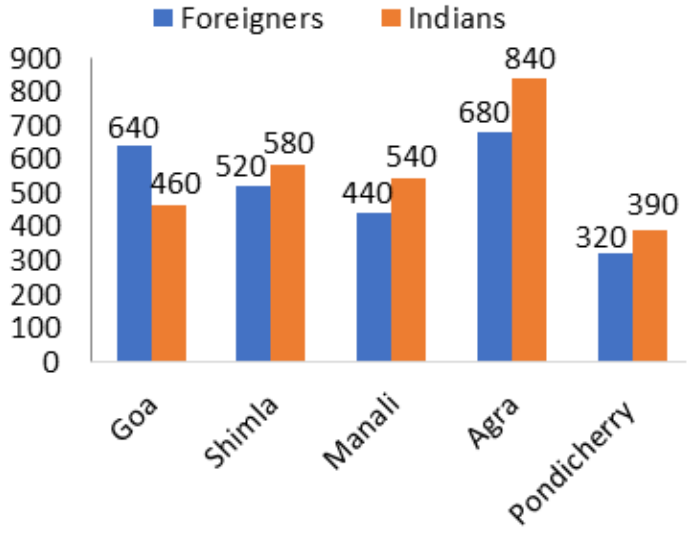
405. The registration of $(4/55)^{th}$ of total number of students of the given five exams had been cancelled. Find the number of students whose registration was cancelled.

A. 3478 B. 3368 C. 3648 D. 3538 E. 3228

SET – 82

Directions : Study the following bar chart carefully and answer the questions given beside.

The following bar chart gives the information about the number of Foreigners and Indians who visited five different places Goa, Shimla, Manali, Agra, and Pondicherry in India during the year 2017.



406. The number of foreigner tourists visited in Goa during the year 2017 is approximately what percentage more than the number of foreigner tourists visited in Pondicherry during the year 2017?

A. 50% B. 200% C. 125% D. 150% E. 100%

407. What is the difference between the number of foreigners who visited in the given five places during the year 2017 and the number of Indians who visited in the given five places during the year 2017?

A. 240 B. 280 C. 210 D. 270 E. None of these

408. By what percentage the number of Indians who visited Shimla during the year 2017 is less than the number of Indians who visited Agra during the year 2017?

A. 31% B. 34% C. 39% D. 27% E. 24%

409. What percentage of total people who visited Goa during the year 2017 were Indians?

A. 43.33% B. 44.67% C. 41.82% D. 38.21% E. 48.88%

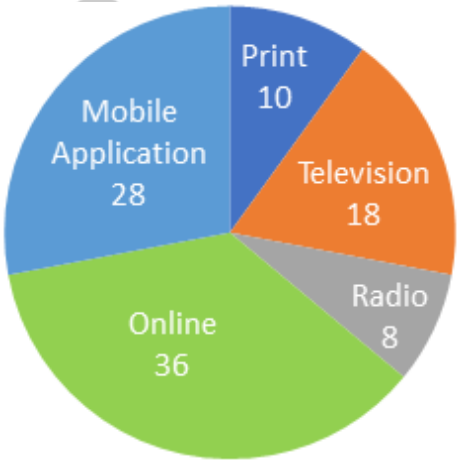
410. The number of Foreigners who visited Agra during the year 2017 was approximately what percentage of the sum of the total number of Foreigners who visited the given five states during the year 2017?

A. 24.25% B. 28.34% C. 16.15% D. 26.15% E. 29.85%

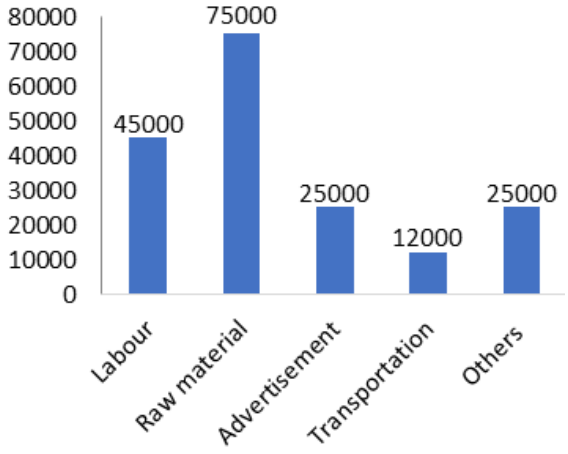
SET – 83

Directions : Study the following pie and bar chart carefully and answer the questions given beside.

The following pie chart gives the information about the percentage breakup of advertising expenditures of XYZ company during a year. The bar graph given below gives the information about different expenditures of the company (in Rs) in the same year.



Expenditures of the company



411. The expenditure of the company on labour is how much more than that the expenditure of the company on Radio advertising?

A. Rs. 43200 B. Rs. 42000 C. Rs. 42800 D. Rs. 43000 E. None of these

412. What is the ratio of the total expenditure of the company in that year to the expenditure of the company in mobile application advertising?

A. 91 : 14 B. 23 : 3 C. 26 : 1 D. 91 : 7 E. None of these

413. If the company's total revenue was Rs. 5 lakh, then what percent of total revenue did it spend on Online advertising?

A. 18% B. 1.8% C. 15% D. 1.5% E. None of these

414. The expenditure of the company on radio advertising is what percentage of the expenditure of the company on raw material?

A. $8\frac{1}{3}\%$ B. $2\frac{2}{3}\%$ C. $2\frac{1}{3}\%$ D. $6\frac{2}{3}\%$ E. None of these

415. What is the sum of the expenditure of the company on transportation and in print advertisement together?

A. Rs. 14000 B. Rs. 13500 C. Rs. 15500 D. Rs. 14500 E. None of these

SET – 84

Directions: Study the given information carefully to answer the questions.

Chaman and Baman together bought 4 acres of agriculture land in the ratio of 5: 3 in the year 2015 and started cultivating wheat in the year 2016. In that year, Chaman being an elder brother gave 50 tons of wheat which was 8% of his total production of that year to Baman, now Baman's total wheat quantity was increased by 25%. In the year 2017, Baman's total wheat production was doubled over the previous year so he returned 10% of his total wheat produced quantity to Chaman now, after receiving from Baman, Chaman's total wheat quantity was increased by 200/3 %. In the year 2018, both of them had produced an equal quantity of wheat and Chaman's production of wheat was increased by 25% over the total quantity of wheat he had produced in the previous year.

416. What is the total quantity (in ton) of wheat produced by Chaman in the year 2018?

A. 100 B. 120 C. 80 D. 75 E. None of these

417. What was the percentage decrease in Baman's production of wheat in the year 2018 over the previous year?

A. 87.5% B. 42.5% C. 56.5% D. 81.50% E. None of these

418. What quantity of total wheat did Baman produce in the year 2017 and 2018 together?

A. 525 tons B. 475 tons C. 550 tons D. 575 tons E. None of these

419. What is the difference between the total quantity of wheat produced by Chaman in the given three periods to that by Baman in the given three periods?

A. 95 tons B. 125 tons C. 85 tons D. 75 tons E. None of these

420. In the year 2016, what was the ratio of average production of wheat per acre for Chaman to the average production of wheat per acre for Baman?

A. 25 : 8 B. 5 : 2 C. 15 : 8 D. 3 : 2 E. None of these

SET – 85

Directions: Study the following table chart carefully and answer the questions given beside:

The table given below gives the information about various types of food crops produced (in thousand tons) in a country called Bingoladesh for two years. It also shows the percentage contribution of Dhaka, one of the states of Bingoladesh, to the total production of the crop.

Year → Food crop ↓	2016		2017	
	Production	Percentage contribution of Dhaka	Production	Percentage contribution of Dhaka
Wheat	80	30	220	40
Pearl Millet	125	20	150	30
Rice	160	45	280	35
Pulses	400	32	270	50
Others	280	50	200	34

421. What was the total quantity of food crops (in thousand tons) produced in the states Dhaka in the year 2016?

A. 379 B. 365 C. 359 D. 389 E. None of these

422. The total quantity of food crops produced in the year 2017 in the state Dhaka was how much more than that produced in the year 2016 in the same state?

A. 65 thousand tons B. 45 thousand tons C. 75 thousand tons D. 95 thousand tons E. None of these

423. In the state Dhaka, the price of pearl millet in the year 2016 was 60% higher than that of wheat in the year 2017 then in the state Dhaka, the total amount received from the wheat in the year 2017 was how much percentage more than that from pearl millet in the year 2016?

A. 210% B. 200% C. 110% D. 120% E. None of these

424. What was the ratio of total quantity of food crops produced in the year 2016 in Bingoladesh to that in the year 2017 in Bingoladesh?

A. 209 : 224 B. 211 : 224 C. 213 : 224 D. 2013 : 225 E. None of these

425. In the year 2016, Bingoladesh exports 13% of total pulses produced in that year and in the year 2017, it exports 20% of total pulses produced in that year then total what quantity of pulses did Bingoladesh export in the year 2016 and 2017 together?

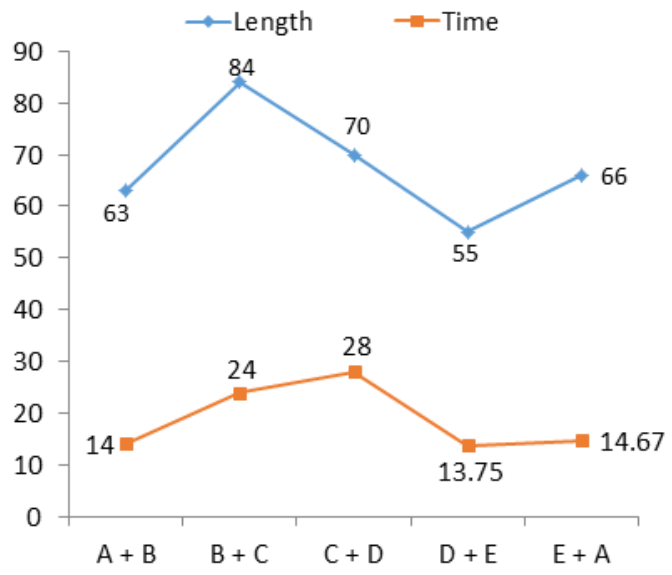
A. 104 thousand tons B. 106 thousand tons C. 108 thousand tons D. 112 thousand tons E. None of these

SET – 86

Direction : Study the following line graph carefully to answer the questions that follow.

Below the pair of five trains are given. The sum of length of each pair and the time taken to cross each other when travelling in opposite direction of each pair is given in the line graph.

Length (in decametre) and Time (in sec) taken to cross each other when travelling to opposite direction



426. Find the time taken by train B and train D to cross each other if both are travelling in opposite direction.

A. 13 sec B. 15 sec C. 18 sec D. 10 sec E. 16 sec

427. Find the time taken by train A to pass train C if they are travelling in the same direction.

A. 85 sec B. 76 sec C. 81 sec D. 88 sec E. 92 sec

428. If train E crosses a platform of certain length in 49.6 seconds then find the time taken by train D to cross the same platform.

A. 96.4 sec B. 84.5 sec C. 67.67 sec D. 71.33 sec E. 86.67 sec

429. Train A was travelling from Patna to Delhi while train D was travelling from Delhi to Patna. Train A started after 2 hours of train D. If both trains meet at a distance of 405 km from Delhi then find the distance between Patna to Delhi.

A. 900 km B. 840 km C. 920 km D. 760 km E. 860 km

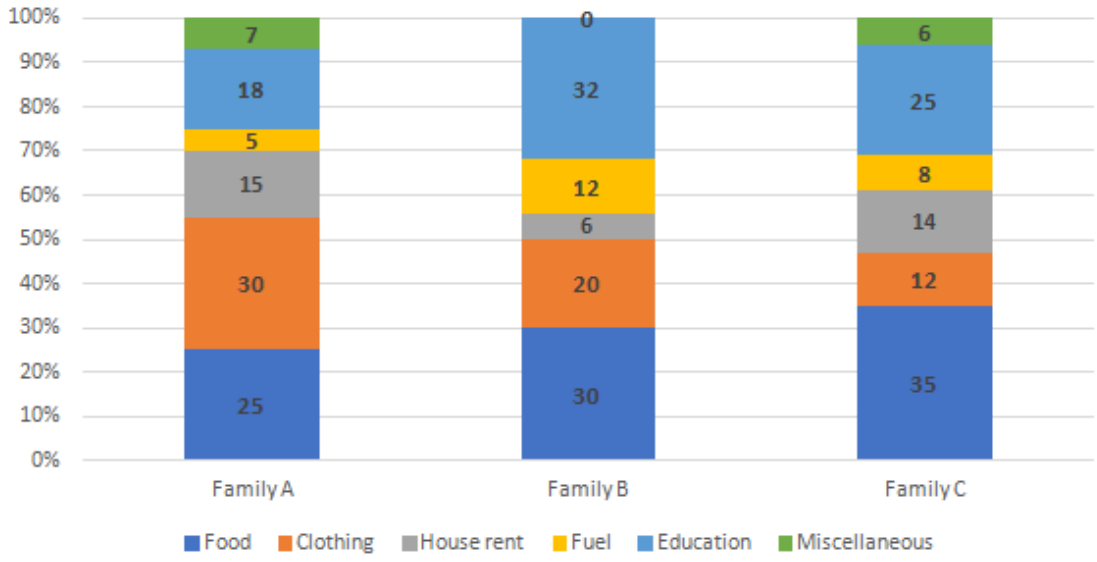
430. Train B and train C were travelling from station X to station Y which is 432 km apart. If both reached the station Y at the same time then find after how much time of train C, would train B leaved station X?

A. 8 hours B. 6.2 hours C. 6.4 hours D. 7.6 hours E. 7.2 hours

SET – 87

Directions : Study the following bar chart carefully and answer the questions given beside.

The following stacked chart gives the information about the percentage of expenditure of three families on various items. The total expenditures of them are equal to the total income.



431. If the miscellaneous expenditures of family C is Rs. 1200 and the income of family B is 150% of the income of family C then find the total expenditure on food by the family B?

A. Rs. 9000 B. Rs. 12000 C. Rs. 9060 D. Rs. 15000 E. None of these

432. If the respective ratio of the income of family A, Family B, and family C is 7 : 5 : 4 then find the respective ratio of their expenditure on fuel?

A. 7 : 5 : 4 B. 5 : 12 : 8 C. 35 : 60 : 32 D. 21 : 20 : 10 E. None of these

433. If the difference between the total expenditure by family A on fuel and the total expenditure by family B on clothing is Rs. 15000 and the respective ratio of the income of family A and the income of family B is 2 : 3 then find the total income of family B?

A. Rs. 120000 B. Rs. 90000 C. Rs. 60000 D. Rs. 52000 E. Can't be determined

434. If the total income of family C is Rs. 55000 then find the total amount spent by them on Food, Clothing, and House rent together?

A. Rs. 32550 B. Rs. 30550 C. Rs. 34550 D. Rs. 33500 E. None of these

435. What is the respective ratio of the total expenditure on education by family A, family B, and Family C?

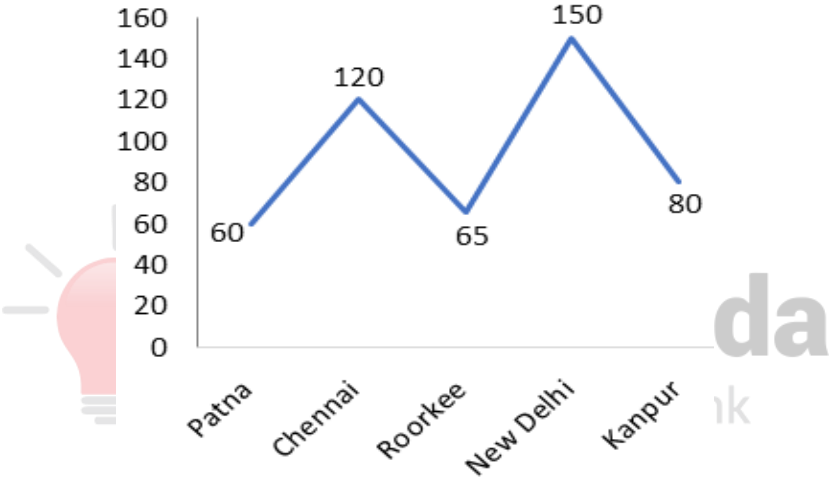
A. 18 : 32 : 25 B. 8 : 16 : 12 C. 3 : 5 : 4 D. 9 : 16 : 12 E. Can't be determined

SET – 88

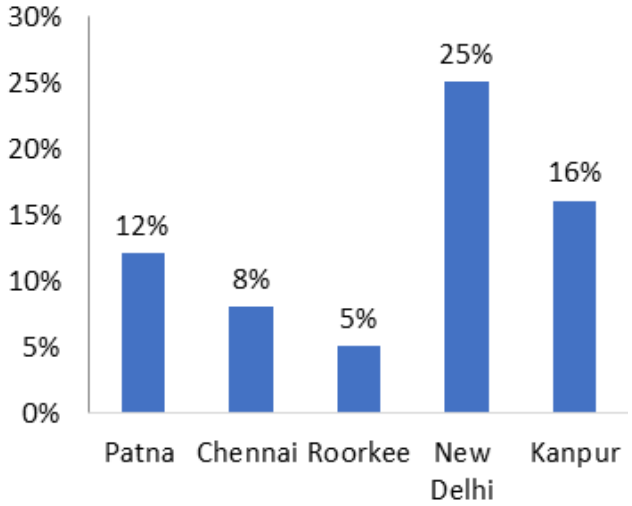
Directions : Study the following line & bar chart carefully and answer the questions given beside.

The line graph given below gives the information about the number of graduates hired by Tata Motors in five different IITs. The bar graph given below gives the information about the percentage of total graduates placed in Tata Motors from the respective IITs.

The number of graduates hired by Tata Motors



The percentage of graduates placed in Tata motors



436. The number of graduates who didn't get placed in Tata Motors, of IIT Roorkee was how many more than that of IIT Patna?

A. 785 B. 795 C. 800 D. 675 E. None of these

437. In IIT New Delhi, the ratio of male graduates to female graduates was 5 : 3 respectively. If total of 30 female graduates from that college get placed in Tata Motor then what percentage of the total number of male graduates get placed in Tata Motors?

A. 28% B. 30% C. 35% D. 32% E. None of these

438. In all the five IITs together, the number of female graduates is 40% of the total number of graduates then what is the total number of male graduates?

A. 2640 B. 2520 C. 2880 D. 2760 E. None of these

439. What is the total number of graduates from all the five IITs together got placed in Tata Motors?

A. 480 B. 465 C. 475 D. 485 E. None of these

440. In IIT Patna, 10% of the total number of female graduates get placed in Tata Motors which formed 40% of the total number of graduates got placed from IIT Patna in Tata Motors then what was the total number of male graduates in IIT Patna?

A. 224 B. 230 C. 250 D. 260 E. None of these

SET – 89

Directions: Study the given information carefully to answer the questions.

A person went to market with Rs. 750. He purchased x kg apples, 4 kg bananas and 6 kg mangoes. After purchasing, he was left with Rs. 50 in his pocket. When he calculated, he found that the amount spent to purchase apples was equal to the amount spent to purchase mangoes, the amount spent to purchase bananas was one third of the amount spent to purchase apples and the total quantity of apples purchased by him was half of the total quantity of bananas and mangoes together purchased by him.

441. What is the ratio of price per kg of apples to price per kg of banana?

A. 4 : 1 B. 5 : 3 C. 12 : 5 D. 24 : 13 E. None of these

442. How much money did he spend to purchase mangoes?

A. Rs. 240 B. Rs. 300 C. Rs. 324 D. Rs. 306 E. None of these

443. If he purchases two kg mangoes, 1 kg apples, and 2 kg banana then how much money will he left with in his pocket?

A. Rs. 210 B. Rs. 580 C. Rs. 540 D. Rs. 520 E. None of these

444. How many kg of apples did he purchase?

A. 5 B. 4 C. 6 D. 3 E. None of these

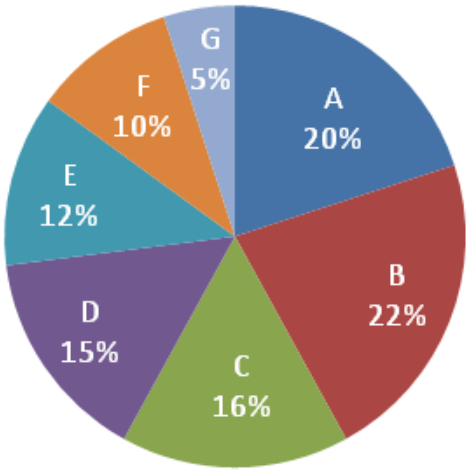
445. If he purchases less quantity (in kg) of mangoes and the quantity of apples and bananas purchased remains same then he was left with 33.33% of the total amount. How many kg of total fruits did he purchase?

A. 10 Kg B. 11 Kg C. 9 Kg D. 12 Kg E. None of these

SET – 90

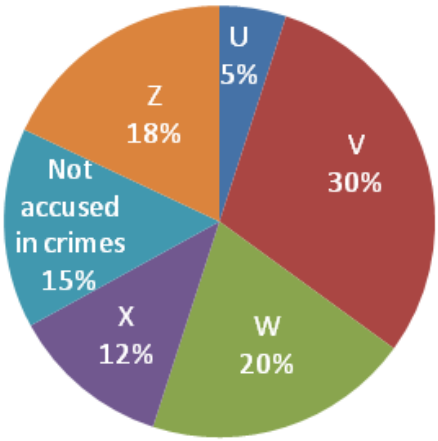
Directions: Study the following pie chart carefully & answer the questions given below it.

Percentage of politicians of various political parties in a country



Total politicians = 2500

Percentage of politicians accused of various crimes in a country



Total politicians = 2500

446. If 10% of party E, 20% of party A and 12% of party B politicians are not accused of crimes then what is the average number of politicians of these parties who are accused of criminal offences? (Calculate approximate value)

A. 362 B. 378 C. 315 D. 385 E. 316

447. What is the ratio of the number of politicians who are accused of crime U to the number of politicians who belong to party A?

A. 2 : 3 B. 1 : 4 C. 4 : 1 D. 3 : 2 E. 5 : 6

448. If 20% politicians of party D left the party, and out of these 60% are not accused of crimes, then the number of politicians who left party D who are not accused of any crime is what per cent of the total number of politicians who are not accused of crimes?

A. 14% B. 18% C. 16% D. 22% E. 12%

449. If 50% politicians of party A and 40% of party B are accused of crime W then what is their ratio?

A. 25 : 22 B. 21 : 19 C. 22 : 37 D. 23 : 47 E. 17 : 11

450. The percentage of politicians who are accused of crime Z are same (20%) in all parties. What is the difference between the number of politicians of party B and party A who are accused of crime Z?

A. 12 B. 18 C. 10 D. 16 E. 15

SET – 91

Directions: Study the following table chart carefully and answer the questions given beside:

The following table given below gives the information about the number of adults(in million) who are financially unstable and stable in 5 different countries of Asia.

Country	The total number of adults who are financially unstable	% of adults who are financially unstable out of the total number of adult population	The ratio of male to female who are financially stable adults
India	560	40	7 : 5
Bangladesh	900	72	4 : 3
Pakistan	960	60	3 : 17
Indonesia	644	50	3 : 2
Afghanistan	300	96	5 : 4

451. What is the total number of adult females in Pakistan who are financially stable?

A. 289 million B. 280 million C. 544 million D. 306 million E. None of these

452. If the ratio of male to female adults who are financially unstable in India is 1 : 1, then total what is the population of adult females in India?

A. 620 million B. 630 million C. 640 million D. 610 million E. None of these

453. Adult male population of Pakistan who are financially stable comprises of what percentage of the total population of Pakistan?

A. 6% B. 3% C. 1.5% D. 4.5% E. None of these

454. Find the sum (In million) of the adult population of Pakistan and Afghanistan?

A. 1825 B. 1937.5 C. 1887.5 D. 1912.5 E. None of these

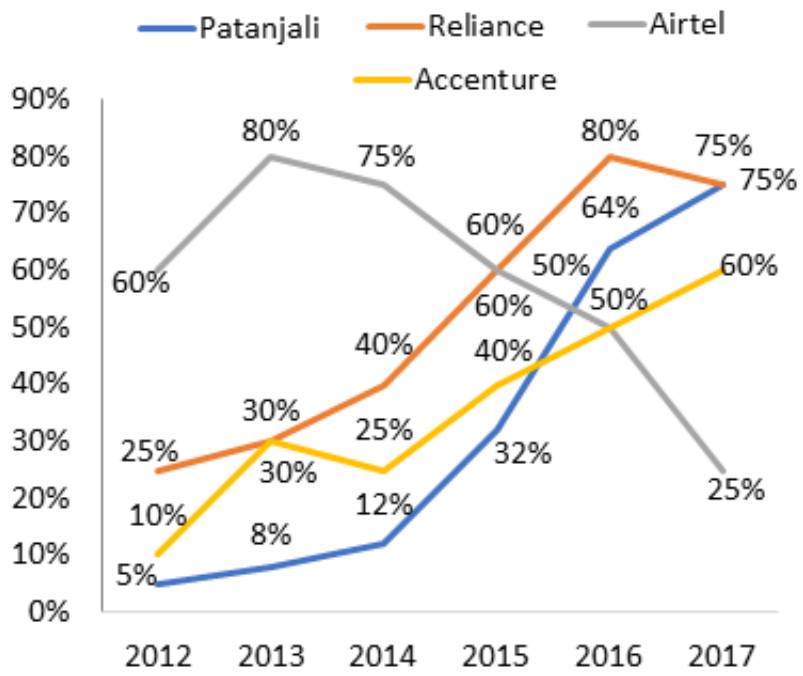
455. The number of adult males in Bangladesh who are financially stable is how much less than the number of adult females in Indonesia who are financially stable?

A. 117.4 million B. 12.6 million C. 57.6 million D. 58.2 million E. None of these

SET – 92

Direction : Study the following line graph carefully to answer the questions that follow.

The following line graph gives the information about the percentage increase in turnover of four companies (Patanjali, Reliance, Airtel, and Accenture) during the year 2012 to 2017 with respect to previous year.



456. **If at the end of year 2011, the turnover of Patanjali was 25% less than the turnover of Airtel then at the end of 2014, the turnover of Patanjali was how much percent less than the turnover of Airtel? (approximately)**

A. 40% B. 60% C. 51% D. 81% E. 85%

457. **If at the end of 2015, the turnover of Patanjali was 75% of the turnover of Airtel, turnover of Airtel was 60% of the turnover of Accenture and the turnover of Accenture was 80% of the turnover of Reliance. If it is given that the turnover of Reliance at the end of 2015 was $ 1.75 billion. Then what was the sum of the total turnover of all the companies together at the end of 2017? (round off two decimal)**

A. $ 12.25 billion B. $ 14.21 billion C. $ 7.48 billion D. $ 9.64 billion E. $ 6.14 billion

458. **If the total turnover of Patanjali at the end of 2012 was $ 1 billion then find the total turnover of Patanjali at the end of 2017? (round off two decimal)**

A. $ 6.21 billion B. $ 7.21 billion C. $ 4.58 billion D. $ 3.12 billion E. $ 2.24 billion

459. **At the end of 2012, the respective ratio of the turnover of Patanjali, Reliance, Airtel, and Accenture was 2 : 7 : 4 : 5 then what was the respective ratio of the turnover of all the companies at the end of 2011?**

A. $\frac{40}{21} : \frac{28}{5} : \frac{7}{2} : \frac{50}{11}$ B. $\frac{40}{21} : \frac{27}{5} : \frac{5}{2} : \frac{50}{11}$ C. $\frac{40}{21} : \frac{28}{5} : \frac{5}{2} : \frac{40}{11}$ D. $\frac{20}{21} : \frac{14}{5} : \frac{5}{4} : \frac{25}{11}$ E. None of these

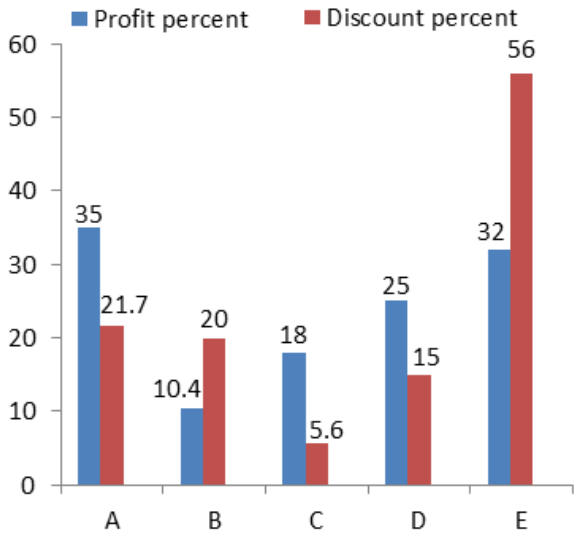
460. **Which of the following shows the approximate percentage increase in the turnover of Accenture during the six years?**

A. 450% B. 500% C. 600% D. 550% E. 300%

SET – 93

Directions: Study the graph carefully and answer the following questions.

A shopkeeper sells five different types of articles. The chart represents the profit percent earned and the discount given in five different articles.



461. If the cost price of article B and the article C are Rs. 2500 and Rs. 2400, respectively. Find the difference between the marked price of the article B and the marked price of the article C.

A. Rs. 450 B. Rs. 430 C. Rs. 500 D. Rs. 650 E. Rs. 460

462. If the marked price of the article E is Rs. 4800 then find the cost price of the article E.

A. Rs. 1500 B. Rs. 1850 C. Rs. 1800 D. Rs. 1600 E. Rs. 1750

463. If the selling price of the article A and the article D are Rs. 3132 and Rs. 1700, respectively then the marked price of the article D is what percent of the marked price of the article A?

A. 75% B. 50% C. 80% D. 60% E. 40%

464. The discount given in the article A has been reduced by 6.7% and also the marked price of the article has been reduced by Rs. 400. If initially, the cost price of article A is Rs. 2320, then find the difference between the discount given earlier and the discount given after reducing the marked price.

A. Rs. 328 B. Rs. 356 C. Rs. 384 D. Rs. 320 E. Rs. 365

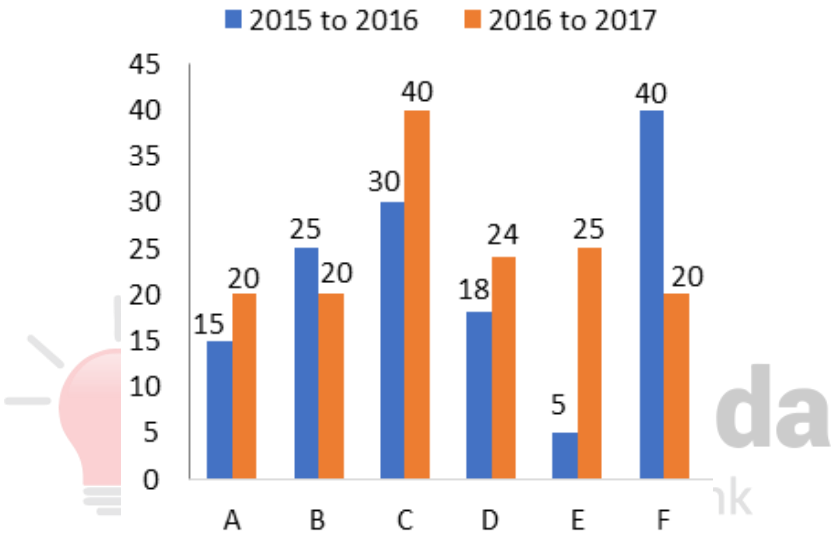
465. What will be the ratio of the cost price of the article E and the cost price of the article C if the selling price of the article C and the selling price of the article E is Rs. 2124 and Rs. 1848, respectively?

A. 9 : 8 B. 6 : 7 C. 7 : 9 D. 7 : 5 E. 9 : 7

SET – 94

Directions : Study the following bar chart and table chart carefully and answer the questions given beside.

The following bar chart gives the information about the percentage increase in turnover of six different companies from 2015 to 2016 and from 2016 to 2017



The following table chart gives the partial information about the actual turnover (In crores) of these companies in three different years.

Companies/Year	2015	2016	2017
A	-------	--------	1800
B	1200	--------	-------
C	-------	850	-------
D	950	-------	---------
E	------	---------	1700
F	-------	650	--------

466. What is the difference between the actual turnover of company A in 2016 and the actual turnover of company F in 2017?

A. Rs. 780 crores B. Rs. 720 crores C. Rs. 750 crores D. Rs. 740 crores E. None of these

467. Find the respective ratio of the actual turnover of company A and B in 2016?

A. 1 : 1 B. 2 : 1 C. 3 : 2 D. 4 : 5 E. None of these

468. The actual turnover of company F in 2015 is approximately what percent of the actual turnover of company E in 2015?

A. 32.55% B. 33.45% C. 38.65% D. 35.85% E. None of these

469. Find the sum of the turnover of company B in three different years?

A. Rs. 4500 crores B. Rs. 4400 crores C. Rs. 4200 crores D. Rs. 4600 crores E. None of these

470. The actual turnover of company C in 2015 is approximately what percent less than the actual turnover of company E in 2015?

A. 52.5% B. 49.5% C. 40.5% D. 60.5% E. None of these

SET – 95

Directions: Study the given information carefully to answer the questions.

In an annual examination of 12^{th} board consisting only three subjects, Physics, Chemistry and Mathematics 400 students appeared from a college.

400 students had passed in chemistry, 360 students had passed in physics, and 375 students had passed in mathematics. 80% of the total number of students had passed in all the three subjects. All those except 40 students, who had passed in mathematics also passed in physics and all those except 30 students, who had passed in physics also passed in chemistry. 85% of the total number of students who had passed in chemistry also passed in mathematics.

471. How many of students had passed only in chemistry?

A. 20 B. 50 C. 60 D. 100 E. None of these

472. Find the sum of all the students who had passed in only two subjects?

A. 55 B. 50 C. 45 D. 60 E. None of these

473. The number of students who had passed only in Mathematics is what percent of the number of students who had passed only in Physics and Chemistry?

A. 200% B. 50% C. 150% D. 250% E. None of these

474. Find the ratio of the number of students who had passed in chemistry to the number of students who had passed in physics and mathematics both?

A. 5 : 4.4 B. 80 : 67 C. 100 : 97 D. 5 : 4 E. None of these

475. The number of students who had passed in all the three subjects is how many times of the sum of all the students who had passed in exactly two subjects?

