

Set No - 1

(EEE)

Max. Marks: 70

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1. (a) Draw an ellipse of major and minor axes of 140mm and 85 mm respectively, using oblong method.
- (b) A mirror 60mm x 80mm is inclined to the wall at such an angle that its front view is square of 60 mm side. Find the inclination of the mirror with the wall.
- (c) A straight line AB, 60mm long makes an angle 30 degrees to VP and parallel to profile plane. The end A touches both the planes. Draw the projections of the line.

[6+9+7]

2. An area of 400 sq.cm on a drawing of a map represents 100 sq.km of actual area. Construct a diagonal scale to measure the distance of up to one decameter. Mark the distances 4.65km and 3.33km on it.
[16]
3. (a) Draw the projections of a 70 mm long straight line, inclined at 30° to VP with its one end 20 mm in front of it. The line is parallel to and 20 mm above the HP.
(b) A point 20 mm below XY line is the top view of three points, P, Q and R. P is 25 mm below HP. The point Q is 35 mm above HP and the point R is in HP. Draw the projections of three points and state their positions with the reference planes and the quadrants in which they lie.
[8+8]
4. A line AB 70 mm long makes an angle of 30° with the VP and lies on a plane perpendicular to both the HP and the VP. Its end A is in the HP and the end B is in the VP. Draw its projections and show traces.
[16]
5. A rhombus of diagonals 120 mm and 60 mm long appears as a square of 40 mm sides with one of its diagonal parallel to HP and VP in the top view. Draw its top and front views and determine the inclination of the surface of the lamina with HP and VP.
[16]
6. A pentagonal prism, base edge 20 mm and height 50 mm, is resting on one of its lateral edges on HP in such way that the rectangular faces containing that edge makes equal inclinations with HP and the axis of the prism is 45 degrees with the VP. Draw projections of the prism.

[16]

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7. Draw the front view, top view and side view for the Figure 1 shown in isometric view. All dimensions are in mm.

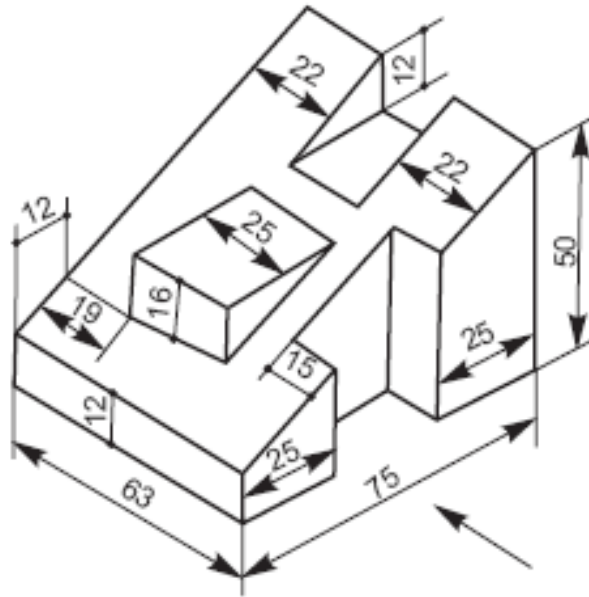


Figure 1

[16]
