

COORDINATE GEOMETRY

CM090301

Multiple Choice Questions:

1 mark each

1. Which of the following points lies below the x-axis ?

- (a) $(5, -4)$ (b) $(-5, 4)$ (c) $(-3, 0)$ (d) $(3, 0)$

2. If $(x, y) = (y, x)$, then :

- (a) $x - y = 0$ (b) $x + y = 0$ (c) $xy = 0$ (d) $\frac{x}{y} = 0$

3. The perpendicular bisector of a line segment AB passes through the origin. If the co-ordinates of A are $(-2, 0)$, the co-ordinates of B are:

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

4. If $(x + 1, 4) = (5, y - 1)$, then the values of x and y are :

- (a) $x = 4, y = 4$ (b) $x = 5, y = 4$ (c) $x = 4, y = 5$ (d) $x = 5, y = 5$

5. The point $(2, 7)$ is at a distance of _____ units from the y-axis.

- (a) 2 (b) 7 (c) $2 + 7$ (d) $7 - 2$

Very Short Answer Type Questions :

2 marks each

6. Find the co-ordinates of the point :

- (i) Which lies on x and y axes both.
(ii) Whose abscissa is 2 and which lies on the x-axis.

7. What is the perpendicular distance of the points $A(7, -4)$ from (i) x-axis (ii) y-axis ?

8. Locate the following points in the cartesian plane: $A(3, 0)$, $B(0, 5)$, $C(-3, -5)$ and $D(2, 4)$

Short Answer Type Questions :

3 marks each

9. Plot the point $P(-6, 2)$ and from it draw PM and PN as perpendiculars to x-axis and y-axis respectively. Write the co-ordinates of the points M and N.

10. Plot following points and write the name of the figure thus obtained. $A(-3, 2)$, $B(-7, -3)$, $C(6, -3)$, $D(2, 2)$.

11. Plot the following points and check whether they are collinear or not.

- (i) $(0, 0)$, $(2, 2)$, $(5, 5)$
(ii) $(1, 3)$, $(-1, -1)$, $(-2, -3)$
(iii) $(1, 1)$, $(2, -3)$, $(-1, -2)$

Long Answer Type Questions :

4 marks each

12. (i) Plot each of the points A $(-2, 4)$, B $(-2, -3)$, C $(4, -3)$ and D $(4, 4)$.

(ii) Draw the segments AB, BC, CD and DA. What is the name of the figure ABCD ?

(iii) What are the coordinates of the point where the segment AD cuts the y-axis ?

(iv) What are the coordinates of the points where the segment CD cuts the x-axis ?

13. Write the coordinates of the vertices of a rectangle whose length and breadth are 5 and 3 units respectively, one vertex at the origin, the longer side lies on the x-axis and one of the vertices lies in the third quadrant.

