

Code No: R161112

**R16****SET - 1****I B. Tech I Semester Supplementary Examinations, May - 2018****ENGINEERING DRAWING**

(Com to CSE, IT, Agri E)

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) Point A is 40 mm below HP and 30 mm in front VP and Point B is 30 mm below HP and 40 mm in front of VP. Draw the views of the straight line connecting these points in space, if [8M]  
(i) Their projectors lie on the same plane.  
(ii) Their projectors are 40 mm apart.
- b) A cube of 50 mm long edges is resting on the HP with its vertical faces equally inclined to the VP. Draw its projections. [6M]

**PART -B**

2. a) A plot is in the shape of rectangle of 16 m  $\times$  12 m. Inscribe an elliptical food court in it by taking suitable scales. [7M]
- b) The area of a square shaped land is equal to 0.6561 hectare, which is represented on the map by a similar square shape of 9 sq. cm. Calculate the RF of the map. Based on the RF value, construct a diagonal scale to read up to a maximum of meter in the map. The required maximum scale to be measured is 700 m. Show a dimension of 549 m in the scale. [7M]
3. a) A point P is 30 mm above HP, 50 mm behind VP and 45 mm in front of left PP. Draw its projections and name the side view. [7M]
- b) A line MN 50 mm long is parallel to VP and inclined at  $30^\circ$  to HP. The end M is 23 mm above HP and 12 mm in front of VP. Draw the projections of the line. [7M]
4. An electric bulb is fixed centrally on a wall 50 cm from the ceiling. The wall is 4 m long and 3 m high. A switch for the bulb is located in a corner with the adjacent wall and is 1.5 m above the floor. Draw the projections of the centers of the bulb and the switch and find the true distance between them. Use suitable scale. [14M]
5. A regular hexagonal plate of 40 mm sides has one corner touching VP and opposite corner touching HP. The plate is inclined at  $60^\circ$  to HP and  $30^\circ$  to VP. Draw the projections of the plate if the thickness is negligible. [14M]
6. a) Draw the projections of the triangular prism, base 40 mm side and axis 50 mm long, resting on one of its bases on the HP with a vertical face perpendicular to the VP. [6M]

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- b) A cone of base diameter 60 mm and axis 70 mm has its circular end on the profile plane such that its axis is at 40 mm above HP and 50 mm in front of VP. Draw its projections. [8M]
7. Below figure is an isometric view of a component. Draw the front and top views. [14M]  
All dimensions are in mm.

