

NB:

3. Solve ANY ONE question from Q1 & Q2.
4. Figures to right indicate full marks

Q1. (a) One end of an inelastic string, 125 mm long is attached to the circumference of a circular disc of 50mm diameter. The free end of the string is wound around the disc, keeping the string always tight. Draw the locus of the free end and name the curve and also draw the normal and tangent to the curve at any point. (7)

OR

(a) A circle of 40mm diameter rolls along a straight line without slipping. Draw a curve traced by a point on the circumference of circle for one complete revolution of the circle. Name the curve. (7)

(b) Line AB, 80mm long has its F.V. and T.V. length 45mm & 65mm respectively. The point A is in the H.P. and 15mm behind the V.P. Draw its projections. Assume the line to be in 3rd quadrant. (8)

Q2. Draw the top view and the front view of a square pyramid, with side of base 35mm and height 50mm when it lies with one of its triangular faces on the H.P. The base edge contained by face lying on the H.P. is inclined at 45° to the V.P. Take apex nearer to the observer. (15)