

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

(Com. to EEE, ECE, EIE, Bio-Tech, E Com E, Agri 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 **THREE** Questions from **Part-B**

PART -A

1. a) Divide a 90 mm line into 8 equal parts. (3M)
- b) A point C is 40 mm below HP and 30 mm behind V.P. Draw its projections. (3M)
- c) A line CD 40 mm long is parallel to both the planes. The line is 40 mm above HP and 20 mm in front of V.P. Draw its projection. (3M)
- d) An equilateral triangle of 50mm side is parallel to V.P. perpendicular to H.P. Draw its projections when one of the side is inclined 45^0 to H.P. (4M)
- e) A cube of 40mm side rests with one of its square faces on the H.P. such that one of its vertical faces is perpendicular to V.P. Draw its projections. (4M)
- f) Draw the isometric view of a cylinder of base 50 mm diameter and 70mm height when its axis is horizontal. (5M)

PART -B

2. a) Construct a forward reading vernier scale to read distance correct to decameter on a map in which the actual distances are reduced in the ratio of 1: 40,000. The scale should be long enough to measure up to 6 km. Mark on the scale a length of 3.35 km and 0.59 km. (8M)
- b) The foci of an ellipse are 85mm apart and the minor axis is 60mm long. Determine the length of the major axis and draw the ellipse by rectangle method. (8M)
3. a) Two points A and B are on H.P the point A being 30mm in front of V.P, while B is 45mm behind V.P. The line joining their top views makes an angle of 45^0 with xy. Find the horizontal distance between two points. (8M)
- b) The top view of a 75mm long line measures 55mm. The line is in the VP, its one end being 25mm above the HP. Draw its projections. (8M)
4. A line PQ, 100mm long, is inclined at 45^0 to the H.P. and at 30^0 to the V.P. It's end P is in the second quadrant and Q is in the fourth quadrant. A point R on PQ, 40mm from P is in both the planes. Draw the projections of PQ. (16M)
5. A circular plane of 60mm diameter rests on V.P. on a point A on its circumference. Its plane is inclined at 45^0 to V.P. Draw the projections of the plane when (i) The front view of the diameter AB makes 30^0 with H.P. and (ii) The diameter AB itself makes 30^0 with H.P. (16M)

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6. A hexagonal pyramid, base 25 mm side and axis 65 mm long, has an edge of its base on the ground. Its axis is inclined at 30° to the ground and parallels to the V.P. Draw its projections. (16M)
7. Draw the Front View, Top view & Both side views of the figure shown below. All dimensions are in mm. (16M)

