R09

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B.Tech I Year Examinations, December-2014/January-2015
ENGINEERING DRAWING
### (Electrical and Electronics Engineering)

Time: 3hours
Max. Marks: 75

Answer any five questions
All questions carry equal marks

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1.a) Draw three circles in a triangle of 6 cm side such that each circle touches one side and two other circles.

   b) Construct a diagonal scale of R.F 1: 40 to read meters, decimeters and centimeters to measure up to 6 m. Mark on it a distance of 3.47 m.

2.a) A line AB of length 6 cm is parallel to H.P and inclined to V.P such that one end is 12 mm. in front of V.P and other end is 5 cm in front of V.P. Draw the projections and find the inclination with V.P.

   b) The top view of a line of 7 cm measures 50 mm and front view measures 60 mm. Its one end is 8 mm above H.P. and 12 mm in front of V.P. Draw the projections showing the inclinations with H.P and V.P.

3. A semi-circular lamina of 6 cm dia rests on its straight edge in V.P, such that its surface makes an angle of 45^0 with V.P and the edge is making an angle of 30^0 with H.P. Draw the projections.

4. A cylinder of 4 cm dia 6.5 cm height is resting on its base in H.P. It is cut by a section plane inclined at 60^0 to H.P and passes through a point on the axis below the top centre by 2 cm. Draw the projections and develop the lateral surface.

5. A cone 7 cm dia. and height 8 cm is resting on its base in H.P. It is completely penetrated by a cylinder of 30 mm dia, 12 cm long the axes of the solids intersect each other at right angles, 30 mm, above the base of the cone. Draw the projections, showing the curves of intersection.

6. A square pyramid of 2 cm side and axis 4 cm is resting centrally on the top of a frustum of cone of top and bottom diameters 40 mm and 60 mm respectively with an attitude of 55 m. Draw the Isometric projection of the combination of solids.

7. Draw the front view, top view, side view for the following part shown in figure. All dimensions are in mm.
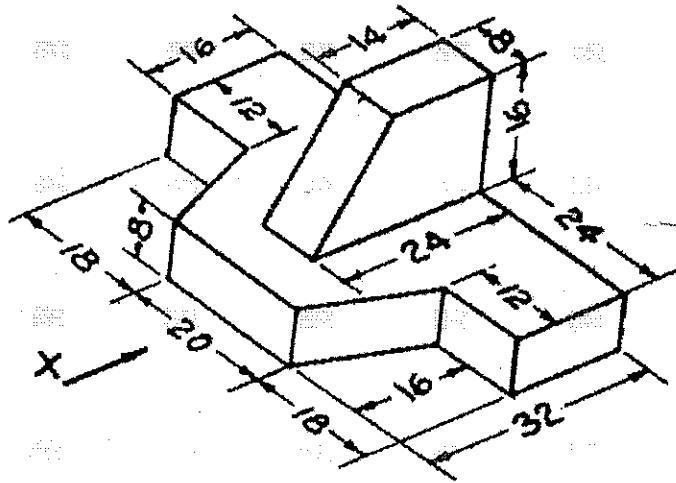
8. A rectangular lamina of sides 60 mm×30 mm stands vertically with one of its longer edges on the ground and inclined at 45^0 to PP. The vertical edge nearest to PP is 15 mm behind it. The station point is 35 mm in front of PP, 40 mm above ground and lies on a central plane which passes through the centre of the lamina. Draw the perspective projection of the lamina.

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