Code: 13A03304

B.Tech II Year II Semester (R13) Supplementary Examinations December 2016
ENGINEERING GRAPHICS
(Electronics and Communication Engineering)

Time: 3 hours
Max. Marks: 70

(Answer all five units, 5 X 14 = 70 Marks)
All questions carry equal marks
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UNIT – I

1   A flowerbed in a botanical garden is elliptical in shape. Major and minor axes are 9 m and 5.5 m respectively. Draw the profile of the flowerbed to a scale of 1:100.

OR

2   A coin of 40 mm diameter rolls over a horizontal table without slipping. A point on the circumference of the coin is in contact with the table surface in the beginning and after one complete revolution. Draw the path traced by the point. Draw a tangent and normal at any point on the curve.

UNIT – II

3   Mark the projections of the following points on a common reference line, keeping the projectors 30 mm apart.
   (i) Point A, 25 mm above HP and 35 mm in front of VP
   (ii) Point B, 25 mm above HP and 40 mm behind VP
   (iii) Point C, 30 mm below HP and 45 mm behind VP
   (iv) Point D, 30 mm below HP and 40 mm in front of VP
   (v) Point E, 25 mm above HP and on VP
   (vi) Point F, 35 mm below HP and on VP
   (vii) Point G, 25 mm in front of VP and on HP

OR

4   A line AB, 70 mm long, has its end A 20 mm above HP and 25 mm in front of VP. End B is 40 mm above HP and 65 mm in front of VP. Draw the projections of AB. Find its inclinations with HP and VP.

UNIT – III

5   A hexagonal lamina of 25 mm side has its surface inclined at 30^0 to HP. Its one side is parallel to HP and inclined at 45^0 to VP. Draw its projections.

OR

6   A pentagonal prism, side of base 25 mm and axis 50 mm long, rests with one of its edges on HP such that the base containing that edge makes an angle of 30^0 to HP and its axis is parallel to VP. Draw its projections.

UNIT – IV

7   A pentagonal prism, side of base 25 mm and axis 60 mm long, rests with one of the edges of its base on HP. Its axis is inclined at 30^0 to HP and parallel to VP. It is cut by a horizontal section plane passing through the highest corner of the base. Draw the sectional top view.

OR

8   Draw the development of the lateral surface of the right portion of the cylinder of diameter 50 mm and height 65 mm cut by a plane inclined at 60^0 to the base and passing through the axis at a height of 40 mm above the base.
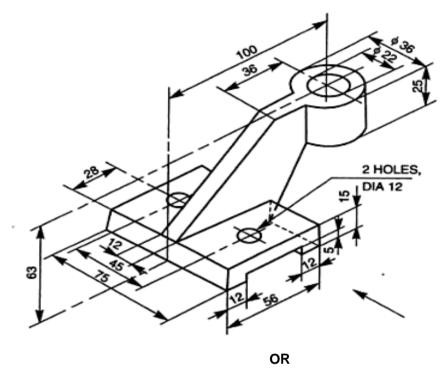
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UNIT – V

9   Draw the following orthographic views for the given isometric view shown in figure below.
   (a)   Front view.
   (b)   Top view.
   (c)   Side view as viewed from the side available for view. Mark the dimensions.

OR

10   Draw the isometric view of the object, the orthographic projections of which are shown in figure below. All dimensions are in millimeters.

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