

Directions (1-5): What approximate value should come in place of question mark (?) in the following questions?

Q1. $(421.98 + 478.21) \div ? = 60.029$

- (a) 6
- (b) 8
- (c) 9
- (d) 12
- (e) 15

Q2. $\sqrt{257} \times 19.17 + 8.15 \times 13.78 = ?$

- (a) 406
- (b) 450
- (c) 432
- (d) 416
- (e) 392

Q3. $16.217 \times 23.88 + ? = 18.98 \times 32.12$

- (a) 216
- (b) 224
- (c) 200
- (d) 228
- (e) 250

Q4. $27.897 \times 16.21 = ? \times 13.98 + 69.87$

- (a) 15
- (b) 22
- (c) 27
- (d) 32
- (e) 39

Q5. $272.112 + 189.98 + 84.101 = ? \times 12.89 \times 6.11$

- (a) 5
- (b) 7
- (c) 9
- (d) 11
- (e) 13

Directions (6-10): What will come in the place of the question mark (?) in the following number series?

Q6. 117.5, 117, 119, 111, 143, ?

- (a) 9
- (b) 12
- (c) 15
- (d) 18
- (e) 21

Q7. 15, 12, 31, 148, ?

- (a) 1039
- (b) 1011
- (c) 1012
- (d) 1024
- (e) 1027

Q8. 1, 13, 83, 419, 1679, ?

- (a) 5029
- (b) 5039
- (c) 5019
- (d) 5049
- (e) 5059

Q9. 12, 25, 48, 99, 194, 393, ?

- (a) 780
- (b) 786
- (c) 792
- (d) 783
- (e) 789

Q10. 3, 11, 31, 69, 131, ?

- (a) 215
- (b) 217
- (c) 221
- (d) 223
- (e) 213

Directions (11-15): Table given below shows number of tickets sold in six different theatres, number of tickets sold to children and remaining ticket sold to adults [male and female]. Study the data carefully and answer the following questions.

Theatre	Ticket sold to children	Ticket sold to Adults (Male : Female)
C1	15	6 : 7
C2	10	3 : 4
C3	20	2 : 3
C4	14	6 : 5
C5	8	5 : 4
C6	12	9 : 8

Total 80 tickets are sold in each theatre.

Q11. Find the ratio of number of tickets sold to males by C3 and C6 theatre together to number of tickets sold to females by C3 and C5 theatre together.

- (a) 14 : 19
- (b) 15 : 17
- (c) 20 : 23
- (d) 16 : 19
- (e) 14 : 17

Q12. Number of female who bought ticket from C2 and C4 theater together is what percent more than number of males who bought ticket from C5 theatre.

- (a) $33\frac{1}{3}\%$
- (b) 50%
- (c) $66\frac{2}{3}\%$
- (d) 75%
- (e) 87.5%

Q13. If per ticket price for children, male and female is Rs. 150, Rs. 200 and Rs. 250 respectively. Then find the total revenue earn by C4 theater.

- (a) 16600
- (b) 15400
- (c) 16800
- (d) 15800
- (e) 16400

Q14. Find the average number of male who bought tickets from C1, C2 and C3 theatre together.

- (a) 30
- (b) 28
- (c) 32
- (d) 34
- (e) 36

Q15. Number of males who bought ticket from C4, C5 and C6 together is how much more than number of females who bought ticket from same theatres.

- (a) 18
- (b) 20
- (c) 21
- (d) 24
- (e) 26

Directions (16-20): In each of these questions, two equations (i) and (ii) are given. You have to solve both the equations and give answer

- (a) if $x > y$
- (b) if $x \geq y$
- (c) if $x < y$
- (d) if $x \leq y$
- (e) if $x = y$ or no relation can be established between x and y .

Q16.

- (i) $2x^2 - 5x + 3 = 0$
- (ii) $3y^2 - 4y + 1 = 0$

Q17.

- (i) $x^2 - 17x + 72 = 0$
- (ii) $y^2 - 27y + 180 = 0$

Q18.

