CHAPTER 3

## COORDINATE GEOMETRY

1. In which quadrant or axis will the point lie, if
   (a) the ordinate is 3 and the abscissa is -4?
   (b) the abscissa is -2 and the ordinate is -3?
   (c) (4,0)   (d) (3,4)
   (e) (0,-5)

2. Plot the point
   (a) whose abscissa is -6 and ordinate is 3
   (b) whose ordinate is -5 and lies on y-axis
   (c) whose abscissa is 4 and lies on x-axis
   (d) whose abscissa equals the ordinate and whose distance from y-axis is 4 units in the positive direction of x-axis.

3. Given the point P (3, 4). What is the distance of the point P from (i) x-axis (ii) y-axis

4. Plot the points A (4, 0), B (4, 4) and C (0, 4) on the graph. Join OA, AB, BC, and CO. Name the figure so obtained and find its area.

5. A point lies on the positive side of y-axis at a distance of 2 units from x-axis. Its coordinates are (2, 0). State true or false. Justify your answer.

6. Write the abscissa and ordinate of the point (-7, 5).

7. ABC is an equilateral triangle. The coordinates of the vertices of B and C are (3, 0) and (-3, 0) respectively. Find the coordinates of its vertex A

8. ABCD is a square. The coordinates of B and C are (2, 3) and (-1, -2) respectively. Find the coordinates of A and D.
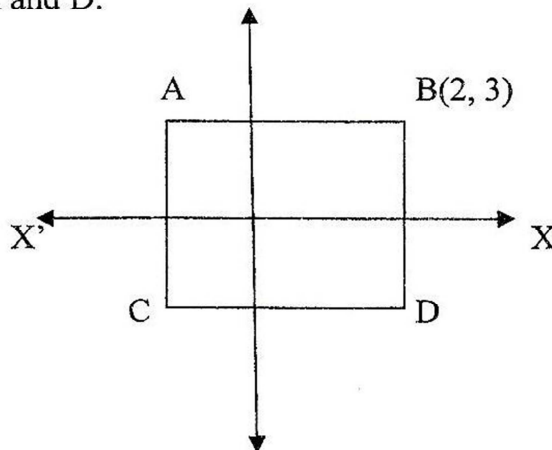
9. ABC is an equilateral triangle with co-ordinate of B and C as B (1, 0) and C (5, 0). Find the co-ordinate of the vertex A.

10. The length of perpendiculars PM and PN drawn from a point P, on x-axis and y-axis are of 3 and 2 units respectively. Find the co-ordinates of points P, M and N

11. Choose the correct answer.

(1). The mirror image of the point (3,9) on x-axis is

(a) (-3,9) (b) (9,3) (c) (3,9) (d) (-3,-9)

(2) The mirror image of the point (4,-3) on y-axis is

(a) (-4,3) (b) (-4,-3) (c) (4,-3) (d) (4,3)

(3) A point whose coordinates are positive in

(a) I quadrant (b) II quadrant (c) III quadrant (d) IV quadrant

(4) The point in which abscissa and ordinate have different sign will lie in

(a) I & II quadrant (b) II & III quadrant (c) III & I quadrant (d) II & IV quadrant.

12. PQR is an equilateral triangle with coordinates of Q & R as (0,4), (0,-4) respectively.
Find the coordinates of the vertex P.