A. $7\frac{1}{9}$ times B. $8\frac{2}{9}$ times C. $7\frac{2}{9}$ times D. $7\frac{4}{9}$ times E. None of these

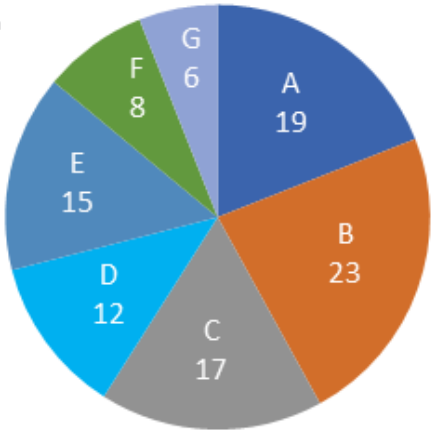
SET – 96

Directions: Study the following pie charts carefully & answer the questions given below it.

The following pie charts give the information about the percentage wise distribution of students studying in Science and Arts in seven different institutions – A, B, C, D, E, F, and G.

Total number of students studying Science = 4700

Total number of students studying Arts = 4300



476. What is the total number of students studying Science in institutes F and E together?

A. 940 B. 517 C. 950 D. 527 E. None of these

477. How many students from institute B study Science and Arts?

A. 1728 B. 1698 C. 1788 D. 1798 E. None of these

478. Find the respective ratio between the number of students studying Science and Arts from institute C.

A. 19 : 17 B. 893 : 721 C. 883 : 731 D. 893 : 731 E. None of these

479. How many students from institute F and G together study Arts?

A. 602 B. 658 C. 612 D. 648 E. None of these

480. The respective ratio between the number of students studying Science from institute B and that of students studying Arts from institute A is:

A. 789 : 817 B. 799 : 827 C. 799 : 817 D. 789 : 827 E. None of these

SET – 97

Directions: Study the following table chart carefully and answer the questions given beside:

The table chart given below shows the per cent of students in different classes of a school from 2006 to 2009.

Total students in the school in 2006 is 25000 and is increased by 20% every year from the previous year.

Classes	2006	2007	2008	2009
A	5%	4%	6%	9%
B	35%	46%	37%	32%
C	29%	30%	28%	35%
D	24%	14%	23%	13%
E	7%	6%	6%	11%

481. What is the difference between the number of students in classes D and E together and the number of students in classes B and C together over the entire period?

A. 91144 B. 46546 C. 56586 D. 56500 E. None of these

482. Total number of students in class B in 2008 is what per cent of total number of students in class A in 2006?

A. 106.56% B. 12.656% C. 1065.6% D. 1265.6% E. None of these

483. Find the increase in number of students in class D in the year 2009 from the year 2007.

A. 1816 B. 1400 C. 1216 D. 1416 E. None of these

484. Find the ratio of total students in classes A, C and E together in 2007 to the total students in classes B and D together in 2008.

A. 5 : 9 B. 4 : 9 C. 5 : 8 D. 1 : 2 E. None of these

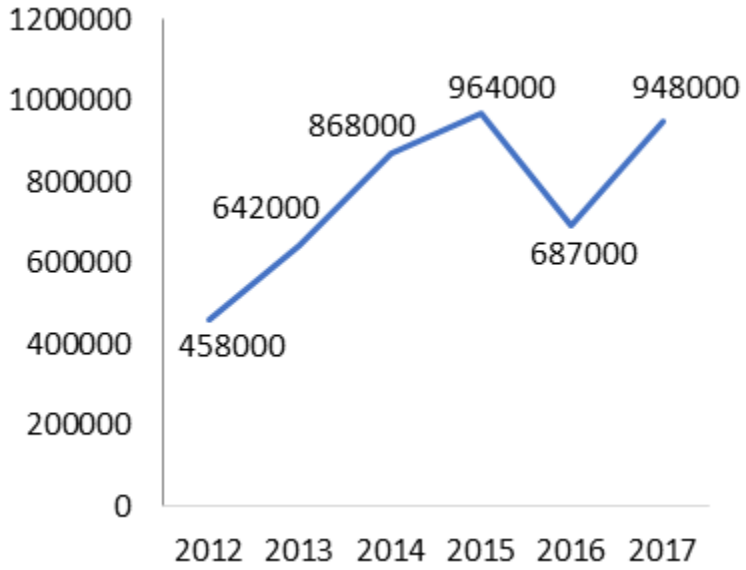
485. Find that total number of students in class A alone over the entire period is approximately what per cent of total number of students in Classes D and E together in 2009?

A. 62% B. 82% C. 72% D. 92% E. None of these

SET – 98

Direction : Study the following line graph carefully to answer the questions that follow.

The following line graph gives the information about the circulation growth of The Hindu newspaper in Bihar from 2012 to 2017.



486. The circulation of the Hindu newspaper in 2016 is how many times of that in the year 2012?

A. 1.8 times B. 2.1 times C. 1.6 times D. 1.5 times E. None of these

487. The circulation of newspaper in 2017 is how much more than that in the year 2016?

A. 251000 B. 241000 C. 261000 D. 271000 E. None of these

488. What is the total circulation of the newspaper in thousand from 2015 to 2017?

A. 2599 B. 2498 C. 2696 D. 2679 E. None of these

489. In 2018, the circulation of the newspaper will be increased by 10% over the previous year then what will be the difference between the circulation of newspaper in the year 2018 and that in the year 2015?

A. 79800 B. 82400 C. 84200 D. 78800 E. None of these

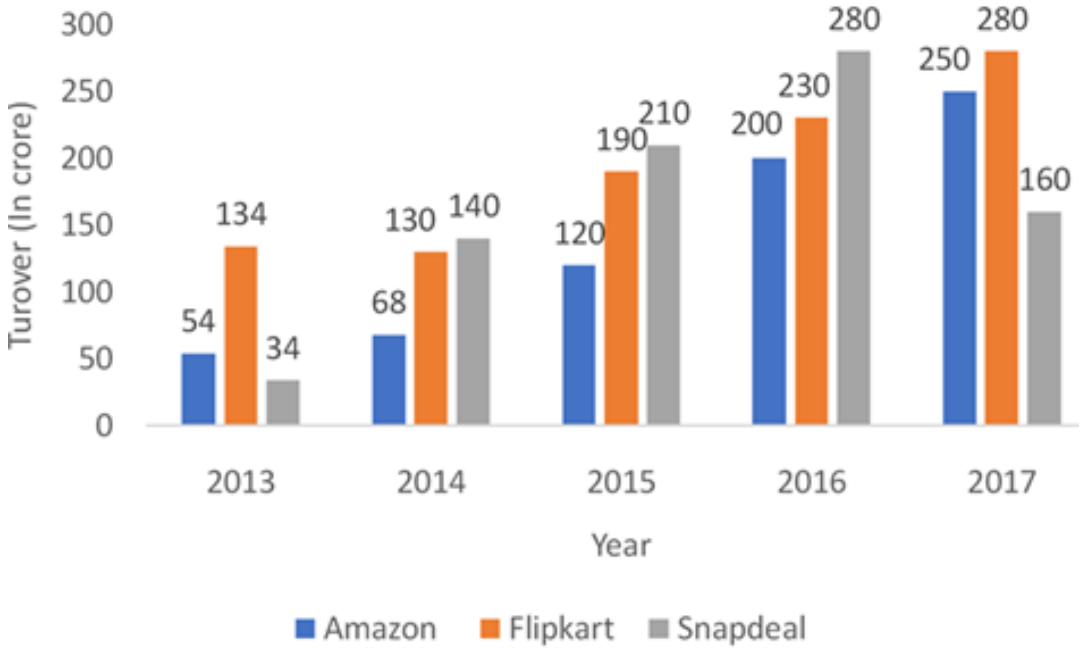
490. The percentage of growth of the circulation of the newspaper in comparison to the growth of the previous year was highest in which of the following year?

A. 2013 B. 2015 C. 2014 D. 2017 E. 2016

SET – 99

Directions: Study the graph carefully and answer the following questions.

The following bar graph gives the information about the turnover (In crores) of top three e-commerce companies of India, for the five years from 2013 to 2017.



$$\text{A company's Market Share in one particular year} = \frac{\text{Company's turnover in that year}}{\text{Turnover of all the companies in that year}} \times 100\%$$

491. In which year was the percentage increase in the turnover of Amazon over the previous year was second highest?

A. 2013 B. 2014 C. 2015 D. 2016 E. 2017

492. During which year was the lowest market share in the term of percentage recorded by Flipkart?

A. 2013 B. 2014 C. 2015 D. 2016 E. 2017

493. What is the highest market share in the term of percentage recorded by any of the following company in the given year?

A. 41.42% B. 39.43% C. 60.98% D. 40.57% E. None of the above

494. By what percent is the average annual turnover of Flipkart during the given five years more/less than that of average annual turnover of Amazon during the given five years?

A. More than 39.31% B. Less than 39.31% C. More than 41.21% D. Less than 41.21%
E. More than 40.41%

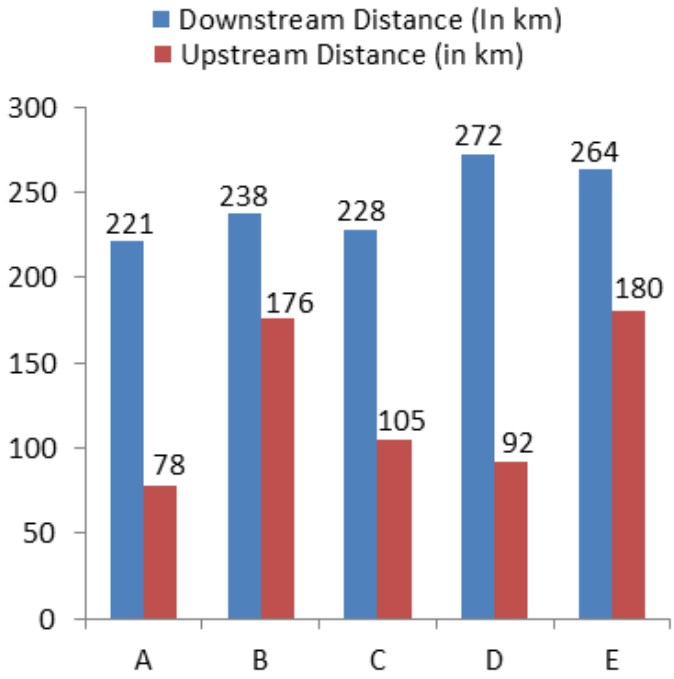
495. By what percent is the average annual turnover of Snapdeal during the given five years more/less than its turnover in 2017?

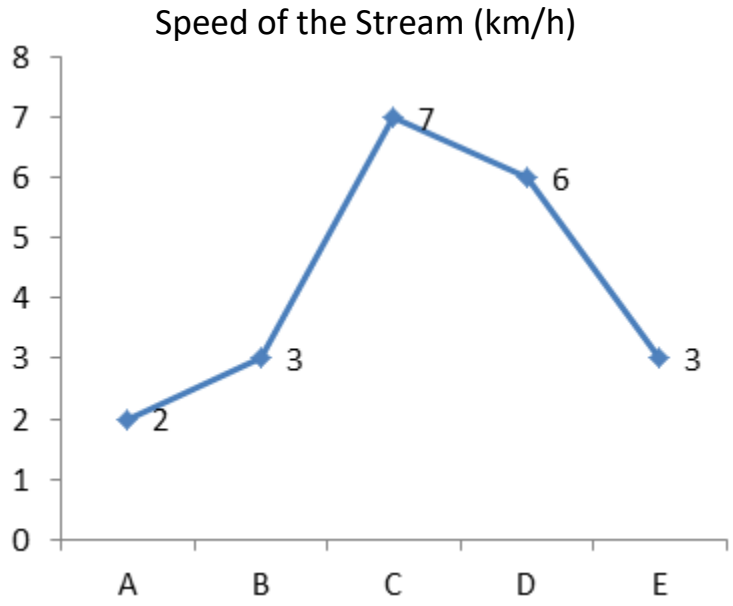
A. More than 3.25% B. Less than 3.25% C. More than 3% D. Less than 3%
E. More than 3.10%

SET – 100

Directions : Study the following bar and line chart carefully and answer the questions given below.

Bar chart given below shows downstream distance and upstream distance (in km) travelled by 5 different boats and the line chart shows the speed of the streams in which the boat flows.





496. Downstream speed for E and upstream speed of B is same and the difference between the time taken by B going upstream and time taken by E going downstream is 8 hrs. Find the total time taken by E and B going 187 km downstream?

A. 28 hrs B. 30 hrs C. 25 hrs D. 22 hrs E. 27 hrs

497. If the time taken by C to complete a distance of 133 km downstream and time taken by A to complete a distance of 65 km upstream is 7 hrs and 5 hrs respectively. Then find the ratio of the time taken by C while going upstream and the time taken by A while going downstream?

A. 12 : 13 B. 13 : 12 C. 23 : 25 D. 13 : 21 E. None of these

498. The total time taken by D in travelling downstream and upstream both is 40 hrs. Find the time taken by boat F travelling 220 kms upstream, if the ratio of speed of the boat in still water of D and F is 1:3 and the time taken by F in going 360 kms downstream is 9 hrs?

A. 12 hrs B. 9 hrs C. 11 hrs D. 13 hrs E. None of these

499. The speed of Boat B downstream is 17km/hr. Boat B while travelling back to the shore downstream was struck by a rock due to which water starts to flow into the boat at the rate of 30 litres per hour. If the boat can survive up to 270 litres , find the minimum percentage increase in speed boat B requires in order to reach the shore , if the distance remaining at the moment rock hit the boat was 180 kms?

A. 150/7% B. 153/7% C. 37% D. 53% E. None of these

500. The speed of Boat E going downstream is 11km/hr. Boat E while travelling back to the shore downstream was struck by a rock due to which water starts to flow into the boat at the rate of 50 litres per hour. If the boat can survive up to 1000 litres, find the minimum percentage of increase in speed boat E requires in order to reach the shore, if the distance remaining at the moment rock hit the boat was 240 kms?

A. 8.33% B. 9.5% C. 12.5% D. 12.33% E. None of these

CORRECT ANSWERS:

1	2	3	4	5	6	7	8	9	10
C	C	A	A	C	D	B	C	E	C
11	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
C	E	D	C	B	D	C	A	A	E
21	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**
B	D	B	C	E	C	A	E	B	A
31	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**
E	A	D	A	B	B	E	B	C	A
41	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**
D	E	B	C	A	B	E	A	D	C
51	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**
D	A	C	B	C	C	E	B	A	C
61	**62**	**63**	**64**	**65**	**66**	**67**	**68**	**69**	**70**
B	D	B	A	E	C	E	D	A	C
71	**72**	**73**	**74**	**75**	**76**	**77**	**78**	**79**	**80**
E	B	D	C	E	E	A	B	B	D
81	**82**	**83**	**84**	**85**	**86**	**87**	**88**	**89**	**90**
C	E	D	A	B	D	B	A	C	B
91	**92**	**93**	**94**	**95**	**96**	**97**	**98**	**99**	**100**
D	A	B	D	A	D	B	B	D	B
101	**102**	**103**	**104**	**105**	**106**	**107**	**108**	**109**	**110**
C	B	C	A	E	A	D	D	C	E
111	**112**	**113**	**114**	**115**	**116**	**117**	**118**	**119**	**120**
D	C	A	D	A	D	B	A	D	C
121	**122**	**123**	**124**	**125**	**126**	**127**	**128**	**129**	**130**
C	A	B	D	C	B	C	D	A	B
131	**132**	**133**	**134**	**135**	**136**	**137**	**138**	**139**	**140**
A	A	E	E	B	A	B	D	D	A
141	**142**	**143**	**144**	**145**	**146**	**147**	**148**	**149**	**150**
C	D	C	A	B	A	D	E	B	A
151	**152**	**153**	**154**	**155**	**156**	**157**	**158**	**159**	**160**
B	A	C	D	C	C	B	D	E	C
161	**162**	**163**	**164**	**165**	**166**	**167**	**168**	**169**	**170**
D	C	A	B	B	B	A	C	A	C

171	172	173	174	175	176	177	178	179	180
C	D	B	A	C	B	D	C	C	B
181	**182**	**183**	**184**	**185**	**186**	**187**	**188**	**189**	**190**
D	B	C	A	C	B	A	A	C	E
191	**192**	**193**	**194**	**195**	**196**	**197**	**198**	**199**	**200**
A	B	A	A	A	C	E	B	C	E
201	**202**	**203**	**204**	**205**	**206**	**207**	**208**	**209**	**210**
B	C	A	B	E	A	B	C	C	D
211	**212**	**213**	**214**	**215**	**216**	**217**	**218**	**219**	**220**
A	C	B	D	A	C	D	C	A	A
221	**222**	**223**	**224**	**225**	**226**	**227**	**228**	**229**	**230**
B	C	A	B	E	E	E	B	E	C
231	**232**	**233**	**234**	**235**	**236**	**237**	**238**	**239**	**240**
B	C	E	D	E	C	A	E	A	B
241	**242**	**243**	**244**	**245**	**246**	**247**	**248**	**249**	**250**
B	D	E	A	C	D	B	A	C	D
251	**252**	**253**	**254**	**255**	**256**	**257**	**258**	**259**	**260**
B	D	C	C	B	C	D	D	D	D
261	**262**	**263**	**264**	**265**	**266**	**267**	**268**	**269**	**270**
C	B	A	C	E	D	A	E	D	C
271	**272**	**273**	**274**	**275**	**276**	**277**	**278**	**279**	**280**
A	B	C	E	C	B	B	E	C	B
281	**282**	**283**	**284**	**285**	**286**	**287**	**288**	**289**	**290**
B	E	B	D	B	A	D	B	D	C
291	**292**	**293**	**294**	**295**	**296**	**297**	**298**	**299**	**300**
C	B	C	D	A	B	E	A	C	B
301	**302**	**303**	**304**	**305**	**306**	**307**	**308**	**309**	**310**
A	D	A	C	E	B	A	B	C	D
311	**312**	**313**	**314**	**315**	**316**	**317**	**318**	**319**	**320**
A	E	D	B	E	C	D	A	D	C
321	**322**	**323**	**324**	**325**	**326**	**327**	**328**	**329**	**330**
B	B	D	B	B	B	A	D	B	D
331	**332**	**333**	**334**	**335**	**336**	**337**	**338**	**339**	**340**
A	C	C	B	B	A	A	D	C	A

341	342	343	344	345	346	347	348	349	350
B	B	C	C	E	C	C	D	B	D
351	**352**	**353**	**354**	**355**	**356**	**357**	**358**	**359**	**360**
B	D	E	C	D	B	B	D	B	E
361	**362**	**363**	**364**	**365**	**366**	**367**	**368**	**369**	**370**
E	A	B	C	D	B	D	B	A	B
371	**372**	**373**	**374**	**375**	**376**	**377**	**378**	**379**	**380**
D	A	C	E	B	B	D	B	B	E
381	**382**	**383**	**384**	**385**	**386**	**387**	**388**	**389**	**390**
C	A	D	A	D	B	A	D	B	D
391	**392**	**393**	**394**	**395**	**396**	**397**	**398**	**399**	**400**
D	C	B	E	C	B	D	B	C	A
401	**402**	**403**	**404**	**405**	**406**	**407**	**408**	**409**	**410**
D	A	C	E	B	E	C	A	C	D
411	**412**	**413**	**414**	**415**	**416**	**417**	**418**	**419**	**420**
D	C	B	B	D	D	E	B	C	C
421	**422**	**423**	**424**	**425**	**426**	**427**	**428**	**429**	**430**
D	B	D	A	B	A	C	D	A	E
431	**432**	**433**	**434**	**435**	**436**	**437**	**438**	**439**	**440**
A	C	B	E	E	B	D	A	C	D
441	**442**	**443**	**444**	**445**	**446**	**447**	**448**	**449**	**450**
C	B	C	A	B	D	B	E	A	C
451	**452**	**453**	**454**	**455**	**456**	**457**	**458**	**459**	**460**
C	B	A	D	C	D	A	C	D	B
461	**462**	**463**	**464**	**465**	**466**	**467**	**468**	**469**	**470**
A	D	B	A	C	B	A	D	A	B
471	**472**	**473**	**474**	**475**	**476**	**477**	**478**	**479**	**480**
B	C	A	B	A	A	C	D	A	C
481	**482**	**483**	**484**	**485**	**486**	**487**	**488**	**489**	**490**
C	C	D	A	B	D	C	A	D	A
491	**492**	**493**	**494**	**495**	**496**	**497**	**498**	**499**	**500**
D	D	A	A	C	A	E	C	A	C

Explanations:

1. Total subscribers of channel F

$= \frac{120 + 142 + 98 + 85 + 116}{5} = \frac{561}{5} = 112.2$ thousand

Total male subscribers of channel F = 36% of 112200 = 40392

Total female subscribers of channel F = (112200 – 40392) = 71808

Required difference = (71808 – 40392) = 31416

Hence, option C is correct.

2. Total number of subscribers of channel B and channel E together till May = (142 + 116) = 258 thousand

Total number of female subscribers of channel B and channel E together till May = 115 thousand

Total number of male subscribers of channel B and channel E together till May = (258 – 115) = 143 thousand

Total number of male subscribers of channel B and channel E together in June = 120% of 143000 = 171600

Total number of female subscribers of channel B and channel E together in June = [(180000 + 160000) – 171600] = 168400

Therefore, the total number of female subscribers of channel B and channel E together increased in the month of June = (168400 – 115000) = 53400

Hence, option C is correct.

3. Total views of all videos of channel D = 160 × 27 = 4320 thousands

Total views of all videos of channel E = 240 × 25 = 6000 thousands

Total views of all videos of channel B = 198 × 63 = 12474 thousands

Total views of all videos of channel C = 140 × 48 = 6720 thousands

Required ratio = (4320 + 6000) : (12474 + 6720) = 10320 : 19194 = 1720 : 3199

Hence, option A is correct.

4. Total number of male subscribers of channel D

$= \frac{85000}{50} \times 27 = 45900$

Total male subscribers of channel D who are below 20 years = 26% of 45900 = 11934

Total number of male subscribers of channel E = $\frac{116000}{125} \times 61 = 56608$

Total male subscribers of channel E who are below 20 years = 25% of 56608 = 14152

Therefore, total numbers of male subscribers of channel D and channel E combined who are below 20 years of age = (11934 + 14152) = 26086

Hence, option A is correct.

5. The total amount of money earned by channel A through subscribers

$= \frac{120000}{1000} \times 42 = \text{Rs. } 5040$

The total amount of money earned by channel A through views = $\frac{210000}{10000} \times 85 \times 42 = \text{Rs. } 74970$

The total amount of money earned by channel A = Rs. (5040 + 74970) = Rs. 80010

The total amount of money earned by channel B through subscribers = $\frac{142000}{1000} \times 42 = \text{Rs. } 5964$

The total amount of money earned by channel B through views

$= \frac{198000}{10000} \times 85 \times 63 = \text{Rs. } 106029$

The total amount of money earned by channel B = Rs. (5964 + 106029) = Rs. 111993

Required difference = Rs. (111993 – 80010) = Rs. 31983

Hence, option C is correct.

6. 16,000 people were tested for COVID-19 in yellow zone.

Now, 4.8 thousand = 4800 were found positive.

$$\text{Percent} = \frac{4800}{16000} \times 100 = 30\%$$

Hence, option D is correct.

7. Number of people tested in

Green Zone = 15,000

Skyblue Zone = 9,000

Red Zone = 11,000

Black Zone = 14,000

$$\text{Average} = \frac{(15 + 9 + 11 + 14) \times 1000}{4} = 12250$$

Hence, option B is correct.

8. The number of people who were found positive in Yellow Zone = 4.8 thousand

The number of people who were found positive in Skyblue Zone = 1.8 thousand

$$\text{Percent} = \frac{(4.8 - 1.8)}{1.8} \times 100 = 166\frac{2}{3}\%$$

Hence, option C is correct.

9. Total number of people = 2 + 3.6 + 4.8 + 1.8 + 2.75 + 1.68 = 16.63 thousand

Hence, option E is correct.

10. Number in previous tests = 18 thousand

Number of new tests = 18 × 2 = 36 thousand

Total tests after new tests = 54 thousand

Positive outcome in previous tests = 2 thousand

Positive outcome in new tests = 2 + 50% of 2 = 3 thousand

Total positive after new tests = 5 thousand

$$\text{Percent} = \frac{5}{54} \times 100 = 9.2\%$$

Hence, option C is correct.

11. Let, number of gold mohurs and the bronze mohurs in the bag be 3x and 2x, respectively

As, 45 > A > 30, and probability of drawing a bronze mohur from the bag is 3/10

Therefore, total number of mohurs in the bag = A = 40

$$\text{So, number of bronze mohurs} = \frac{3}{10} \times 40 = 12$$

$$\text{So, number of gold mohurs in the bag} = \frac{12}{2} \times 3 = 18$$

So, number of silver mohurs in the bag = 40 – (12 + 18)=10

$$\text{Total values of all the silver mohurs in the bag} = \frac{288}{0.12 \times 2} = \text{Rs. } 1200$$

Let, price of Gold, Silver and Bronze mohur is 15x, 12x and 10x respectively

15x × 18 + 12x × 10 + 10x × 12 = 5100

270x + 120x + 120x = 5100
510x = 5100
x = 10

Therefore, price of each Gold, Silver and Bronze mohur is Rs. 150, Rs. 120, and Rs. 100 respectively

Amount earned by selling gold mohurs = 150 × 18 = Rs.2700

$$\text{Therefore, cost price of videogame B} = \frac{2700}{1.5 \times 0.8} = \text{Rs. } 2250$$

Hence, option C is correct.

12. Let, number of gold mohurs and the bronze mohurs in the bag be 3x and 2x, respectively

As, 45 > A > 30, and probability of drawing a bronze mohur from the bag is 3/10

Therefore, total number of mohurs in the bag = A = 40

So, number of bronze mohurs = $\frac{3}{10} \times 40 = 12$

So, number of gold mohurs in the bag = $\frac{12}{2} \times 3 = 18$

So, number of silver mohurs in the bag = 40 – (12 + 18) = 10

Total values of all the silver mohurs in the bag

$x = \frac{288}{0.12 \times 2}$ = Rs.1200

Let, price of Gold, Silver and Bronze mohur is 15x, 12x and 10x respectively

$15x \times 18 + 12x \times 10 + 10x \times 12 = 5100$

$270x + 120x + 120x = 5100$

$510x = 5100$

$x = 10$

Therefore, price of each Gold, Silver and Bronze mohur is Rs. 150, Rs. 120, and Rs. 100 respectively

Total worth of all the gold mohurs = 150 × 18 = Rs. 2700
Total worth of all the silver mohurs = 120 × 10 = Rs. 1200

Therefore, reqd. % = $\frac{2700 - 1200}{1200} \times 100 = 125\%$

Hence, option E is correct.

13. Let, number of gold mohurs and the bronze mohurs in the bag be 3x and 2x, respectively

As, 45 > A > 30, and probability of drawing a bronze mohur from the bag is 3/10

Therefore, total number of mohurs in the bag = A = 40

So, number of bronze mohurs = $\frac{3}{10} \times 40 = 12$

So, number of gold mohurs in the bag = $\frac{12}{2} \times 3 = 18$

So, number of silver mohurs in the bag = 40 – (12 + 18) = 10

Total values of all the silver mohurs in the bag

$= \frac{288}{0.12 \times 2}$ = Rs.1200

Let, price of Gold, Silver and Bronze mohur is 15x, 12x and 10x respectively

$15x \times 18 + 12x \times 10 + 10x \times 12 = 5100$
$270x + 120x + 120x = 5100$
$510x = 5100$

$x = 10$

Therefore, price of each Gold, Silver and Bronze mohur is Rs. 150, Rs. 120, and Rs. 100 respectively

Total worth of all the bronze mohurs = 100 × 12 = Rs. 1200

D = C + 1

E = D + 1 = C + 2

According to the question,

$\frac{E - C}{C + D + E} = \frac{200}{1200}$

$\frac{2}{C + D + E} = \frac{1}{6}$

$\frac{1}{C + D + E} = \frac{1}{12}$

Therefore, C + D + E = 12
Hence, option D is correct.,

14. Every day's lemon intake of Bhairav (in grams)

$= \frac{2}{1+2+7} \times 450 = 90$ grams

Hence, option C is correct.

15. Let, number of gold mohurs and the bronze mohurs in the bag be 3x and 2x, respectively

As, 45 > A > 30, and probability of drawing a bronze mohur from the bag is 3/10

Therefore, total number of mohurs in the bag = A = 40

So, number of bronze mohurs = $\frac{3}{10} \times 40 = 12$

So, number of gold mohurs in the bag = $\frac{12}{2} \times 3 = 18$

Therefore, reqd. average = $\frac{18+12}{2} = 15$

Hence, option B is correct.

Common explanation : (Q. 16 to Q.20)

Total masks received from Varanasi = 3 × 4200 = 12600

$\frac{C}{A+B} = \frac{1}{8}$

Adding 1 on both sides

$\frac{C}{A+B} + 1 = \frac{1}{8} + 1$

$\frac{C+A+B}{A+B} = \frac{9}{8}$

$\frac{4200x3}{A+B} = \frac{9}{8}$

Masks delivered to A + B = $\frac{8}{9} \times 4200 \times 3 = 11200$

A + B = 11200

A : B = 2 : 3

Masks received to A = $\frac{2}{5} \times 11200 = 4480$

Masks received by B = 11200 – 4480 = 6720

Masks received by C = 4200 × 3 – 11200 = 1400

Similarly calculating for each state, we get:

City	Total	A	B	C
Varanasi	12600	4480	6720	1400
Jaipur	16200	10500	3000	2700
Bhilwara	7200	1600	4000	1600
Surat	7950	1908	4452	1590
Ajmer	7260	1320	4620	1320

16. From common explanation, we have

Reqd. % = $\frac{1320}{4000} \times 100 = 33\%$

Hence, option D is correct.

17. From common explanation, we have

Reqd. average = $\frac{4452 + 4620}{2} = 4536$

Hence, option C is correct.

18. From common explanation, we have

Required difference = (4480 + 6720) – (1600 + 4000) = 5600

Hence, option A is correct

19. From common explanation, we have

Required ratio = (1320 + 1590) : (3000 + 2700) = 97 : 190

Hence option A is correct

20. From common explanation, we have

Masks receive by A from Jaipur, Bhilwara and Surat = 10500 + 1600 + 1908 = 14008

Masks received by B from Varanasi, Surat and Ajmer = 6720 + 4452 + 4620 = 15792

Required difference = 15792 – 14008 = 1784

Hence, option E is correct.

21. Number of people tested positive in March = 2100.

Number of days in March = 31

$$\text{Average} = \frac{2100}{31} = 67.74$$

Hence, option B is correct.

22. We can see that China, Italy and the USA showed more than 3000 positive tests.

Hence, option D is correct.

23. Number of people found positive in January = 740

Number of people found positive in February = 2480

$$\text{Percentage growth} = \frac{2480 - 740}{740} \times 100 = 235.13\%$$

Hence, option B is correct.

24. Number of cases in India in January = 10
Number of cases in Japan in January = 2 × 100 = 200
Number of cases in February in India = 600
Number of cases in Japan in February = 600 + 50% of 600 = 900

Total cases in Japan till Feb end = 200 + 900 = 1100

Number of cases in March = 2 × 1100 = 2200

Hence, option C is correct.

25. Total number of cases in USA in February and March = (5600 + 10000) = 15600

Number of cases in China in February = 4250

Number of cases in Italy in March = 6250

Total = (4250 + 6250) = 10500

Required ratio = 15600 : 10500 = 52 : 35

Hence option (E) is correct.

Common explanation : (Q. 26 to Q. 30)

In Italy,
Total cases = 117744
Cases per million = 2453

$$\frac{\text{Total cases}}{\text{Population}} \times 1{,}000{,}000 = \text{Cases per million}$$

$$\text{Population} = \frac{\text{Total cases}}{\text{Cases per million}} \times 1{,}000{,}000$$

$$\text{Population} = \frac{117744}{2453} \times 1{,}000{,}000 = 4{,}80{,}000{,}000 = 4.8 \text{ cr}$$

Recovered = 25% (117744) = 29436
Active cases = 117744 – 29436 = 88308
Similarly calculating for each country, we get:

Country	Total Cases	Recovered	Active	Population
Italy	117744	29436	88308	4,80,00,000
France	42525	8505	34020	3,50,00,000
Spain	140736	52776	87960	9,60,00,000
USA	524160	52416	471744	2,24,00,00,000

26. From the common solution:

Active cases in France = 34020

Recovered Cases in France = 8505

Required difference = 34020 – 8505 = 25515

Hence, option C is correct.

27. From common explanation, we have

Required ratio = 4.8Cr : 9.6Cr = 1 : 2

Hence, option A is correct.

28. From common explanation, we have

Required difference = 52776 – 52416 = 360

Hence, option E is correct.

29. From common explanation, we have

37.5% population is uneducated so 62.5% population is educated.

Educated people in USA = $\frac{62.5}{100} \times 224$ Cr = 140 Cr

Hence, option B is correct.

30. From common explanation, we have

Required difference = 88308 – 87960 = 348

Hence, option A is correct.

31. The distance needs to be covered by Michael Phelps to reach point C = 24 km

The distance needs to be covered by David Nolan to reach point C = 18 km

The speed of stream is 4 km/hr.

Speed of Michael Phelps in still water = 8 km/hr.

Speed of David Nolan in still water = 6 km/hr

It is clear that both of them are moving in downstream.

Time required to reach C point by Michael Phelps = $\frac{24}{8+4}$ hrs. = 2 hrs

Time required to reach C point by David Nolan = $\frac{18}{6+4}$ hrs. = 1.8 hrs

∴ The required time = (2 – 1.8) hrs = 0.2 hrs = 12 minutes

Hence, option E is correct.

32. The distance needs to be covered by Grant Hackett to reach point C from A = 24 km

The distance needs to be covered by Grant Hackett to reach point B from C = 18 km

Speed of stream = 2 km/hr.

Speed of Grant Hackett in still water = 4 km/hr.

It is clear that the journey from point C to B is in upstream and from A to C is in downstream.

∴ The time required to reach point C from A

$= \frac{24}{4+2}$ hrs. = 4 hrs

And, the time required to reach point B from C = $\frac{18}{4-2}$ hrs. = 9 hrs

∴ The total time required finish the journey = (4 + 9) hrs. = 13 hrs.

Hence, option A is correct.

33. The distance needs to cover by Michael Phelps to reach point C from A = 24 km
Let the speed of the stream be x km/hr.
Speed of Michael Phelps in still water = 8 km/hr.
6 hours and 24 minutes = 6.4 hours.
It is clear that the journey from point A to C is in downstream and from C to A is in upstream.