- (i) $(x - 12)^2 = 0$
- (ii) $y^2 - 21y + 108 = 0$

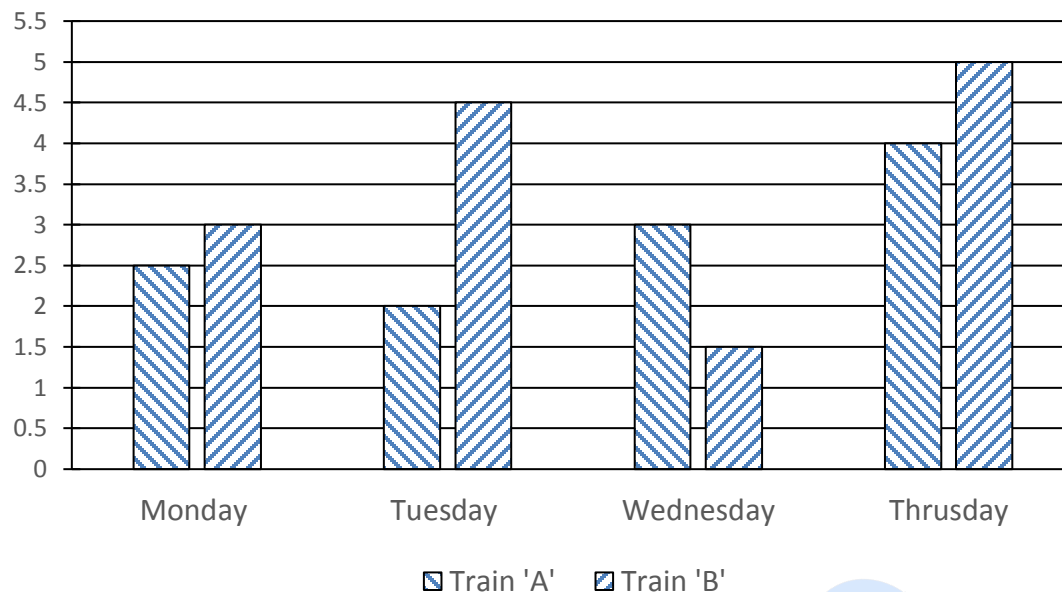
Q19.

- (i) $2x^2 + 7x + 5 = 0$
- (ii) $3y^2 + 12y + 9 = 0$

Q20.

- (i) $x^2 + 2x - 35 = 0$
- (ii) $y^2 + 15y + 56 = 0$

Directions (21-25): Bar graph given below shows the time taken by two trains in hr, on different days. Study the data carefully and answer the following questions:



Both Train Cover 450km distance on every day

Q21. Speed of train 'A' on Tuesday is what percent more than speed of train 'B' on Monday?

- (a) $33\frac{1}{3}\%$
- (b) 50%
- (c) $66\frac{2}{3}\%$
- (d) 75%
- (e) 87.5%

Q22. Find the average speed of train 'B' on Tuesday and Train 'A' on Wednesday?

- (a) 140
- (b) 130
- (c) 135
- (d) 120
- (e) 150

Q23. On Friday, speed of train 'A' increases by 60% and speed of train 'B' increases by 25% as compared to Thursday. Find the sum of the time taken by both trains separately to cover the same distance?

- (a) 6.5 hr
- (b) 7.5 hr
- (c) 6 hr
- (d) 7 hr
- (e) 8 hr

Q24. Speed of train 'A' on Tuesday is how much less than speed of train 'B' on Wednesday?

- (a) 50 km/hr
- (b) 60 km/hr
- (c) 75 km/hr
- (d) 85 km/hr
- (e) 100 km/hr

Q25. Find in how much time train 'A' can cover the given distance if speed of train 'A' increases by 60% on tuesday?

