



B.Tech II Year II Semester (R15) Regular Examinations May/June 2017

ENGINEERING GRAPHICS

(Electronics and Communication Engineering)

Time: 3 hours

Max. Marks: 70

(Answer all five units, 5 X 14 = 70 Marks) All questions carry equal marks

UNIT – I

1 Draw a rectangular hyperbola if a point on it is 70 mm and 85 mm from the asymptotes.

OR

2 Draw an epicylcoid, if a circle of 40 mm diameter rolls outside another circle of 120 mm diameter for one revolution.

UNIT – II

- 3 Draw the projections of the following points on the same ground line, keeping the projectors 25 mm apart.
 - (i) A, in the HP and 20 mm behind the VP
 - (ii) B, 40 mm above the HP and 25 mm in front of the VP
 - (iii) C, in the VP and 40 mm above the HP
 - (iv) D, 25 mm below the HP and 25 mm behind the VP
 - (v) E, 15 mm above the H.P. and 50 mm behind the VP
 - (vi) F, 40 mm below the H.P. and 25 mm in front of the VP

(vii) G, in both the HP and the VP.

OR

A line AB, 90mm long, is inclined at 45° to the HP and its top view makes an angle of 60° with the VP. The end A is in the HP and 12 mm in front of VP. Draw its front view and find its true inclination with the VP.

UNIT – III

5 A circle of 50 mm diameter is resting on HP on end A of its diameter AC which is 30[°] inclined to HP while its TV is 45[°] inclined to VP. Draw its projections.

OR

6 A cone of base diameter 50 mm and a 70 mm long axis is freely suspended from a point on the rim of its base. Draw the FV and the TV when the plane containing its axis is perpendicular to the HP and makes an angle of 35° with the VP.

(UNIT – IV)

7 A cube of 70 mm long edges has its vertical faces equally inclined to VP. It is cut by an AIP in such a way that the true shape of the cut part is a regular hexagon. Determine the inclination of the cutting plane with the HP. Draw FV, sectional TV and true shape of the section.

OR

8 A cone of base diameter 40 mm and slant height 60 mm is kept on the ground on its base. An AIP inclined at 45° to the HP cuts the cone through the midpoint of the axis. Draw the development.

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9 A sphere of diameter 40 mm rests centrally on top of a cube of side 50 mm. Draw the isometric projection of the solids.

OR

10 For the object shown in figure below, draw FV (in direction X), TV and RHSV.

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