∴ We can write now,

$\Rightarrow \frac{24}{8+x} + \frac{24}{8-x} = 6.4$

$\Rightarrow (8-x) + (8+x) = \frac{4}{15}(8^2 - x^2)$

$\Rightarrow 16 = \frac{4}{15}(64 - x^2)$

$\Rightarrow 256 - 4x^2 = 240$
$\Rightarrow 4x^2 = 16$
$\Rightarrow x = \sqrt{4}$
$\Rightarrow x = 2$

∴ The speed of the stream = 2 km/hr.
∴ The required ratio = 8 : 2 = 4 : 1.
Hence, option D is correct.

34. Let the distance between points C and D is = x km.
The distance needs to be covered by Sun Yang to reach point A from C = 24 k
The distance needs to be covered by Sun Yang to reach point A from D = (24 + x) km
Speed of stream = 3 km/hr.
Speed of Sun Yang in still water = 5 km/hr.
It is clear that the journey from point D to A is in upstream.
He finishes his journey in 25 hrs.
∴ We can write now,

$$\frac{x + 24}{5 - 3} = 25$$

$\Rightarrow x + 24 = 50$
$\Rightarrow x = 50 - 24$
$\Rightarrow x = 26$
∴ The distance between points C and D = 26 km.
Hence, option A is correct.

35. Let the speed of the boat was v kmph, and the distance between the points C and D was CD km.

Since both took equal time, we have

$$\frac{24 + CD}{10 + 2} = \frac{CD + 18}{v - 2}$$

on simplifying, we get

$$v = \frac{264 + 14\,CD}{24 + CD} \text{ —— (i)}$$

We need to find the minimum speed of the boat that is minimum value of 'v'.
Expression of the left hand side will be minimum only when CD will be minimum as you can verify by putting CD = 0, 1, 10, 20, etc.
so to get minimum value for v, CD = 0, therefore

$$v = \frac{264}{24} = 11 \text{ kmph}$$

Hence, option B is correct.

36. Number of calculators manufactured on Wednesday = 1680

Number of calculators manufactured on Monday = $\frac{1680}{24} \times 18 = 1260$

Number of calculators manufactured on Thursday = $\frac{1680}{24} \times 21 = 1470$

Therefore, reqd. average = $\frac{1680 + 1260 + 1470}{3} = 1470$

Hence, option B is correct.

37. Number of calculators manufactured on Wednesday = 1680

Number of calculators manufactured on Friday = $\frac{1680}{24} \times 22 = 1540$

So, the number of portable calculators manufactured on Friday = $\frac{5}{11} \times 1540 = 700$

Number of calculators manufactured on Tuesday = $\frac{1680}{24} \times 15 = 1050$

Therefore, reqd. % = $\frac{700}{1050} \times 100 = 66.67\%$

Hence, option E is correct.

38. Number of calculators manufactured on Wednesday = 1680

Number of calculators manufactured on Tuesday

$= \frac{1680}{24} \times 15 = 1050$

So, the number of portable calculators manufactured on Tuesday

$= \frac{2}{5} \times 1050 = 420$

So, the number of desktop calculators manufactured on Tuesday = (1050 – 420) = 630

Let, the price of Desktop calculators and Portable calculators be Rs. 3x and Rs. 2x respectively

According to question,

$630 \times 3x + 420 \times 2x = 109200$
$1890x + 840x = 109200$
$2730x = 109200$

$x = \frac{109200}{2730} = 40$

Therefore, price of each portable calculator = 40 × 2 = Rs. 80

Hence, option B is correct.

39. Number of calculators manufactured on Wednesday = 1680

Number of calculators manufactured on Monday

$= \frac{1680}{24} \times 18 = 1260$

Therefore, required ratio = 1260 : 1680 = 3 : 4

Hence, option C is correct.

Alternate Solution:-

Percentage of calculators manufactured on Monday = 18

Percentage of calculators manufactured on Wednesday = 24

Therefore, required ratio = 18 : 24 = 3 : 4

Hence, option C is correct.

40. Number of calculators manufactured on Wednesday = 1680

Number of calculators manufactured on Monday = $\frac{1680}{24} \times 18 = 1260$

Number of calculators manufactured on Thursday = $\frac{1680}{24} \times 21 = 1470$

Number of calculators manufactured on Tuesday = $\frac{1680}{24} \times 15 = 1050$

Therefore, reqd. difference = $\frac{(1680 + 1260) - (1470 + 1050)}{2} = 210$

Hence, option A is correct.

Common explanation : (Q. 41 to Q. 45)

We evaluate number of patients who were found positive and number of patients who needed ventilators.

	Number of Tests/lakh/day	Positive cases	Number of patients for Ventilators
USA	14000	12% of 14000 = 1680	20% of 1680 = 336
Spain	12000	8% of 12000 = 960	12.5% of 960 = 120
Italy	18000	15% of 18000 = 2700	16% of 2700 = 432
China	16000	11% of 16000 = 1760	15% of 1760 = 264

41. From common explanation, we have

total number of tests per day per lakh in the four countries = 14000 + 12000 + 18000 + 16000 = 60,000

$$\text{Average} = \frac{60000}{4} = 15000$$

Hence, option D is correct.

42. From common explanation, we have that USA tests 14,000 for each 1 lakh, so for 3012 lakh, number of tests = (3012 lakh) × (14thousand/lakh) = 42,168 thousand.

Similarly, for Italy = (720lakh) × (18 thousand/lakh) = 12,960 thousand

Total = 55128 thousand = 551.28 lakh
Hence, option E is correct.

43. From common explanation, we have

80,000 people are tested each day

Thus in 20 days, number of tests = 20 × 80 thousand = 1600 thousand

Number of people who have been found positive = 11% of 1600 thousand = 176 thousand = 176,000

Hence, option B is correct.

44. From common explanation, we know that in Spain, out of each 12,000 tests, 960 were found positive.

$$\text{Number of tests when 5760 were found positive} = \frac{5760}{960} \times 12000 = 72,000$$

Hence, option C is correct.

45. From common explanation, we have

$$\text{Average number} = \frac{336 + 120 + 432 + 264}{4} = 288$$

Hence, option A is correct.

46. Total number of passengers travelled by Red bus on Tuesday = [315 – (107 + 113)] = 95

Total number of passengers travelled by Red bus on Sunday = [302 – (96 + 100)] = 106

Total number of passengers travelled by Red bus in the whole week = (102 + 95 + 122 + 90 + 85 + 118 + 106) = 718

So, required amount = 718 x 12 = Rs. 8616

So option B is the correct answer.

47. Total number of passengers travelled by Red bus on Tuesday = [315 – (107 + 113)] = 95

Total number of passengers travelled by Red bus on Sunday = [302 – (96 + 100)] = 106

Total number of passengers travelled by Red bus in the whole week = (102 + 95 + 122 + 90 + 85 + 118 + 106) = 718

Total number of passengers travelled by Green bus in the whole week = 712
Total number of passengers travelled by Orange bus in the whole week = 732

Total number of passengers travelled by all the three buses in the whole week = (718 + 712 + 732) = 2162

So option E is the correct answer.

48. Total number of passengers travelled by Red bus on Tuesday = [315 – (107 + 113)] = 95

Total number of passengers travelled by Red bus on Sunday = [302 – (96 + 100)] = 106

Total number of passengers travelled by Red bus in the whole week = (102 + 95 + 122 + 90 + 85 + 118 + 106) = 718

Total number of passengers travelled by Green bus in the whole week = 712

Total number of passengers travelled by Orange bus in the whole week = 732

Total number of passengers travelled by all the three buses in the whole week = (718 + 712 + 732) = 2162

Total number of passengers travelled by all the three buses on Friday = (85 + 95 + 124) = 304

Total number of passengers travelled by all the three buses on Wednesday = [2162 – (307 + 315 + 262 + 304 + 349 + 302)] = 323

Required difference = (323 – 304) = 19
So option A is the correct answer.

49. Total number of passengers travelled by Green bus in the whole week = 712

Total amount earned by the Green bus in the whole week = Rs. 712 × 16 = Rs. 11392

Total number of passengers travelled by Orange bus in the whole week = 732

Total amount earned by the Orange bus in the whole week = Rs. 732 × 19 = Rs. 13908

Therefore, required difference = Rs. (13908 – 11392) = Rs. 2516

So option D is the correct answer.

50. Total number of passengers travelled by Orange bus on Thursday = [262 – (90 + 97)] = 75

Total number of passengers travelled by Orange bus on Saturday = [732 – (86 + 113 + 108 + 75 + 124 + 100)] = 126

Total number of passengers who travelled by Green bus on Saturday = [349 – (118 + 126)] = 105

Total number of passengers who travelled by Green bus on Monday = [307 – (102 + 86)] = 119

Total number of passengers who travelled by Green bus on Wednesday = [712 – (119 + 107 + 97 + 95 + 105 + 96)] = 93

Therefore, required difference = (119 – 93) = 26

So option C is the correct answer.

Common explanation : (Q. 51 to Q.55)

Total TG Members = 2100
TG Members who go to AP = 15% (2100) = 315
Number of people contacted by TG members (suspects) in AP on Monday = 315 × 0.2 = 63
Tuesday = 315 × 0.4 = 126
Wednesday = 315 × 0.1111 = 35
Similarly, calculating for each state we get:

State	TG members	Suspects		Total
		Monday	Tuesday	
AP	315	63	126	189
UP	420	210	21	231
MP	525	315	21	336
Rajasthan	252	126	63	189
Haryana	588	49	147	196
Total	2100	763	378	1141

51. From common explanation, we have

Required sum = 315 + 21 = 336

Hence, option D is correct.

52. From common explanation, we have

Required difference = 231 – 196 = 35

Hence, option A is correct.

53. From common explanation, we have

Reqd. % =. $\frac{21 + 21}{196} \times 100 = 21.42\%$

Hence, option C is correct.

54. From the common explanation, we have

Reqd. average = $\frac{63 + 210 + 315}{3} = 196$

Hence, option B is correct.

55. From the common explanation, we have

Required difference = 126 – 63 = 63

Hence, option C is correct.

56. Total expenditure on rent = 24 months × $550 = $13200

Total expenditure on utilities = 24 months × $340 = $8160

Total expenditure on tuition fees = 4 semesters × $25000 = $100000

Thus total expenditure = $(13200 + 8160 + 100000) = $121360

The bank paid 80% of this amount.

∴ Amount paid by the bank = (80/100) × 121360 = $97088
Hence, option C is correct.

57. Total expenditure on rent = 24 months × $550 = $13200

Total expenditure on utilities = 24 months × $340 = $8160

Total expenditure on tuition fees = 4 semesters × $25000 = $100000

Thus total expenditure = 13200 + 8160 + 100000 = $121360

The bank paid 80% of this amount.

∴ Amount paid by the bank = 80/100 × 121360 = $97088

Simple Interest = (97088 × 2 × 9)/100 = $17475. 84

Hence, option E is correct.

58. Total annual expenditure on rent = 12 months × $550 = $6600

Total annual expenditure on utilities = 12 months × $340 = $4080

Clearly the amount spent on utilities is less than the amount spent on rent

∴ Required percentage = [(6600 – 4080)/6600] × 100

= (2520 × 100)/6600 = 38. 18 = 38% (approximate)

Hence, option B is correct.

59. The salary earned during internship = 3 × 12000 = $36000

Total expenditure on rent in 3 months = 3 × $550 = $1650

Total expenditure on utilities in 3 months = 3 × $340 = $1020

Total expense = $(1650 + 1020) = $2670

∴ Required percentage = (2670/36000) × 100 = 267/36 = 7. 41

Hence, option A is correct.

60. Per month rent = $550

Utilities cost per month = $340

∴ The amount she would save in 6 months = 6 × (550 + 340) = 6 × 890 = $5340

Hence, option C is correct.

Common explanation : (Q. 61 to Q.65)

Number of cases on Monday = 80

On Wednesday = 80 × 1.8 = 144

Similarly, calculating for each day we get:

Day	Cases
Monday	80
Tuesday	144
Wednesday	360
Thursday	1152
Friday	5184

On Monday,

Cases in Delhi = 37.5% = $\frac{3}{8}$ × 80 = 30

Cases in Rajasthan = 12.5% = $\frac{80}{8}$ = 10

Cases in UP = 80 – 30 – 10 = 40

Similarly, calculating for each state we get:

	Monday	Tuesday	Wednesday	Thursday	Friday
Delhi	30	36	108	288	1152
Rajasthan	10	24	162	720	1944
UP	40	84	90	144	2088
Total	80	144	360	1152	5184

61. From common explanation, we have

Total cases in Delhi and Rajasthan on Monday = 30 +10 = 40

Total cases in Delhi and Rajasthan on Wednesday = 108 + 162 = 270

Increase = 270 – 40 = 230

Hence, option B is correct.

62. From common explanation, we have

Number of cases in UP on Thursday = 144

Number of cases in Delhi on Friday = 1152

Reqd. % = $\frac{144}{1152} \times 100 = 12.5\%$

Hence, option D is correct.

63. From common explanation, we have

Required difference = 1944 – 1152 = 792

Hence, option B is correct.

64. From common explanation, we have

From Tuesday to Thursday,

Increase in Delhi = 288 – 36 = 252

Increase in UP = 144 – 84 = 60

Required Ratio = 60 : 252 = 5 : 21

Hence, option A is correct.

65. From common explanation, we have

Percentage increase in UP from Wednesday to Thursday = $\frac{144 - 90}{90} \times 100 = 60\%$

Percentage increase in Delhi from Tuesday to Wednesday = $\frac{108 - 36}{36} \times 100 = 200\%$

Reqd. % = $\frac{60}{200} \times 100 = 30\%$

Hence, option E is correct.

Common explanation : (Q. 66 to Q.70)

Let us find the number of people who came in physical contact with TinkaNupoor on various given days:

Monday = 18% of 900 = 162

Tuesday = 24% of 900 = 216

Wednesday = 16% of 900 = 144

Thursday = 15% of 900 = 135

Friday = 27% of 900 = 243

Only 40% of 900 were found positive on tests on Tuesday, thus 40% of 900 = 360 were found positive.

66. From common explanation, we have

Tuesday = 24% of 900 = 216

Friday = 27% of 900 = 243

Percent difference = $\frac{243 - 216}{216} \times 100 = 12.5\%$

Alternative:
We can directly use the values on pie chart since the '900' is common to all values of pie chart.
$\frac{27 - 24}{24} \times 100 = 12.5\%$

Hence, option C is correct.

67. From common explanation, we have

Only 40% of people were found positive who she came in physical contact with.

Thus 40% of 900 = 360

Hence, option E is correct.

68. From common explanation, we have

On Wednesday, from common explanation, total 144 people came in contact with her.

Number of men = $\frac{4}{4+5} \times 144 = 64$

Let the number of men below 50 years were 'y', then

Number of men who were above 50 years age = y – 40% of y = 0.6y

Total men = y + 0.6y = 1.6y = 64 or y = 40

Men above 50 years of age found positive = 64 – 40 = 24

Hence, option D is correct.

69. From common explanation, we have

Total people she came in contact with on Monday from common explanation = 162

Let total 'y' men she came in contact with, then, we have

$\frac{y}{162-y} \times 100 = 35$

$135y = 162 \times 35$

$y = 42$

Number of women who found positive = number of men = all men = 42

Total people who found positive = 42 + 42 = 84

Number of people found negative = 162 – 84 = 78

Alternative:
To calculate number of men, we have
Let Men = M, Women = W
Men are 35% of women
M = 35% of W = 0.35W
Also, M + W = 162
0.35W + W = 162

1.35W = 162

$W = \frac{162}{1.35} = 120$

M = 162 – 120 = 42

Hence, option A is correct.

70. From common explanation, we have 360 people who were found positive on 25 feb.

Each of whom came in contact with an average of 12 people each day. Thus in three days, they would have come in contact with 3 × 12 = 36 people.

There were 360 people, so all would have come in contact with 36x360 people

Only 45% of these were found positive, thus = 45% of 36 × 360 = 5832

Hence, option C is correct.

71. **Quantity I :**

Time taken by Nitin (using ship B)

$= \frac{675}{39 + 15} = \frac{675}{54} = 12.5$ hour

Quantity II :

Time taken by Mukesh (using Ship D + Ship E)

$= \frac{510}{31 + 19.5} + \frac{165}{36 + 12} = 10.01 + 3.437 = 13.447$ hours

Here, Quantity I < Quantity II

Hence, option E is correct.

72. **Quantity I :** Speed of ship F = 45 × 111.11% = 50 km/hr

Speed of stream for ship F = 12 × 125% = 15 km/hr

Time taken by ship F to cover 1860 km (upstream)= $\frac{2625}{50-15} = \frac{2625}{35} = 75$ hours

Quantity II :

Time taken by ship C to cover 1860 km (upstream)= $\frac{1860}{24} = 77.5$ hours

Hence, option B is correct.

73. New Distance = 3000 × 125% = 3750 km

Quantity I:

Time taken by ship C to cover new distance (upstream)= $\frac{3750 \times 20\%}{24} = \frac{750}{24}$ hours

Quantity II :

Time taken by ship A to cover old distance (downstream)= $\frac{750}{54} = \frac{125}{9}$ hours

Hence, option D is correct.

74. Time taken by ship B (in downstream)

$= \frac{450}{54} = \frac{150}{18}$ hour

Time taken by ship A (in downstream)= $\frac{750}{54} = \frac{250}{18}$ hour

Time taken by ship B + ship A = $\frac{250}{18} + \frac{150}{18} = \frac{400}{18}$ hour = 22.22 hours

Time taken by ship E (in upstream)= $\frac{660}{24} = \frac{55}{2}$ hour = 27.5 hours

Time taken by ship B and A (in downstream) is percent more or less than time taken by ship E (in upstream)

$= \frac{22.22 - 27.5}{27.5} \times 100 = -19.2\%$

Hence, option C is correct.

75. **Quantity I :**

Time taken by ship A (upstream) = $\frac{750}{12} = \frac{125}{2}$ hours

Time taken by ship B (upstream) = $\frac{450}{24} = \frac{75}{4}$ hours

Time taken by ship C (upstream) = $\frac{600}{24}$ = 25 hours

Time taken by ship D (upstream) = $\frac{540}{11.5}$ = 45 hours

Time taken by ship E (upstream) = $\frac{660}{24} = \frac{55}{2}$ hours

After adding all the times we get = 180.70 hours

Average Time = $\frac{180.70}{5}$ = 36.14 hour

Quantity II:

Time taken by ship E to cover 1728 km in still water = $\frac{1728}{36}$ = 48 hours

Hence, option E is correct.

Common explanation : (Q. 76 to Q. 80)

In Italy,
Total cases = 22000

Deaths = 12.5% (22000) = $\frac{22000}{8}$ = 2750

Recovered = 25% (22000) = $\frac{22000}{4}$ = 5500

Active cases = 22000 – 2750 – 5500 = 13750

Similarly, calculating for each country we get:

Country	Cases	Deaths	Recovered	Active
Italy	22000	2750	5500	13750
Spain	24000	3600	3840	16560
Iran	18450	3075	5535	9840
India	640	32	256	352

76. From common explanation, we have

Required difference = 3600 – 2750 = 850

Hence, option E is correct.

77. From common explanation, we have

Active cases in Spain = 16560

Hence, option A is correct.

78. From common explanation, we have

Required sum = 2750 + 3600 + 3075 + 32 = 9457

Hence, option B is correct

79. From common explanation, we have

Active male cases = 75% = $\frac{75}{100} \times 9840 = 7380$

Hence, option B is correct.

80. From common explanation, we have

Reqd. % = $\frac{256}{3840} \times 100 = 6.67\%$

Hence, option D is correct.

81.

Year	Investment by Venture Capitalists		
	Arjun	Bikram	Chandan
1993	44000	36000	40000

Ratio of profit = 44000 : 36000 : 40000
Ratio of profit = 44 : 36 : 40
So the profit shared by the venture capitalist would be in the ratio of 44 : 36 : 40

Share of Bikram = $\frac{36}{120} \times 15000 = 4500$

Hence, option C is correct.

82.

1995	Investment	Profit	Months
Arjun	56000	12600	24
Bikram		11200	16
Chandan	64000	16800	

Let A and B be the investment made by Arjun and Bikram respectively.

$\frac{24A}{16B} = \frac{12600}{11200}$

$\frac{12A}{8B} = \frac{126}{112}$

$\frac{A}{B} = \frac{126 \times 8}{12 \times 112} = \frac{3}{4}$

Therefore, investment of Arjun = $\frac{3}{7} \times 56000 = 24000$

So, the investment made by Bikram = 32000
Let, Chandan invested for C months
So, the ratio of Arjun and Chandan's profit

$\frac{24000 \times 24}{64000 \times C} = \frac{12600}{16800}$

C = 12

Hence, option E is correct.

83.

Year	Investment		Profit	
	Arjun	Chandan	Arjun	Chandan
1991	32000	22000	A	7700
1992	48000	22000	B	8800

For the year 1991,

$\frac{32000}{22000} = \frac{A}{7700}$; A = 11200

For the year 1992,

$\frac{48000}{22000} = \frac{A}{8800}$; B = 19200

So, the ratio of profits of Arjun

$\frac{11200}{19200} = \frac{112}{192} = \frac{28}{48} = \frac{7}{12}$

Hence, option D is correct.

84. For the year 1994,

Profit of Chandan = $\frac{8000}{7000} = \frac{4000}{C}$; c = $\frac{7 \times 4000}{8}$ = 3500

So, amount of Profit shared by Chandan in 1995= 3500 × $\frac{3}{4}$ = 2625

Hence, option A is correct.

85.

Year	Investment	
	Bikram	Chandan
1992	30000	22000

For the year 1996,

Profit of Bikram = $\frac{8}{100}$ × 30000 = Rs. 2400

For the year 1996,

Profit of Chandan = $\frac{10}{100}$ × 22000 = Rs. 2200

So, the ratio of profit of Chandan in 1996 to that of Bikram in 1996

$\frac{2200}{2400} = \frac{22}{24} = \frac{11}{12}$

Hence, option B is correct.

86. The total number of male audiences who watched the movie in theatre E = (3015 – 1206) = 1809

Reqd. % = $\frac{1809}{3015}$ × 100 = 60%

Hence, option D is correct.

87. Total number of seats in all the five movie theatres together = 2760 + 3250 + 3480 + 2900 + 3350 = 16100

Total number of persons who watched the movie in all the five theatres together = 2484 + 3050 + 3648 + 2697 + 3015 = 14894

Therefore, the number of seats which has remained vacant in all the five movie theatres together = 16100 – 14894 = 1206
Hence, option B is correct.

88. Number of females who watched the movie in all the five theatres together = (1296 + 1600 + 2304 + 1073 + 1206) = 7479

Total number of peoples who watched the movie in all the five theatres together = (2484 + 3050 + 3648 + 2697 + 3015) = 14894

So, total number of males who watched the movie in all the five theatres together = (14894 – 7479) = 7415

Therefore, required difference = (7479 – 7415) = 64

Hence, option A is correct.

89. The total number of females who watched the movie in theatre C = 2304

So, the total number of males who watched the movie in theatre C = (3648 – 2304) = 1344

Required Ratio = 1344 : 2304 = 7 : 12

Hence, option C is correct.

90. Let the total number of audience who have watched the movie in the 1st show and the total number of audience who have watched the movie in the 2nd show in theatre A is 23x and 25x, respectively.

So, 23x = 2484 ; x = 108

Therefore, the total number of audience who have watched the movie in the 2nd show in theatre A = 25x = 2700

So, the number of males who have watched the movie in the 2nd show in theatre A

$= \frac{4}{9} \times 2700 = 1200$

Hence, option B is correct.

91.

$$\text{Total male} = \frac{54000 \times 100}{10} = 540000$$

$$\text{Total female} = \frac{540000 \times 2}{3} = 360000$$

Total = (360000 + 540000) = 900000
Hence, option D is correct.

92. Total number of female job seekers whose dream profile is IT = 75000

Total number of female job seekers = $\frac{75000}{20} \times 100 = 375000$

Total number of female job seekers whose dream profile is Law = $\frac{375000}{10} \times 100 = 37500$

Total number of male job seekers = $375000 \times \frac{3}{2} = 562500$

Total number of male job seekers whose dream profile is IT = $562500 \times \frac{25}{100} = 140625$

Reqd. % = $\frac{140625 - 37500}{140625} \times 100 = 73.33\%$

Hence, option A is correct.

93.

Total Female Doctor Aspirants = $\frac{2160}{60} \times 100 = 3600$

Total job seekers in female = $\frac{3600}{25} \times 100 = 14400$

Female HR = Total job seekers in female $\times \frac{20}{100} = \frac{14400}{5} = 2880$

Total number of job seekers in male = $14400 \times \frac{3}{2} = 21600$

Male IT job seekers = $21600 \times \frac{25}{100} = 5400$

Required sum = (2880 + 5400) = 8280

Hence, option B is correct.

94. 80% of CA = 2400

Total CA = 3000

40% of engineer = $\frac{(3000/15) \times 30 \times 40}{100} = 2400$

60% of female law = $\frac{3000}{15} \times 100 \times \frac{2}{3} \times \frac{10}{100} \times \frac{60}{100} = 800$

Required ratio = 2400 : 800 = 3 : 1

Hence, option D is correct.

95.

Male IT = $\frac{14400}{30} \times 100 \times \frac{25}{100} = 12000$

Female HR = $\frac{14400}{30} \times 100 \times \frac{2}{3} \times \frac{20}{100} = 6400$

Required difference = (12000 – 6400) = 5600

Hence, option A is correct.

96. In IIT Guwahati the percentage of the Computer Science students is = 100 – (20 + 22 + 20) = 38%

The reqd. answer = $\frac{380 \times 30}{100} + \frac{350 \times 38}{100}$

= (38 × 3) + (38 × 3.5) = 38 × 6.5 = 247

Hence, option D is correct.

97. Let percentage of students who study in Mechanical in IIT Delhi be x%.

∴ Students in Applied department are 140% of that.

$\Rightarrow x \times \frac{140}{100} = 28 \Rightarrow x = 20$

∴ Percentage of students who study Computer Science is = 100 – (20 + 18 + 28) = 34%

∴ The number of students who are studying in Computer Science in IIT Delhi

$\Rightarrow \frac{450 \times 34}{100} = 153$

Hence, option B is correct.

98. Total students in Bombay and IIT Madras = 2130 – (450 + 380 + 350) = 950

∴ If in IIT Madras students is x, then in Bombay = $\frac{90x}{100}$

$\therefore x + \frac{90x}{100} = 950 \Rightarrow x = 500$

∴ In Madras = 500

And in Bombay = $\frac{90}{100} \times 500 = 450$

$\therefore$ Reqd. difference = $\left[\frac{32}{100} \times 450 + \frac{35}{100} \times 500\right] - \left[\frac{20}{100} \times 450 + \frac{25}{100} \times 500\right]$

$= \left[\frac{12}{100} \times 450\right] + \left[\frac{10}{100} \times 500\right] = 104$

Hence, option B is correct.

99. Total students in Bombay and IIT Madras = 2130 – (450 + 380 + 350) = 950

∴ If in IIT Madras students is x, then in Bombay = $\frac{90x}{100}$

$\therefore x + \frac{90x}{100} = 950 \Rightarrow x = 500$

∴ In Madras = 500

And in Bombay = $\frac{90}{100} \times 500 = 450$

Delhi = $\frac{18 + 28}{100} \times 450 = 207$

Kanpur = $\frac{55}{100} \times 380 = 209$

Bombay = $\frac{20 + 32}{100} \times 450 = 234$

Madras = $\frac{25 + 35}{100} \times 500 = 300$

Guwahati = $\frac{22 + 20}{100} \times 350 = 147$

Hence, option D is correct.

100. Percentage of students who study in Computer Science in Guwahati
$\Rightarrow 100 - (20 + 22 + 20) = 38\%$

Number of students who study in Computer Science in Guwahati
$\Rightarrow \frac{38}{100} \times 350 = 133$

$\therefore$ Number of students who study in Applied in Kanpur = (133 + 19) = 152
$\therefore$ Number of students who study in Civil department in IIT Kanpur

$\Rightarrow 380 - \left[152 + \frac{(15 + 30)}{100} \times 380\right] = 57$
Hence, option B is correct.

101. Number of people who attended the workshop A on Monday, Tuesday and Wednesday = (400 + 500 + 360) = 1260

Number of people who attended the workshop B on Tuesday, Wednesday and Thursday = (640 + 420 + 480) = 1540
Reqd. $\% = \frac{1540 - 1260}{1540} \times 100 = 18.18\%$

Hence, option C is correct.

102. Number of people who attended the workshop A & B on Monday = (400 + 280) = 680
Number of people who attended the workshop A & B on Wednesday = (360 + 420) = 780

Hence reqd. ratio $= \frac{680}{780} = 34 : 39$

Hence, option B is correct.

103. The number of people who attended the workshop A on Tuesday = 500
Ratio of male to female = 3 : 2
Hence, number of female $= 500 \times \frac{2}{5} = 200$

Total female who attended the workshop A and B together on Tuesday = 460
Female who attended the workshop B on Tuesday = (460 – 200) = 260
Total people who attended the workshop B on Tuesday = 640

Hence, required number of male = (640 – 260) = 380
Hence, option C is correct.

104. The number of people who attended the workshop A on Monday and Thursday = (400 + 520) = 920

The number of people who attended the workshop B on Monday and Thursday = (280 + 480) = 760

Hence, required difference = (920 – 760) = 160

Hence, option A is correct.

105. Total people who attended workshop A and B on Friday = (340 + 400) = 740

Let number of females = x

Then, the number of male = (x + 60)

x + (x + 60) = 740

2x = 680

x = 340

Hence, Females = 340

Males = (740 – 340) = 400

Total male who attended workshops on Saturday = 470

Hence, required difference = 470 – 400 = 70

Hence, option E is correct.

106. Percentage of alcohol in chemical A = 24%
Percentage of alcohol in chemical C = 48%
Percentage of alcohol in chemical E = 12%
Now,
Volume of water = 10 × (100 – 24)% + 5 × (100 – 48)% + 20 × (100 – 12)%
Volume of water = 7.6 + 2.6 + 17.6 = 27.8 litres
Volume of chemical B produced = 150 litres
Percentage alcohol in chemical B = 30%
Volume of chemical D produced = 100 litres
Percentage of alcohol in chemical C = 40%
Total volume of alcohol brewed in making chemicals B and D = 30% of 150 + 40% of 100 = 45 + 40 = 85 litres
Required ratio = 27.8 : 85 = 139 : 425
Hence, option A is correct.

107. Alcohol Percentage in chemical C = 48%
Alcohol Percentage in chemical E = 12%
Let the total volume of 44% conc. Chemical be 'a' and volume of chemical C be 'b'
Thus, volume of chemical E in the mixture = a – b
Thus, 48% of b + 12% of (a – b) = 44% of a
$\Rightarrow 0.48b + 0.12a - 0.12b = 0.44a$
$\Rightarrow 0.36b = 0.32a$
$\Rightarrow a = \frac{9b}{8}$

Thus, volume of chemical E = $a - b = \frac{b}{8}$

Volume of chemical C = b

Ratio of volumes of the two chemicals = $b : \frac{b}{8} = 8 : 1$

Hence, option D is correct.

108. Volume of chemical A produced = 120 litres

Percentage alcohol in chemical A = 24%

Volume of alcohol in chemical A = 24% of 120 = 28.8 litres

Volume of chemical B produced = 150 litres

Percentage of alcohol in chemical B = 30%

Volume of alcohol in chemical B = 30% of 150 = 45 litres

Volume of chemical D produced = 100 litres

Percentage of alcohol in chemical D = 40%

Volume of alcohol in chemical D = 40% of 100 = 40 litres

Volume of chemical E produced = 160 litres

Percentage of alcohol in chemical E = 12%

Volume of alcohol in chemical E = 12% of 160 = 19.2 litres

Total volume of alcohol in chemical A and B together = (28.8 + 45) = 73.8 litres

Total volume of alcohol in chemical D and E together = (40 + 19.2) = 59.2 litres

Percentage by which, the total alcohol volume in chemicals A and B together is higher than the total volume of alcohol in chemicals D and E together

$= \frac{78.8 - 59.2}{59.2} \times 100\% = 24.67\%$

Hence, option D is correct.

109. Percentage of alcohol in chemical A = 24%
Percentage of alcohol in chemical B = 30%
Percentage of alcohol in chemical C = 48%
Percentage of alcohol in chemical E = 12%
Given, new cocktail is prepared by mixing chemicals A, B, C and E in the ratio 2 : 1 : 3 : 4.

Percentage of alcohol content in the cocktail = $\frac{(2 \times 24 + 1 \times 30 + 3 \times 48 + 4 \times 12)}{10} = 27\%$

Hence, option C is correct.

110. Alcohol concentration of A = 24% and D = 40%

A and D are mixed in the ratio 1 : 3 to form P

Alcohol % in P = $\frac{(1 \times 24 + 3 \times 40)}{4} = 36\%$

Using allegations

```
   P        C
36%        48%
    \      /
     40%
    /      \
 8%        4%
```


Ratio = 2 : 1
If p = 36 litre than C = 18 litre
Hence, option E is correct.

111. Number of Runs Scored by Indian Batsmen = 92 + 8 + 102 + 10 + 43 + 45 = 300

Number of Runs Scored by Indian Bowlers = 10% of 300 = 30

Total Runs = 330

Runs Required by Australia to win the Game = 331

Australia Scored 241 runs in 42 overs.

Runs Remaining = 90

Overs Remaining = 8

Reqd. Run Rate = $\frac{90}{8} = 11.25$

Hence, option D is correct.

112. Total Runs Scored by Batsman :

Match 1 : 300

Match 2: 312

Match 3 : 344

Match 4 : 332

Match 5 : 293

Maximum Possible Score of Indian team in any match = 344 + maximum possible runs by bowlers = 344 + 34 = 378

380 is not possible.

Hence, option C is correct.

113. Total runs Scored by Virat Kohli = 102 + 85 + 111 + 98 + 3 = 399

Total runs Scored by Rohit Sharma = 92 + 135 + 14 + 69 + 25 = 335

Difference = 399 – 335 = 64

Reqd. % = $\frac{64}{335} \times 100 = 19.10\%$

Hence, option A is correct.

114. Runs Scored by Indian Batsman in fourth match = 332

Runs Score by bowlers to that of batsmen = 9.5 : 83

Runs Scored by Indian Bowlers = $\frac{9.5}{83} \times 332 = 38$

Total Runs Scored by India = (332 + 38) = 370

India Lost the match by 19 runs.
Runs Scored by Australia = (370 + 19) = 389
Runs Scored by Australian Bowlers = (38 + 22) = 60
Runs Scored by Australia Batsmen = 389 – 60 = 329
Reqd. % = $\frac{329}{389} \times 100 = 84.57\%$
Hence, option D is correct.

