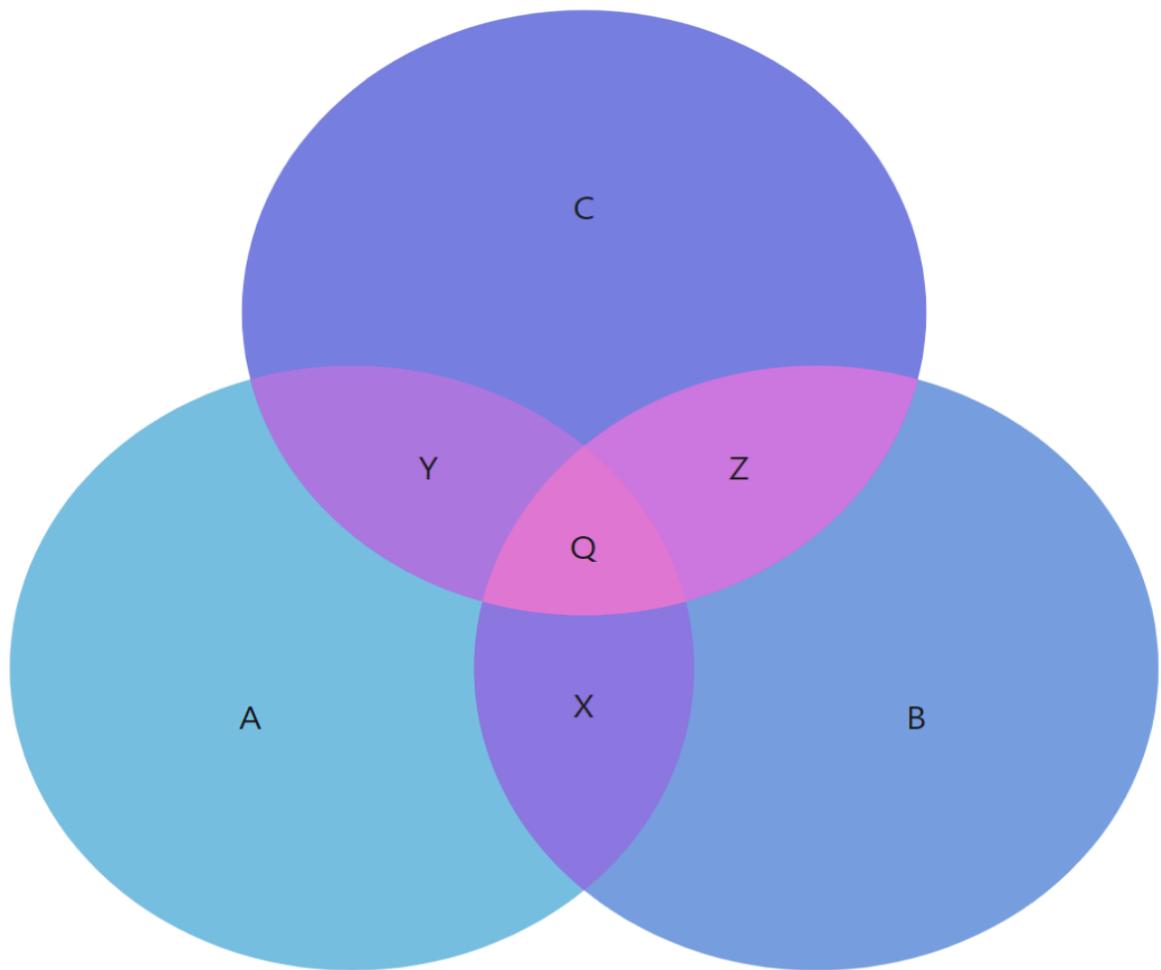


CASELET DI (QUANTITATIVE APTITUDE)

SBI PO | SBI CLERK | IBPS PO | IBPS CLERK |
RBI | IBPS RRB | LIC | Insurance | etc



CASELET DI

Directions (1–5) : Study the following information carefully and answer the questions given beside.

In 2010, In the Olympic event there were three tracks, 200 meters long, 400 meters long and 600 meters long. 250 athletes participated in the race. They ran either 200 meters race or 400 meters race or 600 meters race or two out of those three races or all the three races. 102 of them ran 200 meters race, 112 of them ran 400 meters race, and 138 of them ran 600 meters race. 62 of them ran only 400 meters of race and 42 of them ran both 200 meters race and 600 meters race but not 400 meters race. In 2014, a new 800 meters long track was added and 40 more athletes participated in the race who ran only 800 meters race. All the previous event athletes continued to participate in the same race/races that they had participated in 2010. Some of the old athletes also started participating in 800 meters race and there were total 93 athletes who participated in 800 meters race. None of the athletes ran all the four races and none of the athletes ran both 200 meters race and 800 meters race. Of the 27 athletes who ran both 400 meters race and 600 meters race but not 200 meters race in 2010, 9 ran 800 meters race in 2014. 42 athletes ran only 600 meters race in 2014. 27 athletes ran both 400 meters race and 800 meters race and no other race in 2014. 23 athletes ran both 200 meters race and 400 meters race in 2010.

Q1. In 2014, how many of athletes had participated in at least in any of the three races out of four races?

- A) 35
- B) 32
- C) 39
- D) 37
- E) 41

Q2. In 2014, the number of athletes who had participated only in 200 meters race and 400 meters race but no other race is approximately how much percentage more than/less than the number of athletes who had participated only in 600 meters race and 800 meters race but no other race? (rounded off two decimal)

- A) 23.53%
- B) 27.53%
- C) 21.53%
- D) 19.53%
- E) 17.53%

Q3. In 2010, how many of the athletes had participated in exactly two races?

- A) 92
- B) 72
- C) 82
- D) 84
- E) 86

Q4. In 2014, approximately what percentage of the total athletes had participated in exactly two races?

- A) 31.11%
- B) 34.14%
- C) 29.11%
- D) 27.17%
- E) 23.17%

Q5. In 2010, how many of the athletes had participated in exactly one race?

- A) 132
- B) 148
- C) 136
- D) 124
- E) 158

Directions (6 – 10) : Study the following information carefully and answer the questions given beside.

There was a race between Suman and Saurabh and Mohan. They need to cover a particular distance from point A to point B. Mohan started in a Jeep at the speed of x km per hour, Suman started on bike at the speed of 60 km per hour and Saurabh started in a car at the speed of 80 km per hour simultaneously from the Point A. After travelling for $7\frac{1}{2}$ hours, Saurabh's car got punctured so he reduces his speed by 50% and travels for another $1\frac{1}{2}$ hours. After that he tried to change the tyre for 30 minutes but it was in vain so he left the car there and started waiting to get lift. After another half an hour he got lift in a truck which was moving at the speed of 45 km per hour. He travelled in the truck for the next 450 km after that he jumped onto another vehicle which was moving at the speed of 100 km per hour. After travelling for 2 hours in that vehicle, he got down and found that the destination B was 250 km far from there on road. But he took a shorter route and started running at the speed of 35 km per hour. By the shorter route, the destination B was only 105 km away.

Q6. If Suman and Mohan travels with their uniform speed then Suman beats Mohan by a distance of 124 km. If Saurabh had travelled the entire journey on road by car with a uniform speed then approximately by how much time (the time Mohan would have taken to cover the remaining distance) he would have defeated Mohan?

- A) 5 hr 40 minutes
- B) 3 hr 15 minutes
- C) 1 hr 12 minutes
- D) 7 hr 20 minutes
- E) 4 hr 15 minutes

Q7. If Saurabh's car has not been punctured then by what distance he would have defeated Suman?

- A) 310 km
- B) 280 km
- C) 250 km
- D) 360 km
- E) 240 km

Q8. Suppose, even Suman's bike got Punctured after travelling 25% of the total distance so he started pulling bike at the rate of 10 km per hour. After pulling for half an hour, he got a punctured shop and mechanics took another 15 minutes to repair the bike. From there, Suman started at 25% more than his initial speed. In this way, by what distance did he defeat Saurabh? (the distance measured by on road)

- A) 35 km
- B) can't determine
- C) 45 km
- D) 40 km
- E) None of these

Q9. If Suman's average speed were only 45 km per hour then who would have been winner in between Suman and Saurabh and by what distance the winner would have defeated the loser?

- A) 275 km
- B) 265 km
- C) 245 km
- D) 235 km
- E) 295 km

Directions (10 –11) : Study the following information carefully and answer the questions given beside.

Kingfisher group of company acquired four team of IPL viz. Mumbai Rock, Delhi Rock, Patna Rock and Pune Rock. They invest some money (expenses) and earned revenue by selling its tickets. After completion of league the results (expenses, revenue, profit and loss) of the teams for the year 2015 were summarized. Chairman of Kingfisher group found that the profit of Patna Rock and Pune Rock were same, the revenue earned by sell of Patna Rock tickets were the same as those of Delhi Rock. Profits of Mumbai Rock were 10.75% of revenue earned by its tickets sales, whereas the profits of Delhi Rock were 20% of revenue earned by its tickets sales. While the total expenses of Patna Rock were 2.5 times its profits, revenue earned by sells the ticket of Pune Rock were 1.5 times of its profits. The total expenses of Patna Rock were 12 million and of Mumbai Rock were 10% less than those of Patna Rock. Profit is defined as the difference between sales and total expenses.

Q10. Profit of Pune Rock was what percent of its sales?

- A) 66.67%
- B) 61.67%
- C) 59.67%
- D) 52.67%
- E) 49.67%

Q11. Profit of all four team together which was acquired by Kingfisher group was what percent of its sales?

- A) 28.96%
- B) 26.96%
- C) 22.87%
- D) 21.81%
- E) 19.85%

Q12. If all four teams Mumbai Rock, Delhi Rock, Patna Rock and Pune Rock donate 20%,40%,10% and 50% of its profit respectively to a school of basic education for slum children, total donated money is what percentage the profit of all companies together ?

- A) 35.41%
- B) 37.41%
- C) 31.41%
- D) 39.41%
- E) 41.78%

Q13. Which team has highest efficiency? Efficiency = $\frac{\text{profit}}{\text{sale}} \times 100$

- A) Mumbai rock
- B) Delhi rock

- C) Patana rock
- D) Pune rock
- E) None of these

Q14. Find the ratio of average sells to average profit of all teams together ?

- A) 11 : 13 : 4.56
- B) 17 : 15 : 8.93
- C) 13.22 : 3.56
- D) 13 : 21 : 3.59
- E) None of these

Directions (15 – 19): Study the following information carefully and answer the questions given beside.

A motorboat travelled a total distance of 1500 km in 3 days. The ratio of the distance travelled in upstream to the distance travelled in downstream is 7 : 8. In 3 days, a total of 2800 passengers travelled in the motorboat and the ratio of male passengers to female passengers is 4 : 3.

On day 1, 30% of the total upstream distance and 50% of the total downstream distance was travelled by the motorboat in which male passengers was 40% of their total number and female passengers was 50% of their total number.

On day 2, 45% of the total upstream distance and 20% of the total downstream was travelled by the motorboat in which male passengers was 35% of their total number and female passengers was 30% of their total number.

On day 3, 25% of the total upstream distance and 30% of the total downstream distance travelled by the motorboat in which female passengers was 20% of their total number and male passengers was 25% of their total number.

Further, it is known that 22 male passengers and 32 female passengers travelled in day 1 and day 2 both, 18 male passengers and 21 female passengers travelled in day 2 and day 3 both, 15 male passengers and 38 female passengers travelled in day 3 and day 1 both. 12 male passengers and 8 female passengers travelled in all the three days.

Q15. The percentage difference between the number of male passengers travelled only in day 1 and the number of female passengers travelled only in day 3 is? (round off two decimal)

- A) 107.41%
- B) 102.43%
- C) 101.45%

D) 109.42%

E) 95.48%

Q16. On day 1, The speed of the motorboat in still water was 80 km per hour and the speed of the stream was 20% of the speed of the motorboat in still water and it remained same from day1 to day3 then what is the difference between the total time spent by the motorboat in upstream on day2 and the total time spent by the motorboat in downstream on day3? (approximately)

A) 2 hr 24 minutes

B) 2 hr 36 minutes

C) 3 hr 48 minutes

D) 5 hr 24 minutes

E) 2 hr 21 minutes

Q17. The number of male passengers who travelled on day2 is approximately what percentage of the number of female passengers who travelled only on day2?

A) 182.29%

B) 187.29%

C) 181.28%

D) 178.21%

E) 168.12%

Q18. The ratio of male passengers to female passengers who travelled only on day 3 is?

A) 355 : 173

B) 355 : 161

C) 355 : 175

D) 358 : 178

E) 361 : 189

Q19. The number of male passengers who travelled on day1 and day3 both is approximately what percentage of the number of female passengers who travelled only on day2?

A) 3.01%

B) 5.01%

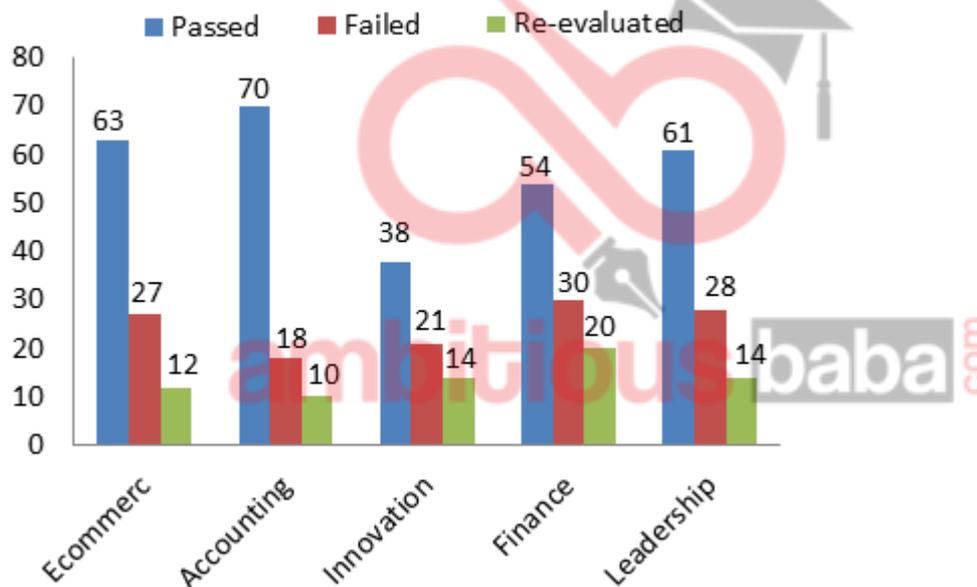
C) 2.01%

D) 1.01%

E) 2.01%

Directions (20 – 23) : Study the following bar chart carefully and answer the questions given beside.

