Code No: R13209 **R13** **SET-1**

I B. Tech II Semester Supplementary Examinations, Nov/Dec - 2017
ENGINEERING DRAWING
(Com. to CE & ME)

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) Draw the process of Trisecting a right angle. (3M)

b) Represent third angle projections. (4M)

c) Draw the projections of the Point C lies 30mm from the HP and 20mm from the VP. (4M)

d) Draw the projections of a 65mm long straight line, in the following position : Parallel to both the HP and the VP and 25mm from each. (3M)

e) Draw the projections of a cylinder of diameter 30mm and 50mm long resting on HP on its generator parallel to both the HP and VP and 40mm in front of the VP. (4M)

f) Draw the Orthographic projections of pentagon lies in the VP and a side parallel and 20mm above the HP. Take side of the pentagon 40mm. (4M)

PART -B

2. A fixed point F is 7.5cm from a fixed straight line. Draw the locus of a point P moving in such a way that its distance from the fixed straight line is 2/3 times its distance from F. Plot at least 9 points. Name the curves. Also draw a normal and a tangent to the curve at a point on it 6cm from F. (16M)

3. a) Draw the projections of the following points in all 4-quadrant when the (8M)
   i. Point A in the HP and 20mm in front of the VP.
   ii. Point B lies in the V.P. and 30mm above the HP.
   iii. Point C 30mm below the HP and 20mm behind the VP.
   iv. Point D 40mm in front of the VP and 25mm below the HP.

b) A line PQ 75mm long has its end P in the VP and the end Q in the HP. The line is inclined at 30^0 to the HP and 60^0 to the VP. Draw its projections. (8M)

4. a) Draw the projections of a circle of 5cm diameter, having its plane vertical and inclined at 30^0 to the VP Its centre is 3cm above the HP and 2cm in front of the VP. (8M)

b) The front view of a line, inclined at 45^0 to the VP is 65mm long. Draw the projections of the line, when it is parallel to and 40mm above the HP. It's one end being 30mm in front of the VP. (8M)

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5. a) A hexagonal plate of 30 mm side is perpendicular to VP and parallel to HP. One of its edges is perpendicular to VP. Draw its projections. (8M)

   b) A regular pentagon of 25mm side has one side on the ground. Its plane is inclined at 45^0 to the HP and perpendicular to the VP. Draw its projections. (8M)

6. a) A cube of 40mm side rests with one of its square faces on the HP such that one of its vertical faces is perpendicular to VP. Draw its projections. The nearest edge parallel to VP is 10mm in front of it. (8M)

   b) Draw the projections of a hexagonal pyramid, base 30 mm side and axis 60mm long, having its base on the HP and one of the edges of the base inclined at 45^0 to the VP. (8M)

7. a) Draw the elevation, plan and left and right views of the bracket shown in the figure-1. (16M)

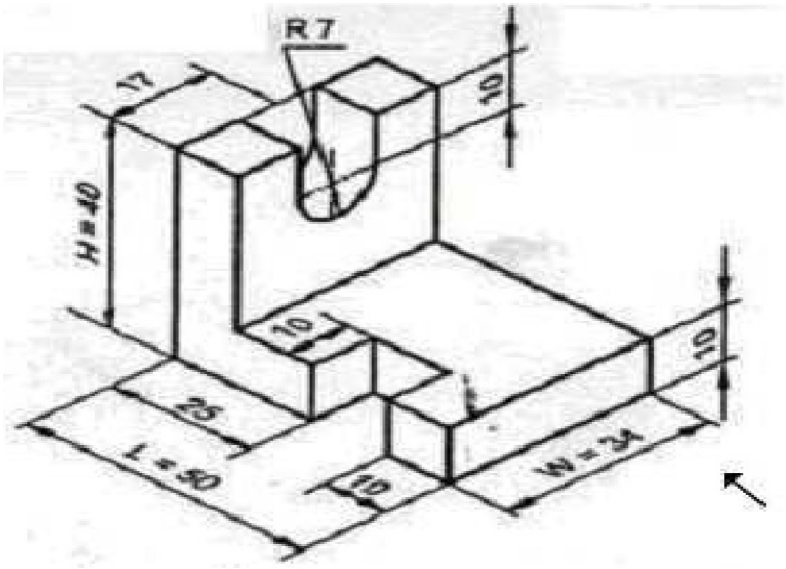

Figure-1

Note: All dimensions are in mm.