ARITHMETIC COMPETITION

Category IV: Class IX and X

1. P is 4 years older to Q but 3 years younger to R. Q and S are twin brothers. How many years younger is S to R?

   (A)   5 years   (B)   6 years   **(C)   7 Years**   (D)   8 years.

2. 20 players of a club play a badminton singles tournament. Every time a member loses a game, he is out of the tournament. It is assumed that there are no ties. What is the minimum number of matches that must be played to determine a winner?

   (A)   21   (B)   20   (C)   18   **(D)   19**

3. Ranita Chanu has collected Rs. 320 in Yaoshang in the denominations of one rupee notes, five rupee notes and 10 rupee notes. The number of notes in each denominations is equal. What is the total number of notes that she collected?

   (A)   45   (B)   48   **(C)   60**   (D)   56

4. A farmer built a fence around his square field. He used 25 fence poles on each side of the field. How many poles did he need altogether?

   (A)   100   **(B)   96**   (C)   98   (D)   94

5. Two times the number of boys in a class is 5 times the number of girls. Which one of the following numbers cannot represent the total number of children in the class?

   (A)   49   (B)   56   (C)   42   **(D)   71**

6. The number which when added to itself 10 times gives 121 is

   (A)   10   **(B)   11**   (C)   12   (D)   13

7. A bus starts from city A. The number of women in the bus is half of the number of men. In city B, 12 men leave the bus and 7 women enter. Now number of men and women is equal. In the beginning, how many passengers entered the bus?

   (A)   57   (B)   55   (C)   58   (D)   60

8. At the end of a meeting, the eleven persons present all shake hands with each other once. How many   handshakes will there be altogether?

   (A)   32   (B)   36   **(C)   55**   (D)   45

9. You have a few sweets to be distributed. If you keep 2,3 or 4 in a pack, you are left with one sweet. If you   keep 5 in a pack, you are left with none. Select the minimum possible number of sweets you have to pack and distribute.

   (A)   15   **(B)   25**   (C)   24   D   35

10. Mr. X is 3 times as fast as Mr. Y. Together they can do a task in 15 days. In how many days, will Mr. X alone finish the task?

    (A)   17   (B)   18   (C)   19   **(D)   20**

11. Chaoba took a loan of Rs. 25,000 on simple interest for 3 years at the rate of 4% p.(A) The total amount that he will be paying as interest in 3 years is 5% of his monthly salary. What is his salary?

    (A)   6000   (B)   66000   **(C)   60000**   (D)   66600

12. 32% of the members of a certain group of locality are unmarried. What is the respective ratio between the number married members to the unmarried members?

    (A)   16:7   **(B)   17:8**   (C)   8:17   (D)   19:7

13. A bus is running at 60 Km/Hr without any stoppage. But with stoppages its average speed is 50 Km/Hr. Find the time of stoppage by the bus per hour.

    (A)   9 minutes (B)   7 minutes **(C)   10 minutes** (D)   10 minutes

14. 60% of a number is equal to three – fifth of another number. What is the ratio between the second number and the first number?

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

15. A dealer wants to earn 25% profit on an article after offering 40% discount. By what percent should be increased his marked price to arrive at the label price?

    (A)   40%   **(B)   50%**   (C)   45%   (D)   60%

16. An egg seller buys eggs at 2 for Rs.1. He sells the eggs at 5 for Rs.3. The profit percentage on selling the eggs is

    (A)   12%   (B)   14%   (C)   16%   **(D)   20%**

17. If x is an odd number and y is an even number then which of the following is not an even?

    (A)   x + y -1 + xy   (B)   x + y -1   **(C) $x^2 + y^2 + xy$**   (D)   2x +3y + 2xy

18. Three bottles of equal capacities are containing a mixture of milk and water in the ratio 1:2, 4:5 and 11:7 respectively. These three bottles are emptied into a large bottle. What is the ratio of milk and water   respectively in this large bottle?

    (A)   27:29   **(B)   25:29**   (C)   29:25   (D)   29:27

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

    (A)   34%   **(B)   44%**   (C)   20%   (D)   40%

20. Two numbers are in the ratio 5:6 and if 4 is added to the first number and 4 is subtracted from the second number then the ratio becomes 3:2. Find the difference between the two numbers?

(A)   **2:5**   (B)   3:5   (C)   5:3   (D)   5:2

21. The speed of three cars in the ratio 2:3:5. What is the ratio among the time taken by these cars to travel the same distance?

(A)   3:5:2   (B)   3:2:5   **(C)   15:10:6**   (D)   6:10:15

22. A tap can fill a tank in 12 hours. Due to a hole in its base, it is filled in 18 hours. If tank is full then in how many hours it will be empty through the hole in its base?

(A)   33 hours   **(B)   36 hours**   (C)   26 hours   (D)   42 hours

23. It is compulsory to get 36% marks in a paper to Ashok to pass it. He got only 24% marks and failed by 9 marks. Total marks of the paper was

(A)   100   **(B)   75**   (C)   50   (D)   120

24. In an election between two candidates, the winning candidate has got 70% of the votes polled and has won by 15,400 votes. What is the number of votes polled for the loosing candidates?

(A)   10550   (B)   11500   **(C)   11550**   (D)   10500

25. If the ratio of selling price and cost price is 4:5 respectively, then the loss percentage in this transaction is

(A)   10%   (B)   15%   (C)   12%   **(D)   20%**