In a particular batch of, IIM DELHI there are 90 students each in four different department's viz. Ecommerce, Accounting, Finance and Leadership. The Innovation department has only 60 students. The following graph shows the number of students passed and failed in the computer paper of the second semester examination. It also shows the number of students who applied for re - evaluation of the same paper. only the students who initially failed in the paper, were eligible to apply for re - evaluation. After re - evaluation, some students passed while the others could not pass even after the re - evaluation. All the failed students along with the absentees have to clear the computer paper next year. The number of passed and failed students, as captured in the following bar chart, only indicates the situation before re - evaluation. The passed and failed students taken together indicate the number of students who appeared in that paper. Difference, if any, between the total number and the appeared number of students from any department is due to the absentees.



Q20. If less than 70% of the students, who applied for re - evaluation, pass after the re - evaluation from each department, then for which department the ratio of passed students to failed students was the maximum after the re - evaluation?

- A) Ecommerce
- B) Accounting
- C) Innovation
- D) Can't determine

E) Finance

Q21. What was the pass percentage of all the streams taken together before re - evaluation ?

- A) 64.08%
- B) 62.06%
- C) 60.04%
- D) 58.02%
- E) 68.1%

Q22. From each department, exactly 50% of the students who applied for re - evaluation failed even after re - evaluation. For which department, the percentage of failed students with respect to the total number of students is the minimum after the re - evaluation?

- A) Accounting
- B) Ecommerce
- C) Innovation
- D) Finance
- E) Leadership

Q23. From each department, exactly 50% of the students who applied for re - evaluation failed even after re - evaluation. How many students from this batch will have to clear the paper next year?

- A) 98
- B) 91
- C) 95
- D) 89
- E) 99

Directions (24 –27) : Study the following information carefully and answer the questions given beside.

Ram goes to a hill station by car. While going upwards (uphill) the consumption of petrol was increased by 25% of the normal consumption of petrol but while going downwards (downhill) the consumption of petrol was decreased by 50% of the normal consumption of petrol. He goes from the point A to the point B. The total distance between point A and point B is 525 km in which the total distance travelled by him uphill is 2.5 times of the total distance travelled by him downhill and the total distance travelled by him on the plane surface is 140 km. While coming back from the point B to point A, he saves 15 litres of petrol and the consumption of petrol is normal on plane surface.

Q24. What is mileage of car in downhill?

- A) 12.5 km

- B) 16.5 km
- C) 11.5 km
- D) 10.5 km
- E) 8.5 km

Q25. If point A to point B were a plane surface then how many litres of petrol he would have consumed more while going and coming back?

- A) 11.67 liters
- B) 9.67 liters
- C) 9.45 liters
- D) 8.46 liters
- E) 7.67 liters

Q26. The quantity (in litres) of petrol consumed for the entire journey (from point A to point B and from point B to point A) is

- A) 112.5 liters
- B) 108.5 liters
- C) 102.5 liters
- D) 115.6 liters
- E) 98.5 liters

Q27. If the speed of car is 55 km per hour on the plane surface and while going uphill, the car's speed was decreased by 25% of the normal speed and while going downhill the car's speed was increased by 50% of the normal speed then approximately how much time he would have taken during the entire journey? (if he returns immediately from point B to point A)

- A) 18.09 hours
- B) 19.09 hours
- C) 17.07 hours
- D) 15.05 liters
- E) 14.04 liters

Q28. What is the difference between the mileage of car on downhill and that on uphill?

- A) 11 km
- B) 9 km
- C) 7 km
- D) 5 km
- E) 3 km

Direction (29 – 33) : Study the following information carefully and answer the questions given beside.

One day, in an SBI Branch the attendance of all the employees was 100% but all the employees were not punctual to the office nor did all the employees stayed till the end of the office time. On that day, of all the employees who arrived early at the office, 20% of them left early but 40% of them left late and rest of them left on time. Of the employees who arrived late at the office, 50% of them left late but 25% of them left on time and rest of them left early. Of the employees who arrived on time, 37.5% of them left early and an equal number of them left late but rest of them left on time. The number of employees who arrived early was equal to the number of employees who left on time and the number of employees who left early was 39 more than the number of employees who arrived late at the office. The number of employees who didn't leave on time was 144.

Q29. What is the difference between the total number of employees who left early and the total number of employees who left late?

- A) 12
- B) 15
- C) 17
- D) 18
- E) 21

Q30. What is the total number of employees working in that branch?

- A) 202
- B) 206
- C) 201
- D) 204
- E) 200

Q31. Find the respective ratio of the number of employees who arrived early, the number of employees who arrived on time, and the number of employees who arrived late?

- A) 5 : 12 : 2
- B) 5 : 9 : 2
- C) 5 : 7 : 1
- D) 5 : 6 : 1
- E) 5 : 10 : 2

Q32. Suppose on the day before yesterday of that day 25% of the total number of employees was on leave on the medical ground and 33.33% of the remaining was on leave for personal reason then how many employees was present on the day before yesterday of that day?

- A) 101
- B) 102

- C) 107
- D) 105
- E) 103

Q33. The total number of employees who left on time was how much percent more than/less than the total number employees who didn't leave on time?

- A) 58.33%
- B) 53.33%
- C) 51.37%
- D) 56.37%
- E) 59.37%

Directions (34 –36): Study the following information carefully and answer the questions given beside.

A fruit seller buys some number of mangoes at the rate of Rs. 5 per mango. On the first day, he sells 25% of the total number of mangoes at 60% profit. On the second day, he sells $\frac{1}{3}$ rd of what was left at the rate of 50% profit. On the third day, he sells 16.67% of what was left at the rate of 25% profit. On the fourth day, he sells 45 mangoes at no loss no profit. Since, the mangoes start spoiling, on the fifth days he throws 25% of the remaining mangoes and sells 48% of what was left at the loss of 10% again on the sixth day, he throws 45 mangoes and sells 50% of what was left at the rate of 40% loss. On the seventh day, he could not do business so he had to throws all the remaining mangoes. The total profit received by the fruit seller on the second day is Rs. 817.5.

Q34. What is the total number of mangoes, the fruit seller had in starting?

- A) 1318
- B) 1308
- C) 1328
- D) 1336
- E) 1348

Q35. What percentage of the total number of mangoes did the fruit seller throw? (approximately)

- A) 9.89%
- B) 12.78%
- C) 21.54%
- D) 7.18%
- E) 21.45%

Q36. What percentage of the total number of mangoes did the fruit seller throw? (approximately)

- A) 11.73%
- B) 9.72%
- C) 2.73%
- D) 18.73%
- E) 1.79%

Directions (37 – 39) : Study the following information carefully and answer the questions given beside.

A group of some students which is less than 1000 decided to go for trekking and registered their name with Trek India company but on the last day only 500 students go for trekking and rest of the students refuse to go. It was the condition of Trek India company that if a student refuse to go on the last day then only 10% of the total ticket amount will be refunded and the price of one ticket is Rs. 150. The Trek India company's executive lost the data of the registered students so he asked the Group leaders, how many of the students refused to go on the last day, the group leader could not recall. However, he recalled that when he counted total number of registered students three at a time then one student was left, when counted five at a time then three students were left, when counted seven at a time then five were left, when he counted four at a time no student was left.

Q37. How much money the Trek India company should refund?

- A) 1720
- B) 1560
- C) 1380
- D) 1920
- E) 1590

Q38. What is the total number of registered student with Trek India Company?

- A) 648
- B) 658
- C) 678
- D) 628
- E) 698

Q39. Suppose, 37.5% of the total number of students, who refused to go for trekking, change the plan and decided to go then The Trek India company also change the condition and decided to refund 12% of the total ticket amount instead of 10% of the total ticket amount. Now how much the Trek India company should refund?

- A) 1200
- B) 1280
- C) 1400
- D) 1480
- E) 1440

Directions (40 –42) : Study the following information carefully and answer the questions given beside.

A central bank has three regional branches in three different cities A, B, and C. The name of each branch is on the name of its city. On January 1, 2015, the total number of employees working in the three regional offices together was 2400 and the number of employees working in the three regional office A, B, and C are 400, 1200, and 800 respectively. The bank has one strange transfer rule and strictly followed. According to the transfer rule, on 1st March of each year, the entire employees of each branch get transferred to other two branches, half going to one and the remaining half going to the other branch. According to the bank requirement policy, on 1st December of each year, it recruits new employees in each branch as 10% of the total number of employees working at that time in the branch and does not recruit any new employees before that. (assume that none of the employees has left the bank in the next three years)

Q40. If none of the employees had left the bank then the bank has recruited total number of how many new employees till Jan, 2017?

- A) 504
- B) 508
- C) 510
- D) 518
- E) 524

Q41. The number of employees working on April 1, 2016 in the branch A was how many less than that working in the branch C at that time?

- A) 108
- B) 118
- C) 104
- D) 110
- E) 102

Q42. On Feb 1, 2017, if the bank offers Rs. 1.5 lakhs to each employee as Holi bonus then total how much money (in Rs. lakhs) bank has distributed among the employees of all the three branches?

- A) Rs. 4364 lakhs

- B) Rs. 4378 lakh
- C) Rs. 4356 lakhs
- D) Rs, 4372 lakh
- E) Rs. 4578 lakh

Directions (43 –47): Study the following information carefully and answer the questions given beside:

There are four studios P, Q, R and S of renowned news channel “The Republic TV”. The number of reporters in studio S is 450 more than the number of reporters in studio R and 1650 less than the number of reporters in studio P. The number of reporters in studio Q is 24 more than 4.6 times of the number of computer operators in that studio. The number of reporters in studio R is 60 less than 3.8 times the no. of computer operators in studio S. The number of computer operators in studio S is 125 more than that of computer operators in studio P and 160 less than that of computer operators in studio Q. The number of computer operators in studio P and that in studio R are 825 and 1200 respectively.

The number of female reporters in studio P is 40% of the total number of reporters in studio Q. The number of female computer operators in studio P is 48% of the total number of computer operators in studio S. The number of male reporters in studio R is 5 times of the number of female computer operators in studio P. The number of male reporters in studio S is double the number of female reporters in studio R. The number of male reporters in studio Q is 2250 more than the number of male reporters in studio R. The number of male computer operators in studio Q is 16% of the total number of reporters of studio S. The number of female computer operators in studio R is 60 less than that of male computer operators in studio Q. The number of male computer operators in studio S is 1.5 times that of female computer operators in studio Q.

Q43. What is ratio of the number of female reporters in studio P and Q together to the number of female reporters in studio R and S together?

- A) 32 : 35
- B) 33 : 37
- C) 31 : 39
- D) 34 : 35
- E) 61 : 79

Q44. What is the approximate sum of the average number of female computer operators in studio Q, R and S together and, the average number of male reporters in those studios?

- A) 3548
- B) 3538
- C) 3542
- D) 3538
- E) 3132

Q45. The number of female computer operators in studios P, R and S together is approximate what per cent of the number of male reporters in studios P and S together?

- A) 19%
- B) 22%
- C) 28%
- D) 21%
- E) 32%

Q46. What is the difference between the number of male reporters in studios P, Q and R together and the number of male computer operators in all the studios together?

- A) 8074
- B) 8096
- C) 8084
- D) 8062
- E) 8080

Q47. In which studio are male reporters the maximum and female computer operators the minimum respectively?

- A) 245
- B) 249
- C) 258
- D) 264
- E) 268

Directions (48 –50) : Study the following information carefully and answer the questions given beside.

Two motorboats namely, A and B start simultaneously from the Point P against the stream and reach the point Q in 16.8 hours and 14 hours respectively. A third motorboat namely C start from point Q with stream and reach the point P in 14 hours. Now, when the motorboat B start from point Q with stream then it takes 10.5 hours to reach the point P.

Further, it is known as when the motorboat C start from the point P against the stream then after travelling for 10 hours, the passenger of the motorboat C encounters a wooden piece floating in the river. The

motorboat C continues going against the stream and once it (the motorboat C) reaches the point Q, it waits there for 6 hours, afterwards it ((the motorboat C) returns towards point P with the stream. While returning it encounters the same wooden piece floating in the river and the passenger of the motorboat C found that the wooden piece is exactly 112 km far from the point where he had encountered the first time while going from the point P to point Q and the motorboat need to travels exactly 3 hours more to reaches the point P.

Q48. What is the distance between point P and Q?

- A) 332 km
- B) 331 km
- C) 338 km
- D) 336 km
- E) 364 km

Q49. If the motorboat B and the motorboat C starts simultaneously from the point P and the point Q respectively towards each other, then what distance from the point P will they meet each other?

- A) 168 km
- B) 172 km
- C) 178 km
- D) 184 km
- E) 189 km

Q50. The motorboat C starts from point P against the stream and after travelling it for 1 hour 45 minutes, the motorboat A starts from point Q with stream. After what distance from the point Q will they meet each other?

- A) 190 km
- B) 196 km
- C) 192 km
- D) 190 km
- E) 188 km

Directions (51-55): Study the following data carefully to answer the questions that follow:

Gaurav, a sweet seller, bought some quantity of three types of sweets Rasgulla, Rasmalai and Kalakand in ratio of 6 : 10 : 9. Kalakand costed him a total of Rs. 18,900 at rate of 420 per kg. By selling Kalakand at a discount of 5% he earned a profit of $13\frac{2}{21}\%$. On Rasmalai (which was marked Rs. 500 per kg) he earned Rs. 5 less profit per kg as compared to that on Kalakand by selling Rasmalai at 10% discount. Gaurav spent a total of Rs. 46,400 on

buying these sweets, while he earned a total profit of Rs. 5875 on selling all bought sweets. Rasgullas were marked 40% above cost price per kg.

Q51. Find the average cost price of three sweets together ?

- A) Rs. 365.8
- B) Rs. 371.2
- C) Rs.420.5
- D) Rs.325.2
- E) Rs.375.2

Q52.If Gaurav gave an extra discount of 20% on Kalakand, then his gain% or loss% was :

- A) $9\frac{11}{21}\%$ profit
- B) $8\frac{11}{21}\%$ loss
- C) $10\frac{11}{23}\%$ loss
- D) $9\frac{11}{21}\%$ loss
- E) 9% loss

Q53. Find the total quantity of sweets bought by Gaurav ?

