

1. Figure 1 shows a pictorial view of a Block. Draw the following views:-

- (a) Sectional F.V. Looking along arrow X (section B-B)
- (b) R.H.S.V
- (c) Top View

Insert at least 10 major dimensions

4
4
5
2

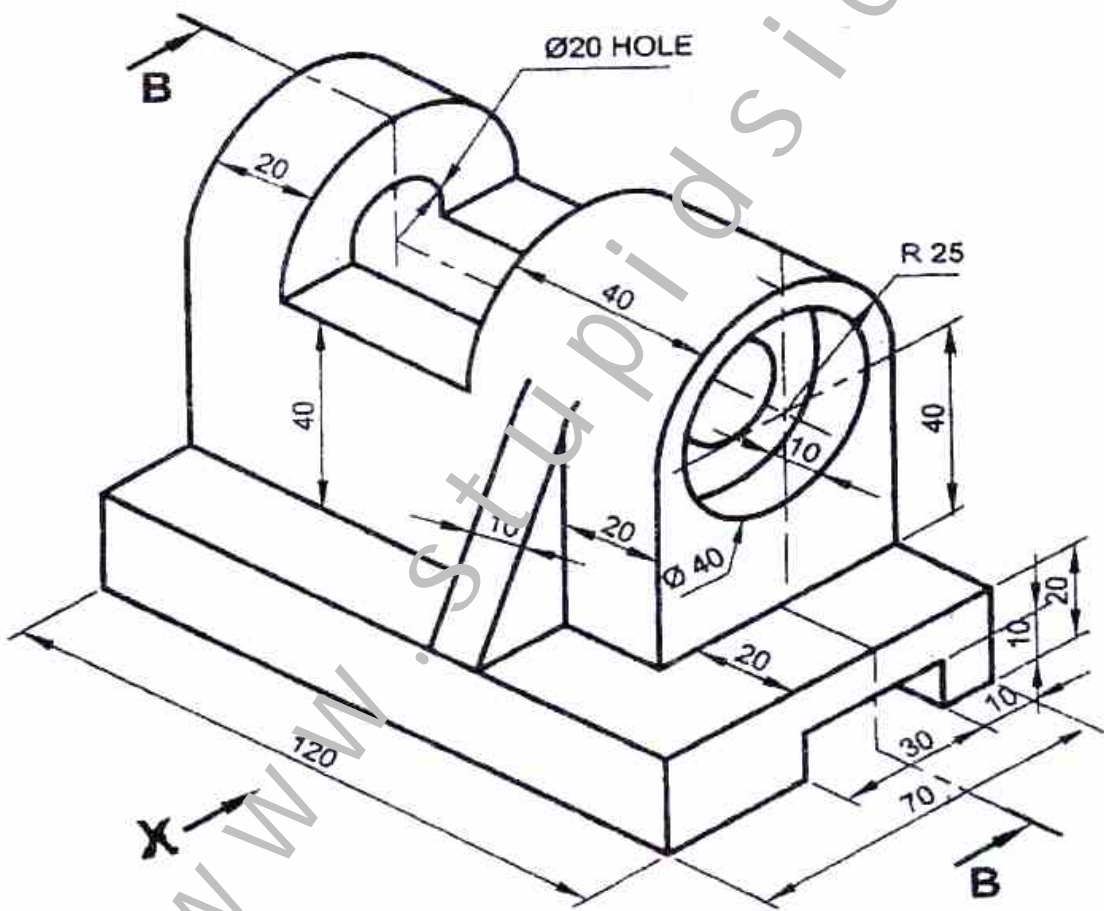


Figure 1.

2. Figure 2 shows the F.V and T.V. of an Object. Draw the following views:-

(a) Sectional Elevation along A-A

(b) Sectional Plan along B-B

(c) R.H.S.V.

