JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, HYDERABAD
B.Tech I Year Examinations, June - 2014
ENGINEERING DRAWING
(Computer Science and Engineering)

Time: 3 hours
Max. Marks: 75

Answer any five questions
All questions carry equal marks
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1. A circle of 50 mm diameter rolls on the circumference of another circle of 175 mm diameter and outside it. Trace the locus of a point on the circumference of the rolling circle for one complete revolution. Name the curve. Draw the tangent and normal to the curve at a point 125 mm from the centre of the directing circle.

2. The end A of a line AB is in H.P. and 25 mm behind V.P. The end B is in the V.P and 50 mm above the H.P. The distance between the end projectors is 75 mm. Draw the projections of AB and determine its true length, traces and inclinations with two planes.

3. A regular pentagon of 30 mm side has one of its corners on V.P. and its surface is inclined at 60^0 to V.P. The edge, opposite to the corner on V.P., makes an angle of 45^0 with H.P. Draw the projections of the plane.

4. A hexagonal prism of side of base 30 mm and axis 75 mm long, is resting on its base on H.P. such that a rectangular face is parallel to V.P. It is cut by a section plane, perpendicular to V.P. and inclined at 30^0 to H.P. The section plane is passing through the top end of an extreme lateral edge of the prism. Draw the development of the lateral surface of the cut prism.

5. A square prism of base 50 mm side and height 125 mm stands on the ground with side of the base inclined at 30^0 to the V.P. It is penetrated by a cylinder, 50 mm diameter and 125 mm long, whose axis is parallel to both the H.P and the V.P. and bisects the axis of the prism. Draw the projections showing fully the curves of intersection.

6. A Hollow cylinder of 50 mm external diameter with a thickness of 10 mm and axis 70 mm long is resting on its base. Draw the isometric projection of hollow cylinder.