- A) 135 kg
- B) 126 kg
- C) 125 kg
- D) 120 kg
- E) 130 kg

Q54.If 10kg of Rasmalai was wasted away due to some reason. Find profit% or loss% by selling the remaining Rasmalai as per given condition.

- A) 10% loss
- B) 10% gain
- C) 12% loss
- D) 15% loss
- E) 8%loss

Q55. Cost price per kg of Kalakand was what percent less than marked price per kg of Kalakand ?

- A) 18%
- B) 16%
- C) 15%
- D) 12%
- E) 20%

Directions (Q56-60): Given below is the data about students appeared in two exams i.e., A and B in six different years i.e., 2011 to 2016. Total students

appeared in both exam in 2016 is 8000 while in 2013 it is 5800. Average number of students appeared in exam B in 2011 and 2013 is 3100 and is in the ratio 18 : 13. Students appeared in exam A in year 2015 is $33\frac{1}{3}\%$ more than students appeared in exam B in same year. Total students appeared in 2016 is 25% more than total students appeared in 2011. Students appeared in exam A in 2016 is $62\frac{26}{27}\%$ more than students appeared in exam B in 2015. Ratio of total students appeared in 2016 & 2014 is 16 : 13. Total number of students appeared in exam A in all six years is 21,100. Students appeared in exam B in 2011 is same as student appeared in exam A in 2015. Students appeared in exam A in 2012 is 700 more than that of students appeared in same exam in 2014. Students appeared in exam B in 2014 is 1200 less than that of in same exam in 2012.

Q56. In which year total students appeared in both exam is 3rd highest?

- A) 2012
- B) 2014
- C) 2016
- D) 2011
- E) Other than the given options

Q57. What is the respective ratio between students appeared in exam A in year 2011, 2012 and 2014 together to the students appeared in exam B in year 2013, 2014 and 2016 together?

- A) 95 : 97
- B) 99 : 97
- C) 98 : 97
- D) 99 : 95
- E) 95:99

Q58. Find the difference between average number of students appeared in exam A and average of students appeared in exam B in starting four years?

- A) 250
- B) 225
- C) 215
- D) 200
- E) None of these

Q59. Students appeared in exam A in 2013 is how much less than students appeared in exam B in 2012?

- A) 1400
- B) 1000

- C) 1100
- D) 1200
- E) 1300

Q60. Total number of students appeared in both exam in 2012 is what percent more than total number of students appeared in both exam in 2011?

- A) 25.25%
- B) 28.25%
- C) 31.25%
- D) 34.25%
- E) 37.25%

DIRECTION (61-65): Four traders sold four types of stationary items i.e., Pen, Pencil, Rubber and Disks. Satish sold 162 Pencils which is 12.5% more than pencils sold by Inder. Average of Pen, Pencil and disks sold by Inder is 162. Pen sold by Sanjeev and Inder is in the ratio 9 : 10. Rubber sold by Inder is 60% more than rubber sold by Rawat. Pencil sold by Rawat is same as Disks sold by Satish. Rawat sold $52\frac{4}{13}\%$ more pen then rubber. Total number of stationary items sold by Satish is same as pencils sold by all the four traders which is equal to 650. Average number of disk sold by Satish, Sanjeev and nder is 192. Satish sold 192 rubbers which is 28% more than pen sold by Inder or 50% more than pen sold by Satish. Total number of stationary items sold by Sanjeev is 653 and Disks sold by Rawat is 50% more than rubber sold by Sanjeev. Total number of stationary items sold by Inder is 694.

Q61. Who among the following sold maximum number of stationary items?

- A) Satish
- B) Inder
- C) Sanjeev
- D) Rawat
- E) both (a) and (c)

Q62. Disks sold by Inder is what percent more then pencil sold by Inder?

- A) $66\frac{2}{3}\%$
- B) $33\frac{1}{3}\%$
- C) $38\frac{1}{3}\%$
- D) 50%
- E) $57\frac{1}{3}\%$

Q63. What is the ratio of Pencil sold by Rawat to disk sold by Sanjeev?

- A) 5 : 9
- B) 7 : 11
- C) 4 : 9
- D) 5 : 8
- E) 7 : 9

Q64. Total number of disks sold by all the four traders is how much more than total number of rubber sold by all the four traders?

- A) 99
- B) 107
- C) 109
- D) 117
- E) 97

Q65. Rubber sold by Sanjeev is what percent of the disks sold by Satish?

- A) 37.5%
- B) 50%
- C) 62.5%
- D) 75%
- E) 87.5%

Directions (66-70): There are 1000 students in a college. Out of 1000 students some appeared in exams 'X', 'Y' and 'Z' while some not. Number of student not appeared in any exam is equal to number of students appeared in exam 'Z' only. Number of students appeared in exam 'Y' is 360. Ratio of number of students appeared in exam 'X' and 'Y' only to number of students appeared in exam 'Y' and 'Z' only is 2 : 3. Number of student appeared in exam 'X' and 'Z' both is half of number of students appeared in only exam 'Z'. Number of students appeared in exam 'X' only is 50% more than number of students appeared in 'Y' only. Number of students appeared in all the three exam is 4% of the total number of students in the college. Number of students appeared in 'Y' exam only is same as number of students appeared in 'Y' and 'Z' only.

Q66. How many students appeared in at least two exams?

- A) 240
- B) 260
- C) 300
- D) 360
- E) 500

Q67. How many students appeared in two exams only?

- A) 280

B) 220

C) 340

D) 300

E) 260

Q68. How many students appeared in at most two exams?

A) 240

B) 260

C) 300

D) 500

E) 960

Q69. How many students not appeared in exam Y?

A) 440

B) 360

C) 540

D) 640

E) 560

Q70. How many students appeared in exam X or in exam Z?

A) 240

B) 360

C) 500

D) 680

E) 760

Directions (71- 75): The following information is about the number of posts of officers and clerks available in a bank in 6 different cities. Study it carefully and answer the following questions.

The ratio of total number of officer posts to clerk posts is 73 : 105. The total number of clerk posts is 320 more than the total number of officer posts. 110 officer posts are available in Bangalore which is 85 less than the number of clerk posts in Mumbai. Total 320 posts are available in Delhi, where clerk posts available are 20 more than officer posts. Number of officer posts in Hyderabad is $23\frac{1}{3}\%$ of the officer posts in Delhi. Also, the officer posts in Hyderabad are $17\frac{1}{2}\%$ of the clerk posts in the same city. 149 officer posts are available in Kolkata which is 4 less than the clerk posts available in Lucknow. A total of 321 posts are available in Kolkata which is 52 more than the total post in Lucknow.

Q71. What is the total number of posts available in Mumbai?

A) 355

B) 365

- C) 375
- D) 395
- E) 345

Q72. Total number of posts available in Hyderabad is what percent less than total number of posts available in Bangalore?

- A) $12\frac{26}{27}\%$
- B) $13\frac{26}{27}\%$
- C) $14\frac{26}{27}\%$
- D) $15\frac{26}{27}\%$
- E) $15\frac{26}{27}\%$

Q73. Number of officer posts in Bangalore is 55% of the number of clerk posts of which city?

- A) Bangalore
- B) Mumbai
- C) Delhi
- D) Hyderabad
- E) None of these

Q74. What is the total number of clerks post available in Delhi, Lucknow and Bangalore together?

- A) 485
- B) 483
- C) 490
- D) 493
- E) 438

Q75. Number of clerk posts in Hyderabad is what percent more than the number of officer posts in Delhi?

- A) $25\frac{1}{3}\%$
- B) $40\frac{1}{3}\%$
- C) $50\frac{1}{3}\%$
- D) $60\frac{1}{3}\%$
- E) $33\frac{1}{3}\%$

Direction (76 – 78): Study the following information carefully and the answer the questions.

A cuboidal hall has been painted at the rate of Rs. 8 per m². After painting the hall, cylindrical boxes of radius 0.9 m have been kept in the hall. The total number of boxes kept in the hall is 630 and after keeping all the boxes,

there 64.35 m^3 of the volume remains vacant. An amount of Rs. 2349 has been incurred for paving the floor of the hall with marbles at the rate Rs. 9 per m^2 . The length and the breadth of each marble is 90 cm and 50 cm, respectively. The perimeter of the floor of the hall is 65 m. The ratio of the height of the hall to the height of the cylindrical box is 44:7, respectively.

Q76. Find the difference between the length and the breadth of the hall.

- A) 3.5m
- B) 1.5 km
- C) 7.5 km
- D) 9.5 km
- E) 10.5 km

Q77. Find the number of marbles required to pave the floor.

- A) 560
- B) 580
- C) 520
- D) 640
- E) 720

Q78. Find the cost of painting the hall.

- A) Rs. 7909
- B) Rs. 7340
- C) Rs. 7320
- D) Rs. 7808
- E) Rs. 7860

Directions (79 –83) : Study the following information carefully and answer the questions given beside.

In the Asian game 2018, 300 athletics participated from India. The ratio of males to females was 3:2. There were three cycling races, namely Mountain bike, Road, and Track. In the Mountain bike, there were 40% females of their total number and males was 30% of their total number. In the Road, females were 30% of their total number while males were 50% of their total number. In the track, female participants were 30% of their total number and the number of male participants were 20% of their total number. 15 males and 12 females participated in Mountain bike and road both. 19 males and 13 females participated in Mountain bike and Track both. The number of male participants who participated in Road and Track both was 14 that was equal to the number of female participants who participated in Road and Track both. 6 female participants and 7 male participants participated in all the three races.

Q79. What was the ratio of male participants to female participants only in Mountain bike?

- A) 27 : 31
- B) 27 : 35
- C) 27 : 39
- D) 27 : 29
- E) 26 : 29

Q80. The total number of athletics who participated only in Track was what percentage of the total number of athletics who participated from India?

- A) 8.33%
- B) 2.83%
- C) 11.33%
- D) 13.33%
- E) 15.33%

Q81. By what percentage the number of male participants who participated only in Mountain bike was more than the number of female participants who participated only in Road?

- A) 69.75%
- B) 68.75%
- C) 72.75%
- D) 76.75%
- E) 85.75%

Q82. What was the ratio of the number of male participants who participated in Mountain bike and Road both to the number of female participants who participated only in Road?

- A) 3.6 : 3
- B) 4.8 : 1
- C) 4.9 : 1
- D) 3.6 : 1
- E) 5.6 : 1

Directions (84–88) : Study the following information carefully and answer the questions given beside.

In a science university, there are only five departments in PG programs -- Physics, Chemistry, Botany, Mathematics and Ecology. Each student is eligible for the enrolment in only one of the departments. In the year 2016, there were total 6000 students who enrolled for the first year of the post-graduation program. Out of the total students in the first year, there were 18% students who were enrolled into Chemistry, 37% of the students were

enrolled into Physics. The ratio of students enrolled in the Ecology and Botany department was 17:19 and only 9% of the total students, were enrolled in the Mathematics. The ratio of boys to girls in Mathematics was 7:2 and the ratio of boys enrolled in Botany to the number of the girls enrolled in the same department was 17:21. The number of boys in Ecology was five times the number of girls in the same department. Also the number of boys in Ecology was 480 more than the number of boys in the Physics. There were 45% girls in Chemistry.

Q84. Out of the total students, what was the approximate percentage of boys enrolled in Ecology?

- A) 12.17%
- B) 10.17%
- C) 9.17%
- D) 14.17%
- E) 8.17%

Q85. Out of total students, what is the difference of percentage of girls enrolled in Physics to the percentage of girls enrolled in Mathematics?

- A) 27.83%
- B) 21.85%
- C) 25.89%
- D) 24.87%
- E) 28.83%

Q86. Suppose in the second year in the university, 50% of the girls who enrolled in Chemistry opted Physics and 20% of the girls who enrolled in Physics opted Chemistry. What would be the difference between number of girls in Physics in the second year and number of girls in Chemistry in the second year?

- A) 1180
- B) 1160
- C) 1140
- D) 1110
- E) 1120

Q87. Suppose in the second year of the university, 30% of the students from Botany migrated to Mathematics, out of which 50% were boys. What will be the new ratio of boys to girls in Mathematics in the second year?

- A) 197 : 97
- B) 197 : 95
- C) 181 : 87

D) 185 : 91

E) 183 : 97

Q88. In the final year, the total number of students who were passed with distinction was only 18% out of total, out of which the ratio of boys to girls was 5: 4. In Physics only boys have passed with distinction and their percentage were 35% of total boys passed with distinction and 120 girls from Ecology who have passed with distinction. Remaining students who passed with distinction were from Chemistry only and not a single boy from Ecology has passed with distinction. What will be the ratio of boys to girls in Chemistry who have passed with distinction?

A) 11 : 12

B) 13 : 12

C) 17 : 19

D) 17 : 21

E) 18 : 29

Directions (89 –91) : Study the following information carefully and answer the questions given beside.

There is a group of five students i.e. (A, B, C, D, and E). The average weight of A, B, and D together is 4 kg more than the average weight of C and E. A test of 100 marks has been held. The average marks scored by B, D, and E together is 16 marks less than the marks scored by A. The average marks of all the five students is 80 and A scored the highest marks. The difference between the marks of A and the marks of C is 2. There is only one student in the group who scored 67 marks and the weight of that student is 47 kg.. The average marks of B and E are 77.5 marks while the average weight of C and E is 35 kg. The weight of A is 32 kg.

Q89. Find the marks obtained by A.

A) 75

B) 96

C) 84

D) 90

E) 72

Q90. Find the weight of B.

A) 42 kg

B) 38 kg

C) 48 kg

D) 52 kg

E) 56 kg

Q91. Find the average weight of all five students.

- A) 37.4 kg
- B) 39.4 kg
- C) 47.5 kg
- D) 41.8 kg
- E) 48.5 kg

Directions (92–96) : Study the following information carefully and answer the questions given beside.

A dance competition of five dance forms i.e. Bharatanatyam, Kathak, Kuchipudi, Odissi and Manipuri was held in a city and one participant can take part in only one among these. Total number of participants who participated in Kathak are 3 times the total number of participants who participated in Odissi. Maximum number of participants participated in Bharatanatyam which is 86 more than the total number of participants participated in Manipuri. 9.2 % of total participants participated in Kuchipudi while 33.2% of total participants participated in Bharatanatyam. The ratio of number of participants participated in Manipuri to Odissi is 20:13. Total number of participants participated in Kathak are 156.