115. Total Runs Scored by Shikhar Dhavan : 8 + 29 + 105 + 45 + 89 = 276

Average = $\frac{276}{5}$ = 55.2

Total Runs Scored by MS Dhoni = 43 + 21 + 4 + 108 + 127 = 303

Average = $\frac{303}{5}$ = 60.6

Difference = 5.4

Hence, option A is correct.

116. Total number of cars sold by Maruti in 2017 = 0.58 × 90000 = 52200

Total number of cars sold by Mahindra in 2017 = 0.67 × 70000 = 46900

Required difference = (52200 – 46900) = 5300

Hence, option D is correct.

117. Total number of Toyota cars that remained unsold in 2017 = 0.28 × 60000 = 16800

Total number of Honda cars that remained unsold in 2017 = 0.35 × 75000 = 26250

Required ratio = 16800 : 26250 = 16 : 25

Hence, option B is correct.

118. Total number of Hyundai cars manufactured in 2018 = 1.15 × 80000 = 92000

Total number of Hyundai cars sold in 2017 = 0.61 × 80000 = 48800

Total number of Hyundai cars sold in 2018 = 1.22 × 48800 = 59536

Total number of Hyundai cars that remained unsold in 2018 = (92000 – 59536) = 32464

Hence, option A is correct.

119. Total number of Toyota cars that remained unsold in 2017 = 0.28 × 60000 = 16800

Total number of Honda cars that remained unsold in 2017 = 0.35 × 75000 = 26250

Total number of cars unsold by Maruti in 2017 = 0.42 × 90000 = 37800

Total number of cars unsold by Mahindra in 2017 = 0.33 × 70000 = 23100

Total number of Hyundai cars that remained unsold in 2017 = 0.39 × 80000 = 31200

Total number of unsold cars in 2017= (16800 + 37800 + 26250 + 31200 + 23100) = 135150

Average number of unsold cars in 2017 = $\frac{135150}{5}$ = 27030

Hence, option D is correct.

120. Total number of cars manufactured by Toyota and Honda together in 2017 = (60000 + 75000) = 135000

Total number of cars manufactured by Hyundai and Mahindra together in 2017 = (80000 + 70000) = 150000

Desired % = $\frac{135000}{150000} \times 100 = 90\%$

Hence, option C is correct.

121. In Shop A,
The total number of items sold = 600

The total number of Coolers sold = 200

The total number of AC and Others items sold = 600 – 200 = 400

The ratio of total number of AC sold to that of the total number of others items sold is 1 : 3 (Given).

The total number of AC sold = $\frac{400}{1+3} \times 1 = 100$

The total number of non-defective AC sold = 40 (Given)

The total number of defective AC sold = 100 – 40 = 60

From the table,
Ratio of the total number of defective Coolers to that of the total number of defective AC sold = 2 : 1

So, the total number of defective Coolers sold = $\frac{60}{1} \times 2 = 120$

Hence, option C is correct.

122. The total number of items sold by shop B and shop C together = (400 + 300) = 700

The total number of Coolers sold by shop B and shop C together = (150 + 80) = 230

The total number of Others items sold by shop B and shop C together = 180

The total number of AC sold by shop B and shop C together = [700 – (230 + 180)] = (700 – 410) = 290

The total number of Coolers sold by shop E and shop F together = (400 + 550) = 950

So, required difference = (950 – 290) = 660

Hence, option A is correct.

123. In shop D,

The total number of items sold = 500

The total number of Coolers sold = 300

The total number of non-defective Coolers sold = 220

The total number of defective Coolers sold = (300 – 220) = 80

So, the total number of defective AC sold = $\frac{80}{4} \times 1 = 20$

So, X = 20

Then 4X = 4 × 20 = 80

Hence, option B is correct.

124. The total number of items sold by shop F = 700

The total number of Others items sold by shop F = $\frac{700}{100} \times 10 = 70$

The total number of Coolers items sold by shop F = 550

The total number of AC sold by shop F = 700 – (550 + 70) = 80

Then according to the question,

The total number of Others items sold by Shop C = 80

The total number of items sold by shop C = 300

The total number of Coolers sold by shop C = 80

The total number of AC sold by shop C = 300 – (80 + 80) = 140

So, Reqd. % = $\frac{140}{80} \times 100 = 175\%$

Hence, option D is correct.

125. The total number of AC sold by all shops = 140 × 6 = 840

The total number of items sold by all shops = (600 + 400 + 300 + 500 + 800 + 700) = 3300

The total number of Coolers sold by all shops = (200 + 150 + 80 + 300 + 400 + 550) = 1680

The total number of Other items sold by all shops = [3300 – (1680 + 840)] = (3300 – 2520) = 780

So, required difference = (1680 – 780) = 900

Hence, option C is correct.

Common Explanations (126 – 130) :

Let, the number of passengers boarded and left the train at station A be 9x and 7x, respectively
And, the total number of passengers left the train at station A and at station B be 7y and 6y, respectively
Since the total amount earned by selling Rs. 5 tickets at station P was Rs. 2800

So, the total number of passengers left the train at station A = $\frac{2800}{5}$ = 560

Therefore, 7x = 560, x = $\frac{560}{7}$ = 80

So, the number of passengers boarded the train at station A = 9x = 9 × 80 = 720
Also, 7y = 560
y = $\frac{560}{7}$ = 80

Therefore, the total number of passengers left the train at station B = 6y = 6 × 80 = 480
The total number of passengers boarded the train at station B = 210 + 140 = 350

And, the total number of passengers boarded the train at station C = $\frac{1250}{5}$ = 250

Let, the total number of passengers who left the train at station C be 'z'
So, 2310 + 250 – z = 1740
z = 2310 + 250 – 1740 = 820

	Boarded	Left	Number of passengers in the train
Station P	2280	–	2280
Station A	720	560	2440
Station B	350	480	2310
Station C	250	820	1740
Station Q	–	1740	–

126. Following the common explanation, we get

So, the total number of passengers who had left the train at the station C = 820

Hence, option B is correct.

127. Following the common explanation, we get

Let, the number of Rs. 5 tickets, Rs. 10 tickets, Rs. 15 tickets, and Rs. 20 tickets sold at the station P be 14x, 6x, 8x, and 29x respectively

So, 14x + 6x + 8x + 29x = 2280

$57x = 2280 \; ; x = \frac{2280}{57} = 40$

Thus, total number of passengers who left the train at station B and had boarded at the station P = 6x = 240

So, total number of passengers who left the train at station B and had boarded at the station A i.e. purchased Rs. 5 ticket from station A = 480 – 240 = 240

Therefore, the total number of Rs. 5 tickets sold at the station A was 240.

Hence, option C is correct.

128. Following the common explanation, we get

So, the total number of passengers were on the train between station B and station C = 2310

Hence, option D is correct.

129. Following the common explanation, we get

Total weight of all passengers who were travelling from station A to station B = 2440 × 35 = 85400 kg

Weight of the train = (200000 – 85400) kg = 114600 kg = 114.6 ton

Hence, option A is correct.

130. Following the common explanation, we get

Given, total tickets sold for station Q at station B was 140 and the total number of Rs. 5 tickets sold at station B was 210.

Therefore, total amount collected = Rs. (140 × 10 + 210 × 5) = Rs. (1400 + 1050) = Rs. 2450

Hence, option B is correct.

131. Employs In BCGI in required department = 270 + 150 + 120 = 540

Employs In Younker in required department = 70 + 340 + 100 = 510

Required ratio = 18 : 17

Hence, option A is correct.

132. Employees In operations = 1045

Total employees in 5 companies = 2860

Required percentage = 36.53%

Hence, option A is correct.

133. Total technical employees hired by 5 companies = 1010

$$\text{Average} = \frac{1010}{5} = 202$$

Hence, option E is correct.

134. Technical and operations employees in BCGI =420

Operation and H.R employee in Younker = 375

$$\text{Reqd. \%} = \frac{420 \times 100}{375} = 112\%$$

Hence, option E is correct.

135. Total employee in Zelman = 395

Total HR in Zelman = 20

Reqd. % = $\frac{20}{395} \times 100 = 5.06\%$

Hence, option B is correct.

136.

Number of Males in City C = $30{,}000 \times \frac{30}{100} = 9000$

Number of Males in City E = $45{,}000 \times \frac{48}{100} = 21{,}600$

Reqd. Ratio = $\frac{9000}{21600} = 5 : 12$

Hence, option A is correct.

137.

Number of Males in City A = $15{,}000 \times \frac{45}{100} = 6750$

Number of Males in City B = $25{,}000 \times \frac{55}{100} = 13{,}750$

Number of Males in City D = $18{,}000 \times \frac{60}{100} = 10{,}800$

Average = $\frac{6750 + 13750 + 10800}{3} = 10433.33$

Hence, option B is correct.

138.

Number of Females in City C = $30{,}000 \times \frac{70}{100} = 21{,}000$

Number of males in City D = 60% of 18000 = 10,800

Difference = 10200

Reqd. % = $100 \times \frac{10200}{10800} = 94.44\%$

Hence, option D is correct.

139.

Population of City F = $45{,}000 \times \frac{125}{100} = 56{,}250$

Ratio of Male to Females in F is 7 : 8

Females in City F = $56{,}250 \times \frac{8}{15} = 30{,}000$

Females of City A = $15{,}000 \times \frac{55}{100} = 8250$

Reqd. % = $100 \times \frac{30000}{8250} = 363.63\ \%$

Hence, option D is correct.

140. Male Population of City B = 13,750

Literate Males = $13{,}750 \times \frac{70}{100} = 9625$

Female Population of City B = 11,250

Literate Females = $11250 \times \frac{30}{100} = 3375$

Total Literate Persons = 13,000

Total Illiterate Persons = 25,000 – 13,000 = 12,000

Hence, option A is correct.

141. Total students in school B = 12% of 7500 = 900

Total students in school D = 15% of 7500 = 1125

Boys in school B = 55% of 900 = 495

Girls in school D = 60% of 1125 = 675

Difference = 675 – 495 = 180

Hence, option C is correct.

142. Total students in school A = 20% of 7500 = 1500

Total students in school C = 28% of 7500 = 2100

Girls in school A = 55% of 1500 = 825

Boys in school A = 1500 – 825 = 675

Girls in school C = 50% of 2100 = 1050

Boys in school C = 2100 – 1050 = 1050

Girls who got A+ grade = 20% of 825 + 30% of 1050 = 165 + 315 = 480

Boys who got A+ grade = 40% of 675 + 22% of 1050 = 270 + 231 = 501

Total students who got A+ grade = 480 + 501 = 981

Hence, option D is correct.

143. Total students in school A = 20% of 7500 = 1500

Total students in school C = 28% of 7500 = 2100

Total students in school D = 15% of 7500 = 1125

Boys in schools C and D together = 50% of 2100 + 40% of 1125 = 1050 + 450 = 1500

Girls in schools A and D together = 55% of 1500 + 60% of 1125 = 825 + 675 = 1500

Ratio = 1500 : 1500 = 1 : 1

Hence, option C is correct.

144. Total students in school B = 12% of 7500 = 900

Total students in school E = 25% of 7500 = 1875

Sum of revenue = 2500 × 900 + 3200 × 1875 = Rs. 82,50,000 = Rs. 82.5 lakhs

Hence, option A is correct.

145. Total students in school A = 20% of 7500 = 1500

Total students in school B = 12% of 7500 = 900

Total students in school E = 25% of 7500 = 1875

Students who use school bus = 23% of 1500 + 28% of 900 + 32% of 1875 = 345 + 252 + 600 = 1197

Hence, option B is correct.

146. Investment of Bhanu = 35% of 160000

Investment of Hemant = 15% of 160000

Ratio of their investment = 7 : 3

Ratio of their time = 9 : 12 = 3 : 4

Ratio of their profit share = $\frac{7 \times 3}{3 \times 4}$ = 7 : 4

11 corresponds to 15400

1 corresponds to = $\frac{15400}{11}$ = 1400

Difference between their profit share = ratio difference is 7 – 4 = 3

3 will correspond to = 1400 × 3 = Rs. 4200

Hence, option A is correct.

147. Investment of Abir = 25% of 160000

Investment of Hemant = 15%of 160000

Investment of Dharam = 10% of 160000

Ratio of their investments = 5 : 3 : 2

Ratio of their time period = 6 : x : 8

Ratio of the profit share = 5(6) : 3(x) : 2(8) = 30 : 3x : 16

Abir's profit share = Rs. 6750

$\rightarrow \frac{30}{30 + 3x + 16} = \frac{30}{46 + 3x} = 6750$

58 = 46 + 3x

x = 4

Hence, option D is correct.

148. Total investment = 160000

Investment of Abir = 25%of 160000 = Rs. 40000

Investment of Sanjay = Rs. [(15% of 160000) + 4000] = Rs. 28000

Investment of Chandru= 15% of 160000 = Rs. 24000

Ratio of their investment = 10 : 7 : 6

Ratio of their time period = 12 : 6 : 8 = 6 : 3 : 4

Ratio of their profit share = 10 × 6 : 7 × 3 : 6 × 4 = 60 : 21 : 24

→ 20 : 7 : 8

Profit share of Abir and Chandru = Rs. 8736

20 + 8 = 23

28 corresponds to 8736

1 will correspond to = $\frac{8736}{28}$

35 will correspond to = $\frac{8736 \times 35}{28}$ = Rs. 10920

Hence, option E is correct.

149. Investment of Abir = 25% of 160000

Investment of Bhanu = 35% of 160000

Investment of Dharam = 10% of 160000

Investment of Hemant = 15% of 160000

Average of the investment

= {25 + 35 + 10 + 15} × $\frac{160000}{4}$ × 100

→ 85 × $\frac{160000}{400}$ = Rs. 34000

Hence, option B is correct.

150. The investment of Chandru = 15% of 160000

The investment of Dharam = 10% of 160000

$$\text{Reqd. \%} = \{15 - 10\} \times \frac{160000 \times 100}{10 \times 160000}$$

$$\rightarrow 5 \times \frac{100}{10} = 50\% \text{ more}$$

Hence, option A is correct.

151. Initial investment of A in 2016 = Rs. 5000

Initial investment of B in 2016 = Rs. 2500

In 2016, A invested more Rs. 1000 after 4 months and B invested more Rs. 2000 after 6 months and C did not participate.

∴ Equivalent capital of A = (5000 × 4) + (6000 × 8) = 20000 + 48000 = Rs. 68000

Equivalent capital of B = (2500 × 6) + (4500 × 6) = 15000 + 27000 = Rs. 42000

Then, the ratio of their shares:

A : B = 68000 : 42000 = 34 : 21

Profit = Rs. 24750

$$\therefore \text{Share of A} = \text{Rs. } 24750 \times \frac{34}{55} = \text{Rs. } 15300$$

Then, share of B = Rs. (24750 – 15300) = Rs. 9450

∴ The required difference = Rs. (15300 – 9450) = Rs. 5850.

Hence, option B is correct.

152. Initial investment of A in 2018 = Rs. 6500
Initial investment of B in 2018 = Rs. 4200
Initial investment of C in 2018 = Rs. 3800

In 2018, A and B tied up together in the business and they did not invest after initial investment.

∴ Equivalent capital of A and B = (6500 + 4200) × 12 = Rs. 10700 × 12

And, equivalent capital of C = (3800 × 12)

Then, the ratio of their shares:

(A + B) : C = 10700 : 3800 = 107 : 38

Share of C = Rs. 1368

∴ The profit = Rs. $1368 \times \frac{145}{38}$ = Rs. 5220.

Hence, option A is correct.

153. For C,

Initial investment in 2014 = Rs. 4800

Initial investment in 2015 = Rs. 4500

Initial investment in 2016 = Rs. 4000

∴ We can clearly observe that the initial investment of C was decreasing continuously for 3 years.

Hence, option C is correct.

154. Total initial investment of A for the given years: = (4500 + 4000 + 5000 + 8000 + 6500) = Rs. 28000

∴ The average initial investment of A = Rs. $\frac{28000}{5}$ = Rs. 5600

Total initial investment of C for the given years: = (4800 + 4500 + 4000 + 3000 + 3800) = Rs. 20100

∴ The average initial investment of C = Rs. $\frac{20100}{5}$ = Rs. 4020

∴ The reqd. % = $\frac{4020}{5600} \times 100\%$ = 71.78% ≈ 72%

Hence, option D is correct.

155. Initial investment of A in 2015 = Rs. 4000
Initial investment of B in 2015 = Rs. 2800
Initial investment of C in 2015 = Rs. 4500

In 2015, A invested more Rs. 2000 after 6 months, B invested more Rs. 1200 after 4 months and C took back Rs. 500 after 4 months.

∴ Equivalent capital of A = (4000 × 6) + (6000 × 6) = Rs. (24000 + 36000) = Rs. 60000

Equivalent capital of B = (2800 × 4) + (4000 × 8) = Rs. (11200 + 32000) = Rs. 43200

Equivalent capital of C = (4500 × 4) + (4000 × 8) = Rs. (18000 + 32000) = Rs. 50000

Then, the ratio of their shares:

A : B : C = 60000 : 43200 : 50000 = 150 : 108 : 125

Profit = Rs. 19150

∴ The share of B = Rs. $19150 \times \frac{108}{383}$ = Rs. 5400
Hence, option C is correct.

156. Let total salary in 2015 be Rs. x
Total salary in 2018 be Rs. y

According to the given information:
The ratio on saving in the year 2015 and 2018 are in the ratio 3 : 5.= $\frac{15\% \text{ of } x}{35\% \text{ of } y} = \frac{3}{5}$

$\Rightarrow \frac{x}{y} = \frac{3}{5} \times \frac{35}{15} = \frac{7}{5}$ ..... (i)

∴ Ratio of personal expenses = $\frac{40\% \text{ of } x}{15\% \text{ of } y}$

$\Rightarrow$ Ratio of personal expenses = $\frac{0.4x}{0.15y}$

Now taking the values of x/y from (i)

$\Rightarrow$ Ratio of personal expenses = $\frac{7}{5} \times \frac{40}{15}$ = 56 : 15
Hence, the required ratio is 56 : 15
Hence, option C is correct.

157. Total expense in 2016 = INR 1,85,000

⇒ Saving in 2016 = 50% of 1,85,000

⇒ Saving in 2016 = INR 92,500

According to the given information:

The saving in 2014 is 80% of the saving in 2016

$\therefore$ Saving in 2014 = $\frac{80}{100} \times 92,500$ = INR 74,000

Let the total salary in 2014 be INR x

$\therefore$ 35% of x = 74,000

$\Rightarrow x = \frac{74000 \times 100}{35}$

Now, expenditure on food in 2014 is 21% of x

$\therefore$ Expenditure on food in 2014= $74000 \times \frac{100}{35} \times \frac{21}{100}$ = INR 44,400

Hence, option B is correct.

158. Let the monthly salary in 2015 be INR 100

According to the given information:

Every year there is an increase of 100% in monthly salary as compared to previous year's monthly salary

Then salary in 2016 = INR 200

⇒ Salary in 2017 = INR 400

⇒ Salary in 2018 = INR 800

Now, expenses on travelling in 2015 = 32% of salary

⇒ Expenses on travelling in 2015 = INR 32

$\therefore$Reqd. ratio = $\frac{800}{32}$ = 25 : 1

Hence, option D is correct.

159. Total salary in year 2013 = INR 3,00,000

There is an increase of 18%

∴ Total salary in 2014 = 3,00,000 + 18% of 3,00,000

⇒ Total salary in 2014 = INR 3,54,000

Now, Expense on travelling in 2014 = 18% of 3,54,000 = INR 63,720

Personal expense in 2014 = 26% of 3,54,000 = INR 92,040

Combined expense = INR (63,720 + 92,040) = INR 1,55,760

Hence, option E is correct.

160. Money spend by Nitin on food = 21% + 13% + 20% + 10% + 40%

Average money spend by Nitin on food = $\frac{104\%}{5}$ = 20.8% of 5,00,000

Average money spend by Nitin on food = INR 1,04,000

Now, Money saved by Nitin = 35% + 15% + 50% + 17% + 35%

Average money saved by Nitin = $\frac{152\%}{5}$ = 30.4% of 5,00,000

Average money saved by Nitin = INR 1,52,000

∴ Reqd. ratio = $\frac{104000}{152000} \times 100 = 68.42\%$

Hence, option C is correct.

161. Total students = 20% of 15000 = 3000

Total girls = 1650

Total boys = 3000 – 1650 = 1350

Boys in red house = 720

Boys in green house = 1350 – 720 = 630

Girls in green house = $\frac{1650}{33} \times 16 = 800$

Difference = 800 – 630 = 170

Hence, option D is correct.

162. For school C:

Total students = 15% of 15000 = 2250

Total girls = 990

Total boys = 2250 – 900 = 1260

Boys in red house = 567

Boys in green house = 1260 – 567 = 693

Girls in green house = 1083 – 690 = 390

Girls in red house = 990 – 390 = 600

Ratio = 600 : 390 = 20 : 13

Hence, option C is correct.

163. For school A:

Total students = 12% of 15000 = 1800

Total girls = 810

Total boys = 1800 – 810 = 990

Boys in red house = 440

Boys in green house = 990 – 440 = 550

Girls in red house = 750 – 440 = 310

Girls in green house = 810 – 310 = 500

Percentage = $\frac{550}{500} \times 100 = 110\%$

Hence, option A is correct.

164. For school E:

Total students = 28% of 15000 = 4200

Total girls = 2100

Total boys = 4200 – 2100 = 2100

Boys in red house = 1260

Boys in green house = 2100 – 1260 = 840

Girls in red house = 2100 – 1155 = 945

Total students in red house = 1260 + 945 = 2205

Hence, option B is correct.

165. For school D:

Total students = 25% of 15000 = 3750

Total girls = 2250

Total boys = 3750 – 2250 = 1500

Boys in red house = 820

Boys in green house = 1500 – 820 = 680

Girls in red house = 820 + 305 = 1125

Girls in green house = 2250 – 1125

$$\text{Percentage} = \frac{1125}{2250} \times 100 = 50\%$$

Hence, option B is correct.

166.

Number of Fans in Shop A = $5000 \times \frac{1}{10} = 500$

Number of Fans in Shop B = $1800 \times \frac{4}{9} = 800$

Number of Fans in Shop C = $3400 \times \frac{7}{17} = 1400$

Number of Fans in Shop D = $3600 \times \frac{3}{9} = 1200$

Number of Fans in Shop E = $4000 \times \frac{4}{10} = 1600$

Number of Fans in Shop F = $1210 \times \frac{5}{11} = 550$

Total = 6050

Hence, option B is correct.

167.

Number of AC in shop D = $3600 \times \frac{4}{9} = 1600$

Number of Cooler in shop D = $3600 \times \frac{2}{9} = 800$

Number of Fan in shop D = $3600 \times \frac{3}{9} = 1200$

Total Income = Rs. [(1600 × 12000) + (800 × 32000) + (1200 × 8000)] = Rs. 54400000

Income from Cooler = Rs. (800 × 32000) = Rs. 25600000

Reqd. % = $\frac{25600000}{54400000} \times 100 = 47.05\%$

Hence, option A is correct.

168.

Number of AC in shop C = $3400 \times \frac{6}{17} = 1200$

Number of Cooler in shop C = $3400 \times \frac{4}{17} = 800$

Number of Fan in shop C = $3400 \times \frac{7}{17} = 1400$

Total = Rs. [(1200 × 6000) + (800 × 42,000) + (1400 × 15,000)] = Rs. 61,800,000

Hence, option C is correct.

169. Total items = 1210

Number of AC = $1210 \times \frac{2}{11} = 220$

Income from AC = 220 × 11000 = Rs. 2420000
Income from Cooler = 440 × 28000 = Rs. 12320000
Income from Fan = 550 × 11100 = Rs. 6105000

Total income = Rs. (2420000 + 12320000 + 6105000) = Rs. 20845000

Reqd. % = $\frac{2420000}{20845000} = 11.60\%$

Hence, option A is correct.

170.

Number of Fan in Shop B = $1800 \times \frac{4}{9} = 800$

Income by selling Fan in shop B = 800 × 16000 = Rs. 12800000

Number of Fan in Shop E = $4000 \times \frac{4}{10} = 1600$

Income by selling Fan in shop E = 12200 × 1600 = Rs. 19520000

Required Ratio = 40 : 61

Hence, option C is correct.

171. The total percentage of students in level VI and level IX together = 20 + 18 = 38%

The percentage of students in level X = 12%

$\therefore$ Reqd. % = $\frac{38-12}{12} \times 100 = \frac{26}{12} \times 100$ = 217% (approx.)

Hence, option C is correct.

172. The total number of students in level VI

$= \frac{2200}{100} \times 20 = 440$

The ratio of boys to girls is 6: 5 in level VI (Given)

The total number of girls in level VI = $\frac{440}{11} \times 5 = 200$

The total number of boys in level VI = 440 – 200 = 240

The total number of girls in level VII = 200 + 50 = 250

The total number of students in level VII

$= \frac{2200}{100} \times 35 = 770$

The total number of boys in level VII = 770 – 250 = 520

$\therefore$ Reqd. ratio = $\frac{240}{520}$ = 6 : 13

Hence, option D is correct.

173. The total number of students in level VI in 2019

$= \frac{2200}{100} \times 20 = 440$

The total number of students in level VI in 2020$= \frac{440}{100} \times 110 = 484$

The total number of students in level VII in 2019$= \frac{2200}{100} \times 35 = 770$

The total number of students in level VII in 2020$= \frac{770}{100} \times 110 = 847$

The total number of students in level VI and level VI together in 2020 = 484 + 847 = 1331

The total number of students in level VIII in 2019$= \frac{2200}{100} \times 15 = 330$

The total number of students in level VIII in 2020$= \frac{330}{100} \times 80 = 264$

∴ Required difference = 1331 – 264 = 1067

Hence, option B is correct.

174. The total number of students in level VIII

$= \frac{2200}{100} \times 15 = 330$

The total number of students in level IX $= \frac{2200}{100} \times 18 = 396$

The total number of students in level VIII and level IX together = 330 + 396 = 726
The total number of girls in level VIII and level IX together = 306 (Given)
The total number of boys in level VIII and level IX together = 726 – 306 = 420

If the total number of boys in level VIII is “x” and the total number of boys in level IX is “x + 40” (Given),

So, x + x + 40 = 420
2x = 380
x = 190

∴ The total number of boys in level VIII is 190.

Hence, option A is correct.

175.

$$\text{Reqd. \%} = \frac{(35\% + 15\%) - (18\% + 12\%)}{100} \times 2200$$

$$= \frac{20}{100} \times 2200 = 440$$

Hence, option C is correct.

Common explanation (176 – 180) :

Total number of students = 5600

Number of boys = $\frac{4}{7} \times 5600 = 3200$

Number of girls = 5600 – 3200 = 2400

Number of boys enrolled in Painting = 612

Number of students enrolled in Athletics = 32% of 5600 = 1792

Number of girls enrolled in Athletics = 570

Number of boys enrolled in Athletics = 1792 – 570 = 1222

Number of boys enrolled in Debating = 12.5% of 3200 = 400

Number of girls enrolled in Dancing = 570 + 150 = 720

Number of students enrolled in Painting = 816

Number of girls enrolled in painting = 816 – 612 = 204

Number of boys enrolled in Singing and Dancing together = 3200 – (400 + 612 + 1222) = 966

Number of boys enrolled in singing = $\frac{72}{72 + 89} \times 966 = 432$

Number of girls enrolled in singing = 432 + 186 = 618

Number of boys enrolled in dancing = 966 – 432 = 534

Number of girls enrolled in debating = 2400 – (618 + 720 + 204 + 570) = 288

Activity	Number of Boys	Number of Girls	Total number of students
Singing	432	618	1050
Dancing	534	720	1254
Debating	400	288	688
Painting	612	204	816
Athletics	1222	570	1792

176. Following the common explanation, we get
Difference in the number of boys and girls who are enrolled in Painting = (612 – 204) = 408

So, reqd. percentage = $\frac{408 \times 100}{688}$ = 59.3 ≈ 59%

Hence, option B is correct.

177. Following the common explanation, we get

Reqd. percentage = $\frac{1050}{5600} \times 100$ = 18.75%

Hence, option D is correct.

178. Following the common explanation, we get
Required ratio = 534 : 720 = 89 : 120

Hence, option C is correct.

179. Following the common explanation, we get

$570 = \frac{x}{100} \times 1792$

Therefore, reqd. percentage = $\frac{570 \times 100}{1792}$ = 31.8 ≈ 32%

Hence, option C is correct.

180. Following the common explanation, we get

The required number of girls who are enrolled in Debating = 288

Hence, option B is correct.

181. Total units of work = 360 (LCM of three times given)

Work done by pipe A in one hour = 30 units

Work done by pipe C in one hour = 20 units

Work done by pipe E in one hour = 18 units

Units of work done by three pipes till 3 : 00 pm = (30 + 20 + 18) units = 68 units

Units of work done by two pipes A and E till 4 : 00 pm = 48 units

Total pool filled = (68 + 48) units = 116 units

Percentage of pool that was filled = $\frac{116}{360} \times 100 = 32.22\%$

Hence, option D is correct.

182. Let, Total units of work = 240 (LCM of 12, 16, 10)

Work done by D and F for 4 hours = (15 + 24)4 = 156 units

Units of work done per hour when Q was opened = (15 + 24) – 20 = 19 units

Time required to fill the remaining pool = $\frac{240 - 156}{19} = 4.42$ hours

Total time taken = (4 + 4.42) = 8.42 hours

Hence, option B is correct.

183. Total units of work = 300 units (LCM of 12, 25, 20)

Work done by Pipes A, E and B in 3 hours = (25 + 15 + 12) = 52 units

Work done in 15 hours (pipes will work alternatively) = 52 × 5 = 260 units

Remaining units = 40 units

On 16^{th} hour A does 25 units

On 17^{th} hour E does 15 units

∴ Work gets completed in 17 hours

Hence, option C is correct.

184. Total units of work = 80 units

Work done by E and F in 3 hours = (8 + 4) × 3 = 36 units

Work done by Pipe E and Pipe F when S was opened for 1 hour by mistaken = (12 – 8) = 4 units

Remaining work = 80 – (36 + 4) = 40

Work done by E, F and D in one hour = (4 + 8 + 5) = 17

Remaining pool will be filled in = $\frac{40}{17}$ hours

Total time reqd. = $3 + 1 + \frac{40}{17} = \frac{108}{17}$ = 6.35 hours

Hence, option A is correct.

185. Total units of work = 48

Work done in 1 hour by P = 6

Work done in 1 hour by Q = 4

Work done in 1 hour by T = 3

Pipe P and Q will be opened for 4.5 hours whole time = 4.5 × 10 = 45 units

For 3 units three pipes worked together

∴ Pipe T should be opened for = $\frac{\text{Remaining work}}{\text{Pipe T's one hour work}} = \frac{3}{3}$ = 1 hour

Hence, option C is correct.

186. Let the cost price of Rasgulla = Rs x, Marked price = Rs 1.25x

1.25x × 92% = x + 48
1.15x – x = 48
0.15x = 48
x = 320

Cost price of Ras Malai = Rs 320
Marked price of Ras Malai = 320 × 156.25 = Rs 500
Selling price = 500 × 80% = Rs 400

Profit = 400 – 320 = Rs 80

Hence, option B is correct.

187. Let the cost price of Kaju Katli = 5x, Marked price of Kaju Katli = 6x

M.P. – C.P. = 100

6x – 5x = 100

x = 100

Cost price = Rs 500, Marked price = Rs 600

Profit = Rs 70

Profit % = $\frac{70}{500} \times 100 = 14\%$

Discount = 600 – (500 + 70) = 600 – 570 = Rs 30

Discount % = $\frac{30}{600} \times 100 = 5\%$

Ratio = 5% : 14% = 5 : 14

Hence, option A is correct.

188. Marked price of Kajju Katli = Rs 600, cost price of Kajju Katli = Rs 500

Let profit = Rs x, Discount = Rs (x – 40)

500 + x = 600 – (x – 40)

500 + x = 600 – x + 40

x + x = 640 – 500

2x = 140

x = 70

Discount = 70 – 40 = Rs 30

Discount % = $\frac{30}{600} \times 100 = 5\%$

Hence, option A is correct.

189. Let the cost price = Rs 18x, Marked price = 25x

$25x - 35 = 18x + 63$

$25x - 18x = 63 + 35$

$7x = 98$

$x = 14$

cost price = Rs 252, Marked price = Rs 350

Profit % = $\frac{63}{252} \times 100 = 25\%$

Discount % = $\frac{35}{350} \times 100 = 10\%$

Difference = 25% – 10% = 15%

Hence, option C is correct.

190. Profit on Gulab Jamun = Rs 63

Profit on Rasgulla = Rs 48

Profit on Ras Malai = Rs 80

Profit on Kajju Katli = Rs 70

Profit on Laddu = Rs 45

Average profit = $\frac{(63 + 48 + 80 + 70 + 45)}{5}$

$= \frac{306}{5}$ = Rs. 61.2

Hence, option E is correct.

Common explanation (191 – 195) :

Export in 2017 = 60% of 125000 = 75000

Production in 2018 = $\frac{5}{4} \times 90000$

= 112500 (80% i.e. 90000 is exported)

	2017	2018
Produced	125000	112500
Exported	75000	90000
Consumed	50000	22500

Export in 2017

Rank	Country	Quantity
1	China	22500
2	U.S	17500
3	Italy	15000
4	Chile	12000
5	France	8000

In 2018 there was no upset in rank i.e. the rank was same as 2017

Export share of top four country is 88% and it is a sum of 4 consecutive prime number.

$\frac{88}{2} = 22$

Therefore one of the prime number should be close to 22.23 is closest prime number.
4 numbers can be 23, 29, 31 and 37 or 19, 23, 29 and 31 or 17, 19, 23 and 29
17, 19, 23 and 29 sums up to 88.Therfore this is the export share in 2018

Export 2018

Rank	Country	Export %	Initial Quantity	Additional	Final Quantity
1	China	29	26100	2700	28800
2	U.S	23	20700	2700	23400
3	Italy	19	17100	2700	19800
4	Chile	17	15300	2700	18000
5	France	12	10800	– 10800	0

Initially France was to get 12% but as it declined the order, its share was additionally distributed among four countries

Thus final Quantity of France was zero tons.

