Qs. 1-20. What should come in place of the question mark (?) in the following questions?

1. 963 + 560 ÷ 35 =?

(1) 45 (2) 981
(3) 870 (4) 43
(5) None of these

2. 14400 ÷ 64 ÷ 9 = ?

(1) 27 (2) 23
(3) 29 (4) 21
(5) None of these

3. 14.8 × 12.3 × 8.6 = ?

(1) 1555.454 (2) 1535.445
(3) 1545.545 (4) 1565.544
(5) None of these

4. 45% of 720 = 30% of ?

(1) 960 (2) 1080
(3) 1240 (4) 820
(5) None of these

5. $3\frac{1}{6} + 4\frac{2}{3} - 1\frac{1}{4} = ?$

(1) $4\frac{1}{6}$ (2) $6\frac{2}{9}$
(3) $6\frac{7}{12}$ (4) $5\frac{1}{9}$
(5) None of these

6. 63251 + 52894 = ? + 37624

(1) 87812 (2) 67281
(3) 76821 (4) 78521
(5) None of these

7. $7\frac{2}{7}$ of 189 + 452 = 2000 − ?

(1) 183 (2) 164
(3) 170 (4) 198
(5) None of these

8. 68% of 595 − 43% of 372 = ?

(1) 244.64 (2) 232.84
(3) 278.44 (4) 260.24
(5) None of these

9. 35% of (?) = 2175.95

(1) 6712 (2) 6217
(3) 6127 (4) 6721
(5) None of these

10. ? ÷ 52 × 12 = 252

(1) 1242 (2) 992
(3) 1142 (4) 1346
(5) None of these

11. $(45)^2 + (21)^2 = (?)^2 + 257$

(1) 51 (2) 49
(3) 45 (4) 47
(5) None of these

12. $90780 \div \sqrt{?} = 85 \times 12$

(1) 89 (2) 7921
(3) 7569 (4) 87
(5) None of these

13. 1862 ÷ 28 = ?

(1) 66.5 (2) 67
(3) 64.5 (4) 69
(5) None of these

14. 63% of 962 + ? = 999

(1) 346.92 (2) 368.64
(3) 392.94 (4) 402.68
(5) None of these

15. 743 + 958 = ?% of 5670

(1) 34 (2) 26
(3) 30 (4) 22
(5) None of these

16. $\sqrt{5929} = ?$

(1) 77 (2) 83
(3) 87 (4) 93
(5) None of these

17. 638 + 254 ÷ 8 × 4 = ?

(1) 646 (2) 545
(3) 446 (4) 765
(5) None of these

18. 65% of 400 + $\sqrt{?}$ = 44% of 800 − 12% of 400

(1) 1936 (2) 44
(3) 2116 (4) 46
(5) None of these

19. $\frac{18 \times 14 + 46}{16 \times 10 - 23} = ?$

(1) $1\frac{1}{2}$ (2) $2\frac{24}{137}$
(3) $4\frac{37}{138}$ (4) $3\frac{32}{173}$
(5) None of these

20. $8 \times 5 + (?)^2 = (11)^2$

(1) 81 (2) 6561

(3) 9 (4) 27

(5) None of these

21. What should come in place of the question mark (?) in the following number series?

1 4 14 45 139 422 ?

(1) 1268 (2) 1234

(3) 1272 (4) 1216

(5) None of these

22. 38 per cent of first number is 52 per cent of the second number. What is the respective ratio of the first number to the second number?

(1) 5 : 4 (2) 16 : 9

(3) 26 : 19 (4) Cannot be determined

(5) None of these

23. What is the compound interest accrued on an amount of Rs 12,000, at the rate of 10 p.c.p.a. at the end of 3 years?

(1) Rs 3,972 (2) Rs 2,567

(3) Rs 4,780 (4) Rs 5,609

(5) None of these

24. The average age of a man and his son is 54 years. The ratio of their ages is 23 : 13 respectively. What will be ratio of their ages after 6 years?

(1) 10 : 7 (2) 5 : 3

(3) 4 : 3 (4) 3 : 2

(5) None of these

25. A single person takes 3 minutes to write a letter. If from 10 a.m. to 12.00 noon, 1960 letters are to be written, how many persons should be employed on this job?

(1) 53 (2) 47

(3) 51 (4) 49

(5) None of these

26. The simple interest accrued on an amount of Rs 9,530 at the end of 6 years is Rs 2,859. What is the rate of interest p.c.p.a.?

(1) 5 (2) 7

(3) 9 (4) 11

(5) None of these

27. The cost of 10 Chairs and 15 Tables is Rs 15,525. What is the cost of 8 Chairs and 12 Tables?

(1) Rs 13,560 (2) Rs 12,420

(3) Rs 14,840 (4) Cannot be determined

(5) None of these

28. The owner of a Gift shop charges his customer 28% more than the cost price. If a customer paid Rs 1,408 for some Soft toys, then what was the cost price of those Soft toys?

(1) Rs 1,300 (2) Rs 1,000

(3) Rs 1,200 (4) Rs 1,400

(5) None of these

29. A plot of 715 sq ft is available at the rate of Rs 3,850 per sq ft. If 40% of the total cost of the plot is to be paid for booking the plot, how much is the booking amount?