Q92. How many participants participated in Kuchipudi?

- A) 42
- B) 40
- C) 36
- D) 46
- E) 32

Q93. The number of participants participated in Manipuri is what percent of the total number of participants who participated in all the dance forms together?

- A) 12%
- B) 16%
- C) 14%
- D) 18%
- E) 10%

Q94. What is the difference between the number of participants who participated in Bharatanatyam and Odissi?

- A) 112
- B) 114
- C) 118
- D) 124
- E) 128

Q95. The ratio of number of male participants to female participants in Manipuri dance form is 5:11. Find the number of female participants of Manipuri dance form.

- A) 55
- B) 50
- C) 52
- D) 56
- E) 64

Q96. One participant from all the participants was awarded the 'certificate of best dancer'. What is the probability that the participant is from Odissi dance form.

- A) 13 :128
- B) 13 : 125
- C) 15 : 127
- D) 129 : 128
- E) None of these

Directions (97 – 100) : Study the following information carefully and answer the questions given beside.

Two shopkeepers Mr. Singh and Mr. Gupta sold five different articles i.e. biscuit, chocolate, chips, kurkure, and cake. The total number of cake sold by Mr. Singh is same as the total number of chips sold by Mr. Gupta and the ratio of the number of biscuits and the number of chocolate sold by Mr. Singh is 3:4 respectively. The total number of biscuits sold by Mr. Gupta is twice the total number of kurkure sold by Mr. Singh. The total number of chocolate sold by both Mr. Singh and Mr. Gupta is 308 while the total number of chips sold by Mr. Singh is 92. The number of chocolate sold by Mr. Gupta is 57 more than the number of kurkures sold by Mr. Gupta and the total number of kurkures sold by Mr. Gupta is 91. The total number of articles sold by Mr. Singh is 535 and the number of chips sold by Mr. Gupta is 92 less than the number of biscuits sold by Mr. Gupta. The total number of cakes sold by Mr. Gupta is 107.

Q97. What is the total number of cakes sold by both Mr. Singh and Mr. Gupta together?

- A) 165
- B) 185
- C) 180
- D) 160
- E) 175

Q98. What is the total number of biscuits sold by Mr. Gupta?

- A) 170
- B) 180
- C) 160
- D) 130
- E) 140

Q99. What is the difference between the number of chocolate sold by Mr. Singh and Mr. Gupta?

- A) 11
- B) 12
- C) 5
- D) 2
- E) 4

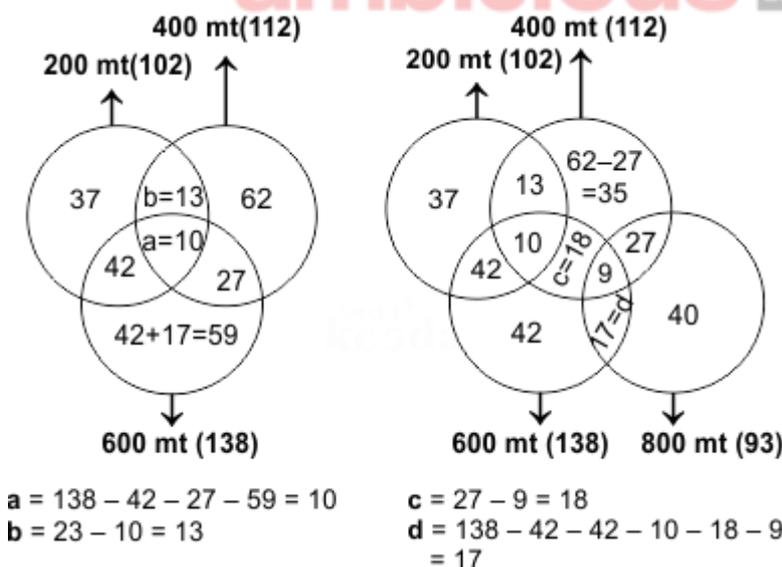
Q100. What is the total number of chips sold by both Mr. Singh and Mr. Gupta together?

- A) 180
- B) 160
- C) 150
- D) 120
- E) 170

SOLUTIONS

Q(1 –5)Common explanation :

Based on the paragraph, we can draw the following venn diagrams.



Q1. Ans(D)

Explanation:

Following common explanation, we get,

$$10 + 18 + 9 = 37$$

Q2. Ans(A)

Explanation:

Following common explanation we get,

$$\text{The required percentage} = \frac{(17 - 13) \times 100}{17} = \frac{400}{17} = 23.53\%$$

Q3. Ans(C)

Explanation:

Following common explanation we get,

$$42 + 13 + 27 = 82$$

Q4. Ans(B)

Explanation:

Following common explanation we get,

$$42 + 17 + 27 + 13 = 99$$

The total number of athletes participated in 2014 = 250 + 40 = 290

$$\text{The required} = \frac{99 \times 100}{290} = \text{approximately } 34.14\%$$

Q5. Ans(E)

Explanation:

Following common explanation, we get,

$$37 + 62 + 59 = 158$$

Q(6 –9)Common explanation :

The speed of Saurabh = 80 km per hour

The total distance travelled by him in the first $7/2$ hours = 280 km

Now, speed becomes 50% of 80 km/hr = 40 km per hour, the total distance travelled by his at this speed in $3/2$ hours = 60 km

The total distance travelled by him in the truck = 450 km

The total distance travelled by him by another vehicle in 2 hrs @ 100 km per hr = 200 km

After getting down from another vehicle, the destination was 250 km far from there on road

Therefore, the total length of race = $280 + 60 + 450 + 200 + 250 = 1240$ km

And the total time taken by Saurabh to reach destination B

$$= \frac{7}{2} + \frac{3}{2} + \frac{1}{2} + \frac{1}{2} + \frac{450}{45} + 2 + \frac{105}{35}$$

$$= 6 + 10 + 2 + 3 = 21 \text{ hours}$$

Q6. Ans(D)

Explanation:

The total time taken by Suman to cover 1240 km @ 60 km per hour

$$= \frac{62}{3} \text{ hours}$$

Suman beats Mohan by 124 km it means Mohan travels only $(1240 - 124)$

$$= 1116 \text{ km in } \frac{62}{3} \text{ hr}$$

$$\text{The speed of Mohan} = \frac{1116}{62/3} = 54 \text{ km per hour}$$

If Saurabh had travelled the entire journey on road by car with a uniform speed then the time he would have taken

$$= \frac{1240}{80} = 15.5 \text{ hrs}$$

The total distance travelled by Mohan in 15.5 hrs = $54 \times 15.5 = 837 \text{ km}$

The remaining distance = $1240 - 837 = 403 \text{ km}$

The time Mohan would have taken to travel 403 km

$$= \frac{403}{54} \text{ hrs} = 403 \times \frac{60}{54}$$

= approximately 447.78 = 448 minutes = 7 hrs 28 minutes

Q7. Ans(A)

Explanation:

If Saurabh's car has not been punctured then he would have travelled at the speed of 80 km per hr

$$\text{The time he would have taken} = \frac{1240}{80} = 15.5 \text{ hrs}$$

The distance Suman would have covered in 15.5 hr = $15.5 \times 60 = 930 \text{ km}$

The required distance = $1240 - 930 = 310 \text{ km}$

Q8. Ans(B)

Explanation:

25% of 1240 = 310 km @ 60 km per hr, time

$$= \frac{310}{60} \text{ hr} = 310 \times \frac{60}{60} = 310 \text{ min} = 5 \text{ hrs } 10 \text{ min}$$

The total distance travelled by him in the next 30 min @ 10 km per hr = 5 km

Now, he will cover the remaining distance @ 125% of 60 = 75 km per hour

The remaining distance = 1240 - 315 = 925 km

The time he will take to cover 925 km @ 75 km per hr

$$= 925 \times \frac{60}{75} = 740 \text{ minutes} = 12 \text{ hrs } 20 \text{ min}$$

The total time taken by him = 5 hrs 10 mins + 30 min + 15 min + 12 hrs 20 min = 18 hrs 15 mins

The distance covered by Saurabh in 18 hrs 15 min = The speed of Saurabh = 80 km per hour

The total distance travelled by him in the first $7/2$ hours = 280 km

Now, speed becomes 50% of 80 km/hr = 40 km per hour, the total distance travelled by his at this speed in $3/2$ hours = 60 km

After that he tried to change the tyre for 30 minutes but it was in vain so he left the car there and started waiting to get lift.

After another half an hour he got lift in a truck

The total distance travelled by him in the truck = 450 km

The total distance travelled by him by another vehicle in 2 hrs at 100 km per hr = 200 km

$$\frac{7}{2} + \frac{3}{2} + \frac{1}{2} + \frac{1}{2} + 10 + 2 = 18 \text{ hrs}$$

After 18 hrs, he started running at 35 km per hr

Since we don't have any information about the shorter route and he would have travelled some distance in 15 mins therefore it is not possible to find how far we will when Suman reaches destination so we cannot determine the answer

Q9. Ans(E)

Explanation:

In total 21 hrs, Saurabh complete the race

The distance Suman would have travelled in 21 hrs at 45 km per hr = 945 km

It means, Saurabh would be winner and he would have defeated Suman by $1240 - 945 = 295$ km

Q(10 –14):**Common Explanation:**

Expenses of Patna Rock = 12 million

Expenses of Mumbai Rock = 90% of 12 million

$$= \frac{90 \times 12}{100} = 10.8 \text{ million}$$

Given that profit of Mumbai Rock = 10.75% of its sales

Or, 10.75% of sales = profit = sales - expenses

Or, expenses of Mumbai Rock = $(100 - 10.75) = 89.25\%$ of sales

Or, 10.8 million = 89.25% of sales

$$\text{Or, sales of Mumbai Rock} = \frac{10.8}{89.25} \times 100 = 12.1 \text{ million}$$

Therefore, profit of Mumbai Rock = sales - expenses = $(12.1 - 10.8) = 1.3$ million

Now, expenses of Patna Rock = 2.5 times of its profit

$$\text{Or, profit of Patna Rock} = \frac{12}{2.5} = 4.8 \text{ million}$$

Or, profit = sales - expenses \Rightarrow sales of Patna Rock = 4.8 + expenses = 4.8 + 12 = 16.8 million

Profit of Pune Rock = profit of Patna Rock = 4.8 million

Also, sales of Delhi Rock = sales of Patna Rock = 16.8 million

Profit of Delhi Rock = 20% of its sales

$$= \frac{20 \times 16.8}{100} = 3.36 \text{ million}$$

And sales of Pune Rock = 1.5 times of its profit = $(1.5 \times 4.8) = 7.2$ million.

On the basis of calculation,

Name of team	Sales (in Millions)	Expenses (in Millions)	Profit (in Millions)
Mumbai Rock	12.1	10.8	1.3
Delhi Rock	16.8	13.44	3.36
Patna Rock	16.8	12	4.8
Pune Rock	7.2	2.4	4.8

Q10. Ans(A)

Explanation:

$$\text{Required percentage} = \frac{\text{Profit of Pune Rock}}{\text{Sales of Pune Rock}} \times 100 = \frac{4.8}{7.2} \times 100 = 66.67\%$$

Q11. Ans(B)

Explanation:

$$\text{Required percentage} = \frac{\text{Total profits of all four teams together}}{\text{Total sales all four teams together}} \times 100$$

$$= \left(\frac{1.3 + 3.36 + 4.8 + 4.8}{12.1 + 16.8 + 16.8 + 7.2} \right) \% = \left(\frac{14.26}{52.9} \right) \times 100\% = 26.96\%$$

Q12. Ans(C)

Explanation:

team	Profit (in Millions)	% donation	Donation (in Millions)
Mumbai Rock	1.3	20	0.26
Delhi Rock	3.36	40	1.34
Patna Rock	4.8	10	0.48
Pune Rock	4.8	50	2.4

	Total 14.26		Total = 4.48
--	----------------	--	-----------------

$$\text{Required percentage} = \left(\frac{4.48}{14.26}\right) \times 100 \% = 31.41\%$$

Q13. Ans(D)

Explanation:

Name of team	Sales (in Millions)	Profit (in Millions)	Efficiency
Mumbai Rock	12.1	1.3	10.74
Delhi Rock	16.8	3.36	20
Patna Rock	16.8	4.8	28.57
Pune Rock	7.2	4.8	66.66

Pune rock has highest efficiency

Q14. Ans(C)

Explanation:

Name of team	Sales (in Millions)	Profit (in Millions)
Mumbai Rock	12.1	1.3
Delhi Rock	16.8	3.36
Patna Rock	16.8	4.8
Pune Rock	7.2	4.8

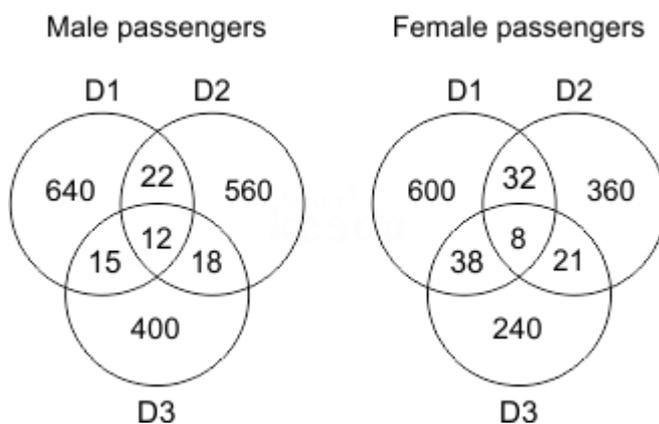
$$\text{Average sales} = \frac{12 + 16.8 + 16.8 + 7.2}{4} = 13.22$$

$$\text{Average Profit} = \frac{1.3 + 3.36 + 4.8 + 4.8}{4} = 3.56$$

$$\text{Required, ratio} = \frac{13.22}{3.56}$$

Q(15 –19) Common explanation :-

Day	Upstream (700 km)	Downstream (800 km)	Male passengers (1600)	Female passengers (1200)
Day1	30% of 700 = 210 km	50% of 800 = 400	40% of 1600 = 640	50% of 1200 = 600
Day2	45% of 700 = 315 km	20% of 800 = 160 km	35% of 1600 = 560	30% of 1200 = 360
Day3	25% of 700 = 175 km	30% of 800 = 240 km	25% of 1600 = 400	20% of 1200 = 240
D1 + D2			22	32
D2 + D3			18	21
D3 + D1			15	38
D1 + D2 + D3			12	8



