

# Mathematics

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(Chapter – 3) (Coordinate Geometry)(Exemplar Problems)

(Class – IX)

## Exercise 3.1

Write the correct answer in each of the following:

### Question 12:

If the perpendicular distance of a point P from the  $x$ -axis is 5 units and the foot of the perpendicular lies on the negative direction of  $x$ -axis, then the point P has

- (A)  $x$  – coordinate =  $-5$                       (B)  $y$  - coordinate = 5 only  
(C)  $y$  – coordinate =  $-5$  only              (D)  $y$  – coordinate = 5 or  $-5$

### Answer 12:

(D)  $y$  – coordinate = 5 or  $-5$

### Solution:

We do know that perpendicular distance of a point from the X-axis Y-coordinate of that point. Here foot of perpendicular lies on the negative direction of X-axis, so perpendicular distance can be measure in II quadrant or III quadrant. Hence, the point P has  $y$ -coordinate = 5 or  $-5$ .