(1) Rs 11,10,000 (2) Rs 11,01,100

(3) Rs 11,01,000 (4) Rs 11,00,100

(5) None of these

30. If the product of two successive positive integers is 3192, which is the smaller integer?

(1) 52 (2) 58

(3) 54 (4) 56

(5) None of these

31. What **approximate** value should come in place of the question mark (?) in the following question?

$59.786 \div 14.444 \times 8.321 = ?$

(1) 49 (2) 58

(3) 22 (4) 66

(5) None of these

32. A sum of money is divided among A, B, C and D in the ratio of 4 : 5 : 7 : 11 respectively. If the share of C is Rs 1,351, then what is the total amount of money of A and D together?

(1) Rs 2,123 (2) Rs 2,316

(3) Rs 2,565 (4) Rs 2,895

(5) None of these

33. Mr Madhur deposits an amount of Rs 58,750 to obtain a simple interest at the rate of 12 p.c.p.a. for 4 years. What total amount will Mr Madhur get at the end of 4 years?

(1) Rs 91,230 (2) Rs 86,950

(3) Rs 74,760 (4) Rs 69,540

(5) None of these

34. If an amount of Rs 96,393 is distributed equally amongst 33 children. How much amount would each child get?

(1) Rs 2,789 (2) Rs 2,563

(3) Rs 2,860 (4) Rs 2,921

(5) None of these

35. The difference between 73% of a number and 58% of the same number is 960. What is 22% of that number?

(1) 1408 (2) 1232

(3) 1324 (4) 1536

(5) None of these

36. One-seventh of a number is 39. What will be 56% of that number?

(1) 164.66 (2) 152.88
(3) 178.22 (4) 182.44
(5) None of these

37. In a class of 55 students and 3 teachers, each student got sweets that are 20% of the total number of students and each teacher got sweets that are 60% of the total number of students. How many sweets were there?

(1) 737 (2) 671
(3) 714 (4) 638
(5) None of these

38. If $(108)^2$ is added to the square of a number, the answer so obtained is 13033. What is the number?

(1) 33 (2) 43
(3) 37 (4) 47
(5) None of these

39. In an examination it is required to get 350 of the aggregate marks to pass. A student gets 32% marks and is declared failed by 70 marks. What are the maximum aggregate marks a student can get?

(1) 885 (2) 865
(3) 875 (4) Cannot be determined
(5) None of these

40. Which number should replace both the question marks in the following equation?

$$\frac{?}{388} = \frac{97}{?}$$

(1) 222 (2) 196
(3) 206 (4) 178
(5) None of these

ANSWERS AND EXPLANATIONS

1. (5)	2. (5)	3. (4)
4. (2)	5. (3)	6. (4)
7. (5)	8. (1)	9. (2)
10. (5)	11. (4)	12. (2)
13. (1)	14. (3)	15. (3)
16. (1)	17. (4)	18. (1)
19. (2)	20. (3)	

21. (3) Multiplying each term by 3 and adding 1, 2, 3, 4, 5, 6 we get the next nos
∴ Reqd no. $= 422 \times 3 + 6 = 1272$.

22. (3) $\frac{38}{100}x = \frac{52}{100}y \Rightarrow \frac{x}{y} = \frac{26}{19}$

23. (1) C.I. $= 12000\left[\left(11 + \frac{10}{100}\right)^3 - 1\right] = \text{Rs } 3972$

24. (2) $23x + 13x = 54 \times 2 \Rightarrow x = 3$

$$\text{Reqd ratio} = \frac{23 \times 3 + 6}{13 \times 3 + 6} \frac{5}{3}$$

25. (4) $\frac{1960}{\frac{(2 \times 60)}{3}} = 49$ [∵ a person can write $\frac{2 \times 60}{3}$ letters in given time]

26. (1) $R = \frac{2859 \times 100}{9530 \times 6} = 5$

Rate = 5% p.a.

27. (2) $10x + 15y = 15525$

$\therefore 2x + 3y = 3105$ (*i*) [x = Cost of a chair
Multiply (*i*) by 4, y = Cost of 1 table]
we get, $8x + 12y = 12420$

28. (5) $\text{Reqd cost} = 1408 \times \frac{100}{128} = \text{Rs } 1100$

29. (2) $\text{Reqd amount} = 715 \times 3850 \times \frac{40}{100}$
$= \text{Rs } 11,01,100$

30. (4) $x(x+1) = 3192 \Rightarrow x = 56$

31. (5)

32. (4) $\frac{7}{4+5+7+11} x = 1351 \Rightarrow x = 193 \times 27$

$\text{Reqd amount} = \frac{4+11}{27} \times 193 \times 27$
$= \text{Rs } 2895$

33. (2) $A = 58750 + \frac{58750 \times 12 \times 4}{100}$
$= \text{Rs } 86950$

34. (4) $\text{Each child gets} = \frac{96393}{33} = \text{Rs } 2921$

35. (1) $\frac{(73-58)}{100} x = 960 \Rightarrow x = 6400$

$\therefore \frac{22}{100} \times 6400 = \text{Rs } 1408$

36. (2)

37. (5) Total sweats
$= \left(\frac{20}{100} \times 55\right) \times 55 + 3 \times \left(\frac{60}{100} \times 55\right)$
$= 704$

38. (3) $x^2 + 108^2 = 13033 \Rightarrow x = 37$

39. (3) $\frac{32}{100} x + 70 = 350 \Rightarrow x = 875$

40. (5) $\frac{x}{388} = \frac{97}{x} \Rightarrow x = \sqrt{97 \times 388}$
$= 2 \times 97 = 194$