Direction (1–25) : *What should come in place of the question mark (?) in the following question ?*

1. $75 \times 6 + 5 - 30 = (?)^3$
   (a) $4\sqrt{15}$ (b) 60
   (c) $2\sqrt{15}$ (d) $(60)^2$
   (e) $-\sqrt{15}$

2. 26% of 750 − 17% of 460 = ?
   (a) 122.7   (b) 114.9
   (c) 107.7   (d) 116.8
   (e) None of these

3. $(7)^3 + (49)^2 \times 343 = 7^{?} - 3$
   (a) 2   (b) 4
   (c) 3   (d) 5
   (e) None of these

4. $2\frac{1}{3}$ of $\frac{1}{4}$ of (?) = 315
   (a) 134   (b) 124
   (c) 126   (d) 108
   (e) None of these

5. $1\frac{1}{7} - 1\frac{1}{9} + \frac{1}{63} = ?$
   (a) $1\frac{3}{21}$ (b) $1\frac{1}{21}$
   (c) $2\frac{1}{21}$ (d) $1\frac{4}{21}$
   (e) None of these

6. $87.39 - 51.75 + 69.73 = ? + 52.42$
   (a) 51.74   (b) 65.65
   (c) 52.95   (d) 65.74
   (e) None of these

7. $0.8 \times 1.6 + 0.5 \times 12 = ?$
   (a) 20.52   (b) 30.72
   (c) 12.42   (d) 21.52
   (e) None of these

8. $24 \times 8 + 144 \div 35 = 132 + ?$
   (a) 148   (b) 159
   (c) 259   (d) 258
   (e) None of these

9. $9898 - 7676 + 5454 = ? + 3333$
   (a) 4334   (b) 3434
   (c) 4243   (d) 5454
   (e) None of these

10. $\frac{84}{17} \times \frac{85}{25} \times \frac{60}{7} = ?$

(a) $2\frac{1}{2}$ (b) $1\frac{4}{5}$
(c) $2\frac{2}{3}$ (d) $2\frac{1}{3}$
(e) None of these

11. $45 \times 18 + 5 - 83 = ? - 119$
   (a) 158   (b) 188
   (c) 134   (d) 168
   (e) None of these

12. $\frac{3}{19} \times \frac{13}{17}$ of 855 = ?
   (a) 117   (b) 85
   (c) 91   (d) 143
   (e) None of these

13. $431.42 - 56.74 = ? - 102.86$
   (a) 421.65   (b) 436.79
   (c) 467.54   (d) 477.69
   (e) None of these

14. $\frac{1}{13} + \frac{4}{39} + \frac{3}{26} = ?$
   (a) $\frac{23}{78}$ (b) $\frac{11}{78}$
   (c) $\frac{8}{13}$ (d) $\frac{11}{39}$
   (e) None of these

15. $(16 - 115) + 3 = ? + (-4)$
   (a) 16   (b) −16
   (c) −132   (d) 132
   (e) None of these

16. $[(14)^2 \times (21)^2] + (7)^2 = ?$
   (a) 3528   (b) 252
   (c) 74888   (d) 24696
   (e) None of these

17. $\sqrt[3]{148877} = ?$
   (a) 57   (b) 43
   (c) 47   (d) 48
   (e) None of these

18. $\sqrt{2916} \times (?)^2 = 19494$
   (a) 17   (b) 289
   (c) 19   (d) 361
   (e) None of these

19. $8436 \times ? \times 500 = 87875$
   (a) 54   (b) 48
   (c) 52   (d) 46

20. $(4.8 \times 3.8 \times 8 \cdot 5) - (2.4 \times 4.5 \times 6.5) = ?$
   (a) 74.74   (b) 84.74
   (c) 80   (d) 84.64
   (e) None of these

21. $3360 \div 15 \times 14 = ?$
   (a) 22   (b) 24
   (c) 16   (d) 42
   (e) None of these

22. $23\frac{8}{9} \times 15\frac{7}{12} - 12\frac{1}{3} \times \frac{2}{7} = ?$
   (a) $30\frac{1}{4}$ (b) $15\frac{1}{4}$
   (c) $30\frac{3}{4}$ (d) $31\frac{1}{4}$
   (e) None of these

23. $\dfrac{14 \times 25 \div \frac{5}{7}}{24 \times 8 \times 9 \times 7} = ?$
   (a) $\frac{7}{64}$ (b) $\frac{64}{7}$
   (c) $1\frac{11}{64}$ (d) $\frac{11}{75}$
   (e) None of these

24. $81^{?} \times 9^{?} \times 3^{19} = 9^{?}$
   (a) 7   (b) 9.4
   (c) 4.7   (d) 8.3
   (e) None of these

25. 28% of $750 = ?\%$ of 500
   (a) 35   (b) 42
   (c) 48   (d) 38
   (e) None of these

26. In a examination, Mandar scored 80 marks in Mathematics, 95 marks in Science, 74 marks in Social Studies, 65 marks in English and 72 marks in Hindi respectively. If all the papers were out of 100, what is Mandar's overall percentage in the examination?
   (a) 75   (b) 77.2
   (c) 78.5   (d) 80
   (e) None of these

27. The average of 5 positive numbers is 344. The average of first two number is 600 and the average of the last two number is 530. What is the third number?
   (a) 200   (b) 210
   (c) 220   (d) 180
   (e) Cannot be determined

28. Shilpa can complete a piece of work in 15 days and Shamita can complete the same piece of work in 24 days. In approximately, how many days can Shilpa and Shamita together complete the same piece of work?

