B.Tech I Year (R07) Supplementary Examinations, June 2013

## ENGINEERING DRAWING

(Common to EEE, ECE, CSE, EIE, IT, E.Con.E, ECC, CSS and BT)
Time: 3 hours
Max. Marks: 80
Answer any FIVE questions
All questions carry equal marks

1 Construct a hypocycloid, taking the diameter of the generating circle and radius of directing circle as 60 mm .

2 Draw the projections of a line $A B, 90 \mathrm{~mm}$ long its midpoint $M$ being 50 mm above the HP and 40 mm in front of the VP. The end $A$ is 20 mm above the HP and 10 mm in front of the VP. Show the traces and inclinations of the line with the HP and the VP.

3 A regular hexagon of 40 mm side has a corner in the HP . Its surface is inclined at $45^{\circ}$ to the HP and the top view of the diagonal through the corner which is in the HP makes an angle of $60^{\circ}$ with the VP. Draw its projections.

4 Draw the projections of a cone, base 45 mm diameter and axis 50 mm long, when it is resting on the ground on a point on its base circle with the axis making an angle of $30^{\circ}$ with the HP and $45^{\circ}$ with the VP.

5 A square pyramid of 2 cm side height 4 cm is placed centrally on the top of a cylinder of 40 mm diameter and height 60 mm . Draw the isometric projection of the compound solids.

6 The vertex of the hyperbola is 65 mm from its focus. Draw the curve if the eccentricity is $3 / 2$. Draw also a tangent and normal at any point on the curve.

Contd. in Page 2

Page 1 of 2

7 Draw the front view, top view and side view of the object shown in figure 1. All dimensions are in mm .


Figure:1

8 The orthographic views of an object are shown in figure 2. Draw the isometric view.


Figure:2
$\star * * * *$

Page 2 of 2

