Code No: R201111 **R20** SET - 1

I B. Tech I Semester Supplementary Examinations, August/Sep-2022

ENGINEERING DRAWING & DESIGN

(Only to EEE)

Time: 3 hours Max. Marks: 70

Answer any five Questions one Question from Each Unit
All Questions Carry Equal Marks

UNIT-I

1 a) Draw a parabola using 'eccentric method' whose vertex is at a distance of 30mm from the focus. Draw a pair of tangents from a point P, outside the curve, 20mm from the vertex and 40 mm from the focus. (7M)

b) Construct a regular heptagon of side 50mm by general method (7M)

Or

2 a) Describe a regular octagon about a circle of diameter 60mm (7M)

b) Draw a hyperbola when the distance between its focus and directrix is 50mm and eccentricity is 3/2 (7M)

UNIT-II

3 a) The front view of a line AB is inclined at 30^0 to the XY line and measures 60 mm. The line is inclined at 45^0 to VP. The end B is in HP and VT of the line is 20 mm below HP. Draw the projections of the line, and find its true length and inclinations with HP and VP. (10M)

b) Draw the projections of a line 65mm long parallel to and 20mm above the H.P and in the V.P. (4M)

Or

4 a) A 70mm long line AB is inclined at 45^0 to the VP. Its end A lies on the HP and 15mm in front of the VP. The top view of line measures 60mm. Draw its projection and determine its inclination with the HP. (10M)

b) Draw the projections of a line 75mm long parallel to and 30mm above the H.P and in the V.P. (4M)

UNIT-III

5 a) Draw the projections of a hexagonal lamina of 35mm side, having its surface inclined at 45^0 to the VP and the side on which it rests on the VP makes an of 60^0 with the HP. (10M)

b) A pentagonal plane of side 30mm is in the V.P with one of its edge in the H.P. Draw its projections. (4M)

Or

6 a) A hexagonal plane of side 25mm resting on H.P with one of its edge parallel to V.P and in the V.P. Draw its projections. (4M)

b) A circular plate of negligible thickness and 50mm diameter is vertical and inclined at 45º to VP. Draw its projections when the centre of the circular lamina is 40mm above HP and 60mm in front of VP. (10M)

UNIT-IV

7 a) Draw the projections of a square pyramid, side of base 30mm and axis 55mm long, resting on H.P with its base edge parallel to V.P and axis perpendicular to H.P (7M)

b) Draw the projections of a pentagonal prism, situated with a rectangular face paralled to and 10mm above the HP, axis perpendicular to the VP and one base in the VP. Take side of the base 40mm and the axis 65mm long. (7M)

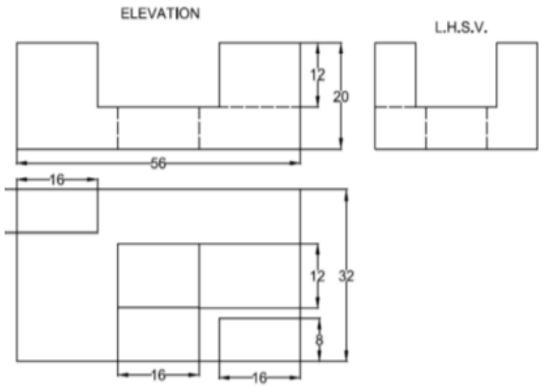
Or

8 a) Draw the projections of a cylinder, base 40mm diameter and axis 50mm long, resting on its base on the HP (7M)

b) Draw the projection of a tetrahedron of base side 30mm is kept such that a face is perpendicular to both HP and VP and one of its edges in HP and perpendicular to VP. (7M)

UNIT-V

9 Draw the isometric projection of the object from the views shown in figure below. All dimensions are in mm. (14M)



Or

10 Draw the three orthographic views of the object shown in figure. All dimensions are in mm (14M)