ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

FOR GOD AND COUNTRY

SOLUTIONS OF WORKSHEET-28

SUBJECT – MATHEMATICS

Final - Term

Chapter: Co-ordinate geometry **Class: XI**

Topic: Miscellaneous **Date: 25.01.2021**

Choose the correct option (1 x 15=15)

1. The equation of the line which makes an angle of 45 degree with x-axis and cuts the y-axis at (0 , 3) is –
   a) y=x+3
   b) y=3
   c) x=3
   d) None of these

2. The magnitude of the angle which the line y = -x makes with the positive direction of x-axis is –
   a) 45 degree
   b) 90 degree
   c) 135 degree
   d) 225 degree

3. The slope of a line parallel to y-axis is –
   a) 0
   b) 1
   c) -1
   d) Undefined

4. The st. lines joining the points (3 , -5) and (-3 , -5) is parallel to the –
   a) Y – axis
   b) X – axis
   c) Line 3x + 5y = 0
   d) Line 3x = 5y

5. The angle between the straight lines $x = 5$ and $y + 5 = 0$ is –
   a) 0 degree
   b) 90 degree
   c) 180 degree
   d) None of these.

6. The coordinates of two extremities of a diameter are (x , 3) and (3 , 5) and
   centre is at (2 , y). Then x & y are –
   a. 2 , 3
   b. 3 , 2
   c. 1 , 4
   d. 4 , 1

7. The position of the origin with respect to the circle
   $x^2 + y^2 - 3x + 2y - 19 = 0$ is –

   a) Inside the circle
   b) Outside the circle
   c) On the Circle
   d) None of these.

8. The radius of the circle $x^2 + y^2 + 4x - 8y = 5$ is –
   a. 5 unit
   b. 4 unit
   c. 3 unit
   d. 6 unit

9. The circle $(x + 2)^2 + (y - 2)^2 = 4$ touches –
   a. Both the axes.
   b. The x-axis
   c. The y-axis.
   d. None of these.

10. The circle $(x - 4)^2 + (y - 3)^2 = 9$ touches –
   a. The x-axis.
   b. The y-axis.
   c. Both the axes.
   d. None of these.

11. The length of the latus rectum of the parabola $3x^2 = -8y$ is ?

a) $\frac{4}{3}$ *unit* , b) $\frac{8}{3}$ *unit* , c) $\frac{2}{3}$ *unit* , d) 5 *unit*

12. The equation of the directrix of the parabola $4x^2 = 3y$ is ?

a) $16y = 3$, b) $16y = -3$, c) $8y = 3$, d) $8y = -3$

13. The length of the latus rectum of the parabola $(y-1)^2 = -6(x+2)$ is ?

a) 7 units , b) 4 units , c) $\frac{3}{2}$ *units* , d) None of These

14. The parametric equations of the parabola $y^2 = 8x$ are ?

a) $x = 6t^2$, $y = 3t$

b) $y = 6t^2$, $x = 3t$

c) $x = 3t^2$, $y = 6t$

d) $x = 2t^2$, $y = 4t$

15. The coordinates of the vertices of the ellipse $4x^2 + y^2 = 16$ are ?

a) $(0, \pm 2)$, b) $(0, \pm 3)$, c) $(\pm 4, 0)$, d) $(0, \pm 4)$

Prepared by :-

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