- (a) 3 hr
- (b) 2.5 hr
- (c) 1.5 hr
- (d) 1.25 hr
- (e) 1.75 hr

Directions (26-30): The following questions are accompanied by two statements (A) and (B). You have to determine which statement(s) is/are sufficient/necessary to answer the questions

- (a) if the Statement 'A' alone is sufficient to answer the question but the Statement 'B' alone is not sufficient
- (b) if the Statement 'B' alone is sufficient to answer the question but the Statement 'A' alone is not sufficient
- (c) if both Statement 'A' and 'B' together are needed to answer the question
- (d) if either the Statement 'A' alone or Statement 'B' alone is sufficient to answer the question
- (e) if you cannot get the answer from both the Statements together

Q26. Is 'Z' a positive integer?

- (A) $Z^7 > Z$
- (B) $Z^8 > Z$

Q27. Find the value of $4^{\frac{1}{a}} + 4^{\frac{1}{b}}$?

- (A) Sum of inverse of a and b is equals to $\frac{6}{5}$
- (B) Multiplication 'a' and 'b' is equals to 5

Q28. In how many days 14 men can complete a piece of work?

- (A) If 18 women can complete the same piece of work in 24 days.
- (B) If 28 children can complete the same piece of work in 56 days.

Q29. When one ball is drawn at random from an urn containing 25 balls, what is the chance that it is red?

- (A). The urn contains 10 yellow and 8 green balls.
- (B). The urn contains all colored balls.

Q30. Is 'w' an integer?

- (A). $3w$ is an odd number.
- (B). $2w$ is an even number.

Directions (31-35): Data regarding number of boys & girls in both the colleges is as follows: -

Average no. of Girls in St. Xavier college and Vijaya College is 210 & total number of boys in both the college is 810. Number of Girls is $\frac{2}{3}$ of boys & number of Girls is $\frac{2}{5}$ of number of Boys in St. Xavier college and in Vijaya College respectively.

Q31. Number of girls in Vijay college is what percent of the number of girls in St. Xavier College.

- (a) 50%
- (b) 62.5%
- (c) 75%
- (d) $66\frac{2}{3}\%$
- (e) 87.5%

Q32. Average number of girls in St. Xavier college and 'X' college is 320. If total number of students in 'X' college is 25% more than total number of students in St. Xavier college then find the number of boys in 'X' college.

- (a) 450
- (b) 400
- (c) 375
- (d) 350
- (e) 300

Q33. Find the difference between the total number of students in Vijaya college to the total number of students in St. Xavier college.

- (a) 15
- (b) 20
- (c) 25
- (d) 30
- (e) 35

Q34. Ratio between number of boys in Vijaya college to number of boys in 'Y' college is 9 : 13 and number of girls in 'Y' college is 20% less than that in Vijaya college. Find the total number of students in 'Y' college?

- (a) 784
- (b) 794
- (c) 789
- (d) 798
- (e) 778

Q35. Number of boys in Vijaya college is what percent more than number of boys in St. Xavier college?

- (a) 32.5%
- (b) 20%
- (c) 50%
- (d) 37.5%
- (e) 25%

Q36. 15 men can do a piece of work in 'X' days. 21 women can do a piece of work in 'X - 4' days. 35 men can do a piece of work in 'Y' days and 63 women can do a piece of work in 'Y - 4' days. Find the value of 'X' ?

- (a) 14
- (b) 18
- (c) 28
- (d) 24
- (e) 32

Q37. Cost price of article A is double then that of article B and shopkeeper mark up both the article 20% more than the cost price. If at the time of sale shopkeeper gave Rs. 9 discount and earn 17% profit on total. Find the cost price of article A?

- (a) 100
- (b) 200
- (c) 150
- (d) 250
- (e) 50

Q38. A committee of 5 people is to be formed among 4 girls and 5 boys. What is the probability that the committee will have less number of boys than girls?

