R13

SET - 1

I B. Tech I Semester Supplementary Examinations, January - 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 questions in **Part-A** is Compulsory
3. Answer any **THREE** Questions from **Part-B**
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PART –A

1. a) Construct a Hexagon of 40mm side, with one of its side in vertical position.   (3M)

    b) Draw all possible projections of a point when it is 25 mm from both the reference   (3M)
    planes and indicate the quadrants in which it lies.

    c) A line AB 40 mm long is parallel to V.P and inclined at an angle of 30^0 to HP. The   (3M)
    end A is 15 mm above HP and 20 mm in front of V.P. Draw the projections of the
    line.

    d) An equilateral triangular lamina of side 25 mm is parallel to V.P. and   (4M)
    perpendicular to H.P One of its sides is 20 mm in front of H.P. and 30 mm above
    V.P. Draw its projections.

    e) A cube of 40mm side rests with one of its square faces on the H.P. such that its   (4M)
    vertical faces are equally inclined to the V.P. Draw its projections.

    f) Draw the isometric view of a square prism, with side of base 40mm and length of   (5M)
    axis 70mm, when its axis is horizontal.

PART -B

2. a) Construct a vernier scale to read metres, decimetres and centimetres and long   (8M)
    enough to measure up to 4m. The RF of the scale in 1120. Mark on it a distance
    of 2.28 m.

    b) Construct an ellipse when its major axis is 120mm and the distance between the   (8M)
    foci is 108mm. Determine the length of the minor axis by arc of circle method.

3. a) A point P is 10mm above the H.P. and 25mm in front of the V.P. Another point Q   (8M)
    is 35mm behind the V.P. and 45mm below the H.P. Draw projections of P and Q
    keeping the distance between their projectors equal to 90mm.Draw straight lines
    joining i. their top views and ii. their front views.

    b) The line EF 60 mm long is in VP and inclined to HP. The top view measures 45   (8M)
    mm. The end E is 15 mm above HP, Draw the projections of the line. Find its
    inclination with HP.

4.   A line AB 120 mm long is inclined at 45^0 to the H.P. and 30^0 to the V.P. Its   (16M)
    midpoint C is in V.P. and 20mm above H.P. The end A is in the third quadrant,
    and B is in the first quadrant Draw the projections of the line.

5.   A composite plate of negligible thickness is made up of a rectangle 60mm X   (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.   Draw the projections of a pentagonal pyramid axis 60 mm long, base 30 mm side   (16M)
      having base on the ground and one of edges of base inclined at 45^0 to V.P.

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