

QUESTION BANK FOR ENGINEERING DRAWING

UNIT TEST-1

Chapter 1

1. A line AB, 70mm long is inclined at an angle of 45° to the HP. And 30° to the VP. Its end point 'A' is on the HP. And 25mm in front of the VP. Draw the projections of the line AB assuming it to be in the first quadrant.
2. A line AB, 65mm long has its end point 'A' is 20mm above the HP. And 10mm in front of the VP. Elevation length and plan length of the line are same and is of length 50mm. Draw the projections of the line AB assuming it to be in the first quadrant.
3. A line AB 75mm long has its end point A 15 mm above HP and 10mm in front of the VP. And end point B is 45mm above HP and 50mm in front of the VP. Determine the inclination of the line with HP and VP.
4. A line AB has its end point A is 16mm above the HP. And 25mm in front of the VP. The length of the line in the plan is 60mm and length of the line in elevation is 65mm. distance between the projectors of end points A and B is 45mm. Draw projections of the line. Find true length of the line and its inclination with the HP and VP.

Chapter 2

5. A square ABCD of 50mm side rests on the corner A on the HP. In such a way that the plane appears as a rhombus in the plan with diagonal containing the corner A measuring 30mm. draw three views of the square when diagonal BD is perpendicular to VP. Find inclination of the plane with HP.
6. A pentagonal plane of side 30mm is kept on the HP on one of sides with the corner opposite to its side on the HP. 25mm above HP. Side on the HP. Is perpendicular to VP. Draw three views of the pentagonal plane and find its inclination with HP.
7. A hexagonal plane of the side 30mm is kept on the HP. On one of its corners with the corner opposite to the corner on the HP. 40mm above HP. Diagonal passing through the corner on HP. Is parallel to VP. Draw three views of the hexagonal plane and find its inclination with the HP.
8. A circular plate of diameter 60mm is resting on the VP on a point of its circumference. The plate is inclined to VP. In such a way that the elevation length of the diameter passing through the point on VP is 35mm. the plate is perpendicular to HP. Draw three views of the plate and find its inclination with the VP.
9. A semicircular plate of 60mm diameter has its straight edge on the HP. And perpendicular to VP. The surface of the plate makes an angle of 45° with the HP. Draw three views.

Chapter 6

10. Draw free hand sketch for the following forms of threads:

- 1) Square thread
- 2) Acme thread.
- 3) Buttress thread.
- 4) Knuckle thread.

11. Draw proportionate free hand sketch for the following bolts:

1. Hexagonal headed bolt.
2. Square headed bolt
3. Hook bolt
4. Lifting eye bolt.

12. Draw free hand sketches any four forms of set screw heads.

13. Draw free hand sketches any four forms of rivet heads.

14. Draw two views of single riveted lap joint.

15. Sketch two views of double riveted butt joint.

Q.1

1. A square prism with side of base 50 mm and axis height 80 mm is resting on its base on HP. With all vertical faces equally inclined to VP. A hole of 60 mm diameter is drilled centrally through it. The axis of hole bisects the axis of the prism at right angle and is perpendicular to VP. Draw the Development of lateral surface of prism.

2. A square pyramid side of base 40 mm and axis 60 mm long is resting on one of its triangular faces on H.P. such that the axis is parallel to VP and 40 mm in front of V.P. Draw three views

Q.2

1. A cylinder of 60 mm dia. And 80 mm long has its axis vertical. It is cut by a section plane perpendicular to V.P. inclined at 30° to H.P. and intersecting the axis 40 mm above the base. Draw front view, sectional Top view, Sectional side view and true shape of the section.

2. Draw the Development of lateral surface of the part A and B of right angle elbow as shown in fig.

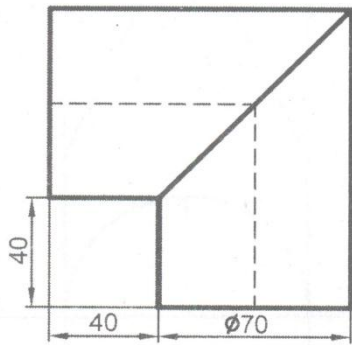


Fig. 5.21

Q.3

1. Following fig. shows FV and TV of the object. Draw its R.H.S.V.

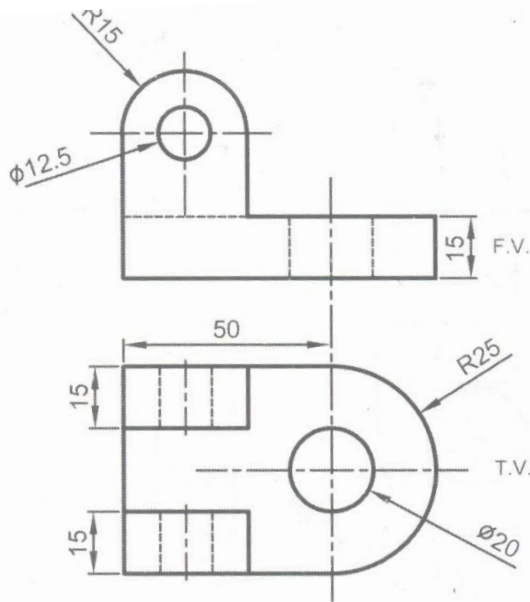


Fig. 7.6

Example 6.12 : A pictorial view of an object is as shown in Fig. 6.19. Draw the following view.

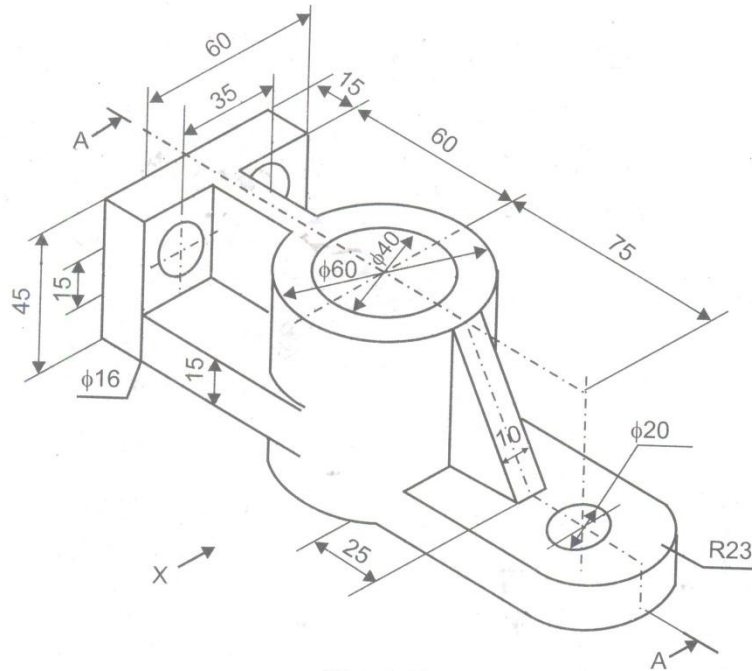


Fig. 6.19

- (a) Sectional front view in X direction. (A-A section plane).
 (b) Top view. (c) R.H.S.V.

Solution :