

Model Question Paper
Coordinate geometry - Part I
10th Standard

Maths

Reg.No. :

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I. Answer all the questions.

II. Use Blue pen only.

III. Question No 16 is compulsory

Time : 01:00:00 Hrs

Total Marks : 50

5 x 1 = 5

Section-A

- 1) The midpoint of the line joining (a, -b) and (3a, 5b) is
(a) (-a, 2b) (b) (2a, 4b) (c) (2a, 2b) (d) (-a, -3b)
- 2) The point P which divides the line segment joining the points A(1, -3) and B(-3, 9) internally in the ratio 1:3 is
(a) (2, 1) (b) (0, 0) (c) $(\frac{5}{3}, 2)$ (d) (1, -2)
- 3) If the line segment joining the points A(3, 4) and B(14, -3) meets the x-axis at P, then the ratio in which P divides the segment AB is
(a) 4:3 (b) 3:4 (c) 2:3 (d) 4:1
- 4) The centroid of the triangle with vertices at (-2, -5), (-2, 12) and (10, -1) is
(a) (6, 6) (b) (4, 4) (c) (3, 3) (d) (2, 2)
- 5) If (1, 2), (4, 6), (x, 6) and (3, 2) are the vertices of a parallelogram taken in order, then the value of x is
(a) 6 (b) 2 (c) 1 (d) 3

Section-B

6 x 2 = 12

- 6) Find the midpoint of the line segment joining the points (3, 0) and (-1, 4).
- 7) Find the point which divides the line segment joining the points (3, 5) and (8, 10) internally in the ratio 2:3.
- 8) Find the centroid of the triangle whose vertices are A(4, -6), B(3, -2) and C(5, 2).
- 9) If (7, 3), (6, 3), (8, 2) and (p, 4) are the vertices of a parallelogram taken in order, then find the value of p.
- 10) Find the midpoint of the line segment joining the points (1, -1) and (-5, 3)
- 11) Find the centroid of the triangle whose vertices are (1, 3), (2, 7) and (12, -16)

Section-C

6 x 5 = 30

- 12) In what ratio does the point P(-2, 3) divide the line segment joining the points A(-3, 5) and B(4, -9) internally?
- 13) Find the points of trisection of the line segment joining (4, -1) and (-2, -3).
- 14) If C is the midpoint of the line segment joining A(4, 0) and B(0, 6) and if O is the origin, then show that C is equidistant from all the vertices of $\triangle OAB$
- 15) Using the section formula, show that the points A(1, 0), B(5, 3), C(2, 7) and D(-2, 4) are the vertices of a parallelogram taken in order.
- 16) a) Let A(-6, -5) and B(-6, 4) be two points such that a point P on the line AB satisfies $AP = \frac{2}{9}AB$. Find the point P.

(OR)

- b) Find the points of trisection of the line segment joining the points A(2, -2) and B(-7, 4).
