

Code: 15A03101a

B.Tech I Year II Semester (R15) Supplementary Examinations December 2019

ENGINEERING DRAWING

(Common to ECE, FT & EIE)

Time: 3 hours

Max. Marks: 70

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

UNIT – I

- 1 Draw an epicycloid, the directing circle of which is 160 mm in diameter and the generating circle is 40 mm in diameter. Draw a tangent and normal to the curve at any point on it.

OR

- 2 Draw a parabola when the distance of focus from the directrix is equal to 40 mm.

UNIT – II

- 3 (a) A point P is 20 mm from both the reference planes. Draw its projections in all possible positions.
(b) Two points P and Q are located in HP. The point P is 30 mm in front of VP and point Q is located behind VP. The distance between their projectors is 75 mm. The line joining the top views of points P and Q makes an angle of 45° with XY. Determine the distance of point Q from VP.

OR

- 4 (a) Draw the projections of point A in the following positions:
(i) 20 mm below HP and 30 mm behind VP.
(ii) 15 mm above HP and 50 mm behind VP.
(iii) 40 mm below HP and 25 mm in front of VP.
(iv) 50 mm above HP and 30 mm in front of VP.
(b) Find the shortest distance of point A from the reference line XY which is 20 mm from the HP and 40 mm from the VP.

UNIT – III

- 5 A line AB 75 mm long has its end point A 15 mm above HP and 10 mm in front of VP and end point B 45 mm above HP and 50 mm in front of VP. Determine true inclination of line AB with HP and VP.

OR

- 6 A semi-circular lamina of 64 mm diameter has its straight edge in VP and the surface is inclined at an angle of 45° to HP. And the straight edge makes an angle of 30° to VP. Draw its projections.

UNIT – IV

- 7 A hexagonal pyramid, side of base 35 mm and axis 50 mm long, rests with its base on HP and an edge of its base is perpendicular to VP. Draw the orthographic projection of the hexagonal pyramid.

OR

- 8 A square pyramid of base edge 25 mm and height of its axis 50 mm in resting in HP in such a manner that its base edge makes an angle of 45° with VP. Develop the surface of the pyramid.

UNIT – V

- 9 Draw the isometric view of a cylinder of 40 mm diameter and 50 mm height resting on HP.
OR
10 Draw the isometric projection of a square prism of side 35 mm and height 50 mm.
