R13

Code: 13A03101

B.Tech I Year (R13) Supplementary Examinations June 2017
ENGINEERING DRAWING
(Common to CE and ME)

Time: 3 hours   Max. Marks: 70

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

1   A circle of 50 mm diameter rolls on a horizontal line for a half revolution and then on a vertical line for another half revolution. Draw the curve traced out by a point 'P' on the circumference of the circle.

OR

2   A circle of 115 mm diameter rolls on another circle of 75 mm diameter with internal contact. Draw the locus of a point on the circumference of the rolling circle for its one complete revolution.

UNIT – II

3   A circular plate of negligible thickness and 50 mm diameter appears as an ellipse in the front view, having its major axis 50 mm long and minor axis 30 mm long. Draw its top view when the major axis at the ellipse is horizontal.

OR

4   A line AB 90 mm long in inclined at 45° to the HP and its top view makes an angle of 60° with the VP. The end A is in HP and 12 mm infront of VP. Draw its front view and find its true inclination with the VP.

UNIT – III

5   A pentagonal prism is resting on one of the corners of its base on the HP. The longer edge containing that corner is inclined at 45° to the HP. The axis of the prism makes an angle of 30° to the VP. Draw the projection of the solid.

OR

6   A cone of base diameter 50 mm, axis 75 mm long having one of its generator in the HP and inclined at 30° to the VP. Draw its projections.

UNIT – IV

7   A cube of 50 mm sides in resting on HP. A frustum of a cone of base diameter 50 mm, top face diameter 25 mm and axis 40 mm is placed on the top of cube co-axially. Draw the isometric projection.

OR

8   A cylinder of 50 mm diameter and 50 mm high is placed centrally on a pentagonal prism of 50 mm sides and 40 mm high. Draw the isometric projections the arrangement.

UNIT – V

9   A vertical square prism, base 50 mm side and axis 100 mm is completely penetrated by a horizontal square prism, base 35 mm side and length 100 mm, so that the horizontal plane in parallel to the VP, while the faces of both prisms are equally inclined to the VP. Draw the projections of the prisms showing lines of intersection.

OR

10   Draw the perspective view of a cube of 25 mm edge lying on a face on the ground plane, with an edge in the picture plane and all vertical faces equally inclined to the picture plane. The station point is 50 mm infront of the picture plane, 35 mm above the ground plane and lies in a central plane, which is 10 mm to the left of the centre of the cube.

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