Model Question Paper

Coordinate geometry - Part IV

10th Standard Maths

I.Answer all the questions. II.Use Blue pen only.

Time : 01:15:00 Hrs

Section-A

- If the points (2, 5), (4, 6) and (a , a) are collinear, then the value of a is equal to
 (a) -8 (b) 4 (c) -4 (d) 8
- 2) If a straight line y = 2x + k passes through the point (1, 2), then the value of k is equal to
 (a) 0 (b) 4 (c) 5 (d) -3
- 3) The equation of a straight line having slope 3 and y-intercept -4 is
 (a) 3x y 4 = 0
 (b) 3x + y 4 = 0
 (c) 3x y + 4 = 0
 (d) 3x + y + 4 = 0
- 4) The point of intersection of the straight lines y = 0 and x =- 4 is
 (a) (0, -4) (b) (-4, 0) (c) (0, 4) (d) (4, 0)
- 5) The value of k if the straight lines 3x + 6y + 7 = 0 and 2x + ky = 5 are perpendicular is (a) 1 (b) -1 (c) 2 (d) $\frac{1}{2}$

Section-B

- 6) Find the equation of the straight line whose x and y-intercepts on the axes are given by $-\frac{1}{3}$ and $\frac{3}{2}$
- 7) Find the equation of the straight line whose x and y-intercepts on the axes are given by $\frac{2}{5}$ and $-\frac{3}{4}$
- 8) Find the x and y intercepts of the straight line 2x y + 16 = 0
- 9) Find the x and y intercepts of the straight line 3x+10y+4=0
- 10) Find the slope of the straight line y = 7x + 6
- 11) Find the slope of the straight line 4x = 5y + 3.
- 12) Find the slope of the straight line passing through the points (2, -4) and origin
- 13) Find the slope of the straight line passing through the points $(1 + \sqrt{3}, 2)$ and $(3 + \sqrt{3}, 4)$
- 14) Find the equation of the straight line perpendicular to the straight line x 2y + 3 = 0 and passing through the point (1, -2).

Section-C

- 15) Using the concept of slope, show that each of the following set of points are collinear. (4, 1), (-2, -3) and (-5, -5)
- 16) Using the concept of slope, show that each of the following set of points are collinear. (4, 4), (-2, 6) and (1, 5)
- 17) By using the concept of the equation of the straight line, prove that the given three points are collinear. (1, 4), (3, -2) and (-3, 16)
- 18) Find the equation of the median from the vertex R in a 3PQR with vertices at
 - P(1, -3), Q(-2, 5) and R(-3, 4).
- By using the concept of the equation of the straight line, prove that the given three points are collinear.
 - (i) (4, 2), (7, 5) and (9, 7)

Reg.No. :				

Total Marks : 50 5 x 1 = 5

9 x 2 = 18

5 x 5 = 25