

Chapter 6 – Coordinate Geometry

MM 20

Class X

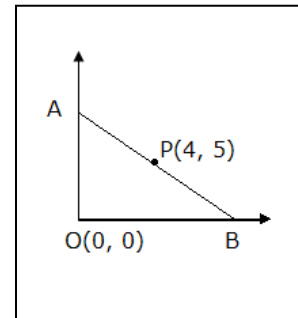
Time 1h

1 Mark Each

1. Find the distance between the origin and  $P(x, y)$
2. For  $A(7, 2)$  and  $B(4, y)$  If  $|AB| = 5$ , Find  $y$ .
3. Use distance formula check if points  $A(1, 2)$ ,  $B(5, 3)$  and  $C(18, 6)$  form a triangle.
4. x coordinate is called \_\_\_\_\_
5. Find  $k$  for which  $A(-1, 3)$ ,  $B(2, k)$  and  $C(5, -1)$  are collinear

2 Marks Each

6. In figure  $P$  is the midpoint of  $AB$ . Find coordinates of  $A$  and  $B$ .
7. line segment  $AD$  is trisected at  $B$  and  $C$ . Find Coordinates of  $A$  and  $D$  given  $B(-3, 3)$  and  $C(-2, 8)$
8. Line joining  $P(3, 2)$  and  $Q(-4, 5)$  cuts  $y$  axis at  $A$ . Find ratio in which  $A$  divides  $PQ$ ? Also find coordinates of  $A$ .



3 Marks Each

9. Prove points  $(a, b + c)$ ,  $(b, c + a)$  and  $(c, a + b)$  are collinear.
10. Find area of quadrilateral whose vertices taken in order are  $A(-4, -2)$ ,  $B(-3, -5)$ ,  $C(3, -2)$ ,  $A(2, 3)$  by dividing it into two triangles
11. Prove diagonals of a rectangle are equal and bisect each other. [you may take vertices as  $O(0, 0)$ ,  $A(x, 0)$ ,  $B(x, y)$  and  $C(0, y)$ ]