- (a) $\frac{3}{14}$
- (b) $\frac{7}{13}$
- (c) $\frac{3}{5}$
- (d) $\frac{5}{14}$
- (e) None of these

Q39. A train running at 25 km/hr takes 18 seconds to pass a platform and it takes 12 seconds to pass a man walking at 5 km/hr in the opposite direction. Length of train is how much less than length of the platform (in m)

- (a) 50
- (b) 75
- (c) 100
- (d) 125
- (e) 150

Q40. Satish and Bhavya entered into a partnership with Rs 15000 and Rs 18000 respectively. Abhishek joined them after 'x' months and contributes Rs 24000 and Bhavya left 'x' month before the end of year. If they share profit at the end of the year. If they share profit in the ratio 10 : 9 : 12. Find the value of 'x'.

- (a) 4 month
- (b) 6 month
- (c) 9 month
- (d) 3 month
- (e) 8 month

Q41. Sakshi married 6 years ago. Today her age is $\frac{5}{4}$ times her age at the time of her marriage and her son is $\frac{1}{5}$ of her age. Find the ratio of Sakshi age to her son's age after 10 years ?

- (a) 3 : 1
- (b) 5 : 2
- (c) 5 : 3
- (d) 3 : 2
- (e) 4 : 1

Q42. Ravi invested Rs 18000 in scheme 'A' which offers 15% p.a. at simple interest and Rs 15000 in scheme 'B' which offers 18% p.a at compound interest. Find the difference between the interest earned from these two schemes after two years?

- (a) 468
- (b) 396
- (c) 456
- (d) 486
- (e) 482

Q43. An alloy of copper and aluminum has 40% copper. Another alloy of Copper and Zinc has Copper and Zinc in the ratio 2: 7. These two alloys are mixed in ratio 5:3. Quantity of aluminum is what percent more/less than the quantity of copper in final alloy.

- (a) $11\frac{1}{9}\%$
- (b) $11\frac{1}{3}\%$
- (c) 12%
- (d) 13%
- (e) 12.5%

Q44. Two boats, travelling at 5 Km/h and 10 Km/h respectively, head directly towards each other. They are now at a distance of 20 km from each other. How far apart are they (in Kms) one minute before they collide?

- (a) $\frac{1}{12}$
- (b) $\frac{1}{6}$
- (c) $\frac{1}{4}$
- (d) $\frac{1}{3}$
- (e) None of these

Q45. If the volume and curved surface area of a cylinder 616 m^3 and 352m^2 respectively, what is the total surface area of the cylinder (in m^2)?

- (a) 429
- (b) 419
- (c) 435
- (d) 421
- (e) 417

Q46. In an alloy, zinc and copper are in the ratio 1 : 2. In the second alloy the same elements are in the ratio 2 : 3. In what ratio should these two alloys be mixed to form a new alloy in which the two elements are in ratio 5 : 8?

- (a) 7 : 11
- (b) 3:10
- (c) 5 : 11
- (d) 9:11
- (e) None of these

Q47. 40 men, working 8 hours a day can do a piece of work in 15 days. Find the number of days in which second group of 60 men working 4 hrs a day can do twice the work. Assume that 3 men of the first group do as much work in 2 hour as 4 men of the second group do in 3 hrs.

- (a) 60 days
- (b) 40 days
- (c) 80 days
- (d) 70 days
- (e) 75 days

Q48. A boat travel 75 km downstream and take same time as it travels 60 km in upstream. Speed of boat in downstream is what percent of the speed of boat in still water.

- (a) $111\frac{1}{9}\%$
- (b) $112\frac{1}{2}\%$
- (c) 113%
- (d) 140%
- (e) 110%

Q49. A train crosses a pole in 24 sec. A second train of same length crosses a platform in 30 sec with a speed 20% more than the first train. Find out the ratio of length of train and length of platform.

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

Q50. A tank can be filled with water by two pipes A and B together in 36 minutes. If the pipe B was closed after 30 minutes, the tank is filled in 40 minutes.

The pipe B can alone fill the tank in?

- (a) 45 minutes
- (b) 60 minutes
- (c) 75 minutes
- (d) 90 minutes
- (e) 85 minutes