PART-A

1. Write the formula to find the distance between two parallel lines ax + by + c1 = 0 and ax + by + c2 = 0.

2. Write the equation of a circle having (x1, y1) and (x2, y2) as end points of a diameter.

3. Find the length of the conjugate axis of the hyperbola $(x^2)/(5^2) - (y^2)/(3^2) = 1$.

4. Find the centre of the conic $9x^2 + 16y^2 = 144$.

PART-B

5(a). Find the equation of the point circle with centre (3,5).

----- OR -----

5(b). Find the perpendicular distance of a point (2,4) from the line 4x - 3y - 6 = 0.

6(a). Find the equation of the parabola whose focus is at the point (6,0) and its directrix is x = -6.

----- OR -----

6(b). Find the vertices and eccentricity of the hyperbola $9x^2 - 16y^2 = 144$.

PART-C

7(a). Find the angle between the two straight lines 2x + y + 4 = 0 and y - 3x = 7.

----- OR -----

7(b). Find the equation of the circle having the center at (3,4) and touching the straight line 5x + 12y - 11 = 0.

8(a). Find the vertex, focus, equations of axis, directrix and latus rectum of the parabola $y^2 = 16x$.

----- OR -----

8(b). Find the equation of the ellipse whose focus is (1,-1), directrix is the line x - y + 3 = 0 and eccentricity is 1/2.