Q15. Ans(D)

Explanation:

The number of male passengers travelled only in day 1 = $(640 - 22 - 15 - 12)$
 = 591

The number of female passengers travelled only in day 3 = $(240 - 38 - 21 - 8)$
 = 173

Average = $(591 + 173) / 2 = 382$

The required difference = $\frac{591 - 173}{382} \times 100 = 109.42\%$

Q16. Ans(A)

Explanation:

Speed of the motorboat in still water = 80 km per hour

The speed of the stream = 20% of 80 = 16 km per hour

The total distance travelled by the motorboat in upstream on day 2 = 315 km

Speed of the motorboat in upstream = $80 - 16 = 64$ km per hour

Time = $\frac{315}{64}$ hrs = approximately 4.9 hrs = 4 hrs 54 minutes

The total distance travelled by the motorboat in downstream on day 3 = 240 km

Speed of the motorboat in downstream = $80 + 16 = 96$ km per hour

Time = $\frac{240}{96} = \frac{30}{12} = \frac{10}{4} = 2.5$ hrs = 2 hrs 30 minutes

The required difference = 4 hrs 54 mins - 2 hrs 30 mins = 2 hrs 24 mins

Q17. Ans(B)

Explanation:

The number of male passengers who travelled on day2 = 560

The number of female passengers who travelled only on day2 = $(360 - 32 - 8 - 21) = 299$

The required = $\frac{560}{299} \times 100 = 187.29\%$ approximately

Q18. Ans(A)

Explanation:

The number of male passengers who travelled only on day3 = $(400 - 15 - 12 - 18) = 355$

The number of female passengers who travelled only on day3 = $(240 - 38 - 8 - 21) = 173$

The required Ratio = 355 : 173

Q19. Ans(B)

Explanation:

The number of male passengers who travelled on day1 and day3 both = 15

The number of female passengers who travelled only on day2 = $(360 - 32 - 8 - 21) = 299$

The required = $\frac{15 \times 100}{299} = 5.01\%$ approximately

Q(20–24). Common Explanation:

Maximum number of additional students who passed from Ecommerce is (less than 70% of 12) = 8

Maximum number of additional students who passed from Accounting is (less than 70% of 10) = 6

Maximum number of additional students who passed from Innovation is (less than 70% of 14) = 9

Maximum number of additional students who passed from Finance is (less than 70% of 20) = 13

Maximum number of additional students who passed from Leadership is (less than 70% of 14) = 9

Number of students who passed in Ecommerce = $63 + 8 = 71$

Number of students who passed in Accounting = $70 + 6 = 76$

Number of students who passed in Innovation = $38 + 9 = 47$

Number of students who passed in Finance = $54 + 13 = 67$

Number of students who passed in Leadership = $61 + 9 = 70$

Q20. Ans(D)

Explanation:

Ratio of students who passed to students who failed in Ecommerce = $71 : 19$

Ratio of students who passed to students who failed in Accounting = $76 : 12$

Ratio of students who passed to students who failed in Innovation = $47 : 12$

Ratio of students who passed to students who failed in Finance = $67 : 17$

Ratio of students who passed to students who failed in Leadership = $70 : 19$

Clearly ratio is the maximum for Accounting in this case. But if we assume that no additional student passed from accounting, then the ratio is maximum for Finance department.

Q21. Ans(E)

Explanation:

Pass percentage of the whole batch

$$= \frac{63 + 70 + 38 + 54 + 61}{90 + 90 + 60 + 90 + 90} \times 100 = 68.1\%$$

Q22. Ans(A)

Explanation:

Number of students who failed in Ecommerce = $27 - 6 = 21$

Number of students who failed in Accounting = $18 - 5 = 13$

Number of students who failed in Innovation = $21 - 7 = 14$

Number of students who failed in Finance = $30 - 10 = 20$

Number of students who failed in leadership = $28 - 7 = 21$

Percentage of students who failed in Ecommerce

$$= \frac{21}{90} \times 100 = 23.3\%$$

Percentage of students who failed in Accounting

$$= \frac{13}{90} \times 100 = 14.4\%$$

Percentage of students who failed in Innovation

$$= \frac{14}{60} \times 100 = 23.3\%$$

Percentage of students who failed in Finance

$$= \frac{20}{90} \times 100 = 22.2\%$$

Percentage of students who failed in Leadership

$$= \frac{21}{90} \times 100 = 23.3\%$$

∴ Minimum percentage of students who failed is from Accounting

Q23. Ans(E)

Explanation:

Total students who failed even after applying for re - evaluation = $21 + 13 + 14 + 20 + 21 = 89$

Total number of students who would appear next year = failed + absentees
 $= 89 + (2 + 1 + 6 + 1) = 99$.

Q(24 –27): Common explanation :

Let the normal consumption of petrol = $4x$ litres per kilometre

While going Uphill, consumption of petrol = $5x$ litres per km (While going upwards (uphill) the consumption of petrol was increased by 25% of the normal consumption of petrol)

While going downhill, consumption of petrol = $2x$ litres per kilometre (while going downwards (downhill) the consumption of petrol was decreased by 50% of the normal consumption of petrol)

The total distance between A and B = 525 KM

Let the total distance travelled by him downhill = d km then, the total distance travelled by him uphill = $2.5d$ km

According to the question,

$$2.5d + d + 140 = 525$$

$$\text{By solving, } d = \frac{385}{3.5} = 110 \text{ km}$$

$$\text{Total uphill distance} = 110 \times 2.5 = 275 \text{ km}$$

$$\text{Total downhill distance} = 110 \text{ km}$$

While going from the Point A to point B, the car will consume total petrol of

$$5x \times 275 + 2x \times 110 + 4x \times 140 \text{ litres} = 2155x \text{ litres} \dots\dots\dots(i)$$

While coming from point B to point A, plane surface will be plane only but downhill distance will become uphill and the uphill distance will become downhill then plane surface distance = 110 km

Downhill distance = 275 km, uphill distance = 110 km

The total consumption of petrol while coming back from the point B to point A = $2x \times 275 + 5x \times 110 + 4x \times 140 = 1660x$ litres (II)

According to the question, while coming back from the point B to point A, he saves 7 litres of petrol

It means, $2155x - 1660x = 15$ litres

$$x = \frac{15}{495} = \frac{1}{33}$$

Q24. Ans(B)

Sol.

Explanation:

$$2x \text{ litre per kilometre} = \frac{2}{33} \text{ litre per kilometre}$$

$$= 1 \text{ litre per } 16.5 \text{ kilometres}$$

Q25. Ans(A)

Explanation:

The total petrol consumption while going and coming back

$$= \frac{2155}{33} + \frac{1660}{33} = \frac{3815}{33} \text{ litres}$$

The mileage of car on the plane surface = 4x litre per km
 = $4 \times \underline{1}$ litre per kilometre

33

While going and coming back, the total distance = $525 \times 2 = 1050$ km

$$1 \text{ km} = \frac{4}{33} \text{ litre}$$

$$1050 \text{ km} = 1050 \times \frac{4}{33} \text{ litre} = \frac{4200}{33} \text{ litres}$$

$$\text{Required. difference} = \frac{4200}{33} - \frac{3815}{33} = \frac{385}{33} \text{ litres} = 11.67 \text{ litres}$$

Q26. Ans(D)

Explanation:

The total petrol consumption while going and coming back

$$= \frac{2155}{33} + \frac{1660}{33} = \frac{3815}{33} \text{ litres} = 115.6 \text{ litres}$$

Q27. Ans(B)

Explanation:

While going from Point A to point B, Distance = 275 km uphill + 110 km downhill + 140 km on the plane surface ----- (i)

While coming back from the point B to point A

Distance = 140 km on the plane surface + 110 km uphill + 275 km downhill ----- (ii)

The total distance while going and coming back = 280 km on the plane surface + 385 km uphill + 385 km downhill (by adding equation (i) and equation (ii))

On the plane surface, the speed of car = 55 km per hr

On uphill, the speed of the car = 75% of 55 = 41.25 km per hour

On downhill, the speed of the car = 150% of 55 = 82.50 km per hour

$$\text{The total time taken} = \frac{280}{55} + \frac{385}{41.25} + \frac{385}{82.50}$$

$$= 5.09 + 9.33 + 4.67 = 19.09 \text{ hours approximately}$$

Q28. Ans(A)

Explanation:

The required difference = $5x - 2x = 3x = 3/33 = 1/11$ litres per kilometres = 1 litres per 11 kilometres

Q(29 –33):

Common Explanation :

Let the number of employees who arrived early = $5x$

The number of employees who left early = 20% of $5x = x$

The number of employees who left late = 40% of $5x = 2x$

The number of employees who left on time = $5x - 3x = 2x$

Let the number of employees who arrived late at the office = $4z$

The number of employees who left late = 50% of $4z = 2z$

The number of employees who left on time 25% of $4z = z$

The number of employees who left early = $4z - 3z = z$

Let the number of employees who arrived on time = $8y$

The number of employees who left early = 37.5% of $8y = 3y =$ The number of employees who left late

The number of employees who left on time = $8y - 6y = 2y$

	Early	On time	Late
Arrived	$5x$ (assume)	$8y$ (assume)	$4z$ (assume)

Left	$X + 3y + z$	$2x + z + 2y$	$2x + 2z + 3y$
------	--------------	---------------	----------------

According to the question, $5x = 2x + z + 2y$

$$3x = z + 2y \text{ ----- (i)}$$

The number of employees who didn't arrive on time = $x + 3y + z + 2x + 2z + 3y = 144$

$$3x + 3z + 6y = 144$$

From the equation (i), $9x = 3z + 6y$ ----- (ii)

$$\text{Therefore, } 3x + 9x = 12x = 144$$

$$X = 12$$

Again, according to the question, $x + 3y + z = 4z + 39$

$$3y - 3z = 27 \text{ ----- (iii)}$$

Adding equation (ii) and equation (iii)

$$9y = 9x + 27$$

$$Y = x + 3 = 12 + 3 = 15$$

From the equation (iii)

$$3z = 45 - 27 = 18$$

$$Z = 6$$

Q29. Ans(D)

Explanation:

The following common explanation, we get

	Early	On time	Late
--	-------	---------	------

Arrived	5x (assume)	8y (assume)	4z (assume)
Left	$X + 3y + z$	$2x + z + 2y$	$2x + 2z + 3y$

the total number of employees who left early = $X + 3Y + Z = 12 + 45 + 6 = 63$

the total number of employees who left late = $2X + 2Z + 3Y = 24 + 12 + 45 = 81$

The required difference = $81 - 63 = 18$

Q30. Ans(D)

Explanation:

The following common explanation, we get

the total number of employees working in that branch = $5x + 8y + 4z = 60 + 120 + 24 = 204$

Q31. Ans(E)

Explanation:

The following common explanation, we get

The respective ratio = $5x : 8y : 4z = 60 : 120 : 24 = 5 : 10 : 2$

Q32, Ans(B)

Explanation:

The following common explanation, we get

The total number of employees working in that branch = $5x + 8y + 4z = 60 + 120 + 24 = 204$

of the total number of employees was on leave on the medical ground = $25\% \text{ of } 204 = 51$

Remaining = $204 - 51 = 153$

The number of employees who was on leave for personal reason = $33.33\% \text{ of } 153 = 51$

The number of employees present on the day before yesterday of that day = $153 - 51 = 102$

Q33. Ans(A)

Explanation:

The following common explanation, we get

The number of employees who left on time = $2x + z + 2y = 24 + 6 + 30 = 60$

The number of employees who didn't leave on time = $x + 3y + z + 2x + 2z + 3y = 3x + 6y + 3z = 36 + 90 + 18 = 144$

The required percentage = $\frac{(144 - 60) \times 100}{144} = \frac{84 \times 100}{144} = 58.33\%$ approx.

Q(34 –36)

Common explanation :

Let the total number of mangoes, the fruit seller had in starting = x

On the first day, he sold 25% of the total number of the mangoes then the remaining

$$= 75\% \text{ of } x = \frac{3x}{4}$$

On the second day, he sells 1/3rd of the what was left @ 50% profit

It means, 1/3rd of $\frac{3x}{4} = \frac{x}{4}$ mangoes

The cost price of $\frac{x}{4}$ mangoes = Rs. $x \times \frac{5}{4}$

When it was sold at 50% profit then total profit would be

$$50\% \text{ of } \frac{5x}{4} = \frac{5x}{8} = 817.5$$

By solving,

$$x = 817.5 \times \frac{8}{5} = 1308 = \text{The total number of mangoes}$$

Q34, Ans(B)

Explanation:

Following common explanation, we get

The total number of mangoes, the fruit seller had in starting is 1308

Q35. Ans(D)

Explanation:

Following common explanation, we get

Day 1, 25% of the total mangoes @ 60% profit 25% of 1308 @ 60% profit 327 mangoes @ 60% profit, Total SP

$$= 327 \times 5 \times \frac{160}{100} = \text{Rs. } 2616$$

Remaining, $1308 - 327 = 981$

Day2, $\frac{1}{3}$ of 981 = 327 mangoes @ 50% profit,

$$\text{Total SP} = 327 \times 5 \times \frac{150}{100} = \text{Rs. } 2452.5$$

Remaining $981 - 327 = 654$

$$\text{Day3, } 16.67\% \text{ of } 654 = \frac{654}{6}$$

= 109 mangoes @ 25% profit, Total SP

$$= 109 \times 5 \times \frac{125}{100} = 681.25$$

Remaining, $654 - 109 = 545$

Day4, 45 mangoes at no loss no profit, Total SP = $45 \times 5 = \text{Rs. } 225$

Remaining, $545 - 45 = 500$

Day5, 25% of 500 = 125 mangoes he throws

Then, the remaining mangoes = $500 - 125 = 375$

Now he sells 48% of 375 = 180 mangoes @ 10% loss,

$$\text{Total SP} = 180 \times 5 \times \frac{90}{100} = \text{Rs. } 810$$

$$\text{Remaining, } 375 - 180 = 195$$

Day6, he throws 45 mangoes and sells 50% of what was left at the rate of 40% loss.

