

Code: 15A03101a

B.Tech I Year II Semester (R15) Regular & Supplementary Examinations May/June 2019

ENGINEERING DRAWING

(Common to ECE, EIE & FT)

Time: 3 hours

Max. Marks: 70

(Answer all five units, 05 X 14 = 70 Marks)

UNIT – I

- 1 Construct an ellipse, with distance of the focus from the directrix as 50 mm and eccentricity as $\frac{2}{3}$. Also draw normal and tangent to the curve at a point 60 mm from the directrix.

OR

- 2 Show by means of drawing that when the diameter of the directing circle is twice that of the generating circle, the hypocycloid is a straight line. Take the generating circle diameter equal to 50 mm.

UNIT – II

- 3 Draw a scale of full size, showing $\frac{1}{100}$ inch and to measure up to 5 inches. Mark a length of 3.45 inches and 7.62 cm on the scale.

OR

- 4 (a) Two points A and B are in the H.P. The point A is 30 mm in front of the V.P., while B is behind the V.P. The distance between their projectors is 75 mm and the line joining their top views makes an angle of 45° with xy. Find the distance of the point B from the V.P.
(b) A point D is 50 mm from both H.P and V.P. Draw its projections in all possible positions.

UNIT – III

- 5 The projectors of the ends of a line AB are 50 mm apart. The end A is 20 mm above the H.P and 30 mm in front of the V.P. The end B is 10 mm below the H.P and 4 cm behind the V.P. Determine true length and traces of AB and its inclinations with the two planes.

OR

- 6 Determine the true shape of the figure, the top view of which is a regular pentagon of 30 mm side, having one side inclined at 30° to xy and whose front view is a straight line making an angle of 45° with xy. Use auxiliary plane method.

UNIT – IV

- 7 A square prism, base 25 mm side and height 50 mm has its axis inclined at 45° to H.P and has an edge of its base, on H.P and inclined at 30° to the V.P. Draw its projections.

OR

- 8 A hexagonal pyramid of side 30 mm and axis height 70 mm is resting on H.P being one side of the base parallel to the V.P. Draw the development of the lateral surface of the solid.

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UNIT - V

- 9 Draw the isometric view of a cube of side 30 mm when a sphere of 25 mm radius is resting centrally on its top.

OR

- 10 Draw the front view, top view and the left side view of the drawing given in figure below, considering all the dimensions in mm.


