## N.B.- 1. Attempt any four questions

2. Use first angle method of projection, unless mentioned otherwise.
3. Write all answers on drawing sheets only and use both the sides of the sheet.
4. Use your own judgment for any unspecified dimension.
5. Retain construction lines.
6. All dimensions are in mm .
Q. 1 (a) Draw the curve traced by a point on the circumference of a disc of 50 mm diameter, which rolls along the ground for one complete revolution. Take initial position of generating point as a contact point of disc with ground. Also draw normal and tangent to the curve at any suitable point on the curve.
(b) For the object shown in figure,draw the following views:
(i) Front view in direction of arrow.
(ii) Top view

Q. 2 For the object shown in figure, draw the following views
(i) Sectional Front View along section plane A-A कर $\mathbf{0 4}$
(ii) Left Hand Side View
(iii) Top View
(iv) Show all dimensions

Q. 3 A pentagonal pyramid, base edges 25 mm and axis length 50 mm long has one of its triangular faces in the V.P. and edge of the base contained by that face makes an angle of $30^{\circ}$ with H.P. Draw its projections.
Q. 4 (a) A cylinder of diameter 45 and axis 60 mm long is resting on a point of its base on H.P. with axis inclined at $35^{\circ}$ to H.P. Draw the projections of cylinder.
(b) Figure shows two views of an object. Draw isometric view of the object.

Q. 5 A regular pentagonal pyramid with the sides of its base 30 mm and height 80 mm rests on an edge of base. The base is tilted until its apex is 50 mm above the level of the edge of the base on which it rests. Draw the projection of the pyramid when the edge, on which it rests, is parallel to the V.P. and the apex of the pyramid points towards V.P.
Q. 6 (a) A line AB 65 mm long, has its end A 20 mm above the H.P. and 25 mm in front of V.P. The end B is 40 mm above the H.P. and 65 mm in front of the V.P. Draw the projections of AB and show its inclinations with the H.P. and V.P.
(b) Figure shows two views of an object. Draw isometric view of the object.

