

Code No: R161206

**R16****SET - 1****I B. Tech II Semester Supplementary Examinations, Nov/Dev - 2017****ENGINEERING DRAWING**

(Com. to CE, EEE &amp; BIO)

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 Compulsory3. Answer any **FOUR** Questions from **Part-B**

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**PART – A**

1. a) Draw the projections of a cone, base 50mm diameter and axis 75mm long, lying on a generator on the ground with the top view of the axis making an angle of  $45^\circ$  with the VP. (7M)
- b) Draw an equilateral triangle of 75mm side and inscribe a circle in it. Draw the projections, when its plane is vertical and inclined at  $30^\circ$  to the VP and one of the sides of the triangle is inclined at  $45^\circ$  to the HP. (7M)

**PART – B**

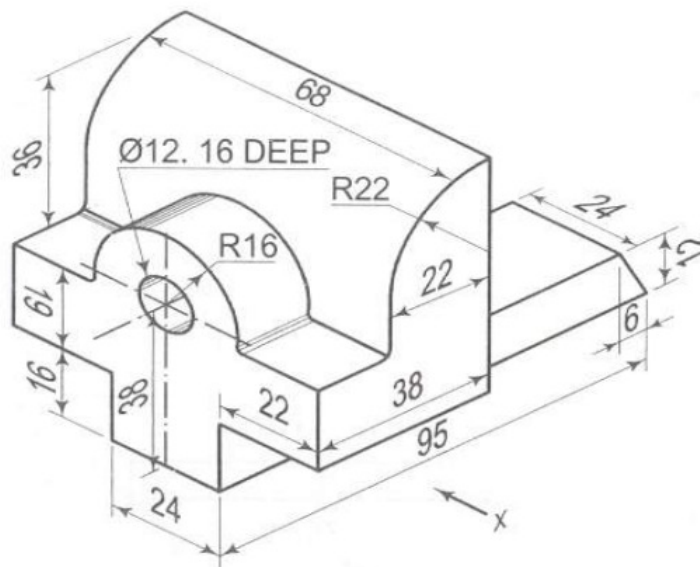
2. a) A plot of ground is in the shape of a rectangle 110m x 50m. Inscribe an elliptical lawn in it. Take a suitable scale. (10M)
- b) Construct a pentagon with a side of 25 mm. (4M)
3. a) A point P in the first quadrant. Its shortest distance from the intersection point of HP and VP and Auxiliary vertical plane, perpendicular to the HP and the VP is 70 mm and it is equidistant from principal planes. Draw the projections of the point and determine its distance from the HP and the VP. (7M)
- b) A line AB 25mm long is parallel to VP and perpendicular to HP. Point A is 35mm above HP and 20mm in front of VP. Point B is 10mm above HP. Draw the projections of the line AB. (7M)
4. A line AB has its end A in HP and 40mm in front of VP. Its front view is inclined  $50^\circ$  to XY and has a length of 70mm. The other end B is in VP. Draw its projections. Also, find the true length and true inclinations of the line. (14M)
5. A regular pentagon of 30 mm sides is resting on HP on one of its sides while its opposite vertex (corner) is 30 mm above HP. Draw projections when side in HP is  $30^\circ$  inclined to VP. (14M)

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6. A pentagonal prism, side of base 25mm and axis 50mm long, rests with one of its edges on HP such that the base containing that edge makes an angle of  $30^\circ$  to HP and its axis is parallel to VP. Draw its projections. (14M)
7. Draw (i) Front view (ii) Both side views (iii) Top view of Figure. (14M)  
(All dimensions are in mm)



Figure