Code: 15A03301

B.Tech II Year I Semester (R15) Regular Examinations November/December 2016
ENGINEERING DRAWING FOR MECHANICAL ENGINEERS
(Mechanical Engineering)

Time: 3 hours   Max. Marks: 70

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

1   A Cube of side 25 mm rests on one of its faces with a vertical face inclined at 35° to the HP and meeting the axis at 20 mm above the HP. Draw the front view, sectional top view and true shape of the section.

OR

2   A Cone of base diameter 40 mm and altitude 55 mm rests on its base on the HP. It is cut by a plane perpendicular to the VP and inclined at 80° to the HP, passing through the apex. Draw the sectional top view and true shape of its section.

UNIT – II

3   A right circular cone of base diameter 60 mm and height 75 mm is cut by a plane making an angle of 30° with the horizontal. The plane passes through the midpoint of the axis. Draw the isometric view of the truncated solid.
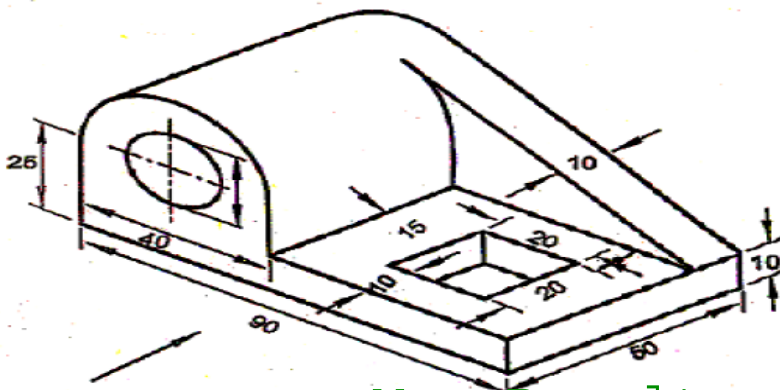
OR

4   Draw an isometric drawing of an isosceles triangular plate rounded at the vertex, shown in two views in below figure.
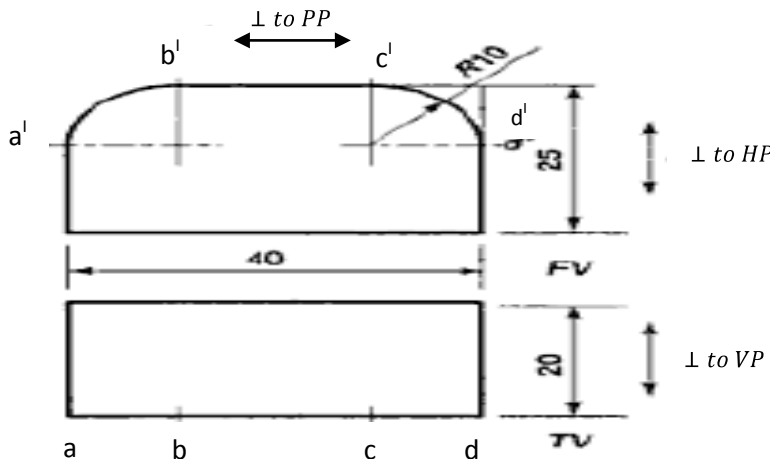
UNIT – III

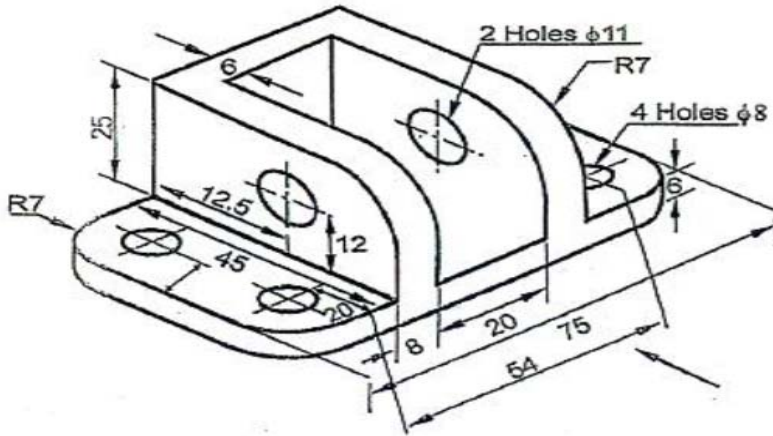5   Draw the Front view, Right Side view and Top View of the object shown below.

OR

6   Draw the Front view, Top view and Left Side view of the object shown below.

UNIT – IV

7   A Square prism of base 60 mm rests on one of its ends on the HP with the base side equally inclined to the VP. It is penetrated fully by another square prism of base side 45 mm with the base side equally inclined to the HP. The axes intersect at right angles. The axis of the penetrating prism is parallel to both the HP and the VP. Draw the projections of the prisms and show the lines of intersections

OR

8   A horizontal Cylinder of diameter 40 mm penetrates into a vertical Cylinder of diameter 60 mm. The axes of the cylinders intersect at right angles. Draw the curves of intersection when the axis of the horizontal cylinder is parallel to the VP.

UNIT – V

9   A Square prism, side of base 40 mm and height 60 mm rests with its base on the ground such that one of its rectangular faces is parallel to and 10 mm behind the picture plane. The station point is 30 mm infront of PP, 88 mm above the ground plane and lies in a central plane of 45 mm to the right of the centre of the prism.

OR

10   A Square pyramid of base edge 40 mm and altitude 50 mm rests with its base on the ground plane such that all the edges of the base are equally inclined to the PP. One of the corners of the base is touching the PP. The station point is 60 mm in front of the PP, 80 mm above the ground plane and lies in a central plane which passes through the axis of the pyramid.

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