

## I B. Tech I Semester Supplementary Examinations, July/August- 2021

## ENGINEERING DRAWING

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

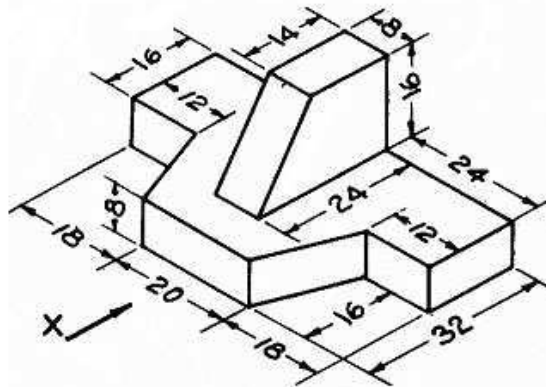
Time: 3 hours

Max. Marks: 70

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

PART -A

1. a) To inscribe a regular pentagon of 30mm in a circle. (4M)
- b) Draw the Front View, Top view & Both side views of the figure shown below. (10M)

PART -B

2. a) Construct a vernier scale to read metres, decimetres and centimetres and long enough to measure upto 4m. The RF of the scale is 1/20. Mark on it a distance of 2.28 m. (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 normal and a tangent to a point on the curve which is 30 mm away from minor axis. (7M)
3. a) A point 30mm above xy line is the plan view of two points A and B. the elevation of A is 45mm above the H.P. while that of the point B is 35mm below the H.P. Draw the projections of the points and state their position with reference to the principal planes and the quadrant in which they lie. (5M)
- b) A line AB is 30 mm long and inclined at  $30^\circ$  to VP and parallel to HP. The end A of the line is 15 mm above HP and 20mm in front of VP. Draw the projections. (5M)
- c) A line AB 25mm long is perpendicular to V.P. and parallel to H.P. Its end A is 10mm in front of V.P. and the line is 20mm above H.P. Draw the projections of the line. (4M)

4. A line AB of 70 mm long has its end A at 10 mm above H.P and 15 mm in front of V.P. Its front view and top view measure 50 mm and 60 mm respectively. Draw the projections of the line and determine its inclinations with H.P. and V.P. Locate the traces of the line. (14M)
5. A circular plate of negligible thickness and 50mm diameter appears as an ellipse in the front view, having its major axis 50mm long and minor axis 30mm long. Draw its top view when the major axis of the ellipse is horizontal. (14M)
6. a) A pentagonal prism with side of base 30mm and axis 70mm long is resting with an edge of its base on HP, such that the rectangular face containing that edge is inclined at  $60^\circ$  to HP. Draw the projections of the prism when its axis is parallel to V.P. (10M)
- b) A triangular prism with side of base 35mm and axis 50mm long is resting on its base on HP. Draw the projections of the prism when one of its rectangular faces is perpendicular to V.P and the nearest edge parallel to V.P is 10mm from it. (4M)
7. Draw the isometric view of the object whose orthographic projections are shown in figure. (14M)

