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 Compulsory
3. 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 × 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 30^0 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 60^0 to HP and 30^0 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 [8M] plane such that its axis is at 40 mm above HP and 50 mm in front of VP. Draw its projections.

7. Below figure is an isometric view of a component. Draw the front and top views. [14M] All dimensions are in mm.