

Reg. No. :

Name :

**Combined First and Second Semester B.Tech. Degree
Examination, May/June 2012
(2008 Scheme)
08-104 : ENGINEERING GRAPHICS (CERPUF)**

Time : 3 Hours

Max. Marks : 100

- Instructions :**
- 1) Answer **any two** questions from **each** Module.
 - 2) **All** construction lines should be retained to show the method of drawing.
 - 3) Drawings should be neat and tidy.

MODULE – I

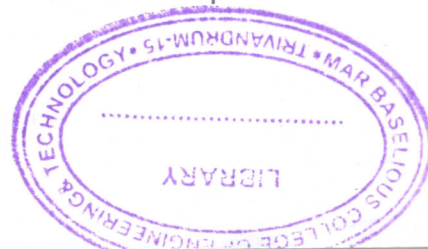
1. The asymptotes of a hyperbola are inclined at 120° to each other. A point P on the curve is 30 mm and 60 mm from the asymptotes as measured parallel to them. Draw the curve showing at least 3 points on each side of P. Determine the eccentricity of the curve.
2. A circle of diameter 50 mm, rolls without slipping on the outside of another circle of same diameter. Show the path of a point on the periphery of the rolling circle for one complete revolution.
3. A line PQ 100 mm long has its end P in the first quadrant, 25 mm from both HP and VP and the other end Q in the second quadrant 50 mm from both HP and VP. Draw its projections and determine its traces and inclinations to the HP and VP.

(2×16=32 Marks)

MODULE – II

4. An equilateral triangular prism of side of base 25 mm and axis 50 mm long is resting on an edge of its base on HP such that the face containing that edge is inclined at 30° to HP. Draw the projections of the prism, when the edge on which the prism rests, is inclined at 60° with VP.
5. A cone of base 50 mm diameter and 60 mm height is resting on its Base on HP. It is cut by a section plane such that the true shape produced is a parabola of maximum double ordinate 40 mm. Locate VT of the section plane and draw sectional top view and true shape of the section.

P.T.O.



6. A square pyramid, edge of base 45 mm and height 60 mm, is resting on its base in HP such that its base edges are equally inclined to VP. It is cut by a section plane perpendicular to the VP and inclined at 30° to the HP and intersecting the axis at a point 20 mm from the apex. Develop the lateral surface of the truncated pyramid.

(2×17=34 Marks)

MODULE – III

7. A sphere of diameter 40 mm rests centrally on the top smaller end of a frustum of a hexagonal pyramid. The frustum of the pyramid has 25 mm sides at the top, 40 mm sides at the base and is 80 mm high. Draw the isometric projection of the combination of the solids.
8. A square prism of side of base 50 mm, is resting on its base on H.P, with a face of it inclined at 30° to VP. It is penetrated by another square prism, with side of base 40 mm and faces of which are equally inclined to V.P. The axes of the two prisms are intersecting each other at right angles. Draw the projections of two prisms, showing the lines of intersection.
9. A cube of 35 mm long edges rests with a square face on the ground plane such that one of the vertical edges of the cube is 8 mm in front of the picture plane and a vertical face containing that edge is inclined at 30° to PP. The station point is 40 mm in front of the PP, 70 mm above the ground plane and lies in a central plane which is 45 mm to the left of the centre of the cube. Draw the perspective view.

(2×17=34 Marks)
