



Reg. No. :

Name :

**Combined First and Second Semester B.Tech. Degree Examination, May 2009
(2008 Scheme)**

**08-104 : ENGINEERING GRAPHICS
(CERPUF)**

Time: 3 Hours

Max. Marks: 100

Instruction: Answer any two questions from each Module.

MODULE – I

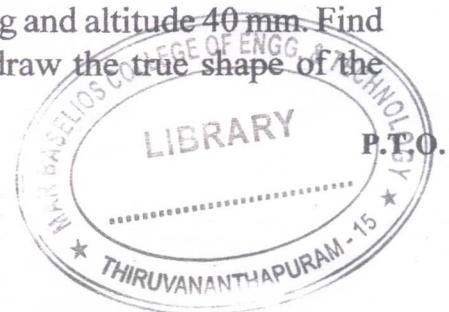
(2×16=32 Marks)

1. A missile is projected and it reaches a maximum height of 10,000 m and falls on the ground at a distance of 20,000 m from the point of projection. Draw the path of the missile.
2. Construct a hypocycloid, rolling circle 50 mm diameter and directing circle 175 mm diameter. Draw a tangent to it at a point 50 mm from the centre of the directing circle.
3. The projectors of the ends of a line AB are 50 mm apart. The end A is 20 mm above HP and 30 mm in front of VP. The end B is 10 mm below HP and 40 mm behind VP. Determine the true length and traces of AB, and its inclinations.

MODULE – II

(2×17=34 Marks)

4. Draw the projections of a cylinder, base 30 mm diameter and axis 50 mm long, resting with a point of its base circle on HP such that the axis is making an angle of 30° with HP and a vertical plane containing the axis is perpendicular to VP.
5. A tetrahedron of 65 mm long edges is lying on ground on one of its faces with an edge perpendicular to VP. It is cut by a section plane perpendicular to VP, such that the true shape is an isosceles triangle of base 50 mm long and altitude 40 mm. Find the inclination of the section plane with the HP and draw the true shape of the section.





6. A cone of 50 mm diameter and 60 mm high rests with its base on ground. It is cut by a plane perpendicular to VP and inclined 60° to HP and passing through a point on the axis 30 mm above the ground. Draw the development.

MODULE – III

(2×17=34 Marks)

7. The overall dimensions of a V-block are 50 mm × 50 mm × 25 mm with a $90^\circ - V$ of 15 mm depth. Draw the isometric view.
8. A cylinder of 60 mm diameter and axis 80 mm long stands with its base on HP. It is completely penetrated by a horizontal cylinder of 40 mm diameter and axis 80 mm long such that their axes bisect each other at right angles. The axis of the penetrating cylinder is parallel to VP. Draw the projections showing the curves of intersection.
9. A square pyramid 50 mm base and height 65 mm rests on ground with its nearest edge of the base parallel to 10 mm behind the picture plane. The station point is 60 mm in front of the PP, 40 mm right of the apex and 70 mm above the ground. Draw the perspective view.

(2×17=34 Marks)

MODULE – II

Draw the projections of a cylinder base 50 mm diameter and axis 50 mm long, resting with a point of its base circle on HP such that the axis is making an angle of 30° with HP and a vertical plane containing the axis is perpendicular to VP.

A tetrahedron of 65 mm long edges is lying on ground on one of its faces with an edge perpendicular to VP. It is cut by a section plane perpendicular to VP, such that the true shape is an isosceles triangle of base 50 mm long and altitude 40 mm. Find the inclination of the section plane with the HP and draw the true shape of the section.

