

Code No: R161113

R16**SET - 1****I B. Tech I Semester Supplementary Examinations, May/June - 2019****ENGINEERING DRAWING**

(Com to ECE, EIE, ECom 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**
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PART -A

1. a) Construct a regular hexagon of side 40mm. (2M)
- b) Divide a straight line of length 135mm into 8 equal parts. (2M)
- c) Draw the projections of a point P, 40mm in front of the VP and 30mm below the HP. (2M)
- d) Draw the projections of a straight line FG, 80mm long on the HP, parallel to and 40mm behind the VP. (2M)
- e) Draw the top view of an equilateral triangle PQR, with its side 50mm contained by the profile plane (PP) in standard position. (2M)
- f) Draw the orthographic front view of a square pyramid 40mm base and 60mm height standing on its base on the VP with two sides of its base equally inclined to the HP. (2M)
- g) Draw an isometric view of an orthographic top view appears to be a square of 50mm side and perfectly standing on a corner. (2M)

PART -B

2. a) The major axis of an ellipse is 150mm long and the minor axis is 100mm long. Find the foci and draw an ellipse by 'arcs of circles method'. Draw a tangent to the ellipse at a point on it 25mm above the major axis. (7M)
- b) The actual length of 300m is represented by a line of 10cm on a drawing. Draw a vernier scale to read up to 500m. Mark on it a length of 367m. (7M)
3. a) Draw the projections of the following points, keeping the projectors 25 mm apart (7M)
P- in the HP and 25 mm behind the VP.
Q- 45 mm above the HP and 30 mm in front of the VP.
R- in the VP and 50 mm above the HP.
S- 30 mm below the HP and 35 mm behind the VP
T- in both the HP and VP.
- b) A Straight line CD of 80mm long is perpendicular to the HP and parallel to and 40mm in front of the VP its highest distant end D measures 110mm from the HP. Draw its projections. What is the distance of end C from the HP? (7M)
4. A 70mm long line AB is inclined at 45° to the VP. Its end A lies on the HP and 15mm in front of the VP. The top view of line measures 60mm. Draw its projection and determine its inclination with the HP. Also locate the traces. (14M)

SET - 1

5. a) A rectangle ABCD of size 60mm \times 40mm, has a corner on HP and 20mm away from the VP. All the sides of the rectangle are equally inclined to the HP and parallel to the VP. Draw its projections. (7M)
- b) Draw the projections of a regular pentagon of 40mm side, having its surface inclined at 30° to the VP and the side on which it rests on the VP makes an angle of 60° with the HP. (7M)
6. a) Draw the projections of the following solids (7M)
 - (i) A cylinder, base 40mm diameter and axis 50mm long, and
 - (ii) A cone, base 40mm diameter and axis 50mm long,When the above both solids resting on their bases on the HP and VP respectively.
- b) A cube of 40mm side rests on one of its square faces on the HP such that a vertical face is inclined at 30° to the VP. Draw its projections. The nearest corner of its base is 15mm in front of the VP. (7M)
7. Draw the front view, top view and side view for the picture shown in figure. All dimensions are in mm. (14M)

