ARITHMETIC COMPETITION

Category III: Class VII and VIII

1. One fourth of a tank holds 120 litres of water. What part of the tank is full if it contains 320 litres of water?

   (A) 1/3   (B) ½   (C) 2/3   (D) 3/4

2. In a class, 3/5 of the students are girls and rest are boys. If 2/9 of the girls and ¼ of the boys are absent, what part of the total number of students are present?

   (A) 23/30   (B) 2/3   (C) 3/5   (D) 2/7

3. A man can save Rs. 1500 in a year if he spends his 2 months income in 3 months. His monthly income is

   (A) 450   (B) 500   (C) 475   (D) 375

4. The ratio between the speeds of two cars is 3:4. If the second car runs 128 km in 2 hours, then what is the speed of first train?

   (A) 64Km/ hr   (B) 48km/hr   (C) 36 km/hr   (D) 50 km.hr

5. There are 7 members in a family. Two grandparents, two parents and three grandchildren. Average age of the grandparents is 65, that of the parents is 40 and that of the grandchildren is 7. What is the average age of the family?

   (A) 27   (B) 31   (C) 33   (D) 32

6. What percentage of numbers from 1 to 90 have 1 or 9 in the units place?

   (A) 20%   (B) 15%   (C) 22%   (D) 25%

7. If A is x% of y and B is y% of x then which of the following is true?

   (A) A is greater than B   (B) B is greater than A

   (C) A is equal to B   (D) nothing can be said about A and B

8. A student is asked to multiply a number by 5/3. But by mistake, he multiplied it by 3/5. What is the percentage error in the calculation?

   (A) 34%   (B) 44%   (C) 54%   (D) 64%

9. What will be the ratio of the simple interest earned by a certain amount at the same rate of interest for 10 years and that for 16 years?

   (A) 2:3   (B) 4:7   (C) 5:8   (D) 8:5

10. A student's hostel has provision of food for 150 students for 45 days. After 10 days, 25 students had left the fort. The number of   days for which the remaining food will last is

   (A) 32   (B) 42   (C) 44   (D) 46

11. If 11 spiders make 11 webs in 11 days, then 1 spider will make 1 web in how many days?

    (A)   11   (B)   121   (C)   1   (D)   2

12. A pipe of diameter 'd' can drain a certain water tank in 2 hours. The time taken by a pipe of diameter '2d' for doing the same job is

    (A)   15 minutes   (B)   1 hour   **(C)   30 minutes**   (D)   45 minutes.

13. If the side of a square is increased by 20%, then how much does its area get increased?

    (A)   20%   (B)   40%   **(C)   44%**   (D)   120%

14. The principal which gives Rs.1 interest per day at a rate of 5% simple interest per annum is

    (A)   365   (B)   720   (C)   500   **(D)   7300**

15. What least value must be assigned to * so that the number 76823*2 is divisible by 8?

    (A)   1   (B)   2   **(C)   3**   (D)   4

16. Of the three numbers, the first number is 3 times the second and the third number is 5 times the first. If the   average of these three numbers is 57, the difference between the smallest and largest number is:

    (A)   135   (B)   108   **(C)   126**   (D)   18

17. The sum of the squares of two numbers in the ratio 3:4 is 400. What is the sum of the numbers?

    (A)   16   (B)   12   **(C)   28**   (D)   20

18. Sum of two numbers is thrice their difference. Their ratio is

    (A)   1:3   (B)   2:3   (C)   3:4   **(D)   2:1**

19. A man can swim a distance of 15Km downstream in 1 hour. If the speed of the stream of the current is 5Km per hour, the time taken by the man to swim the same distance upstream is

    (A)   2hr and 30min (B)   2 hr   **(C)   3hr**   (D)   4 hr

20. An article is sold at a profit of 5%. The ratio of selling price and cost price will be

    (A)   20:21   **(B)   21:20**   (C)   4:5   (D)   5:4

21. A student gets 3 marks for each correct answer and loses 2 marks for each wrong answer. He attempts 30 questions and obtained 40 marks. The number of questions answered correctly is

    (A)   20   (B)   22   (C)   24   (D)   26

22. If *65194 is divisible by 11, then find the value of *?

    (A)   2   (B)   5   (C)   7   **(D)   8**

23. A man set out for a journey. He travelled for a total of 16 hours. He covered the first half of the distance at a speed of 40km/hr and the second half at a speed of 60km/hr. How much distance did he cover?

(A)   668km   **(B)   768km**   (C)   568km   (D)   600km

24. A wire in the form of rectangle has its length and breath as 40 cm and 30cm respectively. The wire is then bent into a square. The difference between the area of the rectangle and square is

(A)   225 sq.cm   (B)   no difference in area   **(C)   25 sq.cm**   (D)   125sq.cm

25. A circular disc of radius 7cm is divided into two equal parts. What is the perimeter of each of the semicircle shape disc?

(A)   44cm   (B)   29cm   **(C)   36cm**   (D)   40cm