

Code No: R13109

**R13**

**SET - 1**

**I B. Tech I Semester Supplementary Examinations, May - 2017**

**ENGINEERING DRAWING**

(Com. to EEE, ECE, EIE, Bio-T E, E.Com.E, AGE)

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) Construct a Pentagon of 40 mm side, with its side in horizontal position. (4M)
- b) Draw the projections of the following points on the same ground line, keeping the Projectors 30 mm apart. (4M)
  - (i) Point A, 05 mm above the H.P. and 20 mm behind the V.P.
  - (ii) Point B, 25 mm above H.P. and 25 mm in front of the V.P.
- c) Draw the projections of a 60 mm long straight line, in the following positions (4M)
  - (i) Parallel to and 25 mm in front of the V.P and in the H.P.
  - (ii) Perpendicular to the H.P, 25 mm in front of the V.P and its one end 25 mm above the H.P.
- d) The distance between two stations by road is 5000 kilometers. It is represented on a certain map by a 10 centimeters long line. Find the RF. (2M)
- e) Draw the projections of a cylinder base 35 mm diameter and axis 80 mm long resting on the HP on its base. (4M)
- f) A square plane ABCD of side 25 mm is parallel to HP and 25 mm away from it. (4M)  
Draw the projections of the plane when its two sides are parallel to VP.

**PART -B**

2. a) An area of 144 sq cm on a map represents an area of 36 sq km on the field. Find the RF of the scale of the map and draw a diagonal scale to show Km, hectametres and decametres and to measure upto 10 km. Indicate on the scale a distance 7 km, 5 hectometres and 6 decemetres. (8M)
- b) Construct a parabola whose base is 90 mm and axis is 80 mm using Rectangular method. (8M)
3. a) A point A is 20 mm above HP and 50 mm in front of VP. Another point B is 40 mm below the HP and 15 mm behind the VP. The distance between the projectors of the points measured parallel to XY is 75 mm. Draw the projections of the points. Draw the lines joining their front views and top views. (8M)
- b) Draw the projections of straight line AB 60 mm long parallel to HP and inclined at an angle of  $40^\circ$  to VP. The end A is 30 mm above HP. and 20 mm in front of VP. (8M)

Code No: R13109

# R13

SET - 1

4. A top view of a 75 mm long line AB measures 65 mm, while the length of its front view is 50 mm. It's one end A is in the H.P. and 12 mm in front of the VP. Draw the projections of AB and determine its inclination with H.P. and the V.P. (16M)
5. A regular hexagon of side 20 mm has one of its sides inclined at  $30^\circ$  to VP. Its surface makes an angle of  $60^\circ$  with the ground. Draw its projections. (16M)
6. A pentagonal prism with side of base 25 mm and axis 50 mm long lies on one of its faces on H.P., such that its axis is inclined at  $45^\circ$  to V.P. Draw the projections. (16M)
7. Draw the Front View, Top view and both side views of the figure shown below. All dimensions are in mm. (16M)

