R15

Code: 15A03101a

B.Tech I Year II Semester (R15) Regular Examinations May/June 2016
ENGINEERING DRAWING
(Common to ECE and EIE)

Time: 3 hours   Max. Marks: 70

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

1   Point P is 40 mm and 30 mm from horizontal and vertical axes respectively. Draw Hyperbola through it.

OR

2   Draw locus of a point on the periphery of a circle which rolls from the inside of a curved path. Take diameter of the rolling circle as 50 mm and radius of directing circle (curved path) as 75 mm.

UNIT – II

3   An area of 144 sqcm on a map represents an area of 9 sqkm on the field. Find the R.F of the scale for this map and draw a diagonal scale to show kilometers, hectametres and decameters and to measure up to 5 kilometers. Indicate on the scale a distance of 3 kilometers, 5 hectametres and 6 decametres or 3.56 km.

OR

4   Draw the projections of the following points on a common reference line:
      (i) P, 40 mm below HP and in the VP
      (ii) Q, 35 mm behind VP and in the HP
      (iii) R, 25 mm below HP and 25 mm in front of VP
      (iv) S, 30 mm behind VP and 45 mm below HP.
      (v). Point A lies in the H.P. and 22 mm front of the V.P.
      (vi). Point B lies 20 mm behind the V.P. and 32 mm above the H.P.
      (vii). Point C lies 32 mm below the H.P. and 22 mm front of V.P.

UNIT – III

5   Line AB is 75 mm long. Its FV and TV measures 50 mm and 60 mm long respectively. End A is 10 mm above HP and 15 mm in front of VP. Draw projections of line AB, if end B is in first quadrant. Find the angles of line AB with HP and VP.

OR

6   Draw the top and front views of a rectangular pyramid of sides of base 40 x 50 mm and height 70 mm when it lies on one of its larger triangular faces on HP. The longer edge of the base of the triangular face lying on HP is inclined at 60^0 to VP in the top view with the apex of the pyramid being nearer to VP.

UNIT – IV

7   A pentagonal pyramid 25 mm sides of base and 50 mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projections of the pyramid when the axis of the pyramid is inclined to HP at 40º and appears to be inclined to VP at 45º.
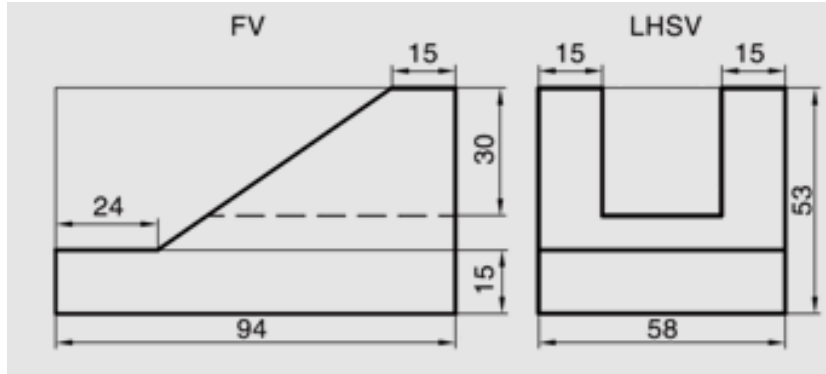
OR

8   A cone 40mm diameter and 50 mm axis is resting on one of its generator on HP so that the axis is parallel to VP. Draw its projections. It is cut by a horizontal section plane through its base center. Draw sectional TV, development of the surface of the remaining part of cone.

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UNIT – V

9   Draw the isometric view of the part given using orthographic views:

OR

10   Draw the orthographic views of the object given in figure below.

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