191. Following the common explanation, we get

Export in 2017 = 12000
Export in 2018 = 18000

$$\% \text{ increase} = \frac{6000}{12000} \times 100 = 50\%$$

Hence, option A is correct.

192. Following the common explanation, we get

Additional Quantity of apple imported to Italy is 2700

Hence, option B is correct.

193. Following the common explanation, we get

Production of apple on 2017 = 125000

Production of apple in 2018 = 112500

$$\% \text{ change} = \frac{12500}{1250000} \times 100 = 10\%$$

Hence, option A is correct.

194. Following the common explanation, we get

Initial share of apple in china in 2018 = 29%

$$\text{Final share} = 29 + \frac{12}{4} = 32\%$$

Hence, option A is correct.

195. Following the common explanation, we get

Profit from CHINA = 180 × 22500 = 4050000

Profit from U.S = 176 × 17500 = 3080000

Profit from Italy = 224^{15000} = 3360000

Profit from Chile = 92 ×12000 = 1104000

Profit from France = 98 × 8000 = 784000

Hence, option A is correct.

Common explanations (196 – 200) :

Score in Maths = 70% (150) = 105

Similarly calculating for each subject we get

Subject	Score (%)	Score	Marks Deducted
Maths	70%	105	45
Physics	65%	97.50	52.50
Chemistry	45%	67.50	82.50
English	80%	120	30
Hindi	74%	111	39
Total		501	249

196. Following the common explanation, we get

Total score in all the subjects combined = 501

Total maximum marks = 5 × 150 = 750

Aggregate % score = $\frac{501}{750} \times 100 = 66.8\%$

Hence, option C is correct.

197. Following the common explanation, we get

Average score of Physics, Chemistry and English

$= \frac{97.5 + 67.5 + 120}{3} = \frac{285}{3} = 95$

Hence, option E is correct.

198. Following the common explanation, we get

Total score of Physics and Chemistry = 97.5 + 67.5 = 165

Reqd. % = $\frac{165}{120} \times 100 = 137.5\%$

Hence, option B is correct.

199. Following the common explanation, we get

Total marks deducted in Maths and Hindi = 45 + 39 = 84

$$\text{Reqd. \%} = \frac{84}{105} \times 100 = 80\%$$

Hence, option C is correct.

200. Following the common explanation, we get

Difference between the obtained score in English and Maths = 120 – 105 = 15

Difference between the deducted score in Physics and Chemistry = 82.5 – 52.5 = 30

$$\text{Reqd. \%} = \frac{15}{30} \times 100 = 50\%$$

Hence, option E is correct.

201. Boys who participate in Craft

$$= 5400 \times 15\% \times \frac{3}{5} = 486$$

Boys who participate in Singing

$$= 5400 \times 18\% \times \frac{4}{9} = 432$$

Girls who participate in Dancing

$$= 5400 \times 14\% \times \frac{4}{7} = 432$$

Girls who participate in Drawing

$$= 5400 \times 19\% \times \frac{2}{3} = 684$$

Ratio = 486 + 432 : 432 + 684 = 918 : 1116 = 51 : 62

Hence, option B is correct.

202. Boys participate in Singing

$= 5400 \times 18\% \times \frac{4}{9} = 432$

Boys participate in Dancing $= 5400 \times 14\% \times \frac{3}{7} = 324$

Boys participate in Acting $= 5400 \times 22\% \times \frac{6}{11} = 648$

Boys participate in Craft $= 5400 \times 15\% \times \frac{3}{5} = 486$

Boys participate in Drawing $= 5400 \times 19\% \times \frac{1}{3} = 342$

Boys participate in Anchoring $= 5400 \times 12\% \times \frac{3}{4} = 486$

$\text{Average} = \frac{(432 + 324 + 648 + 486 + 342 + 486)}{6}$

$= \frac{2718}{6} = 453$

Hence, option C is correct.

203. Students who participate in Dancing $= 5400 \times 14\% = 756$

25% of the Students who participate in Dancing also participate in Craft $= 756 \times 25\% = 189$

Students who participate in Craft $= 5400 \times 15\% = 810$

20% of the Students who participate in Craft also participate in Dancing $= 810 \times 20\% = 162$

Students who only participate in Dancing $= (756 + 162) - (162 + 189) = 567$

Students who only participate in Craft $= (810 + 189) - (162 + 189) = 648$

Ratio $= 567 : 648 = 7 : 8$

Hence, option A is correct.

204. Boys participate in Anchoring

$= 5400 \times 12\% \times \frac{3}{4} = 486$

Girls participate in Acting

$= 5400 \times 22\% \times \frac{5}{11} = 540$

percent $= \frac{486}{540} \times 100 = 90\%$

Hence, option B is correct.

205. Boys Participate in Acting

$= 5400 \times 22\% \times \frac{6}{11} = 648$

Age below 16 = 648 × 50% = 324

Girls participate in Acting = $5400 \times 22\% \times \frac{5}{11} = 540$

Age below 16 = 540 × 40% = 216

Age above 16 = (648 – 324) + (540 – 216) = 324 + 324 = 648

Hence, option E is correct.

206. A does 25% of work in 5 days, 100% work will be done in 20 days

D does [100 – (25 + 20 + 10 + 20)] = 25% of work in 4 days, 100% work will be done in 16 days

Total work = LCM (20, 16) = 80 units

A does = $\frac{80}{20}$ = 4 units/day

D does = $\frac{80}{16}$ = 5 units/day

A + D = 4 + 5 = 9 units/day

So, total work will be done in = $\frac{80}{9}$ days

Hence, option A is correct.

207. B does 20% work in 4 days then, 100% will be done in 20 days.

Let the total amount of work be 100 units.

B does 5 units/day.

$B + E = \frac{100}{100/11}$ units/day = 11 units/day

E does (11 – 5) = 6 units/day

The reqd. answer = $\frac{100}{6} = \frac{50}{3}$ days

Hence, option B is correct.

208. A's efficiency 20 days to do whole work

B's efficiency 20 days to do whole work

C's efficiency 40 days to do whole work

D's efficiency 16 days to do whole work

Total units of work = LCM(20, 20, 40, 16) = 80 units

A = 4 units/day

B = 4 units/day

C = 2 units/day

D = 5 units/day

40% of whole work is = 80 × 0.4 = 32 units

A + B = 4 + 4 = 8 units/day

B + C = 4 + 2 = 6 units/day

C + D = 2 + 5 = 7 units/day

Now left amount of target work after 3 days = 32 – (8 + 6 + 7) = 11 units

4^{th} day work done = A + B = 8, so left = 11 – 8 = 3

So the next 3 units will be done by B and C together in haf day only.

The required answer is = 4.5 days

Hence, option C is correct.

209. A, B, C and D separately can do the work in 20, 20, 40 and 16 days respectively.

Total work = LCM (20, 20, 40, 16) = 320 units [For ease of calculation 320 is taken as LCM and not 80]

A = 16 units/day

B = 16 units/day

C = 8 units/day

D = 20 units/day

A + B = 16 + 16 = 32 units/day

B + C = 16 + 8 = 24 units/day

20% work will be done in

$= \frac{(320 \times 20/100)}{32}$ = 2 days (by A and B)

50% of the left work will be done in

$= \frac{320 - 64}{2} = \frac{128}{20}$ = 6.4 days (by D)

Rest is done = $\frac{128}{24}$ = 5.33 days (by B and C)

The answer is = 2 + 6.4 + 5.33 = 13.73 days

Hence, option C is correct.

210. A needs 20 days to do whole work

∴ F will take 35 days to do the whole job.

With 150% of his efficiency = $\frac{35 \times 100}{150} = \frac{70}{3}$ days

Hence, option D is correct.

211. Number of Baleno and Ertiga Cars Sold together

$= 39\ \%\ \text{of}\ 12{,}500 = \frac{39}{100} \times 12{,}500 = 4875$

Number of Swift Dzire and Ciaz Cars Manufactured together

$= 34\ \%\ \text{of}\ 17{,}500 = \frac{34}{100} \times 17{,}500 = 5950$

Difference = 1075

Hence, option A is correct.

212.

Calerio Cars Sold by Maruti $= \frac{18}{100} \times 12{,}500 = 2250$

Ciaz Card Manufactured by Maruti $= \frac{23}{100} \times 17{,}500 = 4025$

Difference = 1775

Percentage Change $= \frac{1775}{4025} \times 100 = 44.09\%$

Hence, option C is correct.

213.

Ertiga Cars Sold $= \frac{32}{100} \times 12{,}500 = 4000$

Celerio Cars Manufactured $= \frac{34}{100} \times 17{,}500 = 5950$

Ratio $= \frac{4000}{5950} = 80 : 119$

Hence, option B is correct.

214. Baleno, Ciaz and Ertiga Cars Sold

$= 66\%$ of $12,500 = \frac{66}{100} \times 12,500 = 8250$

$X = \frac{8250}{3} = 2750$

Swift Desire and Baleno cars Manufactured

$= 30\%$ of $17,500 = \frac{30}{100} \times 17,500 = 5250$

$Y = \frac{5250}{2} = 2625$

Y in terms of $X = \frac{2625}{2750} \times 100 = 95.45\%$

Hence, option D is correct.

215. Ertiga Cars Manufactured in 2018

$= \frac{13}{100} \times 17,500 = 2275$

Ertiga Cars Manufactured in 2019 = 2275 + 225 = 2500

Ciaz Car manufactured in 2018

$= \frac{23}{100} \times 17,500 = 4025$

Ciaz Car manufactured in 2019 = 4025 + 125 = 4200

Reqd. Ratio $= \frac{2500}{4200} = 25 : 42$

Hence, option A is correct.

216. Let the population in 2013 was 500N

Then, population in 2014 = 500N × 1.2 = 600N

Population in 2015 = 600N × 1.2 = 720N

Number of people buying Bentley in 2013 = 10% of 500N = 50N

Number of people buying Bentley in 2014 = 15% of 600N = 90N

Number of people buying Bentley in 2015 = 20% of 720N = 144N

$$\text{Reqd. \%} = \frac{(50N + 90N + 144N)}{(500N + 600N + 720N)} \times 100$$

$$= \frac{284}{1820} \times 100 = 15.6\%$$

Hence, option C is correct.

217. Let the population of the city in 2016 was 100N

BMW buyers in 2016 = 25N = BMW buyers in 2017

$$\therefore \text{Population in 2017} = \frac{25N \times 100}{20} = 125N$$

Nissan buyers in 2016 = 20N

Nissan buyers in 2017 = 125N × 0.25 = 31.25N

Given that, 31.25N – 20N = 5850

⇒ N = 520

Population in 2017 = 520 × 125 = 65000

Hence, option D is correct.

218. Let the population of the city in 2014 was 100N

Bentley buyers in 2014 = 15N

Given that Bentley buyers in 2017 = 30N

Hence, population in 2017 = $\frac{30N \times 100}{10}$ = 300N

BMW buyers in 2017 = $\frac{300N \times 20}{100}$ = 60N

BMW buyers in 2014 = $\frac{100N \times 10}{100}$ = 10N

Reqd. % = $\frac{60N - 10N}{10N} \times 100$ = 500%

Hence, option C is correct.

219. Let the population in 2013 was 100N

BMW buyers in 2013 = 5N

BMW buyers in 2018 = $\frac{5N \times 9}{2}$ = 22.5N

Population in 2018 = $\frac{22.5N \times 100}{15}$ = 150N

Percent rise in population from 2013 to 2018 = 50%

Population in 2020 = 150N × 1.5 = 225N

Number of BMW buyers in 2020 = 225N × 0.18 = 40.5N

Required ratio = 40.5 : 22.5 = 9 : 5

Hence, option A is correct.

220. Let the population of the city in 2013 was 100N

Nissan buyers in 2013 = 15N

∴ Nissan buyers in 2016 = 30N

Hence, population in 2016 = $\frac{30N \times 100}{20}$ = 150N

Bentley buyers in 2016 = $\frac{150N \times 15}{100}$ = 22.5N

BMW buyers in 2013 = $\frac{100N \times 5}{100}$ = 5N

Required ratio = 22.5 : 5 = 9 : 2

Hence, option A is correct.

221. Anmol's efficiency is 12.5% so he can do the work in 100/ 12.5 = 8 days

Akash's efficiency is 8.33% so he can do the work in 100/ 8.33 = 12 days

Amulya's efficiency is 16.16% so he can do the work in 100/ 16.67 = 6 days

Akshat's efficiency is 6.67% so he can do the work in 100/ 6.67 = 15 days

Akhil's efficiency is 10% so he can do the work in 100/10 = 10 days

According to the question

Let the whole work will be completed in x days

$\frac{x}{6} + \frac{(x-2)}{12} + \frac{(x-3)}{18} = 1$

$\frac{(6x + 3x - 6 + 2x - 6)}{36} = 1$

$11x - 12 = 36$
$11x = 36 + 12$
$11x = 48$

$x = \frac{48}{11} = 4\frac{4}{11}$ days

Hence, option B is correct.

222. Anmol's efficiency is 12.5% so he can do the work in 100/ 12.5 = 8 days

Akash's efficiency is 8.33% so he can do the work in 100/ 8.33 = 12 days

Amulya's efficiency is 12.5% so he can do the work in 100/ 16.67 = 6 days

Akshat's efficiency is 6.67% so he can do the work in 100/ 6.67 = 15 days

Akhil's efficiency is 10% so he can do the work in 100/ 10 = 10 days

Akshat's efficiency = $\frac{1}{15}$

Anju's efficiency = $\frac{1}{9}$

less % = $\frac{\left(\frac{1}{9}-\frac{1}{15}\right)}{\frac{1}{9}} \times 100$

= $\frac{6}{135} \times 9 \times 100 = 40\%$

Hence, option C is correct.

223. Anmol's efficiency is 12.5% so he can do the work in 100/ 12.5 = 8 days

Akash's efficiency is 8.33% so he can do the work in 100/ 8.33 = 12 days

Amulya's efficiency is 16.67% so he can do the work in 100/ 16.67 = 6 days

Akshat's efficiency is 6.67% so he can do the work in 100/ 6.67 = 15 days

Akhil's efficiency is 10% so he can do the work in 100/ 10 = 10 days

Let total work = 90

1 day's work = $\frac{90}{15} = 6$

6 day's work = 6 × 6 = 36

But he did = 90 × 30% = 27

In the remaining days (15 – 6) = 9 days he needs to complete (90 – 27) = 63 work

1 day's work = $\frac{63}{9} = 7$

Increased efficiency = $\frac{(7-6)}{6} \times 100$

= $16\frac{2}{3}\%$

Hence, option A is correct.

224. Anmol's efficiency is 12.5% so he can do the work in 100/ 12.5 = 8 days

Akash's efficiency is 8.33% so he can do the work in 100/ 8.33 = 12 days

Amulya's efficiency is 16.67% so he can do the work in 100/ 16.67 = 6 days

Akshat's efficiency is 6.67% so he can do the work in 100/ 6.67 = 15 days

Akhil's efficiency is 10% so he can do the work in 100/ 10 = 10 days

Anmol's and Akhil's 1 day work = $\frac{1}{8}+\frac{1}{10}$

Anmol's and Akhil's 3 day work = $\left(\frac{1}{8}+\frac{1}{10}\right)\times 3$

$=\frac{(5+4)}{40}\times 3=\frac{27}{40}$

Remaining work = $1-\frac{27}{40}=\frac{13}{40}$

Ananya's and Akhil's 1 day work = $\frac{1}{16}+\frac{1}{10}$

Time to complete the work = $\frac{13}{40}\div\left(\frac{1}{16}+\frac{1}{10}\right)$

$=\frac{13}{40}\div\frac{13}{80}=2$ days

Instead of Ananya, Aishwariya had joined,

Aishwariya's and Akhil's 1 day work = $\frac{1}{10}+\frac{1}{10}$

Time to complete the work = $\frac{13}{40}\div\left(\frac{1}{10}+\frac{1}{10}\right)$

$=\frac{13}{40}\div\frac{1}{5}=\frac{13}{8}$days

Difference = $2-\frac{13}{8}=\frac{3}{8}$

Hence, option B is correct.

225. Anmol's efficiency is 12.5% so he can do the work in 100/ 12.5 = 8 days

Akash's efficiency is 8.33% so he can do the work in 100/ 8.33 = 12 days

Amulya's efficiency is 16.67% so he can do the work in 100/16.67 = 6 days

Akshat's efficiency is 6.67% so he can do the work in 100/ 6.67 = 15 days

Akhil's efficiency is 10% so he can do the work in 100/ 10 = 10 days

Aishwariya and Anmol can do the work = $\frac{1}{\frac{1}{10}+\frac{1}{8}}$

$= \frac{9}{(9/40)} = \frac{40}{9}$days

Akash and Arushi can do the work = $\frac{1}{\frac{1}{18}+\frac{1}{12}}$

$= \frac{1}{(5/36)} = \frac{36}{5}$days

Ratio = $\frac{40}{9}:\frac{36}{5}$ = 50 : 81

Hence, option E is correct.

226. Trade deficit is in 2011 and 2013 = (10 + 40) = Rs. 50 thousand crores

Trade Surplus is in 2010, 2012 and 2014 = (10 + 20 + 10) = Rs. 40 thousand crores

Total trade deficit = (50 – 40) = Rs. 10 thousand crores

Average exports = 130 thousand crores

x% of 130 = 10

$x = \frac{10 \times 100}{130}$

x = 7.69%

Hence, option E is correct.

227. In 2013, total tonnage of exports

$= \frac{140 \times 10^3 \times 10^7}{7 \times 10^3} = 20 \times 10^7$ tonnes

Total tonnage of imports = $\frac{180 \times 10^3 \times 10^7}{6 \times 10^3} = 30 \times 10^7$ tonnes

10^7 is common. Exports are less than imports by

$\frac{(30 - 20) \times 100}{30} = 33\frac{1}{3}\% = 100/3\%$

Hence, option E is correct.

228. Trade Surplus in 2012 = (130 – 110) thousand crores = 20,000 crores

Trade Surplus in 2014 = (160 – 150) thousand crores = 10,000 crores

% decrease = $\frac{20 - 10}{20} \times 100 = 50\%$

Trade surplus in 2015 = 50% of 10,000 = 5,000 crores

Imports in 2015 = 150,000 + 20% of 1,50,000 = 180,000 crores

Exports in 2015 = Imports + Trade Surplus = 180,000 + 5000 = 185000 crores = 185 thousand crores.

Hence, option B is correct.

229. Exports after 3 years will become 160 $(1.1)^3$ = 212.96 thousand crores

Imports after 3 years will become 150 $(0.9)^3$ = 109.35 thousand crores

Total trade = 213 + 109 = 322 thousand crores.

Hence, option E is correct.

230. Trade Surplus for 2010 = 100 – 90 = 10

Trade Surplus for 2012 = 130 – 110 = 20

Trade Surplus for 2014 = 160 – 150 = 10

Trade Deficit for 2011 = 130 – 120 = 10

Trade Deficit for 2013 = 180 – 140 = 40

Average of Trade Surplus = $\frac{10 + 20 + 10}{3} = \frac{40}{3}$

Average of Trade Deficit = $\frac{10 + 40}{2} = 25$

Reqd. ratio = $\frac{40}{3 \times 25} = 8 : 15$

Hence, option C is correct.

Common explanations (231 – 235) :

For Dell,

Laptops sold = 240
Desktops sold = 168
Printers sold = 15%

So Laptops + Desktop = 85%

Laptops + Desktops + Printers
$= \frac{(240 + 168) \times 100}{85} = 480$

Printers sold = $\frac{480 \times 15}{100} = 72$

Similarly calculating for each company we get:

Company	Laptops	Desktop	Printers	Total
Dell	240	168	72	480
Acer	365	250	135	750
Asus	420	172	208	800
HP	320	184	196	700
Total	1345	774	611	2730

231. Following the common explanation, we get

Reqd. % = $\frac{72}{135} \times 100 = 53.33\%$

Hence, option B is correct.

232. Following the common explanation, we get

Reqd. average = $\frac{750 + 800}{2} = 775$

Hence, option C is correct.

233. Following the common explanation, we get

Total laptops sold by Dell, Acer and Asus = (240 + 365 + 420) = 1025

Total Desktops sold by Acer, Asus and HP = (250 + 172 + 184) = 606

Required difference = (1025 – 606) = 419

Hence, option E is correct.

234. Following the common explanation, we get

Total number of Desktops and Printers sold by Acer and Asus = (250 + 135 + 172 + 208) = 765

Total number of Laptops, Desktops and Printers sold by HP = (320 + 184 + 196) = 700

Required difference = (765 – 700) = 65

Hence, option D is correct.

235. Following the common explanation, we get

Reqd. % = $\frac{404}{670} \times 100 = 60.3\%$

Hence, option E is correct.

Common explanation (236 – 240):

It is given that total number of hotels is 720.

4 star hotels = 2 × (3 star hotels)
5 star hotels = 3 × (4 star hotels)

Let, 3 star hotels M, 4 star hotels N and 5 star hotels P.

N = 2M
P = 3N

M + 2M + 6M = 720
9M = 720
M = 80
N = 160
P = 480

Total 200 hotels listed on sites A. Out of which, 30% are 3 star.
60 hotels are there in 3 star category on Site A.
Total 5 star hotels are 480.
Ratio of the hotels on site A, B and C is 1:1:2.
4x = 480
x = 120

Number of 5 star hotels on B website is 20% more than number of 4 star hotels on the same website.

Number of 5 Star Hotels on site B = 120

So, number of 4 star hotels on site B would be 100.

Total 4 star hotels are 160.

So 4 star hotels on site C will be 160 – 20 – 100 = 40

Number of 3 star hotels on website B and C are same.

Total 80

So 3 star and 4 star hotels on site B and C should be 10.

Hotel/Site	A	B	C	
3 Star	60	10	10	80
4 Star	20	100	40	160
5 Star	120	120	240	480
Total	200	230	290	720

236. Following the common explanation, we get

Total number of 4 star hotels from Site A and C together are 60

Hence, option C is correct.

237. Following the common explanation, we get

3 star Hotels on site A = 60

4 star Hotels on Site C = 40

Difference = 20

Hence, option A is correct.

238. Following the common explanation, we get

4 Star Hotels on Site B = 100

Total Hotels on Site A = 200

Reqd. % = $\frac{100}{200} \times 100 = 50\%$

Hence, option E is correct.

239. Following the common explanation, we get

Total number of Hotels listed on site C is 290.

Hence, option A is correct.

240. Following the common explanation, we get

3 star hotels on site D is 50% more than number of 4 star hotels on site A

3 star hotels on Site D = 150% of 20 = 30

Total Hotels on site D = 500
Out of Which 50% are 4 star = 250

Number of 4 star hotels on site D = 500 – 250 – 30 = 220

Hence, option B is correct.

241. The number of students who applied for M.Tech = 21000 × 15%

The number of students who qualified in M.Tech = 15000 × 14%

Reqd. % = $\frac{15000 \times 14\%}{21000 \times 15\%} \times 100 = 66.67\% \approx 67\%$

Hence, option B is correct.

242. Let,

The number of male students who applied for M.com = x

The number of female students who applied for M.com = x × 150%

Ratio = x : x × 150% = 2 : 3

The numbers of male students who applied for M.com = 21000 × 30% × $\frac{2}{5}$ = 2520

Hence, option D is correct.

243. The number of students who applied for M.Sc. and MBA together = 21000 × (21 + 16)% = 7770

The number of students who qualified in M.Sc. and MBA together = 15000 × (16 + 20)% = 5400

Difference = 7770 – 5400 = 2370

Hence, option E is correct.

244. Ratio = 21000 × 18% : 15000 × 15% = 21 × 18 : 15 × 15 = 7 × 6 : 5 × 5 = 42 : 25

Hence, option A is correct.

245. The total number of students who qualified in M. Tech, M.Sc. and MCA = 15000 × (16 + 14 + 15)%

= 15000 × 45% = 6750

Average = 2250

Hence, option C is correct.

Common explanation (246 – 250) :

Bahubali viewers – 4500 and Robot viewers - 4000

Bahubali viewers' distribution in theaters

INOX – 40% = 1800, PVR – 35% = 1575 and Galaxy – 25% = 900

In INOX, Children = 15% so, adults = 85%

Children = 15% (1800) = 270 and Adults = 85 %(1800) = 1530

Similarly calculating for every theatre and each show, we get

Movie →	Bahubali			Robot 2.0			Total Viewers
Theatre	Viewers	Adult	Children	Viewers	Adult	Children	
INOX	1800	1530	270	1400	1120	280	3200
PVR	1575	1323	252	1000	820	180	2575
Galaxy	1125	900	225	1600	1328	272	2725
Total	4500	3753	747	4000	3268	732	8500

246. Following the common explanation, we get

Number of children who saw Bahubali in PVR = 252

Number of children who saw Robot in PVR = 180

Required ratio = 252 : 180 = 7 : 5

Hence, option D is correct.

247. Following the common explanation, we get

The number of children who watched Bahubali in INOX = 270

The number of adults who watched Bahubali in Galaxy = 900

Reqd. % = $\frac{270}{900} \times 100 = 30\%$

Hence, option B is correct.

248. Following the common explanation, we get

Total viewers in INOX = 3200

Total viewers in PVR = 2575

Required difference = 3200 – 2575 = 625

Hence, option A is correct.

249. Following the common explanation, we get

Sum of adults and children who watched Robot in INOX and PVR = 1120 + 180 = 1300

Sum of adults and children who watched Bahubali in Galaxy and INOX = 900 + 270 = 1170

Required ratio = 1300 : 1170 = 10 : 9

Hence, option C is correct.

250. Following the common explanation, we get

The average number of children who watched Robot = $\frac{732}{3}$ = 244

Average number of adults who watched Bahubali = $\frac{3753}{3}$ = 1251

Reqd. % = $\frac{244}{1251} \times 100 = 19.50\%$

Hence, option D is correct.

251. Total number of male employees in senior post = (244 + 210 + 178 + 184) = 816

Total number of male employees in non-senior post = (728 + 1025 + 692 + 900) = 3345

Total number of employees = (1743 + 2126 + 1584 + 1872) = 7325

Reqd.% = $\frac{3345 + 816}{7325} \times 100 = 56.8\%$

Hence, option B is correct.

252. Total number of male employees in non-senior post = (728 + 1025 + 692 + 900) = 3345

Total number of female employees in non-senior post = (617 + 644 + 516 + 625) = 2402

Required difference = (3345 – 2402) = 943

Hence, option D is correct.

253. Total number of employees = (1743 + 2126 + 1584 + 1872) = 7325

Total number of male employees in senior post = (244 + 210 + 178 + 184) = 816

Total number of male employees in non-senior post = (728 + 1025 + 692 + 900) = 3345

Total number of female employees in non-senior post = (617 + 644 + 516 + 625) = 2402

Total number of female employees in senior post = (7325 – 816 – 3345 – 2402) = 762

Required ratio = 816 : 762 = 136 : 127

Hence, option C is correct.

254. Total number of employees = (1743 + 2126 + 1584 + 1872) = 7325

Total number of male employees in senior post = (244 + 210 + 178 + 184) = 816

Total number of male employees in non-senior post = (728 + 1025 + 692 + 900) = 3345

Total number of female employees in non-senior post = (617 + 644 + 516 + 625) = 2402

Total number of female employees in senior post = (7325 – 816 – 3345 – 2402) = 762

Reqd. average = $\frac{2402 + 762}{4}$ = 791

Hence, option C is correct.

255. Male employees in senior post in TCS and HCL together = (244 + 210) = 454

Female employees in senior post in Wipro = (1584 – 178 – 692 – 516) = 198

Female employees in senior post in Infosys = (1872 – 184 – 900 – 625) = 163

Required difference = 454 – (198 + 163) = 93

Hence, option B is correct.

256. Percentage growth in the number of upper primary institutions in 2000 – 01

$= \frac{206269 - 198004}{198004} = 4.17\%$

Percentage growth in the number of upper primary institutions in 2001 – 02

$= \frac{219626 - 206269}{206269} = 6.48\%$

Percentage growth in the number of upper primary institutions in 2002 – 03

$= \frac{245274 - 219626}{219626} = 11.68\%$

Percentage growth in the number of upper primary institutions in 2003 – 04

$= \frac{262286 - 245274}{245274} = 6.94\%$

Thus, the year 2002 – 03 has seen the maximum percentage growth in the number of upper primary institutions over the previous year

Hence, option C is correct.

257. **1.** Percentage share of Upper Primary Institutions in the year 1999 – 00

$= \frac{198004}{956519} \times 100 = 20.70\%$

Percentage share of Upper Primary Institutions in the year 2000 – 01$= \frac{206269}{971054} \times 100 = 21.24\%$

The increase in percentage share of Upper Primary Institutions in the year 2000 – 01 over the previous year= 21.24 – 20.70 = 0.54%

Percentage share of Primary Institutions in the year 1999 – 00$= \frac{641695}{956519} \times 100 = 67.09\%$

Percentage share of Primary Institutions in the year 2000 – 01$= \frac{638738}{971054} \times 100 = 65.78\%$

The decrease in percentage share of Primary Institutions in the year 2000 – 01 over the previous year = 67.09% – 65.78% = 1.31% (False)

2. Percentage share of Upper Primary Institutions in the year 2003 – 04 = 23.41%

Percentage share of Upper Primary Institutions in the year 2004 – 05 = 22.93%
The decrease in percentage share of Upper Primary Institutions in the year 2004 – 05 over the previous year = 0.48%

Percentage share of Primary Institutions in the year 2003 – 04 = 63.57%

Percentage share of Primary Institutions in the year 2004 – 05 = 63.89%

The increase in percentage share of Primary Institutions in the year 2004 – 05 over the previous year = 0.32% (false)

3. From option 1 we have already seen that the year 2001 – 02 has also seen a decline in the percentage share of Primary Institutions. (False)

4. Percentage share of Junior colleges in the year 2002 – 03 = 13.27%

Percentage share of Junior colleges in the year 2003 – 04 = 13.03%

The decrease in percentage share over the previous year = 0.24%

Percentage share of Primary Institutions in the year 2002 – 03 = 63.00%

Percentage share of Primary Institutions in the year 2003 – 04 = 63.57%

The increase in percentage share over the previous year = 0.57% (True)
Hence, option D is correct.

258. The first statement is false as the number of primary institutions first decreased then increased and then again decreased. The other statements are correct and it can be concluded by seeing the bar graph.

Hence, option D is correct.

259. In 1990 – 00, the total number of Upper Primary schools and Junior Colleges was less than the total number of Primary schools by (641695 – 198004 – 116820) = 326871

In 2000 – 01, the total number of Upper Primary schools and Junior Colleges was less than the total number of Primary schools by (638738 – 206269 – 126047) = 306422

In 2001 – 02, the total number of Upper Primary schools and Junior Colleges was less than the total number of Primary schools by 310923

In 2002 – 03, the total number of Upper Primary schools and Junior Colleges was less than the total number of Primary schools by 268901

In 2003 – 04, the total number of Upper Primary schools and Junior Colleges was less than the total number of Primary schools by 303991

In 2004 – 05, the total number of Upper Primary schools and Junior Colleges was less than the total number of Primary schools by 320740
Therefore, required number of years = 6
Hence, option D is correct.

260. There is no growth in the number of Primary schools in 2000 – 01 over previous year

Percentage growth in the number of primary institutions in 2001 – 02 = 4%

There is no growth in the number of Primary schools in 2002 – 03 over previous year

Percentage growth in the number of primary institutions in 2003 – 04 = 9.3%

Percentage growth in the number of upper primary institutions in 2004 – 05 = 3.5%

Thus, the year 2003 – 04 has seen the maximum percentage growth in the number of upper primary institutions over the previous year

Hence, option D is correct.

Common explanations (261 – 265) :

Company/Year	In 2017 (in lakhs)	In 2018 (in lakhs)
Dell	20% of 32 = 6.4	18% of 35 = 6.3
Compaq	15% of 18 = 2.7	12% of 20 = 2.4
HP	26% of 42 = 10.92	30% of 46 = 13.8
Toshiba	8% of 28 = 2.24	7% of 26 = 1.82
IBM	9% of 12 = 1.08	12% of 16 = 1.92
Total	23.34	26.24

261. Following the common explanation, we get

The required difference = 26.24 – 23.34 = 2.9 lakhs

Hence, option C is correct.

262. Following the common explanation, we get

In 2017 and 2018 together, the number of Toshiba personal computers sold in worldwide except India = 28 + 26 – 2.24 – 1.82 = 49.94 lakhs

The number of IBM personal computers sold in worldwide except India = 12 + 16 – 1.08 – 1.92 = 25 lakhs

The required difference = 49.94 – 25 = 24.94 lakhs

Hence, option B is correct.

263. Following the common explanation, we get

In 2017 and 2018 together, the number of Dell personal computers sold in India = 6.4 + 6.3 = 12.7 lakhs

The number of HP computers sold in India = 10.92 + 13.8 = 24.72 lakhs

The required difference = 24.72 – 12.7 = 12.02 lakhs

Hence, option A is correct.

264. Following the common explanation, we get

In 2017, the total sales of Toshiba computers in India = 2.24 lakhs

In 2018, the total sales of Toshiba computers in India = 1.82 lakhs

The reqd. % decrease = $\frac{(2.24 - 1.82) \times 100}{2.24} = \frac{42}{2.24} = 18.75\%$

Hence, option C is correct.

265. Following the common explanation, we get

From the above table, it is clear that number of personal computers sold by IBM was the second lowest in India.

Hence, option E is correct.

Common explanations (266 – 270) :

Aman (Breakfast) = A (B); Aman (Lunch) = A (L) ,and likewise for Binoy and Chintu

A (B) : A (L) = 3 : 4 (7units)

C (L) : C (D) = 11 : 7 (18 units)

A (B) + A (L) = 77 7/9 % {C(L) + C(D)}

$\frac{A(B) + A(L)}{C(L) + C(D)} = \frac{7}{9} = \frac{14}{18}$

A (B) + A (L) = 14k → A (B) = 6k; A (L) = 8k

C (L) + C (D) = 18k → C (L) = 11k ; C (D) = 7k

As A (D) = C (B), Difference between amount of A and C will be

C (L) + C(D) – A(B) – A(L) = 18k – 14k = 4k

As Aman gives Rs. 20 to Chintu to make the contribution of all three equal, the original difference between them must have been Rs 40.

