R09

Code No: 09A10291

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, HYDERABAD
B.Tech I Year Examinations, June - 2014
ENGINEERING DRAWING
(Common to ME, MMT)

Time: 3 hours **Max. Marks: 75**

Answer any five questions
All questions carry equal marks
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1. An area of 144 sq.cm on a map represents an area of 36 sq.km on the field. Find the RF of the scale, and draw a diagonal scale to show kilometers, hectameters and decameters and to measure upto 10km. Mark a length of 7km, 5hm and 6dm on the scale.

2. A line PQ, inclined at 30^0 to the H.P., has the end P at 20 mm above the H.P. and 10 mm in front of the V.P. The front view of the line is 70 mm long and inclined at 60^0 to the reference line. Draw the projections of the line and determine its true length and inclinations with the principal planes. Also, locate its traces.

3.a) A square plane with a 40 mm side is situated in the V.P. with all the sides equally inclined to the H.P. Draw its projections.

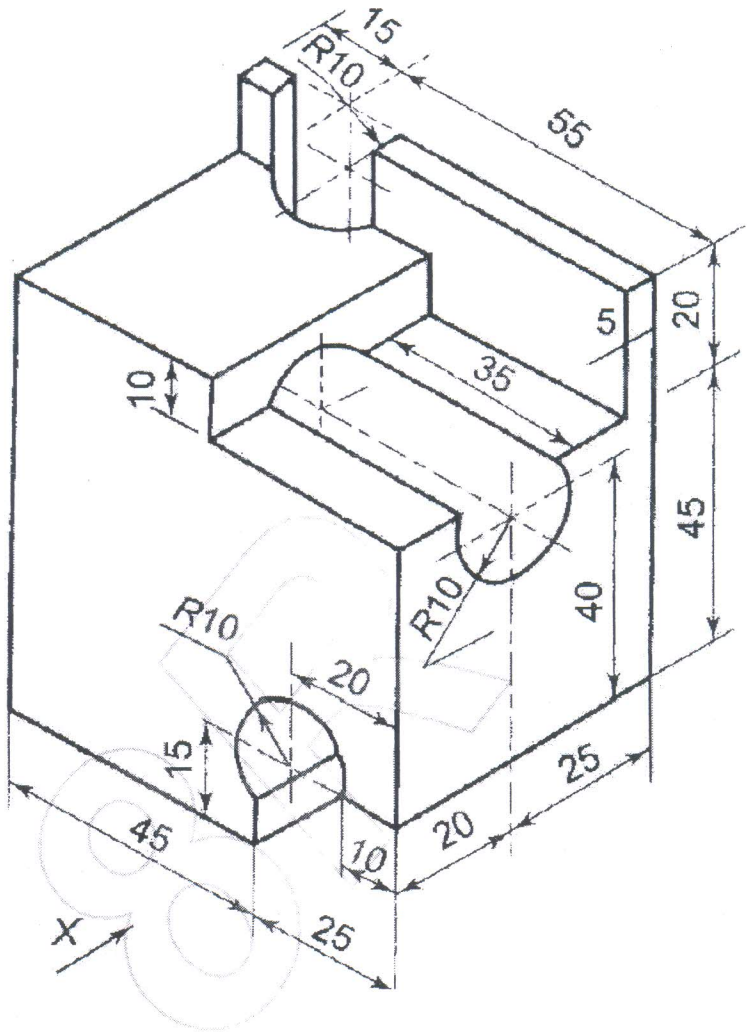
b) A cylinder with a 50 mm base diameter and 65 mm long axis has its axis 40 mm above the H.P. and perpendicular to the V.P. Draw its projections when one of the bases is 10 mm in front of the V.P.

4. A triangular prism, having a base with a 70 mm edge and 60 mm height, stands on its triangular face on the ground with one of its rectangular faces perpendicular to the V.P. It is cut by an A.I.P. such that the true shape of the section is a trapezium with 10 mm and 50 mm parallel sides. Draw its projections and project true shape of section.

5. A vertical cylinder 70mm diameter is penetrated by a square prism of side 30mm and its axis is parallel to both HP and VP. Rectangular faces of the prism are equally inclined to the VP, axis of vertical cylinder intersecting the axis of the horizontal square prism. Draw the projections showing curves of intersection.

6. A cylindrical slab having 75 mm as diameter and 45 mm thickness is surmounted by a cube of edge 38 mm. On the top of the cube rests a square pyramid of altitude of 3 8 mm and side of base 25 mm. The axes of the solids are in the same straight line. Draw the isometric projections.

7. Draw the elevation, top view and side view of the object shown in figure. All dimensions are in mm.



8. A square prism, side of base 50 mm and height 70 mm rests with its base on the ground such that one of its rectangular faces is parallel to and 10 mm behind PP. The station point is 140 mm in front of PP, 80 mm above the ground plane and lies in a central plane which is 45 mm to the right of the center of the prism. Draw the perspective view of the solid.

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