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R15

Code: 15A03101a

B.Tech I Year II Semester (R15) Supplementary Examinations December 2018
ENGINEERING DRAWING
(Common to ECE & EIE)

Time: 3 hours   Max. Marks: 70

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

1   Construct a parabola when the distance between focus and directrix is 40 mm. Also draw a normal and tangent to the curve at any point.

OR

2   A roller of 50 mm diameter rolls on a straight line without slip in the initial position of a diameter PQ of the circle is parallel to the line on which it rolls. Draw the locus of the point P from one complete revolution of the roller. Name the curve. Draw the tangent and normal at any point on the curve.

UNIT – II

3   (a) Construct a diagonal scale to read up to 1/100 of kilometers having given the value of R.F 1:50,000 and to measure up to 8 km. Indicate on the scale, a distance of 6.76 km.

     (b) A point A is 15 mm above HP and 20 mm in front of VP. Another point B is 25 mm behind VP and 40 mm below HP. Draw the projections of A and B, keeping the distance between the projectors equal to 90 mm. Draw straight lines, joining: (i) The top views. (ii) The front views.

OR

4   (a) A rectangular plot of land of area 0.45 hectare is represented on a map by a similar rectangle of 5 sq. cm. Calculate the scale of the map. Also construct a scale to read up to a single meter and a long enough to measure 600 m. Mark on it a distance of 375 m.

     (b) Two points A and B are on HP, the point A is 30mm in front of VP and point B is 40 mm behind the VP. The line joining their top views makes an angle of 45° with xy. Find the horizontal distance between two points.

UNIT – III

5   A line PQ is inclined at 30° to the H.P. The end P is 15 mm in front of the V.P and the mid-point of the line is 40 mm above the H.P. The front view measures 60 mm and is inclined at 45° with the reference line. Draw the projections of the line and determine its true length and inclination with V.P.

OR

6   A regular pentagon of 30 mm side is resting on one of its edges on HP, which is inclined at 45° to VP. Its surface is inclined at 30° to the H.P. Draw its projections.

UNIT – IV

7   A hexagonal prism of base 25 mm and axis 50 mm long, is positioned with one of its base edges on HP, such that the axis inclined 30° to the H.P and 45° to VP. Draw its projections.

OR

8   A cylinder of the base diameter 50 mm and axis 70 mm is resting on ground with its axis vertical. It is cut by a section plane perpendicular to the V.P., inclined at 45° to the H.P passing through the top of a generator and cuts all the other generators. Draw the development of its lateral surface.

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UNIT – V

9   A square of base side 25 mm and axis 40 mm rests centrally over a cylindrical block of base diameter 50 mm and thickness 20 mm. Draw the isometric projection of the arrangement.

OR

10   Pictorial views of an objects is shown figure below. Using first angle projection, draw its front from the X-direction, top view and left side view.

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