Combined First and Second Semester B.Tech. Degree Examination, May 2014
(2008 Scheme)
08.104 : ENGINEERING GRAPHICS (CERPUF)

Time : 3 Hours
Max. Marks : 100

Instructions:  
i) Answer any two questions from each Module.
ii) First angle projection to be followed.

Module – I

(2×16=32 Marks)

1. A fish pond of elliptical shape is to be inscribed inside a rectangular plot of size 100 m × 50 m. Draw the boundary line of the fish pond.

2. Draw a logarithmic spiral for one convolution such that the angle between two consecutive radii is 30°. The ratio of succeeding radii is 6 : 5 and the greatest radii being 108 mm. Draw tangent and normal at any point on the curve.

3. A line AB inclined at 30° to HP has its ends A and B 25 mm and 60 mm in front of VP respectively. The length of view from top is 65 mm and VT is 15 mm above HP. Draw the projections of line and locate its HT.

Module – II

(2×17=34 Marks)

4. A square pyramid of base side 30 mm and axis length 60 mm is resting on HP on one of its triangular faces with the top view of the axis making 45° with XY line and the apex pointing towards the VP. Draw its projections.

5. A cone of base diameter 120 mm and length 135 mm is resting on HP on its base. It is cut by a section plane inclined at 45° to HP and passing through a point on its axis and is 60 mm below the vertex of the cone. Draw the front view, sectional top view and true shape of section. Name the section obtained and mark its dimensions on it.

P.T.O.
6. A square prism of 40 mm side length and 60 mm length rests on its base on HP such that the vertical faces are equally inclined to VP. A horizontal hole 40 mm diameter is drilled through the geometrical centre of the prism with the axis vertical to VP. Develop the lateral surface of the prism.

Module – III

(2×17 = 34 Marks)

7. Draw the isometric view of a bucket of top diameter 250 mm and bottom diameter 160 mm with a circular ring of 50 mm width attached at the bottom. The total length of bucket is 320 mm.

8. A cylinder of diameter 40 mm and axis 100 mm is resting on HP on its base. It is penetrated by a cone of base diameter 50 mm and axis 100 mm. The two axes are intersecting each other at right angles. Draw the projection of the solids by showing the curve of intersection.

9. Draw the perspective projection of a pentagonal prism of side 25 mm and length 50 mm lying on one of its rectangular faces on GP and one pentagonal face touching the PP. The station point is 55 mm in front of the PP and lies in the central plane which is 75 mm to the left of the centre of the prism. Station point is 30 mm above the GP.