

Code: 15A03101b

B.Tech I Year II Semester (R15) Supplementary Examinations November 2017

ENGINEERING DRAWING

(Common to ME and IT)

Time: 3 hours

Max. Marks: 70

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

UNIT – I

- 1 A parallelogram has sides 130 mm and 80 mm at an included angle of 60° . Inscribe an ellipse in the parallelogram. Find the major and minor axes of the ellipse.

OR

- 2 A circle of 50 mm diameter rolls along a line. A point in the circumference of the circle is in contact with the line in the beginning and after one complete revolution. Draw the cycloidal path of the point. Draw a tangent and normal at any point on the curve.

UNIT – II

- 3 Construct a diagonal scale of R.F. 1:20 showing divisions of 0.01 m and capable of measuring 3 meter. Mark a distance of 2.37 m on it.

OR

- 4 A point is 30mm in front of VP, 20 mm above HP and 25 mm in front of the left PP. Draw its projections.

UNIT – III

- 5 A line AB 60 mm long has one of its extremities 20 mm in front of VP and 15 mm above HP. The line is inclined at 25° to HP and 40° to VP. Draw its top and front views.

OR

- 6 A hexagonal lamina of 30 mm sides on HP on one of its sides. The side which is on HP is perpendicular to the VP and the surface of the lamina is inclined to the HP at 45° . The lamina is then rotated through 90° such that the side on HP is parallel to the VP, while the surface is still inclined to the HP at 45° . Draw the front view and top view of the lamina in its final position.

UNIT – IV

- 7 An equilateral triangular prism 20 mm side of base and 50 mm long rests with one of its shorter edges on HP such that the rectangular face containing the edge on which the prism rests is inclined at 30° to HP. The edge on which the prism rests is inclined at 60° to the VP. Draw its projections.

OR

- 8 A square prism of base side 30 mm and axis length 60 mm is resting on HP on its base with a side of base inclined at 30° to VP. It is cut by a plane inclined at 40° to HP and perpendicular to VP and is bisecting the axis. Draw the development of the remaining part of the prism.

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UNIT – V

- 9 Draw the isometric view of a hexagonal prism of base side 30 mm and axis length 60 mm rests on HP on one of its rectangular faces with its axis perpendicular to VP.
- OR**
- 10 Draw the front view, top view and right side view of the object shown below.


