Set No - 1

I B.Tech II Semester Supplementary Examinations May - 2016
ENGINEERING DRAWING
(Common to All Branches)

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

Answer any FIVE Questions
All Questions carry equal marks
✱ ✱ ✱ ✱ ✱

1. Construct a vernier scale to read distance correct to decameter on a map in which the actual distances are reduced in the ratio of 1:40000. The scale should be long enough to measure up to 6 km. Mark on the scale a length of 3.34 km and 0.59 km.

    [15]

2. (a) Draw the projections of the following points on the same ground line, keeping the distance between projectors equal to 20 mm.
    (i)   Point P, 20 mm below the HP, 25 mm in front of VP
    (ii) Point Q, touches all three Principal planes
    (iii) Point R, 20 mm below the HP, 20 mm behind the VP
    (iv) Point S, 10 mm above HP, 25 mm in front of VP

   (b) Draw the projections of a line 60 mm long when it is perpendicular to PP and in HP. The end nearer to VP is 15 mm in front of it.

    [8+7]

3. A line *AB*, 60 mm long, has its end *A* in both the H.P and the V.P. It is inclined at 45 degrees to the H.P and 30 degrees to the V.P. Draw the projections of the straight line.

    [15]

4. A regular pentagonal lamina of side 25 mm and one of its sides is touching both HP and VP. Draw the projections of the lamina when it makes an angle of 60^0 with HP and perpendicular to PP.

    [15]

5. A pentagonal prism with side of base 25 mm and axis 55 mm long is resting on one of the rectangular faces on HP. Draw the projections of the prism when its axis is inclined at 40 degrees to VP.

    [15]

6. A square pyramid, base 25 mm side and axis 50 mm long has one of its triangular faces on HP and the axis of the solid is makes an angle of 30 degrees with VP. Draw the projections.

    [15]

7. A hemisphere of diameter 40 mm with its flat circular face at the top is resting centrally on the top of a hexagonal prism of edge of base 30 mm and height 35 mm. Draw the combined solid in isometric projection.

    [15]

8.   Draw front view, top view and a side view for the solid whose isometric view is given below Figure 1. All dimensions are in mm.
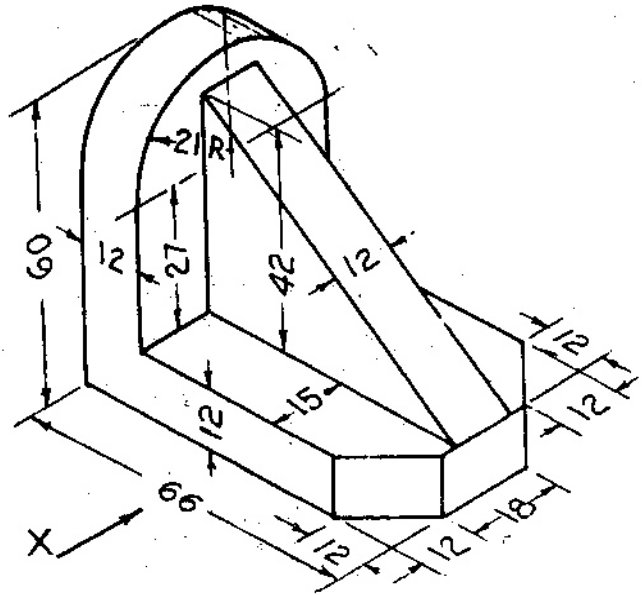

Figure 1

[15]

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