CLASS-10
CHAPTER-7
COORDINATE GEOMETRY

EXERCISE - 7.1

In each of the exercises 1to9, find the coordinates of the foci, the vertices, the length of major axis, the minor axis, the eccentricity and the length of the latus rectum of the elipse

1. $\frac{x^2}{36} + \frac{y^2}{16}$=1
2. $\frac{x^4}{4} + \frac{y^2}{25}$=1
3. $\frac{x^2}{16} + \frac{y^2}{9}$=1
4. $\frac{x^2}{25} + \frac{y^2}{100}$=1
5. $\frac{x^2}{49} + \frac{y^2}{36}$=1
6. $\frac{x^2}{100} + \frac{y^2}{400}$=1
7. $36x^2 + 4y^2 = 144$
8. $16x^+y^2 = 16$
9. $4x^+9y^2 = 36$

In each of the following Exercises 10 to 20, find the equatian for the ellipse that satisfies the given conditions:

10. vertices $(\pm 5, 0)$,foci$(\pm 4, 0)$
11. vertices(± 13),foci(± 5)
12. vertices$(\pm 6, 0)$,foci$(\pm 4, 0)$
13. Ends of major axis $(\pm 3, 0)$, ends of minor axis $(0, \pm 2)$
14. Ends of major axis $(0, \pm\sqrt{5})$, ends of minor axis$(\pm 1, 0)$
15. Length of major axis 26, foci$(\pm 5, 0)$

16. Length of minor axis 16, foci $(0, \pm 6)$

17. Foci $(\pm 3, 0), a = 4$

18. $b = 3, c = 4$, centre at the origin; foci on the x-axis.

19. Centre at $(0, 0)$ major axis on the y-axis and passes through the points $(3, 2)$ and $(1, 6)$

20. Major axis on the x -axis and passes through the points $(4, 3)$ and $(6, 2)$.