So, 4k = 40 → k=10

A (B) = 6k = 60, A (L) = 8k = 80

C (L) = 11k = 110, C (D) = 70

Now, B (L) = $\frac{\{A(L) + C(L)\}}{2} = \frac{110 + 80}{2} = 95$

Total lunch = A (L) + B (L) + C (L) = 80 + 95 + 110 = 285

Breakfast: Lunch: Dinner = 58 : 57 : 65

If Lunch (57units) = 285 → Breakfast (58 units) = 290 & Dinner (65 units) = 325

Total = 285 + 290 + 325 = 900

Contribution of them becomes equal after Aman gives Chintu Rs. 20, so contribution of Aman previously was Rs. 20 less and that of chintu was Rs. 20 more than the average contribution of all three (which is 900/3 = 300).

So, Aman + 20 = Binoy = Chintu - 20 = 900/3 = 300

So, Aman = 300 - 20 = 280, Binoy = 300 and Chintu = 300 + 20 = 320

Aman(D) = 280 - 60 - 80 = 140

So A(D) = C(B) = 140

	Breakfast	Lunch	Dinner	Total
Aman	60	80	140	280
Binoy	90	95	115	300
Chintu	140	110	70	320
Total	290	285	325	

266. Following the common explanation, we get

Aman (B + D) = Rs. (60 +140) = Rs. 200

Chintu (B + D) = Rs. (140 + 70) = Rs. 210

Ratio = 20 : 21

Hence, Option D is correct.

267. Following the common explanation, we get

Amount spent by Binoy(dinner) = Rs. 115

Total amount spent by Binoy = Rs. 300

As percent = $\frac{115}{300} \times 100 = 38.33\%$

Hence, option A is correct.

268. Following the common explanation, we get

Dinner – breakfast = 325 – 90 = Rs. 35

Hence, Option E is correct.

269. From common explanation, we have

A (B) + B (L) + C (D) = 60 + 95 + 70 = 225

As a percent of total = $\frac{225}{900} \times 100 = 25\%$

Hence, Option D is correct.

270. From common explanation, we have

Chintu(dinner) = 70

If equally split between Aman and Binoy

Aman = 280 + 35 = 315; Binoy = 300 + 35 = 335

Ratio = 315 : 335 = 63 : 67

Hence, Option C is correct.

271. The production of iron ore by the different states are

State	2005 – 06	Production (million tonnes)	2006 – 07	Production (million tonnes)
West Bengal	20%	144	15%	162
Jharkhand	25%	180	20%	216
MP	10%	72	10%	108
Bihar	15%	108	15%	162
Uttaranchal	15%	108	15%	162
Uttar Pradesh	10%	72	5%	54
Andhra Pradesh	5%	36	20%	216

It can be seen that the percentage increase for Andhra Pradesh is 500% while for all others it is much less or decreased.

Hence, option A is correct.

Alternate Solution:-
As the total production of iron ore from 2005-06 to 2006-07 has increased, the state which has the highest percentage increase in the production share over the previous year will have the maximum percentage increase in the production of iron ore. By observation Andhra Pradesh has the highest percentage increase.

Hence, Option A is correct.

272. The production of iron ore by the different states are

State	2005 – 06	Production (million tonnes)	2006 – 07	Production (million tonnes)
West Bengal	20%	144	15%	162
Jharkhand	25%	180	20%	216
MP	10%	72	10%	108
Bihar	15%	108	15%	162
Uttaranchal	15%	108	15%	162
Uttar Pradesh	10%	72	5%	54
Andhra Pradesh	5%	36	20%	216

It can be seen that the percentage increase for West Bengal is less than 20% while for all others it is much more or decrease.

Hence, Option B is correct.

273. Amount of iron ore exported in 2005-06 = 0.4 × 720 = 288 million tons

Amount of iron ore exported in 2006-07 = 0.4 × 1080 = 432 million tonnes

Percentage increase = $\frac{(432 - 288) \times 100}{288}$ = 50%

Alternatively, as the share is equal in both the years, percentage increase = $\frac{(1080 - 720) \times 100}{720}$ = 50%

Hence, Option C is correct.

274. Amount of iron ore produced in Andhra Pradesh in 2005-06

= $\frac{5 \times 720}{100}$ = 36 million tons

Amount of iron ore produced in Andhra Pradesh in 2006-07= $\frac{20 \times 1080}{100}$ = 216 million tons

% increase = $\frac{180 \times 100}{36}$ = 500%

Hence, Option E is correct.

275. Iron produced in West Bengal as given in the pie chart = 15% of 1080 = 162 million tonnes

Actual production in West Bengal = 162 × 2 = 324 million tonnes

Total production in India = 1080 + 162 = 1242 million tonnes

Reqd. % = $\frac{324 \times 100}{1242}$ = 26%

Hence, Option C is correct.

Common explanation (276 – 280) :

Number of pools in Delhi in 2015 = (100 × 3) – 60 – 140 = 100
Let the number of pools in Goa in 2012 and 2013 be '9x' and '10x' respectively. Then,
9x + 10x + 136 + 140 = 504
19x + 276 = 504
x = 12
So, the number of pools in Goa in 2012 and 2013 are 108 and 120, respectively

So, number of pools in Delhi in 2012 = $\frac{108}{2}$ = 54

Number of pools in Punjab in 2015 = $\frac{2}{3}$ × 60 = 40

276. Following the common explanation, we get

Reqd. average = $\frac{20 + 36 + 40 + 60}{4} = \frac{156}{4} = 39$

Hence, option B is correct.

277. Following the common explanation, we get

Reqd. % = $\frac{54}{120 + 136} \times 100 = \frac{54}{256} \times 100 = 21.09\%$

Hence, option B is correct.

278. Following the common explanation, we get

Required ratio = (88 + 40 + 136) : (80 + 36 + 120) = 264 : 236 = 66 : 59

Hence, option E is correct.

279. Following the common explanation, we get

Required difference = 3 × 100 – (54 + 20 + 108) = 300 – 182 = 118

Hence, option C is correct.

280. Following the common explanation, we get

The total number of pools in Delhi and Punjab combined in 2016 = 1.2 × 100 + 1.1 × 60 = 120 + 66 = 186

Hence, option B is correct.

281.

Cost price of article D = $\frac{144 \times 100}{18}$ = Rs. 800

Selling Price = 800 + 144 = 944

Marked price of article D = $\frac{944 \times 100}{80}$ = Rs. 1180

Hence, Option B is correct.

282.

Cost price of article F = $\frac{156 \times 100}{12}$ = Rs. 1300

Cost price of article C= Rs 650

∴ Profit earned on article C = $\frac{650 \times 10}{100}$ = Rs. 65

Hence, Option E is correct.

283.

Selling price of article, A = $\frac{640 \times 90}{100}$ = Rs. 576

Cost price of article A = $\frac{576 \times 100}{120}$ = Rs. 480

Hence, Option B is correct.

284.

Cost price of article E = $\frac{120 \times 100}{20}$ = Rs. 600

Total cost price of article E = 600 + 120 = Rs.720

Selling price of article E = $\frac{720 \times 125}{100}$ = Rs. 900

Hence, Option D is correct.

285.

Marked price of article B = $\frac{240 \times 100}{12}$ = Rs. 2000

Selling price of article B = 2000 – 240= Rs. 1760

Cost price of article B = $\frac{1760 \times 100}{125}$ = Rs. 1408

Profit when no discount was allowed= 2000 – 1408 = Rs. 592

Profit % = $\frac{592 \times 100}{1408}$ = 42.04%

Hence, Option B is correct.

Common explanation (286 – 290) :

Months	Jan	Feb	March	April	May	June
Who didn't go to Goa	680	696	805	912	665	840
Who went to Goa	32%	40%	65%	52%	30%	60%
Total	(100 – 32)% = 68% = 680 100% = 680 × 100/68 = 1000	(100 – 40)% = 696 60% = 696 100% = 696 × 100/60 = 1160	35% = 805 100% = 2300	48% = 912 100% = 1900	70% = 665 100% = 950	40% = 840 100% = 2100
The number of customers who went to Goa	32% of 1000 = 320	40% of 1160 = 464	65% of 2300 = 1495	52% of 1900 = 988	30% of 950 = 285	60% of 2100 = 1260

286. The total number of customers in June = 2100

The total number of customers in Jan = 1000

The required difference = 2100 – 1000 = 1100

Hence, option A is correct.

287. In April, the total number of customers = 1900

The total number of males = $\frac{1900 \times 3}{5}$ = 1140

The total number of females = $\frac{1900 \times 2}{5}$ = 760

The total number of males who went to Goa = 40% of 1140 = 456

The total number of males who didn't go to Goa = 1140 – 456 = 684

Among the customers who didn't go to Goa, the number of females = 912 – 684 = 228

Hence, option D is correct.

288. The number of customers who went to Goa in Jan and Feb together = 784

The number of customers who didn't go to Goa in March and April together = 1717

The required difference = 1717 – 784 = 933

Hence, option B is correct.

289. The total number of customers in the first 3 months = 1000 + 1160 + 2300 = 4460

The total number of male customers in these months together = 4460 – 800 = 3660

Hence, option D is correct.

290. The total number of customers of GOGOAGONE Pvt ltd who had gone to Goa in the first six months of the year 2018 = 320 + 464 + 1495 + 988 + 285 + 1260 = 4812

Hence, option C is correct.

Common explanation (291 – 295) :

Player	A	B	C	D	E
Batting Strike Rate	145/3	75	200	150	125
The number of balls faced	Total runs scored × 100/batting strike rate = 145 × 100/(145/3)	240 × 100/75 = 320	228 × 100/200 = 114	336 × 100/150 = 224	435 × 100/125 = 348

291. The number of balls faced by Player C = 114

The number of balls faced by Player D = 224

The required difference = 224 – 114 = 110

Hence, option C is correct.

292. The sum of balls faced by all the players together = (300 + 320 + 114 + 224 + 348) = 1306

The reqd. average = $\frac{1306}{5}$ = 261.2

Hence, option B is correct.

293. From the above table, it is clear that the player E had faced highest number of balls

Hence, option C is correct.

294. The number of runs scored by the player A and E together = 145 + 435 = 580

The number of balls faced by A and E together = 300 + 348 = 648

The reqd. answer = $\frac{580 \times 100}{648}$ = 89.5 = approximately 90

Hence, option D is correct.

295. The sum of the runs scored by all the players together = 435 + 336 + 228 + 240 + 145 = 1384

The average = $\frac{1384}{5}$ = 276.8

The sum of balls faced by all the players together = (300 + 320 + 114 + 224 + 348) = 1306

The reqd. average = $\frac{1306}{5}$ = 261.2

The required answer = 276.8 – 261.2 = 15.6

Hence, option A is correct.

296. Let the distance between Vishal's home and office be 'x'

Then, distance between Abhishek's home and office will be '57 – x'

So, distance travelled by Vishal in 18 minutes = $\frac{18}{60} \times 40$ = 12 km

Let, the time taken by Abhishek to reach office = $\frac{57 - x}{60}$

So, $\frac{x - 12}{40} = \frac{57 - x}{60}$

3x – 36 = 114 – 2x

5x = 150 ; x = 30

So, $\frac{57 - 30}{60} \times 60$ = 27 minutes

[A] = 10 : 03 + 0 : 27 = 10 : 30 AM
Rajan reached office at 10 : 30 + 0 : 16 = 10 : 46 AM
Hence, option B is correct.

297. Part of the project done by Abhishek in a day

$= \frac{11}{90} - \frac{1}{18} = \frac{11-5}{90} = \frac{6}{90} = \frac{1}{15}$

Time taken by Abhishek to do the project alone = 15 hours

Part of project done by Vivek in a day = $\frac{7}{72} - \frac{1}{18} = \frac{7-4}{72} = \frac{3}{72} = \frac{1}{24}$

Time taken by Vivek to do the project alone = 24 hours

Part of project done by Abhishek and Vivek in a day = $\frac{1}{15} + \frac{1}{24} = \frac{8+5}{120} = \frac{13}{120}$

Time taken by Abhishek and Vivek to do the project = [B] = $\frac{120}{13}$ hours

Abhishek takes 10/13 hours for lunch break

Office hours = [B] + $\frac{10}{13} = \frac{120}{13} + \frac{10}{13} = \frac{130}{13}$ = 10 hours

Office timing = 10 : 30 AM to 8 : 30 AM

Hence, option E is correct.

298. Let, quantity of alcohol and water in Abhishek's drink be '4x' ml and 'x' ml respectively

And, quantity of alcohol and water in Vivek's drink be '11y' ml and '2y' ml respectively

So, (13y + 5x) x 18 = 8280

13y + 5x = 460

Also, 5x + 60 = 13y

From both the equations, we get

x = 40 and y = 20

[C] = 5x = 200 ml
[D] = 13y = 260 ml

75% of 200 = 150 ml

50% of 260 = 130 ml

Required difference = (150 – 130) = 20 ml

Hence, option A is correct.

299. Numbers between 1 to 72 which is odd number and multiple of 3 = {3, 9, 15, 21, 27, 33, 39, 45, 51, 57, 63, 69}

So, [E] = $\frac{12}{72} = \frac{1}{6}$

Numbers between 1 to 72 which is multiple of 8 = {8, 16, 24, 32, 40, 48, 56, 64, 72}

Winning probability of Anupam = $\frac{9}{72} = \frac{1}{8}$

Reqd. difference = $\frac{1}{6} - \frac{1}{8} = \frac{4-3}{24} = \frac{1}{24}$

Hence, option C is correct.

300. Let, [F] = x

So, $0.48x \times \{(1.15)^2 - 1\} = 7740$

$0.1548x = 7740$, $x = 50000$

[F] = 50000

Reqd. interest = $\frac{50000 \times 29 \times 6}{100}$ = Rs.87000

Hence, option B is correct.

301. Difference between distance travelled by Rolls Royce and Volkswagen in percentage = (25–15)% = 10%

Distance travelled by Rolls Royce = $\frac{160}{10} \times 25 = 400$ km

Time taken by Rolls Royce = $\frac{400}{80} = 5$ hour

Time taken by Mercedes = $\frac{5}{20} \times 10 = 2.5$ hours

Distance travelled by Mercedes = $\frac{160}{10} \times 20 = 320$ km

∴ Speed of Mercedes = $\frac{320}{2.5} = 128$ km/hr

Hence, option A is correct.

302.

Distance travelled by Mercedes = $\frac{20}{100} \times 1800 = 360$ km

Total time taken by all the cars = $\frac{2}{4} \times 100 = 50$ hours

(Difference between taken by Volkswagen and Land Rover is given)

Time Taken by Mercedes = $\frac{10}{100} \times 50 = 5$ hours

Speed of Mercedes = $\frac{360}{5} = 72$ km/hr

Distance travelled by Rolls Royce = $\frac{25}{100} \times 1800 = 450$ km

Time taken by Rolls Royce = $\frac{20}{100} \times 50 = 10$ hours

Speed of Land Rover = $\frac{450}{10} = 45$ km/hr

$\therefore$ Reqd. % = $\frac{72 - 45}{45} \times 100 = 60\%$

Hence, option D is correct.

303.

Distance travelled by Lamborghini = $\frac{20}{100} \times 1600 = 320$ km

Time taken by Lamborghini = $\frac{320}{80} = 4$ hours

Distance travelled by Rolls Royce

$= \frac{25}{100} \times 1600 = 400$ km

Time taken by Rolls Royce = $\frac{4}{15} \times 20 = \frac{80}{15}$ hours

$\therefore$ Speed of Rolls Royce = $\frac{400}{80/15} = 75$ km/hr

Hence, option A is correct.

304.

Distance travelled by Porsche = $\frac{10}{100} \times 2000 = 200$ km

Distance travelled at 60 km/hr = $\frac{3}{5} \times 200 = 120$ km

Time taken = $\frac{120}{60} = 2$ hours

Distance travelled at 40 km/hr = (200 – 120) km = 80 km

Time taken = $\frac{80}{20} = 4$ hours

∴ Total time taken by Porsche = (2 + 4) = 6 hours.
Hence, option C is correct.

305. Let the distance travelled by all the cars = x km

Distance travelled by Rolls Royce = $\frac{25}{100} \times x = \frac{x}{4}$

Time taken by Rolls Royce = $\frac{20}{100} \times 40 = 8$ hours

Speed of Rolls Royce = $\frac{(x/4)}{8} = \frac{x}{32}$

Distance travelled by Lamborghini = $\frac{20}{100} \times x = \frac{x}{5}$

Time taken by Lamborghini = $\frac{15}{100} \times 40 = 6$ hours

Speed of Lamborghini = $\frac{(x/5)}{6} = \frac{x}{30}$

Difference between speed of Lamborghini and Rolls Royce = 5

$\Rightarrow \frac{x}{30} - \frac{x}{32} = 5$

$\Rightarrow \frac{16x - 15x}{480} = 5$

$\Rightarrow x = 2400$ km

∴ Distance travelled by Volkswagen = $\frac{15}{100} \times 2400 = 360$ km

Hence, option E is correct.

306. 40% of 5000 = 2000 litres Ram sells to six persons

Person	Sales of Milk	The concentration of water (After adding water in pure milk)
A	24% of 2000 = 480 litres	24%
B	10% of 2000 = 200 litres	10%
C	12% of 2000 = 240 litres	18%
D	7% of 2000 = 140 litres	15%
E	28% of 2000 = 560 litres	25%
F	19% of 2000 = 380 litres	12%

Let Person A add 'a' litres of water then the total quantity of solution = 480 + 'a' litres, in which the concentration of water is 24%

Therefore, 24% of (480 + a) = a
100a = 24 × 480 + 24a
76a = 24 × 480
A = 2880/19 litres = approximately 151.58 litres = Quantity of water added by Person A
Similarly, Let the person C add c litres of water then
18% of (240 + c) = c
82c = 240 × 18

$C = \frac{2160}{41}$ litres = 52.68 litres approximately = quantity of water added by person C

The required difference = 151.58 – 52.68 = 98.9 litres = approximately 99 litres
Hence, option B is correct.

307. Let the person C add c litres of water then
18% of (240 + c) = c
82c = 240 × 18
$C = \frac{2160}{41}$ litres = 52.68 litres approximately
= quantity of water added by person C
Let the person E add e litres of water

Then, 25% of (560 + e) = e
75e = 560 × 25

$E = \frac{560}{3}$ litres = quantity of water added by person E

Reqd. ratio = $\frac{2160}{41} : \frac{560}{3}$ = 81 : 287
Hence, option A is correct.

308. Let Person A add 'a' litres of water then the total quantity of solution = 480 + 'a' litres, in which the concentration of water is 24%

Therefore, 24% of (480 + a) = a
100a = 24 × 480 + 24a
76a = 24 × 480

$a = \frac{2380}{19}$ litres = approximately 151.58 litres
= Quantity of water added by Person A

Let the person B add b litres of water then,
10% of (200 + b) = b
b = quantity of water added by Person B

$= \frac{200}{9}$ litres = approximately 22.22 litres

Let the person C add c litres of water then
18% of (240 + c) = c
82c = 240 × 18

$C = \frac{2160}{41}$ litres = 52.68 litres approximately
= quantity of water added by person C
Let the person D add d litres of water

15% of (140 + d) = d
$d = \frac{140 \times 15}{85}$ = 24.70 litres
= quantity of water added by person D
Let the person E add e litres of water

Then, 25% of (560 + e) = e
75e = 560 × 25

$E = \frac{560}{3}$ litres = 186.67 litres approximately
= quantity of water added by person E
Let the person F add f litres of water then,

12% of (380 + f) = f
88f = 380 × 12
f = 51.82 litres = quantity of water added by person F
therefore, B added least quantity (In litres) of water
Hence, option B is correct.

309.

Person	Sales of Milk	The concentration of water (After adding water in pure milk)
A	24% of 2000 = 480 litres	24% = 151.58 litres
B	10% of 2000 = 200 litres	10% = 22.22 litres
C	12% of 2000 = 240 litres	18% = 52.56 litres

When A, B, and C mix their solution in one can then the quantity of milk in the new solution = 480 + 200 + 240 = 920 litres

And the quantity of milk in the new mixture = 151.58 + 22.22 + 52.56 = 226.36 litres
The total quantity of new solution = 920 + 226.36 = 1146.36 litres
The required concentration of milk in the new solution

$= \frac{920 \times 100}{1146.36}$ = 80.25% approximately

Hence, option C is correct.

310.

Person	Sales of Milk	The concentration of water (After adding water in pure milk)
A	24% of 2000 = 480 litres	24% = 151.58 litres
B	10% of 2000 = 200 litres	10% = 22.22 litres
C	12% of 2000 = 240 litres	18% = 52.68 litres
D	7% of 2000 = 140 litres	15% = 24.70 litres
E	28% of 2000 = 560 litres	25% = 186.67 litres
F	19% of 2000 = 380 litres	12% = 51.82 litres

The total quantity of water added by all the persons together = 151.58 + 22.22 + 52.68 +24.70 + 186.67 + 51.82 = approximately 489.67 litres = approximately 490 litres

Hence, option D is correct.

311. In the year 2015, profit% of company A = 40%

$\text{Net profit \%} = \frac{\text{Income} - \text{Expenditures}}{\text{Expenditures}} \times 100$

$40 = \frac{40000 - E}{E} \times 100$

$140E = 40000 \times 100,$

$E = 28571.43 = 28571(\text{approx})$

Hence, option A is correct.

312. In the year 2013, the net percentage profit of company B = 25% and in the year 2014, it was 30%

In the question, the total income of both the year is given from here we could not conclude what was its income in the year 2013 and 2014 separately therefore answer can't be determined

Hence, option E is correct.

313. In the year 2014, let the income of company B = 10x then the income of company A = (100 – 40)% of 10x = 6x

Then, 10x + 6x = 16x = 80000

X = 5000

The income of company A = 6x = 6 × 5000 = 30000

$$\text{Net profit \%} = \frac{\text{Income} - \text{Expenditures}}{\text{Expenditures}} \times 100$$

$$10 = \frac{30000 - E}{E} \times 100$$

110E = 30000 × 100,

E = approximately Rs. 27272

The income of company B = 10 × 5000 = 50000

$$\text{Net profit \%} = \frac{\text{Income} - \text{Expenditures}}{\text{Expenditures}} \times 100$$

$$30 = \frac{50000 - E}{E} \times 100$$

130E = 50000 × 100,

E = approximately Rs. 38461

$$\text{The reqd. \%} = \frac{(38461 - 27272) \times 100}{38461} = 29.09\% = \text{approximately } 29\%$$

Hence, option D is correct.

314. In the year 2015, let the expenditures of company A = 4x

$$\text{Net profit \%} = \frac{\text{Income} - \text{Expenditures}}{\text{Expenditures}} \times 100$$

$$40 = \frac{I - 4X}{4X} \times 100,\ 160X = 100I - 400X,$$

$$I = \frac{560X}{100} = 5.6X$$

Let the expenditures of company B = 5x

$$\text{Net profit \%} = \frac{\text{Income} - \text{Expenditures}}{\text{Expenditures}} \times 100,$$

$$5 = \frac{I - 5X}{5X} \times 100,\ 25X = 100I - 500X,$$

$$I = \frac{525X}{100} = 5.25X$$

The required ratio = 5.6x : 5.25x = 560 : 525 = 16 : 15
Hence, option B is correct.

315. In the year 2013, let the income of company A = X = income of company B

For company A,

$$\text{Net profit \%} = \frac{\text{Income} - \text{Expenditures}}{\text{Expenditures}} \times 100,$$

$$20 = \frac{X - E}{E} \times 100,\ 20E = 100X - 100X,$$

$$E = \frac{100X}{120}$$

For company B,

$$\text{Net profit \%} = \frac{\text{Income} - \text{Expenditures}}{\text{Expenditures}} \times 100,$$

$$25 = \frac{X - E}{E} \times 100,\ 25E = 100X - 100E,$$

$$E = \frac{100X}{125}$$

$$\text{The reqd. ratio} = \frac{100x}{120} : \frac{100x}{125} = 125 : 120 = 25 : 24$$

Hence, option E is correct.

316. The sum of the staffs recruited by the bank A over all the years together = 12 + 60 + 75 + 30 + 8 + 4.5 = 189.5 thousand

The sum of the staffs recruited by the bank C over all the years together = 13 + 50 + 60 + 35 + 6 + 12 = 176 thousand

The reqd. difference of average = $\frac{189.5}{6} - \frac{176}{6} = \frac{189.5 - 176}{6} = \frac{13.5}{6}$ = 2.25 thousand

Hence, option C is correct.

317. The sum of the staffs recruited by the bank B over all the years together = 14 + 85 + 40 + 15 + 10 + 7 = 171 thousand

The number of staffs recruited by Bank B in the year 2012 and 2017 together = 7 + 14 = 21 thousand

The number of staffs recruited by that bank in all other years together = 171 – 21 = 150 thousand

The reqd. % = $\frac{21 \times 100}{150}$ = 14%

Hence, option D is correct.

318. The total number of staffs recruited in the year 2013 by all the three banks together = 60 + 85 + 50 = 195 thousand

The total number of staffs recruited in the year 2014 by all the three banks together = 75 + 40 + 60 = 175

The reqd. % = $\frac{(195 - 175) \times 100}{175} = \frac{20 \times 100}{175} = \frac{80}{7}\% = 11\frac{3}{7}\%$

Hence, option A is correct.

319. The number of staffs recruited in the year 2015 in the bank C = 35 thousand

Number of females recruited by bank C = 40% of 35 = 14 thousand

The total number of staffs recruited in the year 2015 by all the three banks together = 30 + 15 + 35 = 80 thousand

Number of males = 70% of 80 thousand = 56 thousand males

The total number of males in the bank C = 35 – 14 = 21 thousand

The total number of males in the bank A and B together = 56 – 21 = 35 thousand

The total number of females in the bank A and B together = (30 + 15) – 35 = 45 – 35 = 10 thousand
Hence, option D is correct.

320. The sum of the staffs recruited by the bank B over all the years together = 14 + 85 + 40 + 15 + 10 + 7 = 171 thousand

Let the number of females recruited in the bank A over all the years together = 4x then

The number of males recruited in the bank B over all the years together = 5x = (100 – 40)% of 171 = 60% of 171 = 102.60 thousand

$x = \frac{102.60}{5} = 20.52$

Let the number of females recruited in the bank A over all the years together = 4x = 4 × 20.52 = 82.08 thousand

The sum of the staffs recruited by the bank A over all the years together = 12 + 60 + 75 + 30 + 8 + 4.5 = 189.5 thousand

The number of males = 189.5 – 82.08 = 107.42 thousand

Hence, option C is correct.

321. From the question, the total imports into India from China = 15% = 120 billion dollars

The total imports into India from Russia = 30%= $\frac{120 \times 30}{15}$ = 240 billion dollars

The exports into Russia from India = 175 billion dollars

The required difference = 240 – 175 = 65 billion dollars

Hence, option B is correct.

322. In the year 2016, the imports into India from UK = the exports into UK from India = 120 billion dollars

In the year 2017, the import into India from UK = 10% less than 120 billion dollars = 108 billion dollars = 12% of total imports into India

The total imports into India = $\frac{108 \times 100}{12}$ = 900 billion dollars

The imports from USA into India = 20% of 900 = 180 billion dollars

The export from India into USA = 240 billion dollars

The required difference = 280 – 180 = 60 billion dollars

(assume that when imports are equal to imports from the country then it is called trade balance)
Hence, option B is correct.

323. In the year 2017, the exports into China from India was same as the imports from China into India = 90 = 15% of total imports

The total imports = $\frac{90 \times 100}{15}$ = 600 billion dollars

The total imports from south Korea into India = 23% of total imports = 23% of 600 = 138 billion dollars
The exports into south Korea from India = 250 billion dollars
The required difference = 250 – 138 = 112 billion dollars
Hence, option D is correct.

324. The total imports into India was 1200 billion dollars

The imports from USA = 20% of 1200 = 240

The imports from China = 15% of 1200 = 180

The imports from UK = 12% of 1200 = 144

The imports from Russia = 30% of 1200 = 360

The imports from South Korea = 23% of 1200 = 276

From the line graph, it is clear that it was trade deficits with China, UK, Russia, and South Korea

Hence, option B is correct.

325. The sum of total exports in the year 2017 from India into the given five countries = 240 + 90 + 160 + 175 + 250 = 915 billion dollars

The sum of total exports in the year 2016 from India into the given five countries = 180 + 160 + 120 + 150 + 200 = 810 billion dollars

The required difference = 915 – 810 = 105 billion dollars

Hence, option B is correct.

Common explanation (326 – 330) :

The total share of daughter = half of gold + 20% of land + 75% of cash amount

$= \frac{6 \text{ lakhs}}{2}$ + 20% of 5 lakhs + 75% of 80 thousand

= 3 lakhs + 1 lakhs + 60 thousand = 4 lakhs 60 thousand

Remaining Gold = 6 lakhs – 3 lakhs = 3 lakhs
Remaining Land = 5 lakhs – 1 lakhs = 4 lakhs
Remaining Cash = 80000 – 60000 = 20000

The share of son A = (1/2) of remaining gold + (3/4) of remaining land + (1/2) of remaining cash
= 1.5 lakhs + 3 lakhs + 10 thousand = 4.6 lakhs

The share of son B = (1/2) of remaining gold + (1/4) of remaining land + (1/2) of remaining cash
= 1.5 lakhs + 1 lakhs + 10 thousand = 2.6 lakhs

326. Following common explanation, we get

Total property (In cash, land and Gold together) Daughter C got = 4 lakhs 60 thousand = Rs. 4.6 lakhs

Hence, option B is correct.

327. Following common explanation, we get

The share of son A in total property = 4.6 lakhs

The share of son B in total property = 2.6 lakhs

The required difference = 4.6 – 2.6 = 2 lakhs

Hence, option A is correct.

328. Following common explanation, we get

In 10 years 10 × 12 = 120 months

The person A had received highest share

He will pay to his father in 120 months = 120 × 2500 = 3 lakhs

The share of property he was left with = 4.6 – 3 = 1.6 lakhs

Hence, option D is correct.

329. Following common explanation, we get

The share of son A in land = 3 lakhs

The share of daughter C in land = 1 lakhs

The reqd. % = $\frac{(3-1)\times 100}{1}$ = 200%

Hence, option B is correct.

330. Following common explanation, we get

The share of son A in total property = 4.6 lakhs

The share of son B in total property = 2.6 lakhs

The required ratio = 4.6 : 2.6 = 23 : 13

Hence, option D is correct.

331. Let the total funds collection = the total expenditures = 100x

The foreign donation = 20% of 100x = 20x

The expenditures on sports, college fest and advertisements together = (4 + 3 + 7)% of 100x = 14x

The reqd. answer = $\frac{(20x-14x)\times 100}{20x} = \frac{6\times 100}{20}$ = 30%

Hence, option A is correct.

332. Let the total expenditures = 100x

Then, the expenditures on college fest – that on sports = 4% of 100x – 3% of 100x = x = Rs. 12000

Corporate funds = 35% of 100x = 35x

Foreign funds = 20% of 100x = 20x

The required difference = 35x – 20x = 15x = 15 × 12000 = 180,000 = 1.8 lakhs

Hence, option C is correct.

333. Let the total funds collection = the total expenditures = 100x

The total individual donation = 11% of 100x = 11x = 1.32

x = 0.12

The expenditures of college on salary payments = 36% of 100x = 36x = 36 × 0.12 = 4.32 lakhs

Hence, option C is correct.

334. Let the total funds collection = the total expenditures = 100x

Then, saving = 6% of 100x = 6x = 30 thousand

x = 5 thousand

The funds received from NGO and government together = 18% of 100x + 16% of 100x = 34x = 34 × 5 = 170 thousand

Hence, option B is correct.

335. Let the total funds collection = the total expenditures = 100x

The funds collection from NGO = 18% of 100x = 18x

The expenditures of college on books = 12% of 100x = 12x

The required ratio = 18x : 12x = 3 : 2 = 6 : 4

Hence, option B is correct.

336.

Total number of male

$= \frac{7}{12} \times 4488 + \frac{3}{4} \times 4595 + \frac{11}{21} \times 2205 + \frac{13}{24} \times 4752 + ...$

$...+ \frac{17}{32} \times 3328 + \frac{11}{20} \times 3680 + \frac{8}{15} \times 1485 + \frac{20}{41} \times 2296$

= 2618 + 2757 + 1155 + 2574 + 1768 + 2024 + 792 + 1120 = 14808

The total number of employees = 26829

The total number of female = 26829 – 14808 = 12021

The required ratio = 14808: 12021

Hence, option A is correct.

337. The total number of post graduates in Bihar = 75% of 4488 = 3366

The total number of post graduates in UP = 40% OF 4595 = 1838

The total number of post graduates in Delhi = 60% of 2205 = 1323

The total number of post graduates in MP = 50% of 4752 = 2376

The total number of post graduates in Maharashtra = 25% of 3328 = 832

The total number of post graduates in Karnataka = 55% of 3680 = 2024

The total number of post graduates in AP = 60% of 1485 = 891

The total number of post graduates in Kerala = 25% of 2296 = 574

It is second highest in MP

Hence, option A is correct.

338. The total number of post graduates in Bihar = 75% of 4488 = 3366

The total number of post graduates in UP = 40% OF 4595 = 1838

The total number of post graduates in Delhi = 60% of 2205 = 1323

Sum = 3366 + 1838 + 1323 = 6527

The total number of post graduates in Karnataka = 55% of 3680 = 2024

The total number of post graduates in AP = 60% of 1485 = 891

The total number of post graduates in Kerala = 25% of 2296 = 574

Sum = 3489

The required difference = 6527 – 3489 = 3038

Hence, option D is correct.

339. The total number of branches in the given eight states = 1203

The total number of branches in other states = 200% of 1203 = 2406

The total number of branches in India = 1203 + 2406 = 3609

The average number of employees per branch across India is 32

So, the total number of employees across India = 3609 × 32 = 115488

Hence, option C is correct.

340. Karnataka has highest number of total employees per branch.

Hence, option A is correct.

341. If Birth Rate and Death Rate are given, then population increase per thousand persons will be given by (Birth Rate – Death Rate).

⇒ Population increase rate of country B = (8.3 – 6.6) per thousand of population = 1.7 per thousand of population

∴ Population increase of country B = $\frac{\text{[Population increase rate} \times \text{Population]}}{1000}$

$= \frac{1.7 \times 20 \times 1000000}{1000} = 34$ thousand.

Hence, option B is correct.

342. Birth rate of country B = 8.3

Birth rate of country C = 4.3

∴ Percentage by which birth rate of country B is more than that of country C

$= \frac{8.3 - 4.3}{4.3} \times 100 = 93.02.$

Hence, option B is correct.

