

# QUESTION PAPER

Standard: 9<sup>TH</sup> & 10<sup>TH</sup>

Sub: Mathematics

- From the choices given below mark the co-prime numbers.
  - 2, 3
  - 2, 4
  - 2, 6
  - 2, 110
- If the sides of a triangle are 26cm, 24cm and 10cm. What is its area?
  - 120 cm sq
  - 130 cm sq
  - 312 cm sq
  - 315 cm sq
- An example of a whole number is
  - 0
  - 1/2
  - 11/7
  - 4
- Find the co-ordinates of a point on x-axis, which is at a distance of 5 units from the point (6, -3).
  - (2, 0) and (10, 0).
  - (0,2) and ( 0,10).
  - (2, 10) and (0, 0).
  - None of these
- How old will I be after 10 years, if my age before 10 years was 'x' years?
  - X + 20
  - X - 20
  - X + 10
  - X - 10
- If  $2x/5 = 4$ , the value of x is-
  - 10

- (b) -10
  - (c)  $-\frac{8}{5}$
  - (d)  $\frac{8}{5}$
7. What is the probability that a number selected from the numbers (1, 2, 3,.....,15) is a multiple of 4?
- (a)  $\frac{1}{5}$
  - (b)  $\frac{4}{5}$
  - (c)  $\frac{2}{15}$
  - (d)  $\frac{1}{3}$
8. The probability of a non- leap year should have only 52 Sunday is:
- (a)  $\frac{53}{366}$
  - (b)  $\frac{6}{7}$
  - (c)  $\frac{2}{7}$
  - (d)  $\frac{53}{365}$
9. If  $x - a$  is a factor of  $P(x)$ , then  $P(a)$  should be
- (a) 1
  - (b) 0
  - (c) a
  - (d)  $-a$
10. Find the area of the parallelogram with base 24 cm and height 16 cm.
- (a)  $262 \text{ cm}^2$
  - (b)  $384 \text{ cm}^2$
  - (c)  $131 \text{ cm}^2$
  - (d) None of these
11. The area of square is equals to five times the area of rectangle of dimensions 125cm \* 64cm. What is the perimeter of the square?
- (a) 700 cm
  - (b) 800 cm
  - (c) 900 cm
  - (d) 300 cm
12. Find the position of 62 in the following series 2, 5, 8, ....?
- (a) 26
  - (b) 21
  - (c) 23
  - (d) 20

13. If  $x$  units are added to the length of the radius of a circle, what is the number of units by which the circumference of the circle is increased?
- (a) 2
  - (b)  $2x$
  - (c)  $x$
  - (d)  $x^2$
14. An order was placed for the supply of a carpet whose length and breadth were in the ratio of  $3 : 2$ . Subsequently, the dimensions of the carpet were altered such that its length and breadth were in the ratio  $7 : 3$  but there was no change in its perimeter. Find the ratio of the areas of the carpets in both the cases.
- (a)  $7 : 8$
  - (b)  $8 : 7$
  - (c)  $6 : 7$
  - (d)  $5 : 6$
15. Factorization of  $x^3 + 8$  is equal to
- (a)  $(x + 2)(x^2 - x + 2)$
  - (b)  $(x + 2)(x^2 + x - 2)$
  - (c)  $(x + 2)(x^2 - 2x + 4)$
  - (d)  $(x + 2)(x^2 + 2x + 4)$
16. A bag contains 3 red and 2 blue marbles. A marble is drawn at random. The probability of drawing a black ball is :
- (a)  $3/5$
  - (b)  $2/5$
  - (c)  $0/5$
  - (d)  $1/5$
17. Find the ratio in which the line joining the points  $(6, 4)$  and  $(1, -7)$  is divided by  $x$ -axis.
- (a)  $1 : 3$
  - (b)  $2 : 7$
  - (c)  $4 : 7$
  - (d)  $5 : 7$
18. The probability that it will rain tomorrow is  $0.85$ . What is the probability that it will not rain tomorrow
- (a)  $0.25$
  - (b)  $0.145$
  - (c)  $3/20$
  - (d) none of these
19. If three coins are tossed simultaneously, then the probability of getting at least two heads, is

- (a)  $\frac{1}{4}$
- (b)  $\frac{3}{8}$
- (c)  $\frac{1}{2}$
- (d)  $\frac{1}{8}$

20. A.P whose  $n$ th term is  $2n-1$  is

- (a) 1,3,6,...
- (b) 2,3,5,...
- (c) 1,3,5,...
- (d) 5,3,1,...

21. The sum of  $n$  terms of an A.P. is  $3n^2 + n$ , find the  $n$ th term.

- (a)  $6n - 4$
- (b)  $4n - 4$
- (c)  $6n - 2$
- (d)  $4n - 2$

22. Find the sum of the following series

$3 + 7 + 11 + 15 + \dots$  To 30 terms

- (a) 1920
- (b) 1970
- (c) 1830
- (d) 1740

23. The number  $1.101001000100001\dots$  is

- (a) A natural number
- (b) A whole number
- (c) A rational number
- (d) An irrational number

24. If the decimal representation of a number is non-terminating, non-repeating then the number is

- (a) A natural number
- (b) A rational number
- (c) A whole number
- (d) An irrational number

25. The vertices of a  $\triangle ABC$  are given by  $A(2, 3)$  and  $B(-2, 1)$  and its centroid is  $G$ . Find the coordinates of the third vertex  $C$  of the  $\triangle ABC$ .

- (a)  $(0, 2)$
- (b)  $(1, -2)$
- (c)  $(2, -3)$
- (d)  $(-2, 3)$

26. An equilateral triangle is also an

- (a) isosceles triangle
- (b) Reflective triangle
- (c) Scalene triangle
- (d) Equiangular triangle

## ANSWERS

1. A
2. A
3. A
4. A
5. A
6. A
7. A
8. B
9. B
10. B
11. B
12. B
13. B
14. B
15. C
16. C
17. C
18. C
19. C
20. C
21. C
22. C
23. D
24. D
25. D
26. D