— : Revision Class Test : —

Date : 27/01/26

Chapters : Co-ordinate Geometry & Quadrilaterals

F.M. - 16

Time - 40 min.

[A] M.C.Q. [1×3 = 3]

(1) If the co-ordinates of a point P are $(a, -3a)$ and P lies on the line $y = -3x$, then the value of 'a' is —

(A) -1 (B) 0 (C) 1 (D) Any real number

(2) Which of the following points lies on the angle bisector of the Quadrant II ?

(A) $(-2, -2)$ (B) $(2, -2)$ (C) $(-3, 3)$ (D) $(3, 3)$

(3) The diagonals of a quadrilateral bisect each other at right angles. The quadrilateral is most likely a —

(A) Rectangle (B) Square (C) Parallelogram (D) Trapezium

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

(1) Assertion (A) : Two points A and B having coordinates $(3, 3)$ and $(-3, -3)$ respectively are joined. The line segment AB passes through origin.

Reason (R) : Origin is the point of intersection of coordinate-axes.

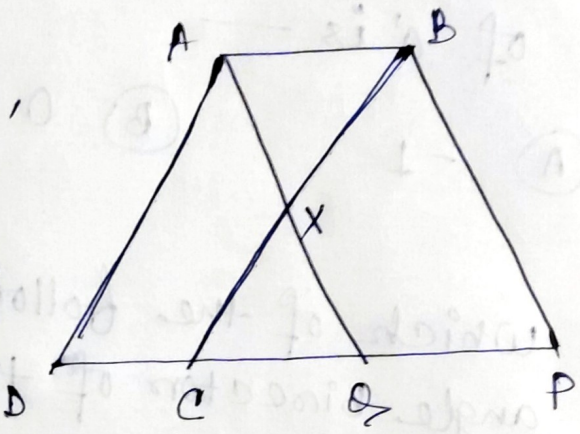
(2) Assertion (A): In $\triangle ABC$, median AM is produced to a point D such that AM = MD. Then, ABDC is a parallelogram.

Reason (R): Diagonals of a parallelogram are equal.

(A) A✓R✓E✓ (B) A✓R✓E✗ (C) A✓R✗ (D) A✗R✓

[C] Short Answer Type Questions : [3×2=6]

(1) In the adjoining figure, ABCD is a parallelogram and 'X' is midpoint of BC. Produce the line segment AX to meet DC produced at Q. The parallelogram ABPQ is completed.



Prove that — (i) $\triangle ABX \cong \triangle QCX$

(ii) DC = CQ = QP [1·5+1·5]

(2) The perpendicular distance of a point from the x-axis is 2 units and the perpendicular distance from y-axis is 3 units. Write the co-ordinates of the point if it lies in —

(i) Quadrant I (iii) Quadrant IV.

(ii) Quadrant III

[D] Long Answer Type Question : [5]

Show that the bisectors of the angles of a parallelogram form a rectangle.