7. The H.C.F of two numbers is 11 and their L.C.M is 693. If one of the numbers is 77, find the other.

(a) 88 (b) 99

(c) 76 (d) 66

8. The H.C.F of 1.75, 5.6 and 7 is ————.

(a) 0.07 (b) 0.7

(c) 3.5 (d) 0.35

9. The ratio of two numbers is 3:4 and their H.C.F is 4. Their L.C.M is ————.

(a) 12 (b) 16

(c) 24 (d) 48

10. The least number which should be added to 2497. So that the sum is exactly divisible by 5, 6, 4 and 3 is ————.

(a) 3 (b) 13

(c) 23 (d) 33

11. The sum of two numbers is 15 and the sum of their squares is 113. Find the numbers.

(a) 7, 8 (b) 8, 9

(c) 7, 9 (d) None of these

12. 50 is divided into two parts such that the sum of their reciprocals is $\frac{1}{12}$. Find the two parts.

(a) 30, 20 (b) 20, 10

(c) 30, 10 (d) None of these

13. Twenty times a positive integer is less than its square by 96. What is the integer?

(a) 20 (b) 24

(c) 30 (d) None of these

14. The sum of a positive number and its reciprocal is thrice the difference of the number and its reciprocal. The number is ————.

(a) $\sqrt{2}$ (b) $\frac{1}{\sqrt{2}}$

(c) $\sqrt{3}$ (d) $\frac{1}{\sqrt{3}}$

15. A number of two digits has 3 for its unit's digit and the sum of digits is $\frac{1}{7}$ of the number itself. The number is _____.

(a) 43 (b) 53

(c) 63 (d) 73

16. $0.069 \times 10000 =$ _____.

(a) 6.9 (b) 69

(c) 6900 (d) 690

17. _____ $\div 0.025 = 80$.

(a) 2 (b) 4

(c) 6 (d) 8

18. Which of the following fractions is greater than $\frac{3}{4}$ and less than $\frac{5}{6}$?

(a) $\frac{1}{2}$ (b) $\frac{2}{3}$

(c) $\frac{4}{5}$ (d) $\frac{9}{10}$

19. $48.95 - 32.006 =$ _____.

(a) 16.089 (b) 16.35

(c) 16.89 (d) 16.944

20. $\frac{1}{0.04} =$ _____.

(a) $\frac{1}{40}$ (b) $\frac{2}{5}$

(c) 2.5 (d) 25

21. The sum of $\bar{2}.75$ and $\bar{3}.78$ is _____.

(a) $\bar{1}.03$ (b) $\bar{1}.53$

(c) $\bar{4}.53$ (d) $\bar{5}.53$

22. If $1.5x = 0.04y$, then the value of $\left(\frac{y-x}{y+x}\right)$ is _____.

(a) $\frac{730}{77}$ (b) $\frac{73}{77}$

(c) $\frac{7.3}{77}$ (d) None of these

23. If $\frac{x}{y} = \frac{6}{5}$, find the value of $\left(\frac{x^2 + y^2}{x^2 - y^2}\right)$.

(a) $\frac{61}{11}$ (b) $\frac{11}{61}$

(c) $\frac{25}{11}$ (d) $\frac{61}{25}$

24. Find the value of $\left(1 - \frac{1}{3}\right)\left(1 - \frac{1}{4}\right)\left(1 - \frac{1}{5}\right) \ldots\ldots \left(1 - \frac{1}{100}\right)$.

(a) $\frac{1}{50}$ (b) $\frac{1}{25}$

(c) $\frac{1}{75}$ (d) 1

25. $(-5)\ (4)\ (2)\left(-\frac{1}{2}\right)\left(\frac{3}{4}\right) =$ _____.

(a) –30 (b) 30

(c) 15 (d) –15

26. The value of $\frac{(6+6+6+6) \div 6}{4+4+4+4 \div 4} =$ _____.

(a) 1 (b) $\frac{3}{2}$

(c) $\frac{4}{13}$ (d) $3\frac{6}{13}$

27. $\frac{3}{5}$ of $\frac{4}{7}$ of $\frac{5}{9}$ of $\frac{21}{24}$ of 504 = _____.

(a) 84 (b) 69

(c) 96 (d) 109

28. $5\frac{2}{3} \div ?\frac{5}{6} = 2$.

