R13

SET - 1

I B. Tech I Semester Supplementary Examinations, November - 2020
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) Bisect an angle 45^0.   (3M)

   b) Draw the projections of the following points on the same ground line, keeping the   (4M)
   Projectors 20mm apart.

   Point A, 20mm above the HP and 30mm in front of the VP.
   Point B, on the HP and 40mm in front of the VP.

   c) A line AB of length 50 mm is parallel to and at a distance of 20 mm from both HP   (4M)
   and VP. Draw its projections.

   d) An equilateral triangular lamina of side 35 mm is parallel to HP and perpendicular   (4M)
   to VP. One of its sides is 25 mm in front of VP and 30 mm above HP. Draw its
   projections.

   e) A cube of 40mm side rests with one of its square faces on the HP. such that one of   (4M)
   its vertical faces is inclined at 30^0 to VP. Draw its projections.

   f) Draw the isometric view of a circle of diameter 50 mm when its surface is in   (3M)
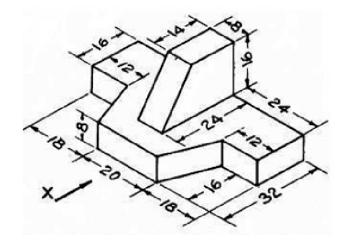   horizontal plane.

PART –B

2. a) Inscribe an ellipse in a rectangle having sides 150mm and 100mm long   (8M)

   b) Construct a diagonal scale with RF=3: 200 showing meters, decimeters and   (8M)
   centimeters and to measure up to 6 meters.

3. a) A point P is 25mm in front of the VP and 40 mm above the HP. Another point Q is   (8M)
   40mm in front of the VP and 25mm above the HP. The distance measured
   between the projectors is 40mm. Draw the projections and find the distance
   between P and Q.

   b) A line AB is 30 mm long and inclined at 30^0 to VP and parallel to HP. The end A   (8M)
   of the line is 15 mm above HP and 20mm in front of VP. Draw the projections.

4.   The front view of a 125 mm long line PQ measures 80 mm and its top view   (16M)
   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.

5. A composite plate of negligible thickness is made up of a rectangle 60mm ×   (16M)
    40mm, and a semi circle on its longer side. Draw its projections when the longer
    side is parallel to the HP and inclined at 45^0 to the VP, the surface of the plate
    making 30^0 angle with the HP.

6. a) Draw the projections of a pentagonal prism of base 25mm side and axis 50mm   (8M)
    long, when it is resting on one of its rectangular faces on HP, the axis of the solid
    is inclined at 45^0 to VP.

    b) A cylinder base 35 mm diameter and axis 60 mm long lies with one of its   (8M)
    generators on HP such that its axis is parallel VP. Draw its projections.

7. Draw the Front View, Top view& Both side views of the figures shown below.   (16M)