

**SHEET NO-2**  
**ENGINEERING CURVE-1**

- 1) construct the involute of circle of 30 mm diameter for one turn. draw tangent and normal to the involute at any point on it..
- 2) the foci of an ellipse are 110 mm apart. the minor axis is 70 mm long. determine the length of major axis and draw half ellipse by rectangle method and other half by concentric circle method.
- 3) engineering curves – draw ellipse, parabola and a hyperbola on the same axis and same directrix. take distance of focus from the directrix equal to 50 mm and eccentricity ratio for the ellipse, parabola and hyperbola as  $\frac{2}{3}$ , 1 and  $\frac{3}{2}$  respectively. plot at least 8 points. take suitable point on each curve and draw tangent and normal to the curve at that point.
- 4) construct a parabola by parallelogram method with the base dimension 140 mm and height 100 mm. the base of the parabola makes an angle of  $25^\circ$  with the horizontal. and also draw the tangent and normal to the parabola at any suitable point.