Code No: R13109





(3M)

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.
 - 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 (3M) and 20 mm in front of V.P. Draw its projection.
 - d) An equilateral triangle of 50mm side is parallel to V.P. perpendicular to H.P. Draw (4M) its projections when one of the side is inclined 45^{0} to H.P.
 - e) A cube of 40mm side rests with one of its square faces on the H.P. such that one of (4M) its vertical faces is perpendicular to V.P. Draw its projections.
 - f) Draw the isometric view of a cylinder of base 50 mm diameter and 70mm height (5M) when its axis is horizontal.

PART -B

- 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.
 - b) The foci of an ellipse are 85mm apart and the minor axis is 60mm long. Determine (8M) the length of the major axis and draw the ellipse by rectangle method.
- a) Two points A and B are on H.P the point A being 30mm in front of V.P, while B (8M) is 45mm behind V.P. The line joining their top views makes an angle of 45⁰ with xy. Find the horizontal distance between two points.
 - b) The top view of a 75mm long line measures 55mm. The line is in the VP, its one (8M) end being 25mm above the HP. Draw its projections.
- 4. A line PQ, 100mm long, is inclined at 45° to the H.P. and at 30° to the V.P. It's (16M) 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.
- 5. A circular plane of 60mm diameter rests on V.P. on a point A on its (16M) circumference. Its plane is inclined at 45° to V.P. Draw the projections of the plane when (i) The front view of the diameter AB makes 30° with H.P. and (ii) The diameter AB itself makes 30° with H.P.

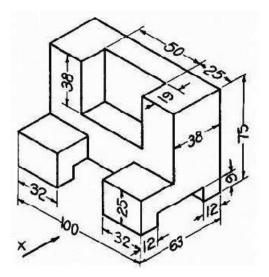
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- 6. A hexagonal pyramid, base 25 mm side and axis 65 mm long, has an edge of its (16M) base on the ground. Its axis is inclined at 30^{0} to the ground and parallels to the V.P. Draw its projections.
- 7. Draw the Front View, Top view & Both side views of the figure shown below. All (16M) dimensions are in mm.



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