

## I B. Tech I Semester Supplementary Examinations, December - 2021

## ENGINEERING DRAWING

(Com. to ECE, EIE, E Com E)

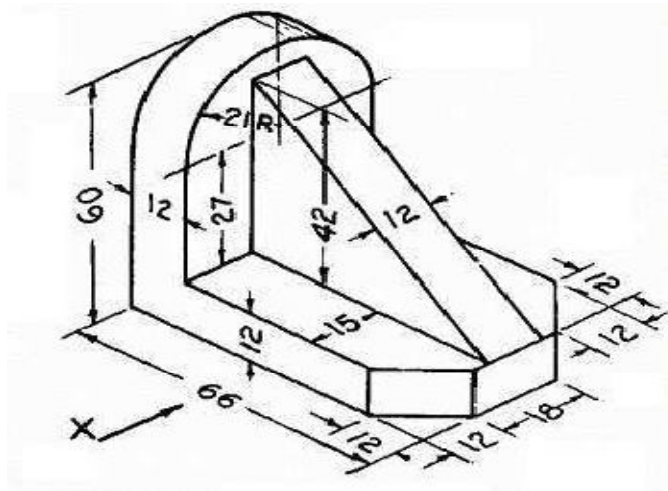
Time: 3 hours

Max. Marks: 70

- Note: 1. Question paper consists of two parts (**Part-A** and **Part-B**)  
 2. Answering the questions in **Part-A** is Compulsory  
 3. Answer any **FOUR** Questions from **Part-B**

PART -A

1. a) Construct a Pentagon of 30mm side, with one of its side in vertical position. (4M)
- b) Draw the Front View, Top view & Both side views of the figure shown below. (10M)

PART -B

2. a) Construct a diagonal scale of RF = 1/50, to read metres, decimetres and centimetres. Mark a distance of 4.35 km on it. (7M)
- b) The foci of an ellipse are 80mm apart and the minor axis is 55mm long. Determine the length of the major axis and draw the ellipse by arcs of circles method. Draw a curve parallel to the ellipse and 20mm away from it. (7M)
3. a) Draw the orthographic projections of the following points on the same reference line, keeping the Projectors 20mm apart. (8M)
  - (i) Point P is 30 mm. above H.P and 40 mm. in front of V.P
  - (ii) Point Q is 25 mm. above H.P and 35 mm. behind V.P
  - (iii) Point R is 32 mm. below H.P and 45 mm behind V.P
  - (iv) Point S is 35 mm. below H.P and 42 mm in front of V.P
  - (v) Point T is in H.P and 30 mm. is behind V.P
  - (vi) Point U is in V.P and 40 mm. below H.P
  - (vii) Point V is in V.P and 35 mm. above H.P
  - (viii) Point W is in H.P and 48 mm. in front of V.P
- b) The front view of a line, inclined at  $30^\circ$  to the VP is 65mm long. Draw the projections of the line, when it is parallel to and 40mm above the HP. It's one end being 30mm in front of the VP. (6M)

4. The front view of a 120 mm long line AB measures 80 mm and its top view measures 100 mm. Its end B and the mid-point M are in the first quadrant, M being 20 mm from both the planes. Draw the projections of the line AB. (14M)
5. Draw the projections of a circle of 60 mm diameter resting on the ground on a point A on the circumference, its plane inclined at  $45^\circ$  to the H.P. and the top view of the diameter AB making  $30^\circ$  angle with the V.P. (14M)
6. a) A hexagonal prism with side of base 25mm and axis 60mm long is lying on one of its rectangular faces on HP. Draw the projections of the prism when its axis is parallel to both HP and V.P. (10M)
- b) Draw the projections of a cube of 35mm side, resting on one of its faces (bases) on H.P, such that one of its vertical faces is parallel to and 10mm in front of V.P. (4M)
7. Draw the isometric view of the object whose orthographic projections are shown in figure. (14M)