343. We know that, Population increase of a country

$= \frac{[\text{Population increase rate} \times \text{Population}]}{1000}$

Where, Population increase rate = Birth rate – Death rate

Population increase rate for country A = 7.6 – 5.3 = 2.3 per thousand of population

Population increase rate for country C = 4.3 – 2.4 = 1.9 per thousand of population

$\Rightarrow$ Population increase of country A $= \frac{[2.3 \times \text{Population of country A}]}{1000}$

Population increase of country C $= \frac{[1.9 \times \text{Population of country C}]}{1000}$

Since the population increase in both countries A and C is equal.

$\therefore \frac{[2.3 \times \text{Population of country A}]}{1000} = \frac{[1.9 \times \text{Population of country C}]}{1000}$

$\Rightarrow$ [2.3 × Population of country A] = [1.9 × Population of country C]

$\Rightarrow \frac{\text{Population of country A}}{\text{Population of country C}} = \frac{1.9}{2.3} = \frac{19}{23}$

∴ Ratio of populations of countries A and C at the beginning of year 2014 was 19 : 23.

Hence, option C is correct.

344. Death rate of country B = 6.6

We know that,

Number of deaths in a country $= \frac{[\text{Death rate} \times \text{Population}]}{1000}$

Number of deaths in country B $= \frac{[6.6 \times 20 \text{ million}]}{1000} = 132$ k

Death rate of country D = 1.7

Number of deaths in country D $= \frac{[1.7 \times 30 \text{ million}]}{1000} = 51$ k

Total number of deaths in both countries combined = (132 + 51) thousand = 183 thousand = 0.183 million

Total population of both countries combined = 20 million + 30 million = 50 million

Using the formula again,

Number of deaths in a country $= \frac{[\text{Death rate} \times \text{Population}]}{1000}$

$\Rightarrow$ Number of deaths in both countries combined $= \frac{[\text{Combined death rate} \times \text{Combined Population}]}{1000}$

$\Rightarrow 0.183 \text{ million} = \frac{[\text{Combined death rate} \times 50 \text{ million}]}{1000}$

$\Rightarrow$ Combined death rate $= \frac{183}{50} = 3.66$

∴ Effective death rate of both countries B and D together will be 3.66 (per thousand persons)

Hence, option C is correct.

345. We know that,

$$\text{Number of deaths in a country} = \frac{[\text{Death rate} \times \text{Population}]}{1000}$$

Here, we are given only death rates of countries A and C but not population. Without knowing the population, the actual number of deaths in countries A and C cannot be find, and hence the ratio of deaths cannot be determined.

Hence, option E is correct.

346. The difference between graduates and undergraduates employed in the bank R = 600 – 300 = 300

The total number of people employed in the bank R = 300 + 600 + 1500 = 2400

$$\text{The reqd. \%} = \frac{300 \times 100}{2400} = \frac{100}{8} = 12.5\%$$

Hence, option C is correct.

347. The sum of the number of post graduates employed in all the banks together = 1200 + 750 + 1500 + 1800 = 5250

$$\text{The reqd. average} = \frac{5250}{4} = 1312.5$$

Hence, option C is correct.

348. The number of under graduates employed in all the banks together = 800 + 950 + 300 + 2500 = 4550

The number of graduates employed in all the banks together = 1400 + 1100 + 600 + 750 = 3850

The required difference = 4550 – 3850 = 700

Hence, option D is correct.

349. If the number of post graduates employed, increased by 10% in each bank then the sum will also increase by 10%

The sum of the number of post graduates employed in all the banks together = 1200 + 750 + 1500 + 1800 = 5250

The new sum after it was increased by 10% in each bank = (100 + 10)% of 5250 = 110% of 5250

$= 110 \times \frac{5250}{100} = 11 \times 525 = 5775$

Similarly, if the number of under graduates employed, increased by 20% in each bank then the sum will also increase by 20%

The number of under graduates employed in all the banks together = 800 + 950 + 300 + 2500 = 4550

The new sum after it was increased by 10% in each bank = (100 + 20)% of 4550 = 120% of 4550

$= 120 \times \frac{4550}{100} = 12 \times 455 = 5460$

the sum of the number of post graduates and under graduates of all the banks together after increasing its number = 5775 + 5460 = 11235

the number of graduates employed in all the banks together = 1400 + 1100 + 600 + 750 = 3850

The required difference = 11235 – 3850 = 7385

Hence, option B is correct.

350. In the bank P, the number of post graduates = 1200

The number of graduates = 1400

The number of under graduates = 800

The new number of employees in that bank = 115% of 1200 + 112% of 1400 + 133% of 800 = 1380 + 1568 + 1064 = 4012

The required increase = 4012 – (1200 + 1400 + 800) = 612

Hence, option D is correct.

351. The total marks of B = 65 + 75 + 180 + 40 = 360

The total marks of C = 55 + 40 + 68 + 90 = 253 (lowest marks)

The required difference = 360 – 253 = 107

Hence, option B is correct.

352. From the pie chart, Maximum marks of physics = Max marks of Chemistry = Max marks of Bio = 20% of 500 = 100

Max marks of Maths = 40% of 500 = 200

35% of 200 = 70

35% of 100 = 35

From the bar chart, it is clear that only one student (C) has scored less than 70 in maths and none of the students has scored less than 35% in any other subjects or overall

Hence, option D is correct.

353. The total marks = 500

The total marks of A = 80 + 60 + 150 + 50 = 340

The total marks of B = 65 + 75 + 180 + 40 = 360

The total marks of C = 55 + 40 + 68 + 90 = 253

The total marks of D = 70 + 45 + 120 + 100 = 335

The total marks of E = 75 + 75 + 140 + 50 = 340

70% of 500 = 350

It is clear that, only one student B has scored above 350 i.e. above 70%

Hence, option E is correct.

354. The total marks of A = 80 + 60 + 150 + 50 = 340

The reqd. % = $\frac{340 \times 100}{500}$ = 68%

Hence, option C is correct.

355. The average of marks obtained by all the students

= $\frac{150 + 180 + 68 + 120 + 140}{5} = \frac{658}{5}$ = 131.6

The reqd. % = $\frac{131.6 \times 100}{200}$ = 65.8%

Hence, option D is correct.

Common explanation (356 – 360) :

Let the population of Koliya = 2x then the pplatin of Bhainaa = 150% of 2x = 3x ..... (i)

Let the number of males = 11a then the number of females = 9a ..... (ii)

In Koliya tribe, let the number of male = 5b then the number of female = (100 – 40)% of 5b = 60% of 5b = 3b = 1200

b = 400

the population of Koliya tribe = (5b + 3b) = 8b = 3200 = 2x (from the equation (i))

Then x = 1600

The population of Bhainaa tribe = 3x = 4800

The total population of the island = 3200 + 4800 = 8000

In Bhainaa tribe, the male population = c = the number of female populations = $\frac{4800}{2}$ = 2400

From the equation (ii)

The number of males = $\frac{11 \times 8000}{20}$ = 4400

The number of female populations = $\frac{9 \times 8000}{20}$ = 3600

356. The following common explanation, we get

The total population of the island = 8000

The total male population of Bhainaa tribe = 2400

The required ratio = 8000 : 2400 = 10 : 3

Hence, option B is correct.

357. The following common explanation, we get

$$\text{The number of males} = \frac{11 \times 8000}{20} = 4400$$

Hence, option B is correct.

358. The following common explanation, we get

$$\text{The number of males} = \frac{11 \times 8000}{20} = 4400$$

$$\text{The number of female populations} = \frac{9 \times 8000}{20} = 3600$$

The required difference = 4400 – 3600 = 800

Hence, option D is correct.

359. The following common explanation, we get

The total population of the island = 8000

The total population above eighteen = (100 – 20)% of 8000 = 80% of 8000 = 6400

Hence, option B is correct.

360. The following common explanation, we get

The total number of female population in Bhainaa tribe = 2400

The total number of female population in Koliya tribe = 1200

$$\text{The reqd. \%} = \frac{(2400 - 1200) \times 100}{1200} = 100\%$$

Hence, option E is correct.

361. From the chart, 21% of the total number of employees are above 60 = 21% of 2.68

$= \frac{12 \times 2.68}{100} = 0.5628$ lakhs = 56.28 thousand

Hence, option E is correct.

362. The total number of vacant seats = 6.8 – 4.2 = 2.6 lakhs

Reservation for ex servicemen

= 20% of 2.6 lakhs = $\frac{20 \times 2.6}{100} = 0.52$ lakhs

The total number of freshers will be hired = 2.6 – 0.52 = 2.08 lakhs

Hence, option A is correct.

363. The total number of ex – servicemen applicants = 20% of 18.6 = 3.72 lakhs

Reservation for ex-servicemen

= 20% of 2.6 lakhs = $\frac{20 \times 2.6}{100} = 0.52$ lakhs

The reqd. % = $\frac{0.52 \times 100}{3.72} = 13.97\%$ = approximately 14%

Hence, option B is correct.

364. Let the total number of central government employees = 100x

The number of central government employees of age profile of 50 years or greater than 50 years = (24 + 21)% of 100x = 45x

The number of central government employees of age profile of 20 – 29 years = 15% of 100x = 15x

The reqd. % = $\frac{(45x - 15x) \times 100}{15x} = \frac{30x \times 100}{15x} = 200\%$

Hence, option C is correct.

365. Let the total number of central government employees = 100x

The number of central government employees of age profile of 40 – 49 years = 12% of 100x = 12x

let the total number of central government employees = 100x

The number of central government employees of age profile of 30 – 39 years = 28% of 100x = 28x

The reqd. % = $\frac{(28x - 12x) \times 100}{28x} = \frac{16 \times 100}{28} =$ 57.14%

Hence, option D is correct.

366. Bangalore to Delhi = Rs. 2200

Delhi to Hyderabad = Rs 2850

Hyderabad to Bangalore = Rs 1500

The required answer = 2200 + 2850 + 1500 = Rs 6550

Hence, option B is correct.

367. From the table, it is clear that the fare of city Kolkata it means it will be farthest from the Delhi.

Hence, option D is correct.

368. Delhi to Hyderabad = Rs 2850

Hyderabad to Patna = Rs 3000

Delhi to Patna = Rs 1500

The required answer = (2850 + 3000) – 1500 = Rs 4350

Hence, option B is correct.

369. From the table, if he goes via Patna then the expenditures on flight ticket will be minimum.

Hence, option A is correct.

370. From Kolkata to Hyderabad = Rs 2800

Hyderabad to Delhi = Rs 2850

Delhi to Kolkata = Rs 3600

The required answer = 2800 + 2850 + 3600 = Rs 9250

Hence, option B is correct.

371. Total number of students who did not appeared in RBI grade B exam = 8640 – 8208 = 432

Total number of students who did not appeared in SBI PO exam = 12420 – 11178 = 1242

Reqd. % = $\frac{432}{1242} \times 100 \approx 35\%$

Hence, option D is correct.

372. Total number of students who did not appeared in RBI grade B exam = 8640 – 8208 = 432

Total number of students who did not appeared in RRB PO exam = 9600 – 8352 = 1248

Total number of students who did not appeared in SBI PO exam = 12420 – 11178 = 1242

Total number of students who did not appeared in RRB assistant exam = 7250 – 5510 = 1740

Total number of students who did not appeared in SBI clerk exam = 8400 – 7644 = 756

Required number of students = 432 + 1248 + 1242 + 1740 + 756 = 5418

Hence, option A is correct.

373. Total number of students qualified for tier II from RRB assistant = 80% of 5510 = 4408

Total number of students qualified for tier II from RRB PO = 75% of 8352 = 6264

Total number of students qualified for interview from RRB assistant = 25% of 4408 = 1102

Total number of students qualified for interview from RRB PO = 25% of 6264 = 1566

Required difference = 1566 – 1102 = 464

Hence, option C is correct.

374. Total number of students who did not appeared in RBI grade B exam = 8640 – 8208 = 432

Total number of students who did not appeared in RRB PO exam = 9600 – 8352 = 1248

Total number of students who did not appeared in SBI PO exam = 12420 – 11178 = 1242

Total number of students who did not appeared in RRB assistant exam = 7250 – 5510 = 1740

Total number of students who did not appeared in SBI clerk exam = 8400 – 7644 = 756

Percentage of students who did not appeared in RBI grade B exam = $\frac{432}{8640} \times 100 = 5\%$

Percentage of students who did not appeared in RRB PO exam = $\frac{1248}{9600} \times 100 = 13\%$

Percentage of students who did not appeared in SBI PO exam = $\frac{1242}{12420} \times 100 = 10\%$

Percentage of students who did not appeared in RRB assistant exam = $\frac{1740}{4250} \times 100 = 24\%$

Percentage of students who did not appeared in SBI clerk exam = $\frac{765}{8400} \times 100 = 9\%$

Hence, option E is correct.

375. Total number of students registered in the given five exams = (8640 + 9600 + 12420 + 7250 + 8400) = 46310

Number of students whose registration was cancelled = $\frac{4}{55} \times 46310 = 3368$

Hence, option B is correct.

376. The total quantity of milk produced in the world in the year 2017 = 46.8 + 35.7 + 34.3 + 31.1 + 30.3 + 23.7 = 201.9 billion litres

The total quantity of milk produced in India in that year = 46.8 billion litres

Reqd. % = $\frac{46.8 \times 100}{201.9} = 23.17\%$

Hence, option B is correct.

377. The total quantity of milk produced by France, Russia, and Germany together in the year 2017 = 31.1 + 30.3 + 23.7 = 85.1 billion litres

The total quantity of milk produced by Brazil, China, and India together in that year = 46.8 + 35.7 + 34.3 = 116.8 billion litres

The required difference = 116.8 – 85.1 = 31.7 billion litres

Hence, option D is correct.

378. From the chart, it is clear that the maximum difference will be the difference between the quantity of milk produced by India and that of France = 46.8 – 23.7 = 23.1 billion litres

Hence, option B is correct.

379. The total quantity of milk produced in the world in the year 2017 = 46.8 + 35.7 + 34.3 + 31.1 + 30.3 + 23.7 = 201.9 billion litres

Reqd. average = $\frac{201.9}{6}$ = 33.65 billion litres

Hence, option B is correct.

380. The quantity of milk produced by India in the year 2017 = 46.8 billion litres

The quantity of milk produced by Russia in the year 2017 = 30.3 billion litres

Reqd. % = $\frac{(46.8 - 30.3) \times 100}{30.3}$ = 54.45%

Hence, option E is correct.

381.

Year	Election turnout rate	Percentage of female voters among election turnout	
1995	70% of 460 = 322	40% of 322 = 128.8	322 – 128.8 = 193.2
2000	40% of 475 = 190	50% of 190 = 95	190 – 95 = 95
2005	60% of 550 = 330	30% of 330 = 99	330 – 99 = 231
2010	85% of 640 = 544	55% of 544 = 299.2	544 – 299.2 = 244.8
2015	80% of 720 = 576	60% of 576 = 345.6	576 – 345.6 = 230.4
Total	1962	967.6	994.4

The number of male voter turnout in the year 1995 = 193.2

The number of male voter turnout in the year 2015 = 230.4

The required difference = 230.4 – 193.2 = 37.2 lakhs
Hence, option C is correct.

382. The sum of election turnout (in lakhs) in the year 2000 and 2015 together = 190 + 576 = 766 lakhs

Hence, option A is correct.

383. The total number of election turnout in the year 2015 = 576 lakhs

The number of invalid votes = 10% of 576 = 57.6 lakhs

The number of males voter among them = (100 – 80)% of 57.6 = 20% of 57.6 = 11.52 lakhs

The total number valid male votes = 230.4 – 11.52 = 218.88 lakhs

Hence, option D is correct.

384. The number of total male voter turnout in 2015 = 230.4 lakhs

Hence, option A is correct.

385. Total election turnout in the years 2005 and 2010 together = 330 + 544 = 874 lakhs

The male voter turnout in the years 2005 and 2000 together = 231 + 95 =326 lakhs

The required ratio = 874 : 284 = 437 : 163

Hence, option D is correct.

Common explanation (386 – 390):

The total share of daughter = half of gold + 20% of land + 75% of cash amount

$= \frac{6 \text{ lakhs}}{2}$ + 20% of 5 lakhs + 75% of 80 thousand

= 3 lakhs + 1 lakhs + 60 thousand = 4 lakhs 60 thousand

Remaining Gold = 6 lakhs – 3 lakhs = 3 lakhs
Remaining Land = 5 lakhs – 1 lakhs = 4 lakhs

Remaining Cash = 80000 – 60000 = 20000

The share of son A = (1/2) of remaining gold + (3/4) of remaining land + (1/2) of remaining cash
= 1.5 lakhs + 3 lakhs + 10 thousand = 4.6 lakhs

The share of son B = (1/2) of remaining gold + (1/4) of remaining land + (1/2) of remaining cash
= 1.5 lakhs + 1 lakhs + 10 thousand = 2.6 lakhs

386. Following common explanation, we get

Total property (In cash, land and Gold together) Daughter C got = 4 lakhs 60 thousand = Rs. 4.6 lakhs

Hence, option B is correct.

387. Following common explanation, we get

The share of son A in total property = 4.6 lakhs

The share of son B in total property = 2.6 lakhs

The required difference = 4.6 – 2.6 = 2 lakhs

Hence, option A is correct.

388. Following common explanation, we get

In 10 years 10 × 12 = 120 months

The person A had received highest share

He will pay to his father in 120 months = 120 × 2500 = 3 lakhs

The share of property he was left with = 4.6 – 3 = 1.6 lakhs

Hence, option D is correct.

389. Following common explanation, we get

The share of son A in land = 3 lakhs

The share of daughter C in land = 1 lakhs

The reqd. % = $\frac{(3-1)\times 100}{1}$ = 200%

Hence, option B is correct.

390. Following common explanation, we get

The share of son A in total property = 4.6 lakhs

The share of son B in total property = 2.6 lakhs

The required ratio = 4.6 : 2.6 = 23 : 13
Hence, option D is correct.

391. First covert the given pie chart in the term of percentage

For type A employee, 360 = 100%

$43.2 = 100 \times \frac{43.2}{360} = 12\%$

Types	Percentage
A	(100 × 43.2)/360 = 12%
B	(100 × 64.8)/360 = 18%
C	(100 × 115.2)/360 = 32%
D	(100 × 28.8)/360 = 8%
E	(100 × 57.6)/360 = 16%
F	(100 × 50.4)/360 = 14%

Total number of employees in the year 2017 = 500

The total number of F types employees in the year 2017 = 14% of 500 = 70

Total number of employees in the year 2018 = 500 + 50 = 550

Total number of F type employees in the year 2018 = 70 + 20 = 90

The reqd. % = $\frac{90 \times 100}{550} = 16.37\%$

Hence, option D is correct.

392.

Types	Percentage
A	12%
B	18%
C	32%
D	8%
E	16%
F	14%

In the year 2017, let the total number of employees = 100x
Then, according to the question 18% of 100x – 8% of 100x = 10% of 100x = 10x = 40
X = 4
Therefore, the number of employees in the year 2017 = 100 × 4 = 400

The number of F type employees = 14% of 400 = $\frac{14 \times 400}{100} = 56$

Hence, option C is correct.

393.

Types	Percentage
A	12%
B	18%
C	32%
D	8%
E	16%
F	14%

Let the total number of employees = 100x

D type employees = 8% of 100x = 8x

A type employee = 12% of 100x = 12x

The reqd. % = $\frac{(12x - 8x) \times 100}{12x} = \frac{100}{3} = 33.33\%$

Hence, option B is correct.

394.

Types	Percentage
A	12%
B	18%
C	32%
D	8%
E	16%
F	14%

Let the total number of employees = 100x

B type employees = 18% of 100x = 18x

E type employee = 16% of 100x = 16x

The ratio = 18x : 16x = 9 : 8

In the year 2018, the ratio becomes 11 : 9

Except ratio, we don't have any information about the number of employees in 2018 therefore answer can't be determined.

Hence, option E is correct.

395. Let the total number of employees = 100x

C type employees = 32% of 100x = 32x

F type employees = 14% of 100x = 14x

According to the question, 32x – 14x = 18x = 126, x = 7

The required difference = 14% of 100x – 8% of 100x = 6x = 42

Hence, option C is correct.

396. New price =Rs. 57.92
Old price =Rs. 72.40

The reqd. % decrease = $\frac{(72.40 - 57.92) \times 100}{72.40} = \frac{14.48 \times 100}{72.40} = 20\%$

Hence, option B is correct.

397. The average

$= \frac{54.20 + 60 + 70.40 + 62.40}{4} = \frac{247}{4}$ = Rs. 61.75 per litre

Hence, option D is correct.

398. Old rate = Rs. 68.90
Total price of 10 litres = 68.90 × 10 = Rs. 689
Let the price of petrol be Rs. 100x / litre , so VAT is Rs. 30x / litre
So, 130x = 68.9
x = 0.53
VAT = 0.53 × 30 = Rs. 15.9
New rate = Rs. 62.40
Total price of 10 litres = 62.40 × 10 =Rs. 624
Let the price of petrol be Rs. 100x / litre , so VAT is Rs. 20x / litre
So, 120x = 62.4
x = 0.52
VAT = 0.52 × 20 = Rs. 10.4
The required answer = 10(15.9 – 10.4) = Rs. 55
Hence, option B is correct.

399. The required ratio = 74.8 : 70.40 = 17 : 16
Hence, option C is correct.

400. From the table it is clear that the highest amount decrease on the price of petrol was in Bangalore = Rs. 14.48

The lowest price decrease on the price of diesel was in Delhi = Rs. 3.88

The required difference = 14.48 – 3.88 = Rs. 10.6

Hence, option A is correct.

401. Total number of students who did not appeared in RBI grade B exam = 8640 – 8208 = 432

Total number of students who did not appeared in SBI PO exam = 12420 – 11178 = 1242

Reqd. % = $\frac{432}{1242} \times 100 \approx 35\%$

Hence, option D is correct.

402. Total number of students who did not appeared in RBI grade B exam = 8640 – 8208 = 432

Total number of students who did not appeared in RRB PO exam = 9600 – 8352 = 1248

Total number of students who did not appeared in SBI PO exam = 12420 – 11178 = 1242

Total number of students who did not appeared in RRB assistant exam = 7250 – 5510 = 1740

Total number of students who did not appeared in SBI clerk exam = 8400 – 7644 = 756

Required number of students = 432 + 1248 + 1242 + 1740 + 756 = 5418

Hence, option A is correct.

403. Total number of students qualified for tier II from RRB assistant = 80% of 5510 = 4408

Total number of students qualified for tier II from RRB PO = 75% of 8352 = 6264

Total number of students qualified for interview from RRB assistant = 25% of 4408 = 1102

Total number of students qualified for interview from RRB PO = 25% of 6264 = 1566

Required difference = 1566 – 1102 = 464

Hence, option C is correct.

404. Total number of students who did not appeared in RBI grade B exam = 8640 – 8208 = 432

Total number of students who did not appeared in RRB PO exam = 9600 – 8352 = 1248

Total number of students who did not appeared in SBI PO exam = 12420 – 11178 = 1242

Total number of students who did not appeared in RRB assistant exam = 7250 – 5510 = 1740

Total number of students who did not appeared in SBI clerk exam = 8400 – 7644 = 756

Percentage of students who did not appeared in RBI grade B exam = $\frac{432}{8640} \times 100 = 5\%$

Percentage of students who did not appeared in RRB PO exam = $\frac{1248}{9600} \times 100 = 13\%$

Percentage of students who did not appeared in SBI PO exam = $\frac{1242}{12420} \times 100 = 10\%$

Percentage of students who did not appeared in RRB assistant exam = $\frac{1740}{4250} \times 100 = 24\%$

Percentage of students who did not appeared in SBI clerk exam = $\frac{765}{8400} \times 100 = 9\%$

Hence, option E is correct.

405. Total number of students registered in the given five exams = (8640 + 9600 + 12420 + 7250 + 8400) = 46310

Number of students whose registration was cancelled = $\frac{4}{55} \times 46310 = 3368$

Hence, option B is correct.

406.

The reqd. % = $\frac{(640 - 320) \times 100}{320} = \frac{320 \times 100}{320} = 100\%$

Hence, option E is correct.

407. The number of foreigners who visited in the given five places during the year 2017 = (640 + 520 + 440 + 680 + 320) = 2600

The number of Indians who visited in the given five places during the year 2017 = (460 + 580 + 540 + 840 + 390) = 2810

The required difference = 2810 – 2600 = 210

Hence, option C is correct.

408. The number of Indians who visited Shimla during the year 2017 = 580

the number of Indians who visited Agra during the year 2017 = 840

The reqd. % = $\frac{(840 - 580) \times 100}{840} = \frac{260 \times 100}{840}$ = 30.95% = approximately 31%

Hence, option A is correct.

409. Total number of tourists visited Goa during the year 2017 = 640 + 460 = 1100

The Indian tourists = 460

The reqd. % = $\frac{460 \times 100}{1100}$ = 41.82%

Hence, option C is correct.

410. The number of foreigners who visited Agra during the year 2017 = 680

The sum of the total number of foreigners who visited the given five states during the year 2017 = 2600

The reqd. % = $\frac{680 \times 100}{2600}$ = 26.15%

Hence, option D is correct.

411. The expenditure of the company on labour = Rs. 45000

The expenditure of the company on Radio advertising = 8% of 25000 = $8 \times \frac{25000}{100}$ = 8 × 250 = Rs. 2000

The required difference = Rs.(45000 – 2000) = Rs. 43000

Hence, option D is correct.

412. The total expenditure of the company in that year = Rs. (45000 + 75000 + 25000 + 12000 + 25000) = Rs. 182000

The total expenditure of the company in mobile application advertising

$= 28\% \text{ of } 25000 = 28 \times \frac{25000}{100} = \text{Rs. } 28 \times 250$

The required ratio = 182000 : 28 × 250 = 26 : 1

Hence, option C is correct.

413. The total expenditure of the company on online advertising = 36% of 25000 = Rs. 9000

$\text{The reqd. \%} = \frac{9000 \times 100}{500000} = 1.8\%$

Hence, option B is correct.

414. The expenditure of the company on radio advertising = Rs. 8% of 25000 = Rs. 2000

The expenditures of the company on raw material = Rs. 75000

$\text{The reqd. \%} = \frac{2000 \times 100}{75000} = \frac{200}{75} = \frac{8}{3} = 2\frac{2}{3}\%$

Hence, option B is correct.

415. The expenditures of the company on transportation = Rs. 12000

The expenditure of the company on print advertisement = Rs. 10% of 25000 = Rs. 2500

The required sum = Rs. (12000 + 2500) = Rs. 14500

Hence, option D is correct.

Common explanation (416 – 420) :

In 2016, 8% of Chaman's total production = 50 tons

Total production = $\frac{50 \times 100}{8}$ = 625 tons

Let the Baman's total production = x tons then 25% of x= 50

$x = \frac{50 \times 100}{25}$

x = 200 tons

In 2017,

Baman's total production = 2 × 200 = 400 tons

10% of 400 = 40 tons he returned to Chaman

Let Chaman's total production = y then (200/3)% of y = 40

$\frac{2y}{3} = 40$

y = 60 tons = Chaman's total production of wheat in 2017

In 2018, Chaman's production of wheat = 125% of 60 = 75 tons = the total production of wheat for Baman in the year 2018

416. Following the common explanation, we get

Total quantity (in ton) of wheat produced by Chaman in the year 2018 = 75 tons

Hence, option D is correct.

417. Following common explanation, we get

Total quantity (in ton) of wheat produced by Baman in the year 2018 = 75 tons

Total quantity (in ton) of wheat produced by Baman in the year 2017 = 400 tons

The reqd. % increase = $\frac{(400 - 75) \times 100}{400} = \frac{325}{4}$ = 81.25%

Hence, option E is correct.

418. Following common explanation, we get

Quantity of total wheat Baman produced in the year 2017 and 2018 together = 400 + 75 = 475 tons

Hence, option B is correct.

419. Following common explanation, we get

The total quantity of wheat produced by Chaman in the given three periods = 625 + 60 + 75 = 760 tons

The total quantity of wheat produced by Baman in the given three periods = 200 + 400 + 75 = 675

The required difference = 760 – 675 = 85 tons

Hence, option C is correct.

420. Following common explanation, we get

Chaman's land = $\frac{4 \times 5}{8}$ = 2.5 acres

Baman's land = $\frac{4 \times 3}{8}$ = 1.5 acres

Chaman's production of wheat = 625 tons

Baman's production of wheat = 200 tons

The reqd. ratio = $\frac{625}{2.5} : \frac{200}{1.5}$

25 × 15 : 8 × 25 = 15 : 8

Hence, option C is correct.

421.

Year→ Food crop ↓	2016		2017	
	Production	Percentage contribution of Dhaka	Production	Percentage contribution of Dhaka
Wheat	80	30% of 80 = 24	220	40% 220 = 88
Pearl Millet	125	20% of 125 = 25	150	30% of 150 = 45
Rice	160	45% of 160 = 72	280	35% of 280 = 98
Pulses	400	32% of 400 = 128	270	50% of 270 = 135
Others	280	50% of 280 = 140	200	34% of 200 = 68
Total	1045	389	1120	434

Hence, option D is correct.

422. The total quantity of food crops produced in the year 2017 in the state Dhaka = 434 thousand tons

The total quantity of food crops produced in the year 2016 in the state Dhaka = 389 thousand tons

The required difference = 434 – 389 = 45 thousand tons

Hence, option B is correct.

423. In the year 2016, the total quantity of pearl millet produced in Dhaka = 25 thousand tons

In the year 2017, the total quantity of pearl millet produced in Dhaka = 88 thousand tons

Let in the year 2017, the price of wheat = Rs. x per thousand ton then in the year 2016, the price of pearl millet = 160% of x = 1.6x per thousand ton

In the year 2016, the total money received from pearl millet = 25 × 1.6x = Rs. 40x

In the year 2017, the total money received from wheat = 88 × x = Rs. 88x

The reqd. % = $\frac{(88x - 40x) \times 100}{40x} = \frac{48x \times 100}{40x} = 120\%$

Hence, option D is correct.

424. Total quantity of food crops produced in the year 2016 in Bingoladesh = 1045 thousand tons

Total quantity of food crops produced in the year 2017 in Bingoladesh = 1120 thousand tons

The required ratio = 1045 : 1120 = 209 : 224

Hence, option A is correct.

425. The total quantity of pulses produced in the year 2016 = 400 thousand tons

The total quantity of pulses produced in the year 2017 = 270 thousand tons

The required sum = 13% of 400 + 20% of 270 = 52 + 54 = 106 thousand tons

Hence, option B is correct.

426. Let, length (in metres) of train A, train B, train C, train D, and train E be 'a', 'b', 'c', 'd', and 'e', respectively.

And, speed (in m/s) of train A, train B, train C, train D, and train E be 'p', 'q', 'r', 's', and 't', respectively.

$2 \times (a + b + c + d + e) = 3380$
$\Rightarrow 2 \times (630 + 700 + e) = 3380$
$\Rightarrow e = 360$ m
$a = 660 - 360 = 300$ m
$b = 630 - 300 = 330$ m
$c = 840 - 330 = 510$ m
$d = 700 - 510 = 190$ m

Also, $\frac{a + b}{p + q} = 14$

$\Rightarrow \frac{630}{p + q} = 14$

$\Rightarrow p + q = 45$

$\frac{b + c}{q + r} = 24$

$\Rightarrow \frac{840}{q + r} = 24$

$\Rightarrow q + r = 35$

Similarly,
$r + s = 25$
$s + t = 40$
$p + t = 45$
So, $2 \times (p + q + r + s + t) = 190$
$\Rightarrow p + q + r + s + t = 85$
$\Rightarrow 45 + r + 40 = 95$
$\Rightarrow r = 10$
So, $s = 15$, $t = 25$, $p = 20$, $q = 25$

	Length (in metres)	Speed (in m/s)
Train A	300 m	20 m/s
Train B	330 m	25 m/s
Train C	510 m	10 m/s
Train D	190 m	15 m/s
Train E	360 m	25 m/s

Reqd. time $= \frac{330 + 190}{25 + 15} = 13$ sec.

Hence, option A is correct.

427. Let, length (in metres) of train A, train B, train C, train D, and train E be 'a', 'b', 'c', 'd', and 'e', respectively.

And, speed (in m/s) of train A, train B, train C, train D, and train E be 'p', 'q', 'r', 's', and 't', respectively.

$2 \times (a + b + c + d + e) = 3380$
$\Rightarrow 2 \times (630 + 700 + e) = 3380$
$\Rightarrow e = 360$ m
$a = 660 - 360 = 300$ m
$b = 630 - 300 = 330$ m
$c = 840 - 330 = 510$ m
$d = 700 - 510 = 190$ m

Also, $\frac{a + b}{p + q} = 14$

$\Rightarrow \frac{630}{p + q} = 14$

$\Rightarrow p + q = 45$

$\frac{b + c}{q + r} = 24$

$\Rightarrow \frac{840}{q + r} = 24$

$\Rightarrow q + r = 35$
Similarly,
$r + s = 25$
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So, $2 \times (p + q + r + s + t) = 190$
$\Rightarrow p + q + r + s + t = 85$
$\Rightarrow 45 + r + 40 = 95$
$\Rightarrow r = 10$
So, $s = 15$, $t = 25$, $p = 20$, $q = 25$

	Length (in metres)	Speed (in m/s)
Train A	300 m	20 m/s
Train B	330 m	25 m/s
Train C	510 m	10 m/s
Train D	190 m	15 m/s
Train E	360 m	25 m/s

Reqd. time $= \frac{300 + 510}{20 - 10} = \frac{810}{10} = 81$ sec

Hence, option C is correct.

428. Let, length (in metres) of train A, train B, train C, train D, and train E be 'a', 'b', 'c', 'd', and 'e', respectively.

And, speed (in m/s) of train A, train B, train C, train D, and train E be 'p', 'q', 'r', 's', and 't', respectively.

$2 \times (a + b + c + d + e) = 3380$

$\Rightarrow 2 \times (630 + 700 + e) = 3380$

$\Rightarrow e = 360$ m

$a = 660 - 360 = 300$ m

$b = 630 - 300 = 330$ m

$c = 840 - 330 = 510$ m

$d = 700 - 510 = 190$ m

Also, $\frac{a + b}{p + q} = 14$

$\Rightarrow \frac{630}{p + q} = 14$

$\Rightarrow p + q = 45$

$\frac{b + c}{q + r} = 24$

$\Rightarrow \frac{840}{q + r} = 24$

$\Rightarrow q + r = 35$

Similarly,

$r + s = 25$

$s + t = 40$

$p + t = 45$

So, $2 \times (p + q + r + s + t) = 190$

$\Rightarrow p + q + r + s + t = 85$

$\Rightarrow 45 + r + 40 = 95$

$r = 10$

So, $s = 15$, $t = 25$, $p = 20$, $q = 25$

	Length (in metres)	Speed (in m/s)
Train A	300 m	20 m/s
Train B	330 m	25 m/s
Train C	510 m	10 m/s
Train D	190 m	15 m/s
Train E	360 m	25 m/s

Let, length of platform = 'x' m

So, $\frac{360 + x}{25} = 49.6$

$\Rightarrow 360 + x = 1240$

$\Rightarrow x = 1240 - 360$

$\Rightarrow x = 880$

So, time taken by D = $\frac{880 + 190}{15} = 71.33$ sec

Hence, option D is correct.

