— : Revision Class Test :— Date: 28/01/26

Chapters : Co-ordinate Geometry, Quadrilaterals

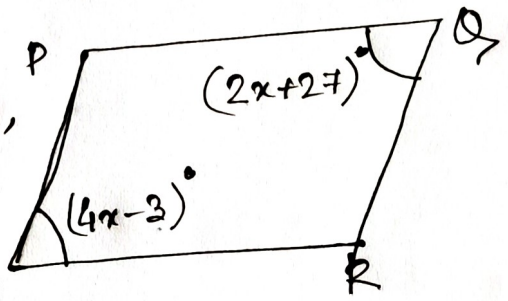
F.M. - 16 Time - 40 minutes

[A] Choose the correct option : [1×3=3]

1. A point P(x, y) lies in quadrant II. If the signs of x and y are interchanged, then it lies in —

(A) Quadrant I (B) Quadrant II (C) Quadrant III (D) Quadrant IV

2. If PQRS is a parallelogram, find the value of x.



(A) 30 ; (B) 25 ; (C) 10 ; (D) 15

3. ΔABC is an isosceles triangle with BC = AC. If AC = 5 cm and AB = 8 cm, the length of the line segment joining midpoints of AB and AC is equal to —

(A) 4 cm , (B) 10 cm (C) 6.5 cm (D) 2.5 cm

[B] Assertion - Reason based questions :- [1×2=2]

1. Assertion (A) : If the diagonals of a parallelogram ABCD are equal, then $\angle ABC = 90^\circ$

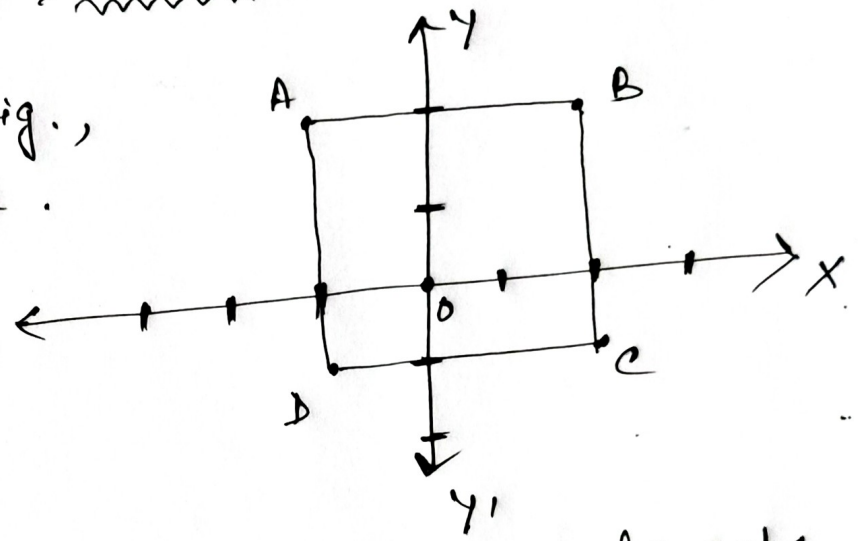
Reason (R) : If the diagonals of a parallelogram are equal, then it is a rhombus.

2. Assertion (A) : The distance of a point $(0, -3)$ from the origin is 3 units.

Reason (R) : Any point on the X-axis can be written in the form $(x, 0)$

[C] Short Answer Type Questions : $3 \times 2 = 6$

1. In the adjoining fig., ABCD is a square. Find the co-ordinates of its vertices.



2. Prove that, diagonals of a parallelogram bisect each other.

[D] Long Answer Type Question :- 5

In the adjoining fig., ABCD is a trapezium, where AB || DC and AB = 15 cm, DC = 10 cm. X and Y are midpoints of the non-parallel sides AD and BC respectively. Diagonal AC is drawn that intersect XY at the point Z, XY || AB. Prove that, $XY = \frac{1}{2}(AB + DC)$ and also find the length of XY. [4+1]