**ASSIGNMENT NO.-11(CONIC SECTIONS)**

**(MATHEMATICS)**

1. Find the equation of the circle having centre at (3,-4) and touching the line 5x+12y-12=0.

2. Find the equation of the circle which passes through the point of intersection of the lines $3x-2y-1=0 $and $4x+y-27=0.$

3. Find the equation of a circle whose diameters are $2x-3y+12=0$ and $x+4y-5=0$ and

 area is 154 sq. units.

4. Find the equation of the parabola whose focus is (-1,-2) and directrix is the line $x-2y+3=0.$

5. If a parabolic reflector is 20 cm in diameter and 5 cm deep,find its focus.

6. If the latus rectum of an ellipse is equal to half of minor axis,find its eccentricity.

7. Find the equation of the ellipse whose axes are along the coordinate axes,foci at $(0,\pm 4)$ and

 eccentricity $\frac{4}{5}.$

8. Find the equation of the hyperbola,the length of whose latus rectum is 8 and eccentricity is $\frac{3}{\sqrt{5}}$.

9. For the folowing huperbolas ,find the lengths of transverse and conjugate axes,eccentricity and

 coordinates of foci and vertices,length of the latus rectum,equations of the directrices:

 $\left(i\right) 16x^{2}-9y^{2}=144 \left(ii\right) 3x^{2}-6y^{2}=-18$

10. Find the equation of the hyperbola whose conjugate axis is 5 and the distance between the foci

 is 13.