

11004

Reg. No.: \_\_\_\_\_

Name: \_\_\_\_\_

FIRST SEMESTER B.TECH DEGREE EXAMINATION, JANUARY 2016.

Course Code: BE110

Course Name: ENGINEERING GRAPHICS

Max. Marks: 50

Duration: 2 Hours

**PART A**

*Answer ANY ONE question. (1x 11= 11 Marks)*

1. The ends of a line AB are 50 mm and 20 mm above HP. The length of its elevation is 70 mm and its VT is 10 mm above HP. The line is inclined at  $40^\circ$  to VP. Find its true length and true inclination with HP. Also locate its traces.
2. The midpoint of a line AB measuring 80 mm is 50 mm above HP and 30 mm in front of VP. The line is inclined at  $45^\circ$  to HP and  $30^\circ$  to VP. Draw the projections and find the length of plan and elevation.

**PART B**

*Answer any 3 Questions (3 x 13 = 39 Marks)*

3. A square prism of base side 30 mm and length 50 mm has a base edge on VP, axis inclined at  $35^\circ$  to VP and the resting base edge is inclined at  $45^\circ$  to HP. Draw the projections of the solid.
4. A hemisphere of diameter 80 mm is resting on the ground with its flat surface facing upwards. A square pyramid having side of base 40 mm and axis 60 mm is resting on its base centrally on top of the hemisphere. Draw the isometric projection of the combination of solids.
5. A right circular cone of base diameter 60 mm is cut by a section plane so that the true shape of the section is a parabola of maximum double ordinate 50 mm and vertex of the parabola is 70 mm from this ordinate. Draw the front view, sectional top view and true shape of the section.
6. A cube of 25 mm side is placed vertically with its top face on an auxiliary ground plane, which is at a height of 45 mm above the horizon plane. The nearest vertical edge of the cube touches the picture plane and the adjacent square faces of this edge are equally inclined to the picture plane. Draw the perspective view of the cube, if the station point is 70 mm in front of the picture plane and lies in a central plane which is 30 mm to the right side of the centre of the cube.