Subject Code: R13209/R13

Set No - 1

I B.Tech II Semester Supplementary Examinations Dec./Jan. – 2015/2016
ENGINEERING DRAWING
(Common to CE & ME)

Time: 3 hours   **Max. Marks: 70**

Question Paper Consists of **Part-A** and **Part-B**
Answering the question in **Part-A** is Compulsory,
Three Questions should be answered from **Part-B**
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PART-A

1. (a) A regular pentagonal lamina of 30mm sides has one edge in HP and inclined at an angle of 30^0 to VP. Draw its projections when its surface is inclined at 45^0 to HP.
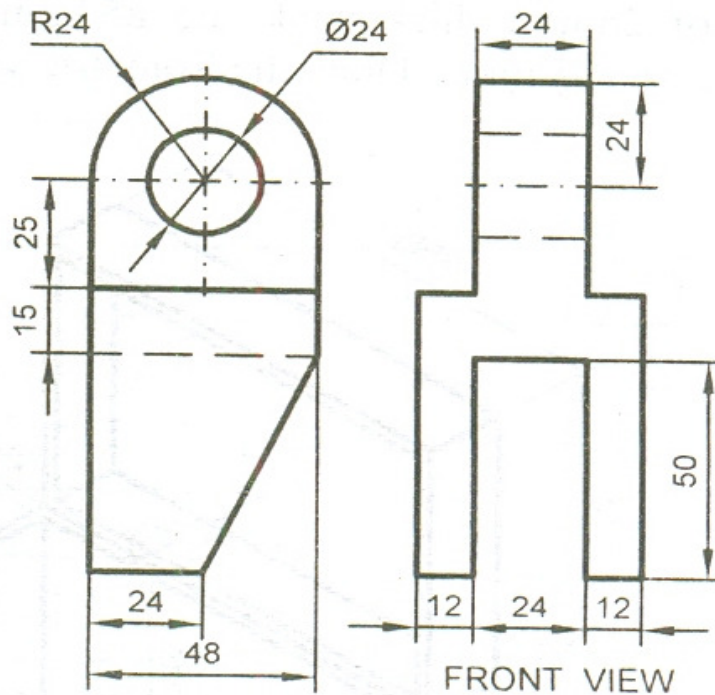
   (b) Draw the isometric view of Fig.1

Fig.1

[10+12]

PART-B

2. (a) Construct a diagonal scale of RF=1/32 showing yards, feet and inches and to measure up to 4 yards.

   (b) A plot of ground is in the shape of a rectangle 110m x 50m. Inscribe an elliptical lawn in it. Take a suitable scale.

[8+8]

3. (a) A 100mm long line is parallel to and 40mm above the HP. Its two ends are 25mm and 50mm in front of the VP respectively. Draw its projections and find its inclinations with the VP.

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3. (b) A point A is situated in the first quadrant. Its shortest distance from the intersection point of HP; VP and auxiliary plane is 60mm and it is equidistant from the principal planes. Draw the projections of the point and determine its distance from the principal planes.

[8+8]

4. The projectors drawn from the HT and the VT of a straight line AB are 80mm apart while those drawn from its ends are 50mm apart. The HT is 35mm in front of the VP; the VT is 55mm above the HP and the end A is 10mm above the HP. Draw the projections of AB and determine its length and inclinations with the reference planes.

[16]

5. A plane figure composed of an equilateral triangle ABC and a semicircle AC as diameter. The length of the side AB is 50mm and is parallel to the VP. The corner B is 20mm behind the VP and 15mm below the HP. The plane of the figure is inclined at 45^0 to the HP. Draw the projections of the plane figure.

[16]

6. (a) Draw the projections of a cylinder 75mm diameter and 100mm long, lying on the ground with its axis inclined at 30^0 to the VP and parallel to the ground.
   (b) A square pyramid base 40mm side and axis 65mm long, has its base in the VP One edge of the base is inclined at 30^0 to the HP and a corner contained by that edge is on the HP. Draw its projections.

[10+6]

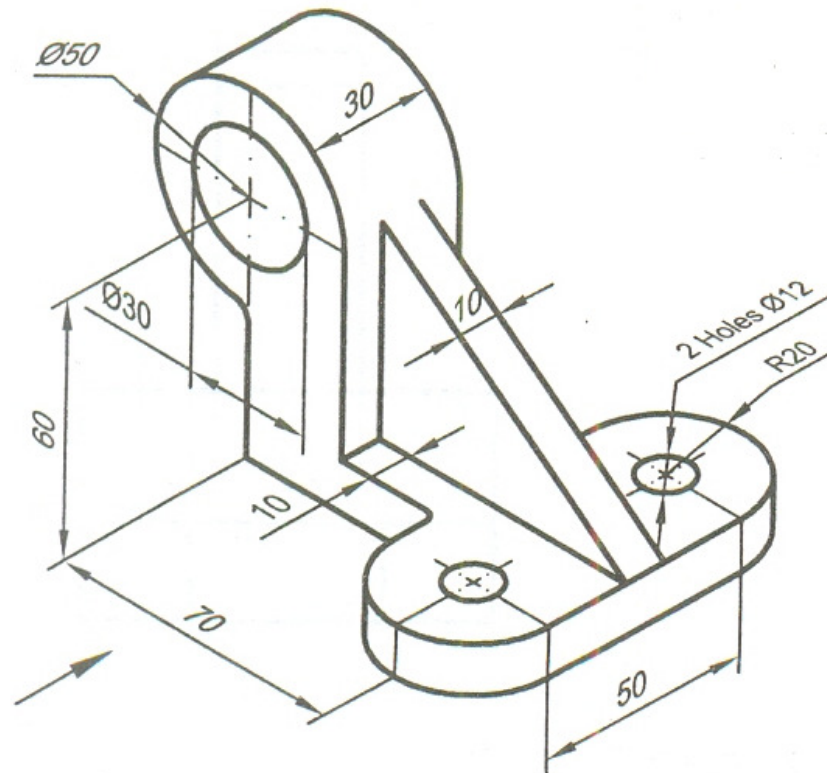7. Draw Fig.2   (i) Front view   (ii) Top view   (iii) Right side view

Fig.2

[16]

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