29. Supriya's monthly income is twice Deepa's monthly income. The ratio of the monthly income of Deepa and Sandhya is 7 : 3 respectively and their average monthly income is ₹ 25,000. What is Supriya's monthly income?
   (a) ₹ 35,000   (b) ₹ 50,000
   (c) ₹ 75,000
   (d) Cannot be determined
   (e) None of these

30. Vinita invested a certain amount at the rate of 8 p.c.p.a. for 5 years and obtained a simple interest of ₹ 3,800. Had she invested the same amount at the same rate of interest for 2 years, how much amount would she have obtained as compound interest at the end of 2 years?
   (a) ₹ 1,580.80   (b) ₹ 1,250
   (c) ₹ 1,625.80   (d) ₹ 1,550
   (e) None of these

31. Find the average of the following set of scores. 50, 1050, 412, 390, 143, 286, 550, 999
   (a) 590   (b) 485
   (c) 520   (d) 550
   (e) None of these

   (a) 6 days   (b) 4 days
   (c) 7 days   (d) 9 days
   (e) None of these

32. There are 864 bananas packed in boxes in 9 boxes. Each box has the same number of bananas. How many dozens of bananas are packed in each box?
   (a) 12   (b) 8
   (c) 4   (d) 6
   (e) None of these

33. 450% of a number is 4725. What is 82% of that number?
   (a) 861   (b) 1050
   (c) 681   (d) 860
   (e) None of these

34. A trader sells 40 metres of cloth for ₹ 8,200 at a profit of ₹ 25 percent of cost. How much profit will the trader earn on 40 metres of cloth?
   (a) ₹ 950   (b) ₹ 1,500
   (c) ₹ 1,250   (d) ₹ 1,200
   (e) None of these

35. What approximate value should come in place of the question mark (?) in the following questions?
   $(35^2 \times 25) \div 185 = ?$
   (a) 150   (b) 175
   (c) 160   (d) 165
   (e) 170

Directions (36-38): What should come in place of question mark (?) in the following series?

36. 23, 51, 46, 62, 81, 103 (?)
(a) 126   (b) 130
(c) 133   (d) 128
(e) None of these

37. 7, 14, 25, 38, 55, 74, (?)
(a) 97   (b) 99
(c) 107   (d) 113
(e) None of these

38. 9, 73 105 121 129 (?) 133
(a) 133   (b) 131
(c) 133   (d) 134
(e) None of these

39. What will come in place of both the question marks (?) in the following question?
$$\frac{?}{7} = \frac{28}{?}$$
(a) $\sqrt{14}$ (b) $(196)^2$
(c) 196   (d) 14
(e) 12

40. The difference between the length and the breadth of rectangle is 7 cms and the perimeter of the rectangle is 50 cm. What is the area of the rectangle?
(a) 144 sq. cm   (b) 154 sq. cm
(c) 288 sq. cm   (d) 216 sq. cm
(e) None of these

41. Three seventh of a number is equal to 120. What is three-fifth of the number?
(a) 148   (b) 154
(c) 168   (d) 166
(e) None of these

42. How many horses are required for filling 15 kg of sweet if each box is filled with 250 grams of sweet?
(a) 70   (b) 80
(c) 120   (d) 30
(e) None of these

43. One of the angles of a parallelogram is 26°. What is the difference between the adjacent angles of the parallelogram?
(a) 138°   (b) 144°
(c) 172°   (d) 154°
(e) None of these

44. The average speed of a bus is $2\frac{1}{2}$ times the average speed of a tractor. The tractor covers 336 kms in 21 hours. How much distance will the bus cover in 12 hours?
(a) 380 kms   (b) 440 kms
(c) 360 kms   (d) 460 kms
(e) None of these

45. What will come in place of both the question marks (?) in the following question?
$$\frac{(?)^5}{45} = \frac{(?)^3}{?}$$
(a) 27   (b) $(9)^2$
(c) 9   (d) 3
(e) $\sqrt{3}$

46. Five men can complete a piece of work in 24 days. In how many days will 12 men complete the same piece of work?
(a) 8   (b) 6
(c) 12   (d) 10
(e) None of these

47. Lalit has some hens and some cows. If the total number of heads are 71 and total number of feet are 228, how many hens does Lalit has:
(a) 43   (b) 45
(c) 23   (d) 38
(e) 17

48. In how many different ways the word DIRECTOR be arranged
(a) 25800   (b) 5040
(c) 2520   (d) 20160
(e) None of these

49. If $(12)^2$ is subtracted from the square of a number, the answer so obtained is 976. What is the number?
(a) 56   (b) 58
(c) 52   (d) 54
(e) None of these

50. If $36x + 366 = 288$. What is the average of a and b?
(a) 8   (b) 10
(c) 2   (d) 4
(e) None of these