# **Chapter: Introduction to Coordinate Geometry** Page No: 247 **Exercise 22A**

### **Question 1:**

### Solution:

- The abscissa is 0 (i)
- (ii) The abscissa is 3
- The abscissa is -2 (iii)
- (iv) The abscissa is 6

### **Question 2:**

### Solution:

- (i) The ordinate is 0
- (ii) The ordinate is 2
- (iii) The ordinate is -4
- The ordinate is -7 (iv)

# **Question 3:**

# Solution: The plot of the points is given below: В 5 G 0 -5 10 E -5

# **Question 4:** Solution:

(i) The points lie on a line.



(ii) The points lie on a straight line.



# **Question 5:**

### Solution:





The coordinates of point D are (4, 4).





The lines intersect at approximately (2.2, 2.4).



y-axis a The coordinates of the points where this line meets the x-axis and the y-axis are (6, 0) and (0, 6).

#### **Question 10:** Solution:

From the graph it is clear that

- (a) (2, 1) represents E.
- (b) (0, 5) represents B
- (c) (2, 0) represents G

The coordinates of the points A are (4, 5) and F are (5.5, 0)

# **Question 11:**

### Solution:

The coordinates of all points are as follows: A(4, 7), B(7, 4), C(4, 1), D(1, 4), E(3,5), F(5,5), G(5,3), H(3, 3), 1(4, 5), J(5, 4), K(4, 3), L(3, 4).

# **Question 12:**

# Solution:

The coordinates of the vertices are as follows:

A(1, 1), B(3, 0), C(4, 2), D(2, 3); I(1, 2), J(2, 4), K(0,5); E(5, 1), F(6, 3), G(5,5) H(4, 3); L(2,5), M(1,5), N(2, 6), O(3, 6), P(4, 5), Q(4, 4)

### **Question 13:**

### Solution:

- (i) y – axis as the x-coordinate is zero.
- (ii) x - axis as the y-coordinate is zero.
- (iii) 0 as the point lies on the y-axis.

- (iv) origin as the two axes intersect.
- (v) 2 units
- (vi) x coordinate as it indicates distance from the y axis.
- (vii) (0,0) as they represent the origin.

### Page No: 249 Exercise 22B

**Question 1: Solution:** (a) Since both the points are positive, the point lies in the first quadrant.

Question 2: Solution: (c) Since both the points are negative, the point lies in the third quadrant.

### **Question 3:**

Solution: (d)

Since the x-coordinate is positive and the y-coordinate is negative, the point lies in the fourth quadrant.

### Question 4:

**Solution:** (b) Since the y-coordinate is positive and the x-coordinate is negative, the point lies in the second quadrant.

#### **Question 5:**

**Solution:** (c) This is quite evident from the definition of abscissa

Question 6: Solution: (d)

The equation of y = a is a line parallel to the x-axis that passes through the point y = a.

**Question 7: Solution:** (a) The y-axis is represented as x = 0.