Code No: ME1501   **GEC-R14**

I B. Tech II Semester Supplementary Examinations, December 2017
ENGINEERING DRAWING
(Common to Computer Science and Engineering and Information Technology)

**Time: 3 Hours**   **Max. Marks: 60**

Note: Answer any **FIVE** questions. All Questions carry equal Marks.

$$5 \times 12 = 60M$$

1. a) Construct a hexagon of side 30 mm using general method.   (4M)

     b) Trace the path of a point moving in a plane such that its distance from the fixed point to the fixed line is 2/3. Distance between the fixed line and fixed point is 50 mm.   (8M)

2. a) Draw the projections and identify the quadrant in which the following points lie:

         i) A point P is 40 mm above H.P and 40 mm infront of V.P.

         ii) A point Q is 30 mm below H.P and 35 mm behind the V.P.

         iii) A point R is lying on both H.P and V.P.   (6M)

     b) A line AB of length 75 mm is lying parallel to both H.P and V.P. Also the line is 30 mm from both the planes. Draw the front and top views of the line.   (6M)

3. A line AB of length 75 mm makes an angle of 45^0 with both H.P and V.P. One end point A is 25 mm from both H.P and V.P. Draw the projections and traces. Also determine the apparent angles.   (12M)

4. a) A square lamina of side 40 mm is inclined at 45^0 with H.P. All the edges are equally inclined to V.P with nearest corner 10 mm away from the V.P. Draw the projections. (6M)

     b) A circular plane of diameter 60 mm is inclined at 45^0 with V.P, such that the centre of circle is 45 mm above the H.P. Draw the projections.   (6M)

5. a) Draw the projections of a cone of base diameter 50 mm and axis 80 mm long such that the axis is inclined at 45^0 to the V.P and resting on one of the point on the base in V.P and the centre of the base 40 mm above the H.P.   (6M)

     b) Draw the projections of a pentagonal prism of base side 30 mm and axis 60 mm long resting on its base on the H.P and one base edge parallel to both H.P and V.P lying at 10 mm away from V.P.   (6M)

6. Draw the front view, top view and side view for the following geometry shown in figure.

(12M)
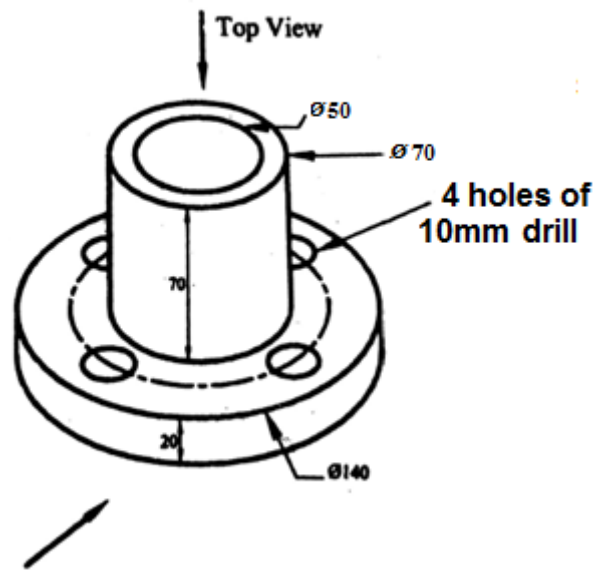
7. A line of length 20 m is represented by a line of 20 cm. Calculate representative fraction. Construct a scale long enough to measure 15 m and represent the distances:

i) 0.55 m   ii) 4.97 m   iii) 8.26 m.   (12M)

8. Draw the isometric view using the following orthographic views: (12M)

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