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Code: 15A03101b

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

(Common to IT & ME)

Time: 3 hours

Max. Marks: 70

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

UNIT – I

1 Construct Hyperbola with distance of the focus from the directrix as 50 mm & eccentricity as 3/2. Draw normal and tangent to the curve at a point 60 mm from the directrix.

OR

2 Construct the hypocycloid when the generating circle is of 50 mm diameter and the directing circle is having 100 mm diameter.

UNIT – II

3 The distance between Nagpur and Chandrapur is 156 km. The cities are shown 156 mm apart on a road map. Draw a diagonal scale with this RF and long enough to measure up to 200 kilometers. Mark on it: (i) 109 km. (ii) 168 km.

OR

- 4 (a) A point 30 mm above xy line is the plan view of two points P and Q. The elevation of P is 45 mm above the H.P while that of the point Q is 35 mm below the H.P. Draw the projections of the points and state their position with reference to the principal planes and the quadrant they lie.
 - (b) A point D is 50 mm from both the reference planes. Draw its projections in all possible positions.

UNIT – III

5 The top view of a 75 mm long line CD measures 50 mm. C is 40 mm in front of the V.P and 10 mm below the HP. D is 15 mm in front of the V.P and is above the H.P. Draw the front view of CD and find its inclinations with the H.P and the V.P. Show its traces.

OR

6 A thin 30° - 60° set-square has its longest edge in the V.P and inclined at 30° to the H.P. Its surface makes an angle of 45° with the V.P. Draw its projections.

UNIT – IV

7 A hexagonal pyramid of 30 mm side of base and 60 mm length of axis is resting on one of its triangular faces on the H.P having a slant edge containing that face parallel to the V.P. Draw the projections of the pyramid.

OR

8 A pentagonal 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.

UNIT – V

9 Draw the isometric view of a hexagonal prism of side 30 mm and axis height 60 mm when a sphere of 25 mm radius is resting centrally on its top.

OR

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10 Draw the front view, top view and the right side view of the drawing given in figure below. All the dimensions in mm.



