



Code: 15A03101a

B.Tech I Year I Semester (R15) Supplementary Examinations June/July 2019

**ENGINEERING DRAWING**

(Common to CE &amp; EEE)

Time: 3 hours

Max. Marks: 70

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

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**UNIT – I**

- 1 The distance between two co-planer fixed points F and F' is 75 mm. Another point P moves in the same plane in such a manner that the sum of its distance from F and F' is always 125 mm. Draw the locus of the point P and name the curve.

**OR**

- 2 A circle of 50 diameter rolls on a horizontal line for half a revolution clock wise and then on a line at  $90^\circ$  to the horizontal for another half clock wise. Draw the curve traced by a point on the circumference of the circle, taking the top most point on the rolling circle as a initial position of the generating point.

**UNIT – II**

- 3 (a) Draw a scale of full size, showing 1/100 inch and to measure up to 5 inches.  
(b) A point P is 20 mm below HP and lies in the third quadrant; its shortest distance from xy is 40 mm. Draw its projections.

**OR**

- 4 A line AB 120 mm long is inclined at  $45^\circ$  to HP and  $30^\circ$  to VP. Its midpoint C is in VP and 20 mm above HP. The end A is in third quadrant and B is in first quadrant. Draw the projections of the line.

**UNIT – III**

- 5 Hexagonal lamina of 25 mm side has its surface inclined at  $30^\circ$  to HP. Its one side is parallel to HP and inclined at  $45^\circ$  to VP. Draw its projections.

**OR**

- 6 A square pyramid base 38 mm side and axis 50 mm long, is freely suspended from one of the corners of the base. Draw its projections, when the axis as a vertical plane makes angle of  $45^\circ$  with the VP. When a pyramid is suspended freely from a corner of its base, the imaginary line joining that corner with the centre of gravity of the pyramid will be vertical.

**UNIT – IV**

- 7 A hexagonal pyramid base 25 mm side and axis 60 mm long has one of its slant edges on HP such that two of its triangular faces containing the slant edge on which it rests are equally inclined to HP. The top view of the axis appears to be inclined at  $45^\circ$  to VP. Draw its projections when its base is nearer to the observer than its apex.

**OR**

- 8 Draw the development of the lateral surface of the pentagonal prism of side 30 mm and height is 65 mm one of the base side is parallel to VP.

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**UNIT - V**

- 9 Draw the isometric projection of pentagonal pyramid of base side is 40 mm and height is 70 mm one of the base side is perpendicular to VP.

**OR**

- 10 Draw the front view top view and side view of the given isometric view.