429. Let, length (in metres) of train A, train B, train C, train D, and train E be 'a', 'b', 'c', 'd', and 'e', respectively.

And, speed (in m/s) of train A, train B, train C, train D, and train E be 'p', 'q', 'r', 's', and 't', respectively.

$2 \times (a + b + c + d + e) = 3380$

$\Rightarrow 2 \times (630 + 700 + e) = 3380$

$\Rightarrow e = 360$ m

$a = 660 - 360 = 300$ m

$b = 630 - 300 = 330$ m

$c = 840 - 330 = 510$ m

$d = 700 - 510 = 190$ m

Also, $\frac{a + b}{p + q} = 14$

$\Rightarrow \frac{630}{p + q} = 14$

$\Rightarrow p + q = 45$

$\frac{b + c}{q + r} = 24$

$\Rightarrow \frac{840}{q + r} = 24$

$\Rightarrow q + r = 35$

Similarly,

$r + s = 25$

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$p + t = 45$

So, $2 \times (p + q + r + s + t) = 190$

$\Rightarrow p + q + r + s + t = 85$

$\Rightarrow 45 + r + 40 = 95$

$\Rightarrow r = 10$

So, $s = 15$, $t = 25$, $p = 20$, $q = 25$

	Length (in metres)	Speed (in m/s)
Train A	300 m	20 m/s
Train B	330 m	25 m/s
Train C	510 m	10 m/s
Train D	190 m	15 m/s
Train E	360 m	25 m/s

Speed of train D $= 15 \times \frac{18}{5} = 54$ km/h

Speed of train A $= 25 \times \frac{18}{5} = 90$ km/h

Time taken by train D to travel 405 km $= \frac{405}{54} = 7.5$ hr

Distance travelled by train A to meet train D = 90 × 5.5 = 495 km (We have multiplied by 5.5 as train A travelled 2 hrs less than train D)

Required distance = 405 + 495 = 900 km
Hence, option A is correct

430. Let, length (in metres) of train A, train B, train C, train D, and train E be 'a', 'b', 'c', 'd', and 'e', respectively.

And, speed (in m/s) of train A, train B, train C, train D, and train E be 'p', 'q', 'r', 's', and 't', respectively.

$2 \times (a + b + c + d + e) = 3380$
$\Rightarrow 2 \times (630 + 700 + e) = 3380$
$\Rightarrow e = 360$ m
$a = 660 - 360 = 300$ m
$b = 630 - 300 = 330$ m
$c = 840 - 330 = 510$ m
$d = 700 - 510 = 190$ m

Also, $\frac{a + b}{p + q} = 14$

$\Rightarrow \frac{630}{p + q} = 14$

$\Rightarrow p + q = 45$

$\frac{b + c}{q + r} = 24$

$\Rightarrow \frac{840}{q + r} = 24$

$\Rightarrow q + r = 35$

Similarly,
$r + s = 25$
$s + t = 40$
$p + t = 45$

So, $2 \times (p + q + r + s + t) = 190$
$\Rightarrow p + q + r + s + t = 85$
$\Rightarrow 45 + r + 40 = 95$
$\Rightarrow r = 10$

So, $s = 15$, $t = 25$, $p = 20$, $q = 25$

	Length (in metres)	Speed (in m/s)
Train A	300 m	20 m/s
Train B	330 m	25 m/s
Train C	510 m	10 m/s
Train D	190 m	15 m/s
Train E	360 m	25 m/s

Speed of train B = $25 \times \frac{18}{5}$ = 90 km/h

Speed of train C = $10 \times \frac{18}{5}$ = 36 km/h

Time taken by train C = $\frac{432}{36}$ = 12 hours

Time taken by train B = $\frac{432}{90}$ = 4.8 hours

So, train B would leave the station X after 7.2 hours of train C.

Hence, option E is correct.

431. Let the income of family c = 100x

Then Miscellaneous expenditures = 6% of 100x = 6x = 1200,

X = 200

The income of family C = 100x = 100 × 200 = Rs. 20000

According to the question, the income of family B = 150% of 20000 = Rs.30000

Expenditure on food by family B = Rs. 30% of 30000 = Rs. 9000

Hence, option A is correct.

432. If the respective ratio of the income of family A, Family B, and family C is 7 : 5 : 4

Let the income of family A = Rs. 7x

Let the income of family B = Rs. 5x

Let the income of family C = Rs. 4x

The respective ratio of their expenditure on fuel = 5% of 7x : 12% of 5x : 8% of 4x = 35 : 60 : 32

Hence, option C is correct.

433. The respective ratio of the income of family A and the income of family B is 2: 3

Let the total income of family A = 2X and the total income of family B = 3x

If the difference between the total expenditure by family A on fuel and the total expenditure by family B on fuel = 20% of 3x – 5% of 2x = 15000

60x – 10x = 1500000

50x = 1500000

$x = \frac{150000}{50} = 30000$

The total income of family B = 3x = 3 × 30000 = Rs. 90000

Hence, option B is correct.

434. The total amount spent by family C on Food, Clothing, and House rent together = (12 + 14 + 35)% = 61% of the total income = 61% of 55000 = Rs. 33550

Hence, option E is correct.

435. Since we don't know there total income and in question we have information only about their respective expenditure so it is not possible to find their respective ratio of expenditures.

Hence, option E is correct.

436. In IIT Roorkee, 5% of the total number of graduates = 65

100% of the total number of graduates = $\frac{65 \times 100}{5} = 1300$

The number of graduates who didn't get placed in Tata Motors = 1300 – 65 = 1235

In IIT Patna, 12% of the total number of graduates = 60

100% of the total number of graduates = $\frac{60 \times 100}{12} = 500$

The number of graduates who didn't get placed in Tata Motors = 500 – 60 = 440

The required difference = 1235 – 440 = 795

Hence, option B is correct.

437. In IIT New Delhi, The total number of graduates

$= \frac{150 \times 100}{25} = 600$

The number of female graduates $= 3 \times \frac{600}{8} = 75 \times 3 = 225$

The number of male graduates = 600 – 225 = 375

The number of male graduates get placed = 150 – 30 = 120

The reqd. % $= \frac{120 \times 100}{375} = 32\%$

Hence, option D is correct.

438. In IIT Patna,

In IIT Patna, 12% of the total number of graduates = 60

100% of the total number of graduates $= \frac{60 \times 100}{12} = 500$

In IIT Chennai, the total number of graduates $= \frac{120 \times 100}{8} = 1500$

In IIT Roorkee, the total number of graduates $= \frac{65 \times 100}{5} = 1300$

In IIT New Delhi, the total number of graduates $= \frac{150 \times 100}{25} = 600$

In IIT Kanpur, the total number of graduates $= \frac{80 \times 100}{16} = 500$

The total number of graduates = 500 + 1500 + 1300 + 600 + 500 = 4400

The total number of male graduates = (100 – 40)% of 4400 = 60% of 4400 = 2640

Hence, option A is correct.

439. The required answer = 60 + 120 + 65 + 150 + 80 = 475

Hence, option C is correct.

440. In IIT Patna, 40% of 60 = 24

It means, 24 female graduates got placed which was 10% of the total number of female graduates

The total number of female graduates = 24 × 10 = 240

In IIT Patna, 12% of the total number of graduates = 60

100% of the total number of graduates = $\frac{60 \times 100}{12}$ = 500

The required answer = 500 – 240 = 260

Hence, option D is correct.

Common explanation (441 – 445) :

The total money spent = Rs. (750 – 50) = Rs. 700

Let the price of apples per kg = Rs. a, price of banana per kg = Rs. b, price of mangoes per kg = Rs. c

Then, according to the question, x × a + 4 × b + 6 × c = 700

The amount spent to purchase apples was equal to the amount spent to purchase mangoes

then, xa = 6c, a : c = 6 : x

the total quantity of apples purchased by him was half of the total quantity of bananas and mangoes purchased by him

$x = \frac{6 + 4}{2} = \frac{10}{2}$ = 5 kg

Therefore, a : c = 6 : 5 ..... (i)

The amount spent to purchase bananas was one third of the amount spent to purchase apples

$4b = \frac{1}{3} \times xa = \frac{1}{3} \times 6c$

4b = 2c

b : c = 1 : 2 ..... (ii)

a : b : c = 60 : 25 : 50

Let the price per kg of apple = Rs. 60p, then price of banana per kg = Rs. 25p and price of mangoes per kg = Rs. 50p

$x \times a + 4 \times b + 6 \times c = 700$

$5a + 4b + 6c = 700$

$5 \times 60p + 4 \times 25p + 6 \times 50p = 700$

$300p + 100p + 300p = 700p = 700$

$p = 1$

It means, the price per kg of apple = Rs. 60p = Rs. 60

Price per kg of banana = Rs. 25p = Rs. 25 andprice per kg of mangoes = Rs. 50p = Rs. 50

441. Following common explanation, we get

The required ratio = 60 : 25 = 12 : 5

Hence, option C is correct.

442. Following common explanation, we get

The total he spends to purchase mangoes = $6c = 6 \times 50 = 300$

Hence, option B is correct.

443. Following common explanation, we get

The price of two kg mangoes, 1 kg apples, and 2 kg banana = $2 \times 50 + 1 \times 60 + 2 \times 25 = 100 + 60 + 50 = 210$

The required difference = $750 – 210 = 540$

Hence, option C is correct.

444. Following common explanation, we get

x = 5 therefore, 5 kg of apple he purchased

Hence, option A is correct.

445. Following common explanation, we get

33.33% of 750 = Rs. 250

It means, he spent Rs. (750 – 250) = Rs. 500

he purchases less quantity (in kg) of mangoes

the price of mangoes = Rs. 50 per kg

He spent Rs. 300 for buying apples and Rs. 100 for buying bananas. So he purchased mangoes worth Rs. 100

So he purchased 2 kg mangoes.

The total quantity of fruits he purchased = 5 + 4 + 2 = 11 kg

Hence, option B is correct.

446. Number of politicians of **party E** accused of crimes = (100 – 10)% of 12% of 2500

= 90% of 12% of 2500 = 270

Similarly,

In party A = (100 – 20)% of 20% of 2500 = 80% of 20% of 2500 = 400

In party B = (100 – 12)% of 22% of 2500 = 88% of 22% of 2500 = 484

Therefore, average no. of politicians who are accused of crimes in these parties

$= \frac{270 + 400 + 484}{3} = \frac{1154}{3} = 384.66 \approx 385$

Hence, option D is correct.

447. As per the given information, we get

Required ratio = 5% of total politicians : 20% of total politicians = 5 : 20 = 1 : 4

Hence, option B is correct.

448. Total number of politicians who left the party D = 15% of 20% of 2500 = 75

Now, politicians who left the party D and are not accused of crimes = 60% of 75 = 45

Total number of politicians of all parties who are not accused of crimes = 15% of 2500 = 375

Reqd. % = $\frac{45 \times 100}{375}$ = 12%

Hence, option E is correct.

449. Total number of politicians of party A who are accused in crime W = 50% of 20% of 2500 = 250

And, the total number of politicians of party B who are accused in crime W = 40% of 22% of 2500 = 220

Therefore, Reqd. ratio = 250 : 220 = 25 : 22

Hence, option A is correct.

450. Total number of politicians of party A accused of crime Z = 20% of 20% of 2500 = 100

And, the total number of politicians of party B accused of crime Z = 22% of 20% of 2500 = 110

∴ Reqd. difference = 110 – 100 = 10

Hence, option C is correct.

451. Let the number of adult population of Pakistan = x

Then, 60% of x = 960

Therefore,

(100 – 60)% of x = 40% of x = $\frac{960 \times 40}{60}$ = 640 million

The number of adult females = $\frac{17 \times 640}{20}$ = 17 × 32 = 544 million

Hence, option C is correct.

452. The total number of adult females who are financially unstable

$= \frac{1 \times 560}{2} = 280$ million

Let the number of adult population of India = x
Then, 40% of x = 560
Therefore,

(100 – 40)% of x = 60% of x = $\frac{560 \times 60}{40} = 840$ million

The number of adult females = $\frac{5 \times 840}{12} = 350$ million

The population of adult females in India = 280 + 350 = 630 million
Hence, option B is correct.

453. Let the number of adult population of Pakistan = x
Then, 60% of x = 960
Therefore, adults who are financially stable

(100 – 60)% of x = 40% of x = $\frac{960 \times 40}{60} = 640$ million

The number of adult males who are financially stable = $\frac{3 \times 640}{20} = 3 \times 32 = 96$ million

Let the number of adult population of Pakistan = x
Then, 60% of x = 960

$x = \frac{960 \times 100}{60} = 1600$

The reqd. % = $\frac{96 \times 100}{1600} = 6\%$

Hence, option A is correct.

454. Let the number of adult population of Pakistan = x
Then, 60% of x = 960

$x = \frac{960 \times 100}{60} = 1600$

Let the number of adult population of Afghanistan = y
Then, 96% of y = 300

$y = \frac{300 \times 100}{96} = 312.5$

The required sum = 1600 + 312.5 = 1912.5

Hence, option D is correct.

455. Let the number of adult population of Bangladesh = x

Then, 72% of x = 900

$x = \frac{900 \times 100}{72} = 1250$

(100 – 72) = 28% of 1250 = 350 million

The number of adult males in Bangladesh who are financially stable $= \frac{4 \times 350}{7} = 200$ million

Let the number of adult population of Indonesia = y

Then, 50% of x = 644

$x = \frac{644 \times 100}{50} = 644 \times 2$

(100 – 50) = 50% of 644 × 2 = 644 million

The number of adult females in Indonesia who are financially stable

$= \frac{2 \times 644}{5} = 257.6$ million

The required difference = 257.6 – 200 = 57.6 million

Hence, option C is correct.

456. At the end of 2011, the respective ratio of the turnover of Patanjali and Airtel = 3 : 4 (the turnover of Patanjali was 25% less than the turnover of Airtel)

Let us assume that the turnover of Patanjali at the end of 2011 = 3x and the turnover of Airtel at the end of 2011 = 4x

Then, the turnover of Patanjali at the end of 2014 $= 3x \times \frac{105}{100} \times \frac{108}{100} \times \frac{112}{100}$ = approximately 3.81x

The turnover of Airtel at the end of 2014 $= 4x \times \frac{160}{100} \times \frac{180}{100} \times \frac{175}{100} = 20.16x$

The reqd. % $= \frac{(20.16x - 3.81x) \times 100}{20.16x}$ = approximately 81%

Hence, option D is correct.

457. At the end of 2015, Let the turnover of Airtel = 4x then the turnover of Patanjali = 75% of 4x = 3x.

turnover of Airtel was 60% of the turnover of Accenture, 60% of accenture's turnover = 4x

Accenture's turnover = $4x \times \frac{100}{60} = \frac{20x}{3}$ similarly,

Reliance's turnover = $\frac{(20x/3) \times 100}{80} = \frac{25x}{3}$

According to the question,

$\frac{25x}{3} = 1.75$

X = 0.21

At the end of 2017,

the turnover of airtel = $4x \times \frac{150}{100} \times \frac{125}{100} = 7.5x$

the turnover of Patanjali = $3x \times \frac{164}{100} \times \frac{175}{100} = 8.61x$

the turnover of Accenture = $\frac{20x}{3} \times \frac{150}{100} \times \frac{160}{100} = 16x$

the turnover of Reliance = $\frac{25x}{3} \times \frac{180}{100} \times \frac{175}{100} = 26.25x$

Required sum = 7.5x + 8.61x + 16x + 26.25x = 58.36x = 58.36 × 0.21 = 12.2556 billion

Hence, option A is correct.

458. The total turnover of Patanjali at the end of 2017

$= 1 \times \frac{108}{100} \times \frac{112}{100} \times \frac{132}{100} \times \frac{164}{100} \times \frac{175}{100}$ = $ 4.58 billion approximately

Hence, option C is correct.

459. Let at the end of 2011, the respective ratio of the turnover of Patanjali, Reliance, Airtel, and Accenture = A : B : C : D

Then, 105% of A = 2x

$A = \frac{40x}{21}$

For Reliance, 125% of B = 7x

$B = \frac{28x}{5}$

For Airtel,

160% of C = 4x

$C = \frac{5x}{2}$

For Accenture,

110% of D = 5x

$D = \frac{50x}{11}$

The reqd. ratio $= \frac{40x}{21} : \frac{28x}{5} : \frac{5x}{2} : \frac{50x}{11}$

$= \frac{40}{21} : \frac{28}{5} : \frac{5}{2} : \frac{50}{11} = \frac{20}{21} : \frac{14}{5} : \frac{5}{4} : \frac{25}{11}$

Hence, option D is correct.

460. Let the turnover of Accenture at the end of 2011 = 1 then the turnover of Accenture at the end of 2017

$= 1 \times \frac{110}{100} \times \frac{130}{100} \times \frac{125}{100} \times \frac{140}{100} \times \frac{150}{100} \times \frac{160}{100} = 6.006$

Reqd. % $= \frac{(6-1) \times 100}{1}$ = approximately 500%

Hence, option B is correct.

461. Selling price of article B = 110.4% of 2500 = Rs. 2760

Selling price of article C = 118% of 2400 = Rs. 2832

Marked price of article B = $\frac{2760}{80} \times 100$ = Rs. 3450

Marked price of article C = $\frac{2832}{94.4} \times 100$ = Rs. 3000

Required difference = Rs. (3450 – 3000) = Rs. 450

Hence, option A is correct.

462. Selling price of the article E = 44% of 4800 = Rs. 2112

Cost price of the article E = $\frac{2112}{132} \times 100$ = Rs. 1600

Hence, option D is correct.

463.

Marked price of article A = $\frac{3132}{78.3} \times 100$ = Rs. 4000

Marked price of article D = $\frac{1700}{85} \times 100$ = Rs. 2000

Reqd. % = $\frac{2000}{4000} \times 100 = 50\%$

Hence, option B is correct.

464. Initially, the selling price of the article A = 135% of 2320 = Rs. 3132

Initially, the marked price of the article A = $\frac{3132}{78.3} \times 100$ = Rs. 4000

Therefore, discount given initially = 4000 – 3132 = Rs. 868

New marked price of the article A = 4000 – 400 = Rs. 3600

New discount % = 21.7 – 6.7 = 15%

New discount = 15% of 3600 = Rs. 540

Required difference = Rs. (868 – 540) = Rs. 328

Hence, option A is correct.

465.

Cost price of the article C = $\frac{2124}{118} \times 100$ = Rs. 1800

Cost price of the article E = $\frac{1848}{132} \times 100$ = Rs. 1400

Required ratio = 1400 : 1800 = 7 : 9

Hence, option C is correct.

466. The actual turnover of company A in 2017 = 1800

Let in 2016, it was x then 120% of x = 1800

X = $\frac{1800 \times 100}{120}$ = 1500

The actual turnover of company F in 2016 = 650

Therefore, the actual turnover of Company F in 2017 = 120% of 650 = 780

The required difference = 1500 – 780 = 720 crores

Hence, option B is correct.

467. The actual turnover of company A in 2016

= $\frac{1800 \times 100}{120}$ = 1500

The actual turnover of company B in 2016 = 125% of 1200 = 1500

The required ratio = 1 : 1

Hence, option A is correct.

468. Let the turnover of company F in 2015 = x

Then, 140% of x = 650,

$x = \frac{650 \times 100}{140} = \frac{3250}{7}$

Let the turnover of company E in 2015 = y then, (105% of y) of 125% = 1700

$Y \times \frac{105}{100} \times \frac{125}{100} = 1700$

$Y = \frac{1700 \times 16}{21}$

The reqd. % $= \frac{(3250/7) \times 100}{(1700 \times 16/21)}$

$= \frac{3250 \times 3}{17 \times 16}$ = approximately 35.85%

Hence, option D is correct.

469. The turnover of company B in 2015 = 1200

The turnover of company B in 2016 = 125% of 1200 = 1500

The turnover of company B in 2017 = 120% of 1500 = 1800

The required sum = 1200 + 1500 + 1800 = Rs. 4500 crores

Hence, option A is correct.

470. Let the actual turnover of company C in 2015 = x

Then, 130% of x = 850

$x = \frac{850 \times 100}{130} = \frac{8500}{13}$

= approximately 653.85 crores

Let the turnover of company E in 2015 = y then, (105% of y) of 125% = 1700

$y \times \frac{105}{100} \times \frac{125}{100} = 1700$

$y = \frac{1700 \times 16}{21} = \frac{27200}{21}$

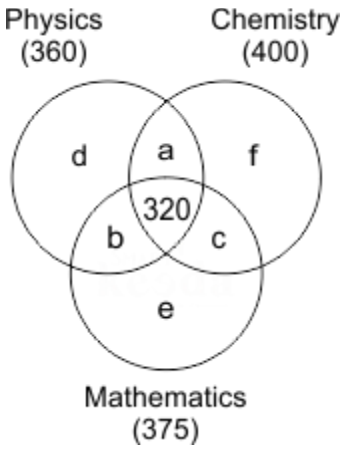
= approximately 1295.24 crores

The reqd. % $= \frac{(1295.24 - 653.85) \times 100}{1295.24}$

= approximately 49.5%

Hence, option B is correct.

Common explanation (471 – 475) :



b = 375 – 320 – 40 = 15 = Passed only in Physics and Mathematics

c = 85% of 400 – 320 = 340 – 320 = 20

a = 360 – 320 – 30 = 10

d = 360 – a – b – 320 = 360 – 10 – 15 – 320 = 15

f = 400 – a – c – 320 = 400 – 10 – 20 – 320 = 50

e = 375 – 320 – b – c = 375 – 320 – 15 – 20 = 20

471. Following common explanation, we get

Students who had passed only in chemistry = f = 50

Hence, option B is correct.

472. Following common explanation, we get

b + c + a = 15 + 20 + 10 = 45

Hence, option C is correct.

473. Following common explanation, we get

The number of students who had passed only in Mathematics = e = 20

The number of students who had passed only in Physics and Chemistry = a = 10

Reqd. % = $\frac{20 \times 100}{10}$ = 200%

Hence, option A is correct.

474. Following common explanation, we get

The required ratio = 400 : (15 + 320) = 400 : 335 = 80 : 67

Hence, option B is correct.

475. Following common explanation, we get

The sum of all the students who had passed in exactly two subjects = b + c + a = 15 + 20 + 10 = 45

The number of students who had passed in all the three subjects = 320

Reqd. answer = $\frac{320}{45} = \frac{64}{9} = 7\frac{1}{9}$ times

Hence, option A is correct.

476. The total number of students studying Science in institutes F and E together = (11 + 9)% of 4700 = 20% of 4700 = 940

Hence, option A is correct.

477. The number of students studying science from institute B = 17% of 4700 = 799

The number of students studying arts from institute B = 23% of 4300 = 989

Required sum = 799 + 989 = 1788

Hence, option C is correct.

478. Number of students studying science from institute C = 19% OF 4700

Number of students studying ARTS from institute C = 17% OF 4300

Ratio = 19 × 47 : 17 × 43 = 893 : 731

Hence, option D is correct.

479. Number of students studying arts from institute F and G together = (8 + 6)% of 4300 = 14% of 4300 = 602

Hence, option A is correct.

480. The number of students studying science from institute B = 17% OF 4700 = 799

The number of students studying arts from institute A = 19% OF 4300 = 817

Required ratio = 799 : 817

Hence, option C is correct.

481. Total students in school in 2006 = 25000

Total students in school in 2007 = 120% of 25000 = 30000

Total students in school in 2008 = 120% of 30000 = 36000

Total students in school in 2009 = 120% of 36000 = 43200

Number of students in classes D and E together over the entire period = [(24 + 7)% of 25000] + [(14 + 6)% of 30000] + [(23 + 6)% of 36000] + [(13 + 11)% of 43200] = 7750 + 6000 + 10440 + 10368 = 34558

Number of students in classes B and C together over the entire period = [(35 + 29)% of 25000] + [(46 + 30)% of 30000] + [(37 + 28)% of 36000] + [(32 + 35)% of 43200] = 16000 + 22800 + 23400 + 28994 = 91144

Required difference = 91144 – 34558 = 56586

Hence, option C is correct.

482. Total students in school in 2008 = 120% of 120% of 25000 = 36000

Total number of students in class B in 2008 = 37% of 36000 = 13320

Total number of students in class A in 2006 = 5% of 25000 = 1250

$$\text{Reqd. \%} = \frac{13320}{1250} \times 100 = 1065.6\%$$

Hence, option C is correct.

483. Total students in school in 2007 = 120% of 25000 = 30000

Total students in school in 2009 = 120% of 120% of 120% of 25000 = 43200

Number of students in class D in 2009 = 13% of 43200 = 5616

Number of students in class D in 2007 = 14% of 30000 = 4200

Change in number = 5616 – 4200 = 1416

Hence, option D is correct.

484. Total students in school in 2007 = 120% of 25000 = 30000

Total students in school in 2008 = 120% of 120% of 25000 = 36000

Total students in classes A, C and E together in 2007 = (4 + 30 + 6)% of 30000 = 12000

Total students in classes B and D together in 2008 = (37 + 23)% of 36000 = 21600

Required ratio = 12000 : 21600 = 5 : 9

Hence, option A is correct.

485. Total students in school in 2006 = 25000

Total students in school in 2007 = 120% of 25000 = 30000

Total students in school in 2008 = 120% of 30000 = 36000

Total students in school in 2009 = 120% of 36000 = 43200

Total number of students in class A alone over the entire period = (5% of 25000) + (4% of 30000) + (6% of 36000) + (9% of 43200) = 1250 + 1200 + 2160 + 3888 = 8498

Total number of students in Classes D and E together in 2009 = (13 + 11)% of 43200 = 10368

$$\text{Reqd. \%} = \frac{8498}{10368} \times 100 = 81.96\% \approx 82\%$$

Hence, option B is correct.

486. The circulation of the Hindu newspaper in 2016 = 687000

The circulation of the Hindu newspaper in 2012 = 458000

The reqd. answer = $\frac{687000}{458000}$ = 1.5 times

Hence, option D is correct.

487. The circulation of newspaper in 2017 = 948000

The circulation of newspaper in 2016 = 687000

The required difference = 948000 – 687000 = 261000

Hence, option C is correct.

488. The required sum = 964000 + 687000 + 948000 = 2599000 = 2599 thousand

Hence, option A is correct.

489. The circulation of newspaper in 2017 = 948000

The circulation of newspaper in 2018 = 110% of 948000 = 1042800

The circulation of newspaper in 2015 = 964000

The required difference = 1042800 – 964000 = 78800

Hence, option D is correct.

490. It is clear from the graph as it was highest in the year 2013 i.e.

$\frac{642000 \times 100}{458000} \approx 140\%$

Hence, option A is correct.

491. In 2014, percentage increase over the year 2013

$= \frac{68 - 54}{54} \times 100 = 25.93\%$

In 2015, percentage increase over the year 2014

$= \frac{120 - 68}{68} \times 100 = 76.47\%$

In 2016, percentage increase over the year 2015

$= \frac{200 - 120}{120} \times 100 = 66.67\%$

In 2017, percentage increase over the year 2016

$= \frac{250 - 200}{200} \times 100 = 25\%$

It is second highest in 2016.

Hence, option (D) is correct.

492. In 2013, the total turnover by all the three companies = 54 + 134 + 34 = 222

Share of Flipkart $= \frac{134}{222} \times 100 = 60.36\%$

In 2014, the total turnover by all the three companies = 68 + 130 + 140 = 338

Share of Flipkart $= \frac{130}{338} \times 100 = 38.46\%$

In 2015, the total turnover by all the three companies = 120 + 190 + 210 = 520

Share of Flipkart $= \frac{190}{520} \times 100 = 36.53\%$

In 2016, the total turnover by all the three companies = 200 + 230 + 280 = 710

Share of Flipkart $= \frac{230}{710} \times 100 = 32.39\%$

In 2017, the total turnover by all the three companies = 250 + 280 + 160 = 690

Share of Flipkart $= \frac{280}{690} \times 100 = 40.57\%$

It is lowest in 2016.

Hence, option (D) is correct.

493. In 2013, the total turnover by all the three companies = 54 + 134 + 34 = 222

Highest market share is of Flipkart that is = $\frac{134}{222} \times 100 = 60.36\%$

In 2014, the total turnover by all the three companies = 68 + 130 + 140 = 338

Highest market share is of Snapdeal that is = $\frac{140}{338} \times 100 = 41.42\%$

In 2015, the total turnover by all the three companies = 120 + 190 + 210 = 420

Highest market share is of Snapdeal that is = $\frac{210}{420} \times 100 = 50\%$

In 2016, the total turnover by all the three companies = 200 + 230 + 280 = 710

Highest market share is of Snapdeal that is = $\frac{280}{710} \times 100 = 39.43\%$

In 2017, the total turnover by all the three companies = 250 + 280 + 160 = 690

Highest market share is of Flipkart that is = $\frac{280}{690} \times 100 = 40.57\%$

Highest market share is of Flipkart that is 60.36%

Hence, option (A) is correct.

494. Sum of the total turnover of Flipkart during the given five years = 134 + 130 + 190 + 230 + 280 = 964

Average = $\frac{964}{5} = 192.8$

Sum of the total turnover of Amazon during the given five years = 54 + 68 + 120 + 200 + 250 = 692

Average = $\frac{692}{5} = 138.4$

Reqd. % = $\frac{192.8 - 138.4}{138.4} \times 100 = +39.31\%$

Hence, option A is correct,

495. Sum of the total turnover of Snapdeal during the given five years = 34 + 140 + 210 + 280 + 160 = 824

Average = 164.8

Turnover of Snapdeal in 2017 = 160

$$\text{Reqd. \%} = \frac{164.8 - 160}{160} \times 100 = 3\%$$

Hence, option C is correct.

496. Distance covered by E in downstream D(dE) = 264 km
Speed of the stream of E= 3 km/h
Downstream speed of E = upstream speed of B

$$S(dE) = S(uB)$$
$$\frac{264}{t(dE)} = \frac{176}{t(uB)}$$

$$\frac{t(uB)}{t(dE)} = \frac{2}{3}$$

Difference = 8 hrs
Hence 3x – 2x = 8, x = 8 hrs
Hence t(uB) = 16 hrs , t(dE) = 24 hrs

So total time by E and B going 187 km downstream,

$$t(dE)+t(dB) = \frac{187}{S(dE)} + \frac{187}{S(dB)} \text{ .....(i)}$$

$$S(dE) = \frac{264}{t(dE)} = \frac{264}{24} = 11 \text{ km/h}$$

Now S(dE) = S(uB)
So S(uB) = 11 km/h

$$\text{Speed (B)} = \frac{[S(dB) - S(uB)]}{2}$$

$$3 = \frac{[S(dB) - 11]}{2}$$

S (dB) = 17 km/h
Putting all values in eq 1
t (dE) + t (dB) = 17 + 11 = 28 hrs
Hence, option A is correct.

497. Distance covered by C upstream = 105 km

Upstream speed of C = S(uC)

Downstream Distance covered by A = 221 km

$t(uC) : t(dA) = \frac{105}{S(uC)} : \frac{221}{S(dA)}$ .....(i)

$t(dC) = \frac{133}{S(dC)}$

$7 = \frac{133}{S(dC)}$, $S(dC) = \frac{133}{7} = 19$ km/h

$S(C) = \frac{[S(dC) - S(uC)]}{2}$

$7 \times 2 = 19 - S(uC)$

$S(uC) = 5$ km/h

$t(uA) = \frac{65}{S(uA)}$, $S(uA) = \frac{65}{5} = 13$ km/h

$S(A) = \frac{S(dA) - S(uA)}{2}$

$2 \times 2 = S(dA) - 13$

$S(dA) = 17$ km/h

Put all values in eq1

$t(uC):t(dA) = \frac{105}{5} : \frac{221}{17} = 21 : 13$

Hence, option E is correct.

498.

$t(uF) = \frac{220}{S(uF)}$ .....(i)

t(dD) + t(uD) = 40 hrs

$\frac{272}{S(dD)} + \frac{92}{S(uD)} = 40$

[272/(boat speed in still water + stream speed)] + [92/(boat speed in still water – stream speed) = 40

$\frac{272}{B + 6} + \frac{92}{B - 6} = 40$

Speed of boat D in still water B(D) = 10 hrs

B(D) : B(F) = 1 : 3

$\frac{10}{B(F)} = \frac{1}{3}$

B(F) = 30 km/h

So speed of boat F in still water = 30 km/h

$t(dF) = \frac{360}{B(F) + S(F)} = 9$

putting B(F) = 30 km/h

S(F) = 10 km/h

Stream speed of F = 10 km/h

So Upstream speed of F, S (uF) = B(F) – S(F) = 30 – 10 = 20 km/h

Putting this in eq1

$t(uF) = \frac{220}{20} = 11$ hrs

Hence, option C is correct.

499.

time = $\frac{270}{30}$ = 9 hrs

That means boat can survive up to 9 hrs.

Speed = $\frac{180}{9}$ = 20 km/h

Speed should be 20 km/h to survive
But the speed of B going downstream,
S(dB)=17 km/h
S(dB) = B+S
17= B+ 3
B= 14 km/h
Hence boat B's Speed = 14 km/h
Minimum speed should be 20 km/h to survive.
Stream speed is 3 km/h which con not be changed
So boat B's speed should be 14+3 = 17 km/h , to reach 20 km/h

Hence, reqd. % = $\frac{3}{14} \times 100 = \frac{150}{7}$ %

Hence, option A is correct.

500.

time = $\frac{1000}{50}$ = 20 hrs

That means boat can survive up to 20 hrs.

Speed = $\frac{240}{20}$ = 12 km/h

Speed should be 20 km/h to survive
But the speed of E going downstream,
S(dE)=11 km/h
S(dE) = B+S
11= B+ 3 (Speed of stream for boat E = 3km/h)
B= 8 km/h
Hence boat E's Speed = 8 km/h
Minimum speed should be 12 km/h to survive.
Stream speed is 3 km/h which con not be changed
So boat E's speed should be 8+1 = 9 km/h , to reach 12 km/h

Hence, reqd. % = $\frac{1}{8} \times 100 = \frac{25}{2}$ % = 12.5%

Hence, option C is correct.