(a) 2 (b) 3

(c) 4 (d) None of these

29. Two – fifth of one-fourth of three-seventh of a number is 15. What is half of that number?

(a) 94 (b) 96

(c) 188 (d) None of these

(a) $\frac{7}{17}$ (b) $1\frac{33}{34}$

(c) $18\frac{1}{34}$ (d) None of these

31. Find the value of $\left[5\left(8^{\frac{1}{3}}+27^{\frac{1}{3}}\right)^{3}\right]^{\frac{1}{4}}$

(a) 1 (b) 5

(c) 10 (d) 15

32. The value of $(\sqrt{8})^{\frac{2}{3}}$ is _____.

(a) 2 (b) 4

(c) $\sqrt{2}$ (d) 8

33. If $\left(\frac{a}{b}\right)^{x-1} = \left(\frac{b}{a}\right)^{x-3}$, then the value of x = _____.

(a) $\frac{1}{2}$ (b) 1

(c) 2 (d) $\frac{7}{2}$

34. If $\sqrt{2^n} = 64$, then the value of n is _____.

(a) 2 (b) 4

(c) 6 (d) 12

35. If $a^x = b^y = c^z$ and $b^2 = ac$, then y = _____.

(a) $\frac{xz}{x+z}$ (b) $\frac{xz}{2(x-z)}$

(c) $\frac{xz}{2(z-x)}$ (d) $\frac{2xz}{x+z}$

36. 28% of 450 + 45% of 280 = _____.

(a) 225 (b) 252

(c) 224 (d) 522

37. What percent of 7 is 84?

(a) 12 %
(b) 1200 %
(c) 120 %
(d) None of these

38. 88 % of 370 + 24 % of 210 –? = 118

(a) 256
(b) 258
(c) 268
(d) 358

39. A's income is 25% more than B's income. B's income in terms of A's income is ————.

(a) 75%
(b) 80%
(c) 90%
(d) 96%

40. By how much percent is four-fifth of 70 lesser than five-seventh of 112?

(a) 24%
(b) 36%
(c) 30%
(d) 42%

41. A man sold 18 cots for Rs.16,800 gaining there by the cost price of 3 cots. The cost price of a cot is ————.

(a) Rs.650
(b) Rs.700
(c) Rs.750
(d) Rs.800

42. The difference between the cost price and sale price of an article is Rs.240. If the profit is 20%, the selling price is ————.

(a) Rs.1200
(b) Rs.1400
(c) Rs.1600
(d) None of these

43. Successive discounts of 10%, 12% and 15% amount to a single discount of

(a) 35.28%
(b) 32.68%
(c) 36.68%
(d) None of these

44. A shopkeeper earns a profit of 12% on selling a book at 10% discount on the printed price. The ratio of the cost price to the printed price of the book is ————.

(a) 50:61
(b) 55:69
(c) 45:56
(d) None of these

45. Komal buys an article at a discount of 25%. At what percentage above the cost price should he sell it to make a profit at 25% over the original list price?

(a) 25 (b) 30

(c) 40 (d) 60

46. If A : B = 5:7 and B : C = 6 : 11 then A : B : C = _____.

(a) 55 : 77 : 66 (b) 30 : 42 : 77

(c) 35 : 49 : 42 (d) None of these

47. If $\frac{x}{5} = \frac{y}{8}$, then $(x + 5) : (y + 8) =$ _____.

(a) 3:5 (b) 13:8

(c) 8:5 (d) 5:8

48. The third proportional to 0.36 and 0.48 is _____.

(a) 0.64 (b) 0.1728

(c) 0.42 (d) None of these

49. The ratio between two numbers is 3:4 and their L.C.M is 180. The first number is _____.

(a) 60 (b) 45

(c) 20 (d) 15

50. In a school, 10% of the boys are same in number as $\frac{1}{4}$th of the girls. What is the ratio of boys to girls in that school?

(a) 3 : 2 (b) 5 : 2

(c) 2 : 1 (d) 4 : 3

51. Reena and Shaloo are partners in a business. Reena invests Rs.35,000 for 8 months and Shaloo invests Rs.42,000 for 10 months. Out of a profit of Rs.31,570, Reena's share is _____

(a) Rs.9,471 (b) Rs.18,040

(c) Rs.12,628 (d) None of these

52. A, B, C Subscribe Rs.50,000 for a business. A Subscribes Rs.4,000 more than B and B Rs.5,000 more than C. Out of a total profit of Rs.35,000. A receives _____.

(a) Rs.8,400 (b) Rs.11,900

(c) Rs.13,600 (d) Rs.14,700

53. A, B, C hired a car for Rs.520 and used it for 7,8 and 11 hours respectively. Hire charges paid by B were ————.

(a) Rs.140 (b) Rs.160

(c) Rs.180 (d) Rs.220

54. A started a business with Rs.21,000 and is joined afterwards by B with Rs.36,000. After how many months did B join if the profits at the end of the year are divided equally?

