Code No: RA13209 **R13** **RA**

I B. Tech II Semester Supplementary Examinations, April/May - 2018
ENGINEERING DRAWING
(Com. to EEE, ECE)

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**

~~~~~~

PART –A

1. a) Bisect an angle between two lines. (3M)

   b) A point A is 2.5 cm above the HP and 3 cm in front of the VP. Draw its projections. (4M)

   c) The top view of a 75mm long line measures 55mm. The line is in the VP, its one end being 25mm above the HP. Draw its projections. (4M)

   d) A hexagonal plane of side 25mm is resting on its corner passing through the diagonal on HP. Draw the projections. (4M)

   e) Draw the projections of a cone of diameter 30mm and 50mm long resting on VP on its apex. (3M)

   f) Draw the front view, top view and left side views of the Gib-Head key shown in figure 1(f). All dimensions are in mm. (4M)

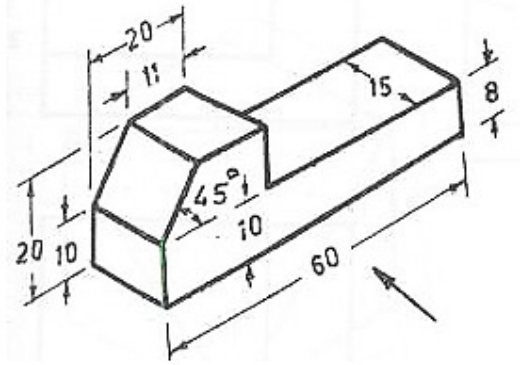

Figure 1(f).

PART -B

2. a) Construct an ellipse when a pair of conjugate diameters AB and CD is equal to 110mm and 50mm respectively. The angle between the conjugate diameters is 70^0. (8M)

   b) Construct an ellipse, with distance of the focus from the directrix as 50 mm and eccentricity as 2/3. Also draw normal and tangent to the curve at a point 40 mm from the directrix. (8M)
~~~~~~

Code No: RA13209 **R13** **RA**

3. a) A point A is 2 cm below the HP and 4 cm behind the VP. Draw its Projections. (6M)

   b) Two points A and B are in the HP. The point A is 30mm in front of the VP, while B is behind the VP. The distance between their projectors is 75mm and the line joining their top views makes an angle of $45^0$with xy. Find the distance of the point B form the VP. (10M)

4. A line AB, 50mm long, has its end A in both the HP. and the VP. It is inclined at 30^0 to the HP and at 45^0 to the VP. Draw its projections. (16M)

5. Draw the projections of a regular hexagon of 25mm side, having one of its sides in the HP and inclined at 60^0 to the VP, and its surface making an angle of 45^0 with the HP. (16M)

6. a) Draw the projections of a cone, base 75mm diameter and axis 100mm long, lying on the HP on one of its generators with the axis parallel to the VP. (8M)

   b) Draw the projections of a cube of 25mm long edges resting on the HP on one of its corners with a solid diagonal perpendicular to the VP. (8M)

7. Draw the isometric view of the object whose orthographic projections are shown in figure 7. All dimensions are in mm. (16M)

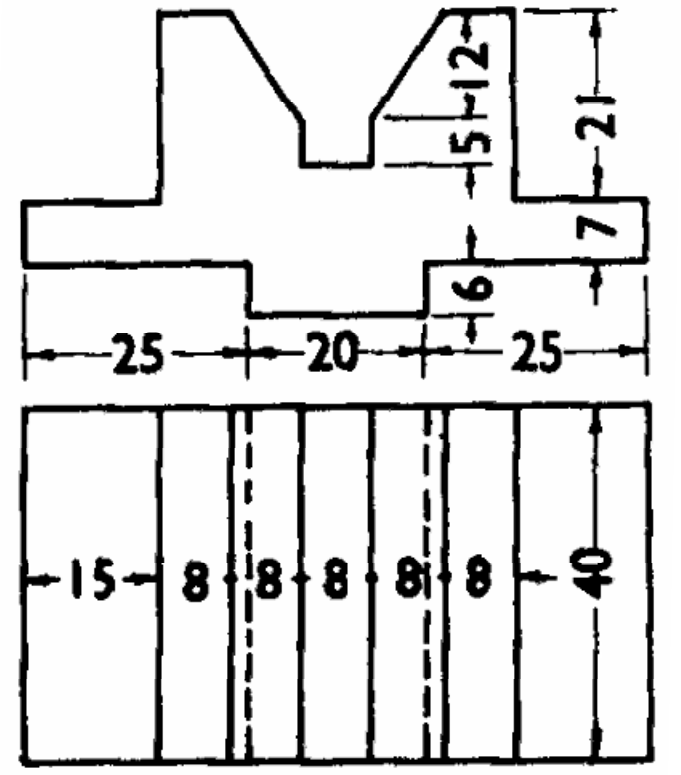

Figure 7