The remaining number of mangoes after throwing 45, $195 - 45 = 150$ mangoes

$$50\% \text{ of } 150 = 75 \text{ mangoes @ } 40\% \text{ loss}$$

$$\text{The Total SP} = 75 \times 5 \times \frac{60}{100} = \text{Rs. } 225$$

$$\text{The remaining mangoes} = 150 - 75 = 75$$

Day7, he could not do business so he had to throw all the remaining mangoes.

$$\text{Total CP} = 1308 \times 5 = \text{Rs. } 6540$$

$$\text{Total SP} = 2616 + 2452.5 + 681.25 + 225 + 810 + 225 = \text{Rs. } 7009.75$$

$$\text{The required percentage} = \frac{(7009.75 - 6540) \times 100}{6540} = 7.18\% \text{ approximately}$$

Q36. Ans(D)

.

Explanation:

Following common explanation, we get

From the above solution, The total number of mangoes, The fruit seller throws = Day5 125 mangoes, Day6 45 mangoes, Day7 75 mangoes = $125 + 45 + 75 = 245$

$$\text{The reqd. \%} = \frac{245 \times 100}{1308} = 18.73\%$$

1308

Q(37 –39):**Common explanation :**

Let the total number of students = P

Then, according to the question, when he counted total number of students three at a time then one student was left, when counted five at a time then three students were left, when counted seven at a time then five were left, when he counted four at a time no student was left

It means, when P is divided by 3 then our remainder is 1, when divided by 5 then our remainder is 3, when divided by 7 then our remainder is 5 but when divided by 4 then our remainder is 0

LCM of 3, 5, 7 = 105

Here, $3 - 1 = 2$, $5 - 3 = 2$, $7 - 5 = 2$

It means $105 - 2 = 103$ will give a remainder of 1, 3, and 5 respectively when divided by 3, 5, and 7 respectively

But according to the question P is exactly divisible by 4

Therefore, let the number is $(105P - 2)$ which is exactly divisible by 4

The value of P can be 2, 6, 10 and so on...

If we take $P = 2$ then total students = $(105 \times 2 - 2) = 208$ [but as 500 students go for trekking the total students cannot be 208]

So, $P = 2$ is eliminated.

Now taking $P = 6$

The number of students = $(105P - 2) = 628$ which is less than 1000 and only one possible number between 0 and 1000.

The next possible value of P can be 10 but the number will become more than 1000

Therefore, the total number of students registered = 628

Q37. Ans(D)

Explanation:

Following common explanation, we get

The total number of students refused to go = $628 - 500 = 128$

The total amount the trek India company will refund = 10% of $128 \times 150 = 1920$

Q38. Ans(D)

Explanation:

Following common explanation, we get

The total number of registered students = 628

Q39. Ans(E)

Explanation:

Following common explanation, we get

The total number of students who refused to go for trekking = 128

The total number of students who changed their mind = 37.5% of 128 = 48

The total number of students who still didn't go = $128 - 48 = 80$

The trek India company should refund 12% of $80 \times 150 = 1440$

Q(40 –42)Common explanation :

On January 1, 2015, the total number of employees in the regional office A = 400

In Regional office B = 1200

In Regional office C = 800

On March 1, 2015,

Total number of employees in A = $600 + 400 = 1000$

In B = $200 + 400 = 600$

In C = $200 + 600 = 800$

On Dec 1, 2015

The bank recruit total number of new employees in branch A = 10% of 1000
= 100

Total number of employees in the branch A = $1000 + 100 = 1100$

In branch B, 10% of 600 = 60

Total number of employees in the branch B = $600 + 60 = 660$

In branch C, 10% of 800 = 80

Total number of employees in the branch C = $80 + 800 = 880$

Again, on the March 1, 2016, the entire employees of each branch get transferred to other two branches, half going to one and the remaining half going to the other branch

The number of employees in branch A = $330 + 440 = 770$

In branch B = $550 + 440 = 990$

In branch C = $550 + 330 = 880$

Now, on Dec 1, 2016, the bank will recruit the total number of new employees in branch A = 10% of 770 = 77

In branch B = 10% of 990 = 99

In branch C = 10% of 880 = 88

Q40. Ans(A)

Explanation:

Following the common explanation, we get

Total number of new employees was recruited on Dec 1, 2015 = 100 + 60 + 80 = 240

On Dec 1, 2016 = 77 + 99 + 88 = 264

Total number of new employees recruited till Jan, 2017 = 240 + 264 = 504
 (since, according to the question, the bank does not recruit any new employees before first December therefore till Nov 30, 2017, the number of new employees will be same)

Q41. Ans(D)

Explanation:

Following the common explanation, we get

The number of employees on April 1, 2016 in each branch will be same as the number of employees on March 1, 2016

Therefore, On March 1, 2016 the number of employees in branch A = 770

In branch, C = 880

The required difference = 880 - 770 = 110

Q42. Ans(C)

Explanation:

Following the common explanation, we get

The total number of employees working in the three branches together till Feb 1, 2017 = 2400 + 504(new recruitment) = 2904

The total money, the bank will distribute on Feb 1, 2017 = 2904 × 1.5 = Rs. 4356 lakhs

Q(43 –47) : Common Explanation:

As per the given information, we can create a table

Studios	Reporters			Comp. Operators		
	Total	M	F	Total	M	F
P	4000 + 1650 = 5650	5650 - 2052 = 3598	40% of 5130 = 2052	825	825 - 456 = 369	48% of 950 = 456
Q	1110 × 4.6 + 24 = 5130	2280 + 2250 = 4530	5130 - 4530 = 600	950 + 160 = 1110	16% of 4000 = 640	1110 - 640 = 470
R	950 × 3.8 - 60 = 3550	456 × 5 = 2280	3550 - 2280 = 1270	1200	1200 - 580 = 620	640 - 60 = 580
S	3550 + 450 = 4000	2 × 1270 = 2540	4000 - 2540 = 1460	825 + 125 = 950	470 × 1.5 = 705	950 - 705 = 245

Q43. Ans(D)

Explanation:

Following the common explanation, we get

Total number of female reporters in studio P = 2052

Similarly, in Q = 600

And, Total number of female reporters in R = 1270

Similarly, in S = 1460

$$\text{Required ratio} = \frac{2052 + 600}{1270 + 1460} = \frac{2652}{2730} = 34 : 35$$

Q44. Ans(A)

Explanation:

Following the common explanation, we get

Total no. of female computer operators in Q, R and S = 470 + 580 + 245 = 1295

Total no. of male reporters in Q, R and S = 4530 + 2280 + 2540 = 9350

$$\therefore \text{Required average} = \frac{1295 + 9350}{3} = \frac{10645}{3} = 3548.33 \approx 3548$$

Q45. Ans(D)

Explanation:

The total number of female operators in studio P = 456

Similarly, In R = 580 and In S = 245

And, The total number males reporters in P = 3598 and in S = 2540

$$\therefore \text{Required percentage} = \frac{456 + 580 + 245}{3598 + 2540} \times 100$$

$$= \frac{1281}{6138} \times 100 = 20.86 \approx 21\%$$

Q46. Ans(A)

Explanation:

Total no. of male reporters in studio P = 3598

Similarly, in studio Q = 4530 and in studio R = 2280

Therefore, total no. of reporters in studios P, Q and R together = 3598 + 4530 + 2280 = 10408

And the total no. of male computer operators in studio P = 369

Similarly, in studio Q = 640, In studio R = 620 and in studio S = 705

Therefore, total no. male computer operators in studios P, Q, R and S together = 369 + 640 + 620 + 705 = 2334

∴ Required difference = 10408 - 2334 = 8074

Q47. Ans(A)

Explanation:

Following the common explanation, we get

That in the studio Q male reporters are maximum which is 4530

And, in the studio S has the least female computer operators which is 245.

Q(48 – 50)

Common explanation :

Let the speed of the motorboat A, B and C respectively in still water is a, b and c km per hour and the speed of stream is v km per hour

Let the distance between point P and point Q is x km then

Distance = speed × time

$$x = (a - v) \times 16.8 = (b - v) \times 14$$

$$16.8a - 14b = 2.8v \dots\dots\dots (i)$$

$$(c + v) \times 14 = x$$

$$(b + v) \times 10.5 = x$$

$$(c + v) \times 14 = (b + v)10.5$$

$$10.5b - 14c = 3.5v \dots\dots\dots (ii)$$

From the question, B takes 10.5 hours in downstream but it takes 14 hours in upstream

$$(b - v) \times 14 = (b + v)10.5$$

$$3.5b = 24.5v$$

$$b : v = 7 : 1$$

Let $v = y$ then $b = 7y$

From the equation (i)

$$16.8a - 14 \times 7y = 2.8y$$

$$16.8a = 98 + 2.8y = 100.8a$$

$$a = 6y$$

From the equation (ii)

$$10.5 \times 7y - 14c = 3.5 \times y$$

$$73.5y - 3.5y = 14c$$

$$c = 5y$$

Now, the speed of the motorboat A in still water is $6y$ km per hour,

B's speed = $7y$ km per hour

C's speed = $5y$ km per hour

The speed of stream = y km per hour

C's speed against the stream = $5y - y = 4y$ km per hour

C'S speed with stream = $5y + y = 6y$ km per hour

It takes 14 hours to go from point Q to point P with stream

Therefore, the distance between P and Q = $14 \times 6y = 84y$ km

The time taken by the motorboat C to go 84y km against stream

$$= \frac{84y}{4y} = 21 \text{ hours}$$

The total time taken by the motorboat C to go and returns immediately from the point P to point Q = $14 + 21 = 35$ hours

From the paragraph II, after 10 hours travelling against the stream, it encounters the wooden piece and it wait for 6 hours on the point Q and while returning it encounter the same wooden piece and taken another 3 hours to reach the point P

The total time taken to go and come back = $21 + 6 + 14 = 41$ hours

For the total time, the wooden piece was floating in the river = $41 - 10 - 3 = 41 - 13 = 28$ hours

The total distance the wooden piece crossed in 28 hours = 112 km

The wooden piece was floating with the speed of stream which is y km per hour

Therefore, $y = \frac{112}{28} = 4$ km per hour = The speed of stream

Q48. Ans(D)

Explanation:

Following the common explanation, we get

The distance between point P and Q = $84y = 336$ km

Q49. Ans(A)

Explanation:

Following the common explanation, we get

The speed of the motorboat B against the stream = $7y - y = 6y$ km

The speed of the motorboat C with stream = $5y + y = 6y$ km per hour

The relative speed of B and C when they run towards each other = $6y + 6y = 12y = 48$ km per hour

The distance between P and Q = 336 km

The time taken to meet each other = $\frac{336}{48} = 7$ hours

The distance travelled by the motorboat B in 7 hours = $6y \times 7 = 42 \times 4 = 168$ km

Q50. Ans(B)

Explanation:

Following the common explanation, we get

The speed of the motorboat C against the stream = $5y - y = 4y = 16$ km per hour

The total distance travelled by the motorboat C in 1 hour 45 minutes

$$= \frac{7 \times 16}{4} = 28 \text{ km}$$

The remaining distance = $336 - 28 = 308$ km

The relative speed of the motorboat A with stream = $6y + y = 7y = 28$ km per hour

The relative speed of the motorboat A and C = $16 + 28 = 44$ km per hour

Therefore, $\frac{308}{44} = 7$ hours

After 7 hours the motorboat A meets the motorboat C

The distance travelled by the motorboat A in 7 hours = $28 \times 7 = 196$ km = the distance from the point Q

Q.(51-55)

Common Explanations

Let the quantity of Rasgulla, Rasmalai and Kalakand be $6x$, $10x$ and $9x$ respectively.

$$\text{Total quantity of Kalakand} = \frac{18900}{420} = 45 \text{ kg}$$

$$\therefore \text{Total quantity of Rasgulla} = 45 \times \frac{6}{9} = 30 \text{ kg}$$

$$\text{Total quantity of Rasmalai} = 45 \times \frac{10}{9} = 50 \text{ kg}$$

Now, S.P. of Kalakand

$$= \frac{100 + \frac{275}{21}}{100} \times 420 = \text{Rs. } 475/\text{kg}$$

$$\therefore \text{M.P. of Kalakand} = 475 \times \frac{100}{95} = \text{Rs. } 500/\text{kg}$$

$$\text{S.P. of Rasmalai} = \frac{90}{100} \times 500 = \text{Rs. } 450/\text{kg}$$

$$\text{C.P. of Rasgulla} = \frac{[46400 - (50 \times 400) - (45 \times 420)]}{30} = \text{Rs. } 250/\text{kg}$$

Profit per kg of Rasgulla

$$= \frac{5875 - (50 \times 50) - (45 \times 55)}{30}$$

$$= \text{Rs. } 30$$

$$\therefore \text{S.P. per kg of Rasgulla} = 250 + 30 = \text{Rs. } 280$$

And M.P. per kg of Rasgulla

$$= \frac{140}{100} \times 250 = \text{Rs. } 350$$

Sweets	Quantity (Kg)	C.P. (in Rs/kg)	M.P. (Rs./kg)	S.P. (Rs./kg)	Profit (Rs./kg)

Rasgulla	30	250	350	280	30
Rasmalai	50	400	500	450	50
Kalakand	45	420	500	475	55

Q51. Ans.(B)

Explanations

$$\text{Required average C.P. per kg} = \frac{46400}{125} = \text{Rs. } 371.2$$

Q52. Ans.(D)

Explanations

$$\text{New S.P.} = \frac{80}{100} \times 475 = \text{Rs. } 380/\text{kg}$$

$$\therefore \text{Loss \%} = \frac{40}{420} \times 100 = 9 \frac{11}{21} \%$$

Q53. Ans.(C)

Explanations

$$\text{Total sweets bought} = 30 + 50 + 45 = 125 \text{ kg}$$

Q54. Ans.(A)

Explanations

$$\text{Total C.P.} = 50 \times 400 = \text{Rs. } 20,000$$

$$\text{Total S.P.} = 40 \times 450 = \text{Rs. } 18,000$$

$$\therefore \text{Required loss \%} = \frac{2000}{20000} \times 100 = 10\%$$

Q55. Ans.(B)

Explanations

$$\begin{aligned} \text{Required percentage} &= \frac{80}{500} \times 100 \\ &= 16\% \end{aligned}$$

Q-(56- 60)

Common Explanations

Total students appeared in 2016 = 8000

Total students appeared in 2013 = 5800

Total students appeared in exam B in 2011 & 2013 = 6200

$$\text{Total students appeared in exam B in 2011} = \frac{6200}{31} \times 18 = 3600$$

$$\text{Total students appeared in exam B in 2013} = \frac{6200}{31} \times 13 = 2600$$

$$\text{Total students appeared in exam A in 2013} = 5800 - 2600 = 3200$$

$$\text{Total students appeared 2011} = \frac{8000}{125} \times 100 = 6400$$

$$\text{Total students appeared in exam A in 2011} = 6400 - 3600 = 2800$$

$$\text{Total students appeared in 2014} = \frac{8000}{16} \times 13 = 6500$$

$$\text{Students appeared in exam B in 2011} = \text{Students appeared in exam A in 2015} = 3600$$

$$\text{Students appeared in exam B in 2015} = \frac{3600}{4} \times 3 = 2700$$

$$\text{Students appear in exam A in 2016} = \left[1 + \frac{1700}{2700}\right] \times 2700 = 4400$$

$$\text{Students appear in exam B in 2016} = 8000 - 4400 = 3600$$

$$\text{Let, student appeared in exam A in 2014} = x$$

$$\text{student appeared in exam A in 2012} = x + 700$$

$$\Rightarrow x + x + 700 + 2800 + 3200 + 3600 + 4400 = 21,100$$

$$2x = 6400$$

$$x = 3200$$

$$\text{Students appeared in exam A in 2014} = 3200$$

$$\text{Students appeared in exam A in 2012} = 3200 + 700 = 3900$$

$$\text{Students appeared in exam B in 2014} = 6500 - 3200 = 3300$$

$$\text{Students appeared in exam B in 2012} = 3300 + 1200 = 4500$$

	A	B	Total
2011	2800	3600	6400
2012	3900	4500	8400
2013	3200	2600	5800
2014	3200	3300	6500
2015	3600	2700	6300
2016	4400	3600	8000
Total	21,100	20,300	

Q56. Ans.(B)

Explanations

According to table its in 2014.

