

I B. Tech I Semester Supplementary Examinations, May/June. - 2019
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 question in **Part-A is compulsory**
 3. Answer any **THREE** Questions from **Part-B**

PART -A

1. a) Bisect a Straight line of 75.5mm and an angle of 45.5^0 (3M)
- b) A point P is 30mm from both the reference planes. Draw its projections in all possible positions. (3M)
- c) A line AB 60mm long is perpendicular to VP and parallel to HP. Its end A is 10mm in front of VP and the line is 20mm above HP. Draw the projections of the line. (4M)
- d) An equilateral triangular lamina of side 30 mm is parallel to HP and perpendicular to VP One of its sides is 20 mm in front of VP and 30 mm above HP. Draw its projections. (4M)
- e) A cube of 40mm side rests with one of its square faces on the HP such that one of its vertical faces is inclined at 30^0 to VP. Draw its projections. (4M)
- f) Draw the isometric projection of a cone of base 40 mm diameters and height when its axis is horizontal. (4M)

PART -B

2. a) Draw a vernier scale of meters when 1 mm represents 25 cm and mark on it a length of 24.4 cm and 23.1 mm. What is the RF? (8M)
- b) Draw an ellipse with major and minor axes equal to 120 mm and 80 mm respectively by arcs of circles method. (8M)
3. a) A point P is 25mm in front of the VP and 40 mm above the HP another point Q is 40mm in front of the VP and 25mm above the HP. The distance measured between the projectors is 50mm. Draw the projections and find the distance between P and Q. (8M)
- b) The top view of an 85mm long line measures 60mm. The line is in the VP, its one end being 30mm above the HP, draw its projections. (8M)
4. A line PQ, 100mm long, is inclined at 45^0 to the HP and 30^0 to the VP. Its end P is in the second quadrant and Q is in the fourth quadrant. A point R on PQ, 40 mm from P is in both the planes. Draw the projections of PQ. (16M)
5. A circular plane of 60mm diameter rests on VP on a point A on its circumference. Its plane is inclined at 45^0 to VP. Draw the projections of the plane when
 - (i) The front view of the diameter AB makes 30^0 with HP. and
 - (ii) The diameter AB itself makes 30^0 with HP. (16M)

6. a) A pentagonal prism with side of base 25mm and axis 65mm 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 VP. (8M)
- b) A cone with base 30mm diameter and axis 45mm long lies on a point of its base on V.P such that the axis makes an angle 45° with V.P. Draw the projections of the cone. (8M)
7. Draw the Front View, Top view and Both side views of pictorial projection shown below. All dimensions are in mm. (16M)

