

Code No: R13109

R13**SET - 1****I B. Tech I Semester Supplementary Examinations, May - 2018**
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**
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PART -A

1. a) Divide a straight line of 70mm long into 9 equal parts. (3M)
- b) A point P, its top view is 40mm above xy, the front view 20 mm below the top view. State the quadrants with the help of drawing, in which point P is situated. (4M)
- c) Draw the projections of a 60mm long straight line inclined at 45^0 to the VP and in the HP with one of its end is in the VP. (3M)
- d) An equilateral triangle of 50mm side is parallel to the VP perpendicular to HP. Draw its projections when one of the side is (i) Perpendicular to the HP. (ii) Parallel to the HP. (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 equally inclined to the VP. Draw its projections. (4M)
- f) Draw the isometric projection of a cone of base 40 mm diameters and height when its axis is vertical. (4M)

PART -B

2. a) Construct a vernier scale to read meters, decimeters and centimeters and long enough to measure upto 4m. The RF of the scale in 1/20. Mark on it a distance of 2.28 m. (8M)
- b) Draw an ellipse with major and minor axes equal to 120 mm and 80 mm respectively by using oblong method. (8M)
3. a) A point P is 20mm above the HP. and 20mm in front of the VP. Another point Q is 25mm behind the VP and 40mm below the HP. Draw projections of P and Q keeping the distance between their projectors equal to 80mm. Draw straight lines joining (i) their top views and (ii) their front views. (8M)
- b) The front view of a line, inclined at 30^0 to the VP is 60mm 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. (8M)
4. The front view of a 120 mm long line PQ measures 80 mm and its top view measures 100 mm. Its end Q and the mid-point M are in the first quadrant, M being 20 mm from both the planes. Draw the projections of the line PQ. (16M)
5. a) A pentagonal plane ABCDE 35 mm side has its plane inclined 60^0 to HP. Line joining the corner B to the midpoint F of the side DE is inclined at 30^0 to the xy-line. Draw its projections keeping the corner B nearer to VP. (10M)
- b) Draw the projections of a circle of 5 cm diameter, having its plane vertical and inclined at 30^0 to VP. Its center is 3 cm above the HP and 4 cm in front of the VP. (6M)

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6. a) A hexagonal prism with side of base 25mm and axis 60mm long is lying on one of its rectangular faces on the HP. Draw the projections of the prism when its axis is parallel to both HP and VP. (8M)
- b) A pentagonal pyramid with side of base 30mm and axis 60mm long rests with an edge of its base on HP such that its axis is parallel to both HP and VP. Draw the projection of the solid. (8M)
7. Draw the Front View, Top view and Both side views of a pictorial projection shown below. All dimensions are in mm. (16M)