Q57. Ans.(D)

Explanations

$$\begin{aligned} \text{Required ratio} &= \frac{2800+3200+3900}{2600+3300+3600} \\ &= \frac{9900}{9500} = \frac{99}{95} \end{aligned}$$

Q58. Ans.(B)

Explanations

Average students appeared in exam A in starting four years

$$= \frac{2800+3900+3200+3200}{4}$$

$$= 3275$$

Average students appeared in exam B in starting four years

$$= \frac{3600+4500+2600+3300}{4}$$

$$= 3500$$

Required difference = 225.

Q59. Ans.(E)

Explanations

Required difference = 4500 - 3200 = 1300

Q60. Ans.(C)

Explanations

$$\text{Required \%} = \frac{8400 - 6400}{6400} \times 100$$

$$= \frac{2000}{6400} \times 100$$

$$= 31.25\%$$

Q-(61-65):

Common Explanations

Pencils sold by Satish = 162

Pencil sold by Inder = $\frac{162}{1125} \times 100 \times 10 = 144$

Pen, Pencil and disks sold by Inder = $162 \times 3 = 486$

Pen and disks sold by Inder = $486 - 144 = 342$

Total pencil sold = 650

Total stationary item sold by Satish = 650

Disks sold by Satish, Sanjeev and Inder = $192 \times 3 = 576$

Rubber sold by Satish = 192

Pen sold by Inder = $\frac{192}{128} \times 100 = 150$

Pen sold by Sanjeev = $\frac{150}{10} \times 9 = 135$

Pen sold by Satish = $\frac{192}{150} \times 100 = 128$

Stationary items sold by Sanjeev = 653

$$\text{Disks sold by Satish} = 650 - 128 - 162 - 192 = 168$$

$$\text{Disks sold by Inder} = 486 - 150 - 144 = 192$$

$$\text{Pencil sold by Rawat} = 168$$

$$\text{Pencil sold by Sanjeev} = 650 - 162 - 144 - 168 = 176$$

$$\begin{aligned} \text{Disks sold by Sanjeev} &= 192 \times 3 - 168 - 192 \\ &= 216 \end{aligned}$$

$$\begin{aligned} \text{Rubber sold by Sanjeev} &= 653 - 135 - 176 - 216 \\ &= 126 \end{aligned}$$

$$\text{Disks sold by Rawat} = \frac{126}{100} \times 150 = 189$$

$$\text{Rubber sold by Inder} = 694 - 150 - 144 - 192 = 208$$

$$\text{Rubber sold by Rawat} = \frac{208}{160} \times 100 = 130$$

$$\text{Pen sold by Rawat} = \left(1 + \frac{680}{1300}\right) \times 130 = 198$$

	Pen	Pencil	Rubber	Disk	Total
Satish	128	162	192	168	650
Inder	150	144	208	192	694
Rawat	198	168	130	189	685
Sanjeev	135	176	126	216	653
Total	611	650	656	765	

Q61. Ans.(B)

Explanations

According to table it's Inder.

Q62. Ans.(B)

Explanations

$$\text{Rawat \%} = \frac{192-144}{144} \times 100$$

$$= 33\frac{1}{3}\%$$

Q63. Ans.(E)

Explanations

$$\text{Required ratio} = \frac{168}{216} = \frac{7}{9}$$

Q64. Ans.(C)

Explanations

Required difference = $765 - 656 = 109$

Q65. Ans.(D)

Explanations

$$\begin{aligned} \text{Required \%} &= \frac{126}{168} \times 100 \\ &= 75\% \end{aligned}$$

Q (66-70):

Common Explanations

Total students = 1000

Let, students appear in exam Z only = a

Total students appeared in exam Y = 360

Ratio of number of students appeared in exam X and Y only to students appeared in exam Y and Z only = 2 : 3

Students appeared in exam X and Z both = $a/2$

Number of students appeared in all three exams

$$= \frac{4}{100} \times 1000 = 40$$

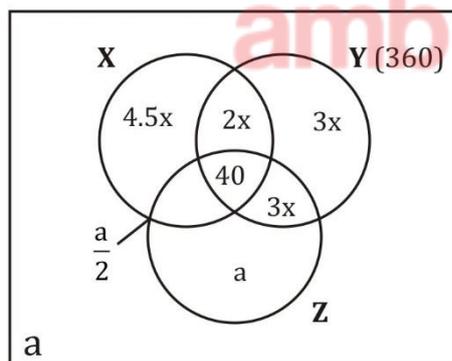
Number of students appeared in Y exam only

= No. of students appeared in Y and Z only = $3x$

Number of students appeared in exam X and Y only

$$= \frac{2}{3} \times 3x = 2x$$

1000



Now, $2x + 3x + 3x + 40 = 360$

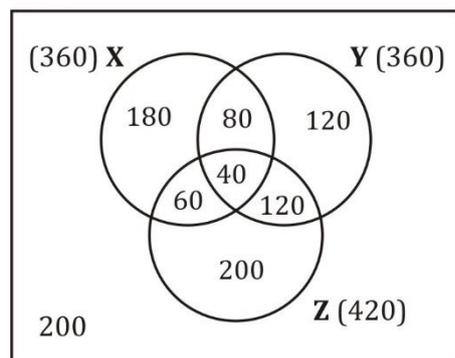
$$\Rightarrow x = 40$$

$$\text{and, } 12.5x + a + \frac{a}{2} + a = 1000$$

$$\frac{5a}{2} = 500$$

$$\Rightarrow a = 200$$

1000



Q66. Ans.(C)

Explanations

Students appeared in atleast two exams = $80 + 60 + 40 + 120 = 300$

Q67. Ans.(E)

Explanations

Students appeared in two exams only = $80 + 60 + 120 = 260$

Q68. Ans.(E)

Explanations

Students appeared in atmost two exams = $180 + 120 + 200 + 60 + 80 + 120 + 200 = 960$

Q69. Ans.(D)

Explanations

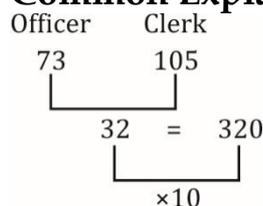
Student not appeared in exam Y = $1000 - 360 = 640$

Q70. Ans.(D)

Explanations

Students appeared in exam X or in exam Z
 = $180 + 60 + 40 + 80 + 200 + 120 = 680$

Q(71 - 72)

Common Explanations

⇒ Total officer posts = $73 \times 10 = 730$

Total clerk posts = 1050

Officer post in Bangalore = 110

Clerk post in Mumbai = 110 + 85 = 195

Total post in Delhi = 320

Clerk post in Delhi = 20 + Officer post in Delhi

⇒ Clerk post in Delhi = 170

Officer post in Delhi = 150

Officer post in Hyderabad

$$= \frac{70}{300} \times 150 = 35$$

Officer post in Hyderabad = $\frac{35}{200} \times$ clerk post in Hyderabad

$$\Rightarrow \text{Clerk post in Hyderabad} = \frac{200}{35} \times 35 = 200$$

Officer post in Kolkata = 149

Clerk post in Lucknow = 153

Clerk post in Kolkata = 321 - 149 = 172

Total post in Lucknow = 321 - 52 = 269

Officer post in Lucknow = 269 - 153 = 116

Officer post in Mumbai = 730 - [110 + 150 + 35 + 149 + 116] = 170

Clerk Post in Bangalore = 1050 - (195 + 170 + 200 + 172 + 153) = 160

City	Officers (730)	Clerks (1050)
Bangalore	110	160
Mumbai	170	195
Delhi	150	170
Hyderabad	35	200
Kolkata	149	172
Lucknow	116	153

Q71. Ans.(B)

Explanations

Total number of posts available in Mumbai = 365

Q72. Ans.(A)

Explanations

$$\text{Required percentage} = \frac{35}{270} \times 100 = 12 \frac{26}{27} \%$$

Q73. Ans.(D)

Explanations

Number of clerk post = $\frac{110}{55} \times 100 = 200$ which is in Hyderabad

Q74. Ans.(B)

Explanations

$$170 + 153 + 160 = 483$$

Q75. Ans.(E)

Explanations

$$\text{Required percentage} = \frac{50}{150} \times 100 = 33\frac{1}{3}\%$$

Q (76 –78):

Common Explanantion:

Let, the length and the breadth of the hall = x, and y, respectively.

$$\text{So, area of the floor} = \frac{2349}{9} = 261 \text{ m}^2$$

And, perimeter of the floor = 65 m

Therefore, $x \times y = 261$

$$\Rightarrow x = \frac{261}{y}$$

And, $2 \times (x + y) = 65$

$$\Rightarrow \frac{261}{y} + y = 32.5$$

$$\Rightarrow 261 + y^2 = 32.5y$$

$$\Rightarrow y^2 - 14.5y - 18y + 261 = 0$$

$$\Rightarrow y(y - 14.5) - 18(y - 14.5) = 0$$

$$\Rightarrow (y - 18)(y - 14.5) = 0$$

$$\Rightarrow y = 18, 14.5$$

When, $y = 18$

$$x = \frac{261}{18} = 14.5$$

When, $y = 14.5$

$$x = \frac{261}{14.5} = 18$$

Q76. Ans(A)

Explanation:

Following the common explanation, we get

Therefore, the length of the hall = 18 m

And, the breadth of the hall = 14.5 m

Required difference = $18 - 14.5 = 3.5$ m

Q77. Ans(B)

Explanation:

Following the common explanation, we get

Therefore, the length of the hall = 18 m

And, the breadth of the hall = 14.5 m

Area of the floor = $18 \times 14.5 = 261$ m²

Area of each marble = $90 \times 50 = 4500$ cm² = 0.45 m²

Req. number of marbles = $\frac{261}{0.45} = 580$

0.45

Q78. Ans(D)

Explanation:

Following the common explanation, we get

Let, the height of the hall and the height of the cylindrical box is $44x$ and $7x$, respectively.

$$\text{So, } \frac{(18 \times 14.5 \times 44x - 64.35)}{[(22/7) \times 0.9 \times 0.9 \times 7x]} = 630$$

$$\Rightarrow 11484x - 64.35 = 11226.6x$$

$$\Rightarrow 11484x - 11226.6x = 64.35$$

$$\Rightarrow 257.4x = 64.35$$

$$\Rightarrow x = 0.25$$

Therefore, the height of the hall = $44 \times 0.25 = 11$ m

$$\text{Area to be paint} = 2 \times (18 + 14.5) \times 11 + 18 \times 14.5 = 65 \times 11 + 261 = 715 + 261 = 976 \text{ m}^2$$

$$\text{Required cost} = 8 \times 976 = \text{Rs. } 7808$$

Q(79 –83):

Common explanation :

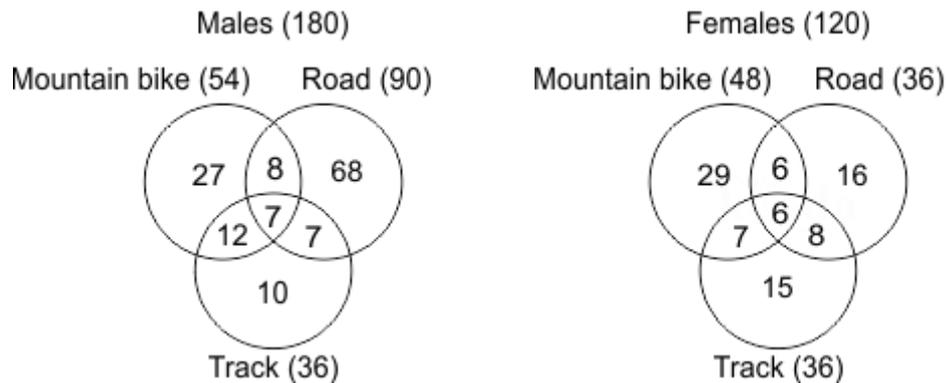
The number of male participants from India

$$= \frac{3 \times 300}{5} = 180$$

The number of female participants from India

$$= \frac{2 \times 300}{5} = 120$$

Let us draw venn diagram on the basis of the information given above.