(a) 3 (b) 4

(c) 5 (d) 6

55. A and B invest in a business in the ratio 3:2. If 5% of the total profit goes to charity and A's share is Rs.855, the total profit is ————.

(a) Rs.1425 (b) Rs.1500

(c) Rs.1537.50 (d) Rs.1576

56. In what ratio must water be mixed with milk costing Rs.12 per litre to obtain a mixture worth of Rs.8 per litre?

(a) 1:2 (b) 2:1

(c) 2:3 (d) 3:2

57. In what ratio must water be mixed with milk to gain $16\frac{2}{3}\%$ on selling the mixture at cost price?

(a) 6 : 1 (b) 1 : 6

(c) 2 : 3 (d) 4 : 3

58. A merchant has 1000 kg of Sugar, part of which he sells at 8% profit and the rest at 18% profit. He gains 14% on the whole. The quantity sold at 18% profit is ————.

(a) 400 Kg (b) 560 Kg

(c) 600 Kg (d) 640 Kg

59. In what ratio must water be mixed with milk to gain 20% by selling the mixture at cost price?

(a) 1 : 5 (b) 5 : 1

(c) 6 : 1 (d) 1 : 6

60. The milk and water in two vessels A and B are in the ratio 4 : 3 and 2 :3 respectively. In what ratio, the liquids in both the vessels be mixed to obtain a new mixture in vessel C containing half milk and half water?

(a) 5 : 7 (b) 7 : 5

(c) 7 : 6 (d) 6 : 7

61. The average of 20 numbers is zero. Of them, at the most, how many may be greater than zero?

(a) 0 (b) 1

(c) 10 (d) 19

62. The average of 2, 7, 6 and x is 5 and the average of 18, 1, 6, x and y is 10. What is the value of y?

(a) 5 (b) 10

(c) 20 (d) 30

63. The average of a non-zero number and its square is 5 times the number. The number is _____.

(a) 9 (b) 17

(c) 29 (d) 295

64. The average age of 35 students in a class is 16 years. The average age of 21 students is 14. What is the average age of remaining 14 students?

(a) 15 years (b) 17 years

(c) 18 years (d) 19 years

65. The average of runs of a cricket player of 10 innings was 32. How many runs must he make in his next innings so as to increase his average of runs by 4?

(a) 2 (b) 4

(c) 70 (d) 76

66. The average of ten numbers is 7. If each number is multiplied by 12, then the average of the new set of numbers is _____.

(a) 7 (b) 19

(c) 84 (d) 86

67. A cricketer has a certain average for 10 innings. In the eleventh inning, he scored 108 runs, thereby increasing his average by 6 runs. His new average is ————.

(a) 48 runs (b) 52 runs

(c) 55 runs (d) 60 runs

68. Three years ago, the average age of A and B was 18 years. With C joining them, the average age becomes 22 years. How old is C now?

(a) 24 years (b) 27 years

(c) 28 years (d) 30 years

69. Sachin is younger than Rahul by 4 years. If their ages are in the respective ratio of 7:9, how old is Sachin?

(a) 16 years (b) 18 years

(c) 28 years (d) None of these

70. At present, the ratio between the ages of Arun and Deepak is 4 : 3. After 6 years, Arun's age will be 26 years. What is the age of Deepak at present?

(a) 12 years (b) 15 years

(c) 19 years (d) 21 years

71. Ten years ago, A was half of B in age. If the ratio of their present ages is 3 : 4, what will be the total of their present ages?

(a) 20 years (b) 30 years

(c) 45 years (d) 35 years

72. The total age of A and B is 12 years more than the total age of B and C, C is how many years younger than A?

(a) 12 (b) 24

(c) 36 (d) None of these

73. Father is aged three times more than his son Ronit. After 8 years, he would be two and a half times of Ronit's age. After further 8 years, how many times would he be of Ronit's age?

(a) $2\frac{1}{2}$ times (b) 2 times

(c) $2\frac{3}{4}$ times (d) 3 times

74. In 10 years, A will be twice as old as B was 10 years age. 'If A is now 9 years older than B, the present age of B is ————.

(a) 19 years (b) 29 years

(c) 39 years (d) 49 years

75. Ayesha's father was 38 years of age when she was born while her mother was 36 years old when her brother four years younger to her was born. What is the difference between the ages of her parents?

(a) 2 years (b) 4 years

(c) 5 years (d) 6 years.

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