Q79. Ans(D)

Explanation:

The number of male participants only in Mountain bike = 27

The number of female participants only in Mountain bike = 29

The required ratio = 27 : 29

Q80. Ans(A)

Explanation:

The total number of athletic who participated only in Track = 10 + 15 =

25 the total number of athletics participated from India = 300

The required. % = $\frac{25 \times 100}{300} = \frac{25}{3} \% = 8.33\%$

Q81. Ans(B)

Explanation:

The number of male participants participated only in Mountain bike = 27

the number of female participants participated only in Road = 16

The required % = $\frac{(27 - 16) \times 100}{16} = \frac{11 \times 100}{16} = 68.75\%$

Q82. Ans(D)

Explanation:

The number of male participants participated in Mountain bike = 54

the number of female participants participated only in Road = 15

The required ratio = $18 : 5 = 3.6 : 1$

Q(84 - 88)**Common Explanation:**

Total number of students in first year of the college = 6000

Total number of students enrolled in Physics = $6000 \times 0.37 = 2220$

Percentage of student who were enrolled in Ecology and Botany,

$$\Rightarrow 100\% - 18\% - 37\% - 9\% = 36\%$$

The ratio of students enrolled in Ecology to the students enrolled in Botany = 17:19

Therefore, percentage of students enrolled in Ecology

$$= \frac{17}{36} \times 36 = 17\%$$

Number of students enrolled in Ecology

$$= 6000 \times \frac{17}{100} = 1020$$

Let the number of girls in Ecology be x.

Therefore, number of boys in Ecology = 5x

Therefore,

$$x + 5x = 1020$$

$$\Rightarrow 6x = 1020$$

$$\Rightarrow x = \frac{1020}{6}$$

$$\Rightarrow x = 170$$

Q84. Ans(D)

Explanation

Total number of boys in Ecology = $5x = 850$

Therefore, Percentage of boys enrolled in Ecology out of total students

$$= \frac{850}{6000} \times 100 = 14.1666 \sim 14.17\%$$

Q85. Ans(E)

Therefore, number of boys in Ecology = $5 \times 170 = 850$

Therefore, number of boys in Physics = $850 - 480 = 370$

Number of girls in Physics = $2220 - 370 = 1850$

Percentage of girls in Physics

$$= \frac{1850}{6000} \times 100 = 30.83\%$$

Total number of students enrolled in Mathematics

$$= 6000 \times \frac{9}{100} = 540$$

Ratio of boys to girls in Mathematics = 7 : 2

$$\text{Number of girls in Mathematics} = 540 \times \frac{2}{9} = 120$$

Percentage of girls in Mathematics

$$= \frac{120}{540} \times 100 = 22.22\%$$

6000

Therefore,

$$\text{Required difference} = 30.83\% - 2\% = 28.83\%$$

Q86. Ans(D)

Explanation:

$$\text{Therefore, number of boys in Ecology} = 5 \times 170 = 850$$

$$\text{Therefore, number of boys in Physics} = 850 - 480 = 370$$

$$\text{Number of girls in Physics} = 2220 - 370 = 1850$$

Total number of students who enrolled in Chemistry in the first year

$$= 6000 \times \frac{18}{100} = 1080$$

Since, there are 45% girls in the Chemistry, therefore,

Total number of girls who enrolled in Chemistry in the first year

$$= 1080 \times \frac{45}{100} = 486$$

Number of girls opted Physics from Chemistry in the second year

$$= 486 \times \frac{50}{100} = 243$$

Number of girls who opted Chemistry from Physics in second year

$$= 1850 \times \frac{20}{100} = 370$$

$$\text{Number of girls in Physics in the second year} = 1850 - 370 + 243 = 1723$$

$$\text{Number of girls in Chemistry in the second year} = 486 - 243 + 370 = 613$$

Therefore,

Required difference = $1723 - 613 = 1110$

Q87. Ans(A)

Explanation:

Total number of students in first year of the college = 6000

Total number of students enrolled in Physics = $6000 \times 0.37 = 2220$

Percentage of students who were enrolled in Ecology and Botany,

$$\Rightarrow 100\% - 18\% - 37\% - 9\% = 36\%$$

The ratio of students enrolled in Ecology to the students enrolled in Botany = 17 : 19

Therefore, percentage of students enrolled in Ecology

$$= \frac{17}{36} \times 36 = 17\%$$

Number of students enrolled in Ecology

$$= 6000 \times \frac{17}{100} = 1020$$

Percentage of students who enrolled in Botany = $36\% - 17\% = 19\%$

$$\text{Number of students in Botany} = 6000 \times \frac{19}{100} = 1140$$

Number of students migrated to Mathematics

$$= 1140 \times \frac{30}{100} = 342$$

Number of boys out of migrated students

$$= 342 \times \frac{50}{100} = 171$$

Therefore, number of girls migrated to Mathematics = $342 - 171 = 171$

Number of students in the Mathematics in the first year

$$= 6000 \times \frac{9}{100} = 540$$

Number of boys in the Mathematics in the first year

$$= 540 \times \frac{7}{9} = 420$$

Number of girls in the Mathematics in the first year = $540 - 420 = 120$

Therefore,

Number of boys in the Mathematics in the second year = $420 + 171 = 591$

Number of girls in the Mathematics in the second year = $120 + 171 = 291$

Therefore,

Required Ratio = $591 : 291 = 197 : 97$

Q88. Ans(B)

Explanation:

Total number of students = 6000

Number of students passed with distinction

$$= 6000 \times \frac{18}{100} = 1080$$

Number of boys who passed with distinction

$$= 1080 \times \frac{5}{9} = 600$$

Number of girls passed with distinction = $1080 - 600 = 480$

Number of girls from Ecology passed with distinction = 120

Therefore, Number of girls from Chemistry passed with distinction = $480 - 120 = 360$

Total number of boys from Physics passed with distinction
= $600 \times \frac{35}{100} = 210$

Number of boys from Chemistry passed with distinction = $600 - 210 = 390$

Therefore,

Required ratio = $390 : 360 = 13 : 12$

Q(89 - 91)

Common Explanation:

Let, the average marks scored by B, D, and E together = x

Then, the marks scored by A = $(x + 16)$

Let, the marks scored by C = y

So, $3x + x + 16 + y = 80 \times 5$

$\Rightarrow 4x + y = 384$

And, $x + 16 - y = 2$

$\Rightarrow x = y - 14$

Therefore, $4 \times (y - 14) + y = 384$

$\Rightarrow 4y - 56 + y = 384$

$$\Rightarrow 5y = 440$$

$$\Rightarrow y = 88$$

Q89. Ans(D)

Explanation:

$$\text{Therefore, } x = 88 - 14 = 74$$

$$\text{Marks scored by A} = 74 + 16 = 90$$

Q90. Ans(B)

Explanation:

$$\text{Therefore, } x = 88 - 14 = 74$$

$$\text{Sum of marks of B and E} = 77.5 \times 2 = 155$$

$$\text{Marks of D} = 74 \times 3 - 155 = 222 - 155 = 67$$

So, weight of D is 47 kg.

Since average weight of C and E is 35 kg.

Therefore, the average weight of A, B, and D together = 39 kg

The weight of A is 32 kg.

$$\text{Weight of B} = 39 \times 3 - (47 + 32) = 117 - 79 = 38 \text{ kg}$$

Q91. Ans(A)

Explanation:

Since average weight of C and E is 35 kg.

Therefore, the average weight of A, B, and D together = 39 kg

$$\text{Sum of weight of A, B, and D together} = 39 \times 3 = 117 \text{ kg}$$

Sum of weight of C and E together = $35 \times 2 = 70$ kg

$$\text{Reqd. average} = \frac{117 + 70}{5} = 37.4 \text{ kg}$$

Q (92 - 95):

Common Explanation:

Total number of participants participated in Kathak = 156

So, number of participants participated in Odissi

$$= \frac{156}{3} = 52$$

Let, number of participants participated in Manipuri and Odissi be $20x$ and $13x$, respectively

$$\text{So, } 13x = 52$$

$$\Rightarrow x = 4$$

Therefore, number of participants participated in Manipuri = $20x = 20 \times 4 = 80$

So, number of participants participated in Bharatanatyam = $80 + 86 = 166$

Let, total number of participants participated in all the dance forms together = x

Therefore, 33.2% of $x = 166$

$$\Rightarrow \frac{83}{250} \times x = 166$$

$$\Rightarrow x = 500$$

Q92. Ans(D)

Explanation:

So, number of participants participated in Kuchipudi = 9.2% of 500 = 46

Q93, Ans(B)

Explanation:

So, number of participants participated in Kuchipudi = 9.2% of 500 = 46

$$\text{Reqd. \%} = \frac{80}{500} \times 100 = 16\%$$

Q94. Ans(B)

Explanation.

So, number of participants participated in Kuchipudi = 9.2% of 500 = 46

$$\text{Required difference} = 166 - 52 = 114$$

Q95. Ans(A)

Explanation.

So, number of participants participated in Kuchipudi = 9.2% of 500 = 46

Number of female participants of Manipuri dance form

$$= \frac{11}{16} \times 80 = 55$$

Q96. Ans(B)

Explanation.

So, number of participants participated in Kuchipudi = 9.2% of 500 = 46

$$\text{Reqd. probability} = \frac{52}{500} = \frac{13}{125}$$

Q(97 - 100):

Common Explanation:

Let, the total number of cake sold by Mr. Singh = a

Then, the total number of chips sold by Mr. Gupta = a

Let, the number of biscuits and the number of chocolate sold by Mr. Singh be $3b$ and $4b$ respectively.

Let, the total number of kurkure sold by Mr. Singh = c

Then, the total number of biscuits sold by Mr. Gupta = $2c$

So, number of chocolate sold by Mr. Gupta = $308 - 4b$

Total number of chocolate sold by Mr. Gupta = $91 + 57 = 148$

Therefore, $308 - 4b = 148$

$$\Rightarrow 4b = 160$$

$$\Rightarrow b = 40$$

Number of biscuits sold by Mr. Singh = $3b = 120$

Number of chocolate sold by Mr. Singh = $4b = 160$

Also, $2c - a = 92$

$$\Rightarrow 2c - 92 = a$$

And, $120 + 160 + 92 + c + a = 535$

$$\Rightarrow c + 2c = 255$$

$$\Rightarrow c = 85$$

Therefore, $a = 2c - 92 = 78$

Total number of kurkure sold by Mr. Singh = $c = 85$

And, the total number of biscuits sold by Mr. Gupta = 170

Number of chips sold by Mr. Gupta = $a = 78$

Number of cakes sold by Mr. Singh = a = 78

	Biscuits	Chocolate	Chips	Kurkure	Cake	Total
Mr. Singh	120	160	92	85	78	535
Mr. Gupta	170	148	78	91	107	594

Q97. Ans(B)

Explanation:

The total number of cakes sold by both Mr. Singh and Mr. Gupta together
 $= 78 + 107 = 185$

Q98. Ans(A)

Explanation:

Total number of biscuits sold by Mr. Gupta = 170

Q99. Ans(B)

Explanation:

Required difference = $160 - 148 = 12$

Q100. Ans(E)

Explanation:

Total number of chips sold by Mr. Singh and Mr. Gupta together = $92 + 78 = 170$

- [Click here to Join Telegram Group](#)
- [Click here to Join Whatsapp Group](#)

[Click here to Buy Online Test Series](#)

[Attempt Quantitative Aptitude Topic Wise Online Test Series](#)

[RBI Assistant Prelims Online Test Series 2022](#)

2022 Preparation Kit PDF

Most important PDF's for Bank, SSC, Railway and Other Government Exam :
Download PDF Now

AATMA-NIRBHAR Series- Static GK/Awareness Practice Ebook PDF	Get PDF here
The Banking Awareness 500 MCQs E-book Bilingual (Hindi + English)	Get PDF here
AATMA-NIRBHAR Series- Banking Awareness Practice Ebook PDF	Get PDF here
Computer Awareness Capsule 2.0	Get PDF here
AATMA-NIRBHAR Series Quantitative Aptitude Topic-Wise PDF 2020	Get PDF here
Memory Based Puzzle E-book 2016-19 Exams Covered	Get PDF here
Caselet Data Interpretation 200 Questions	Get PDF here
Puzzle & Seating Arrangement E-Book for BANK PO MAINS (Vol-1)	Get PDF here
ARITHMETIC DATA INTERPRETATION 2.0 E-book	Get PDF here

ambitious baba .com

[Click here to Join Bank & Insurance Yearly Test Series Subscription for all upcoming Banking examinations](#)

Complete list of Test Series covered in the "Bank & Insurance Yearly Test Series Subscription" are given below:

Exam Covered	Number of Mock Tests	Exam Covered	Number of Mock Tests
SBI PO Prelims	15	NIACL AO Prelims	15
SBI PO Mains	10	NIACL AO Mains	10
SBI Clerk Prelims	15	Reasoning Section-Wise	30
SBI Clerk Mains	10	Quantitative Aptitude Section-Wise	30
IBPS RRB PO Prelims	15	English Section-Wise	30
IBPS RRB PO Mains	10	Topic-Wise (Quantitative Aptitude)	15
IBPS RRB Clerk Prelims	15	Arithmetic Data Interpretation	10
IBPS RRB Clerk Mains	10	Caselet DI	10
IBPS PO Prelims	15	Memory Based Mock (Prelims)	10
IBPS PO Mains	10	Banking Awareness	15
IBPS Clerk Prelims	15	Static Awareness (GK)	15
IBPS Clerk Mains	10	Hindi Language for RRB	20
RBI Assistant Prelims	15	Computer Awareness	20
RBI Assistant Mains	10	Current Affairs (Weekly Tests)	50
LIC AAO Prelims	15	Topic Wise General Awareness Capsule Tests (Mains exam only)	15 (for Each Exam)
LIC AAO Mains	10	Other Banking Exams (Excepts SO)	
LIC Assistant Prelims	15	SBI Apprentice	10
LIC Assistant Mains	10		

BANK & INSURANCE YEARLY SUBSCRIPTION

This package is subscription for All Banking and Insurance Examination with 1 year validity.



ALL EXAM Covered

IBPS, SBI, RBI, NABARD,
SEBI, NIACL, UIIC, NICL,
OICL etc.

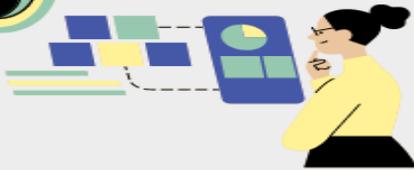
LATEST PATTERN

All the content available in
the Test Series are Updated
and New Pattern.



Detailed Solution

Provided the Detailed
Explanation of Each and
Every Questions.



24/7 Access

You can access it anytime ,
Anywhere 24/7 through
Web or Mobile APP.



Complete Analysis

You can Analyse your Mock Test
Report and Compare with the
topper also.



All Level Covered

Prelims & Mains both the
exams are covered in this
package. its 1 stop Solution.



VISIT: TEST.AMBITIOUSBABA.COM

One Stop Solutions for all your exams and Provide the best path for your Success.