Insert at least 8 major dimensions

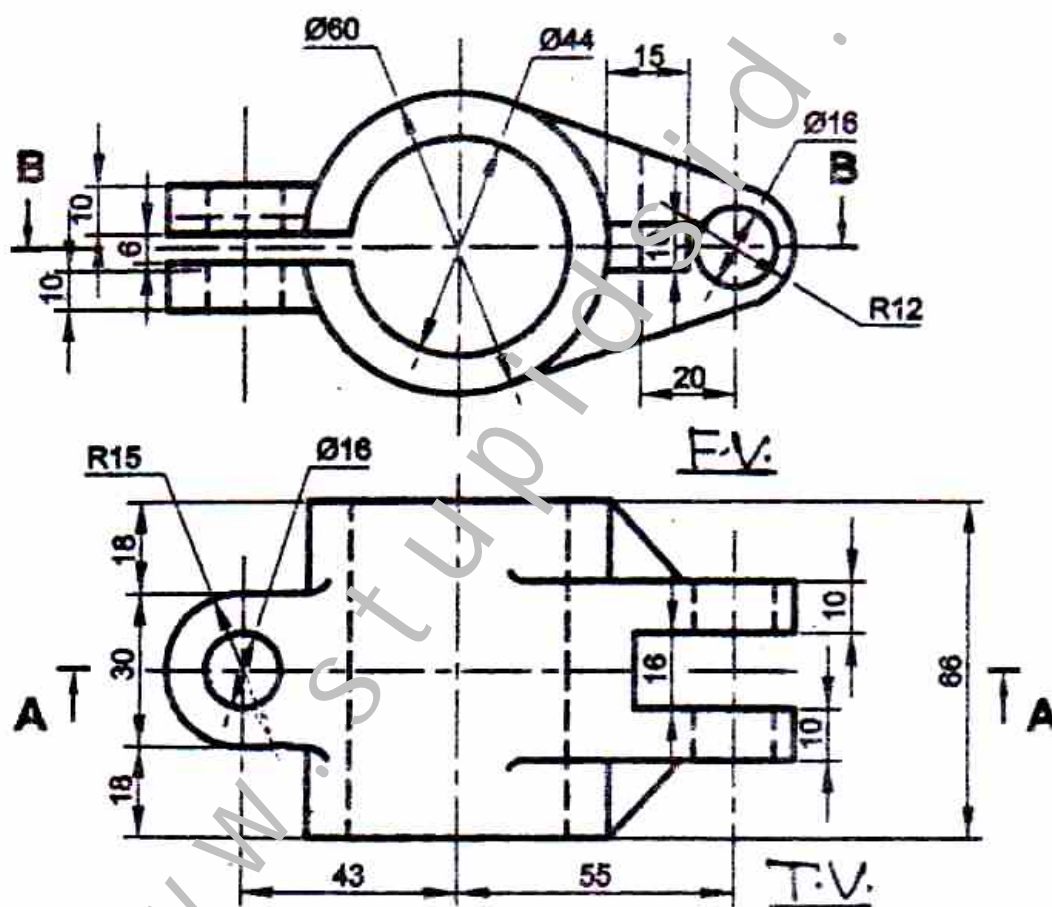


Figure 2.

3. (a) A line PQ, 110 mm long has its plan and elevation lengths 80 mm and 90 mm long. One end of the line P is in HP and the other end Q in VP. Assume the line in the 3rd quadrant. Draw the projections of the line and find its inclination with HP and VP. Also locate its traces (HT and VT). (9)

(b) One end of an inelastic string AB 150.5 mm long is attached to the circumference of a half circular, half hexagonal disc 49 mm diameter. Draw the curve traced out by the other end of the string A when it is completely wound round the circumference of the disc, keeping the string always tight. Take initial position of the string tangent at the midpoint of the circular portion. (6)

4. A right circular cone of base diameter 70 mm and axis length 65 mm is having its apex 25 mm above HP and in the VP. Draw the projections when the solid is resting on VP on one of its generators. (15)

5. A square prism 80 mm long is cut in to two halves, so that the true shape of the cut surface is a rhombus of 40 mm side and one of its angles being 70° . Draw the F.V. sectional T.V. and true shape of the section. Also find the cutting plane inclination with H.P, if the prism is resting on HP with rectangular faces equally inclined to V.P. (15)

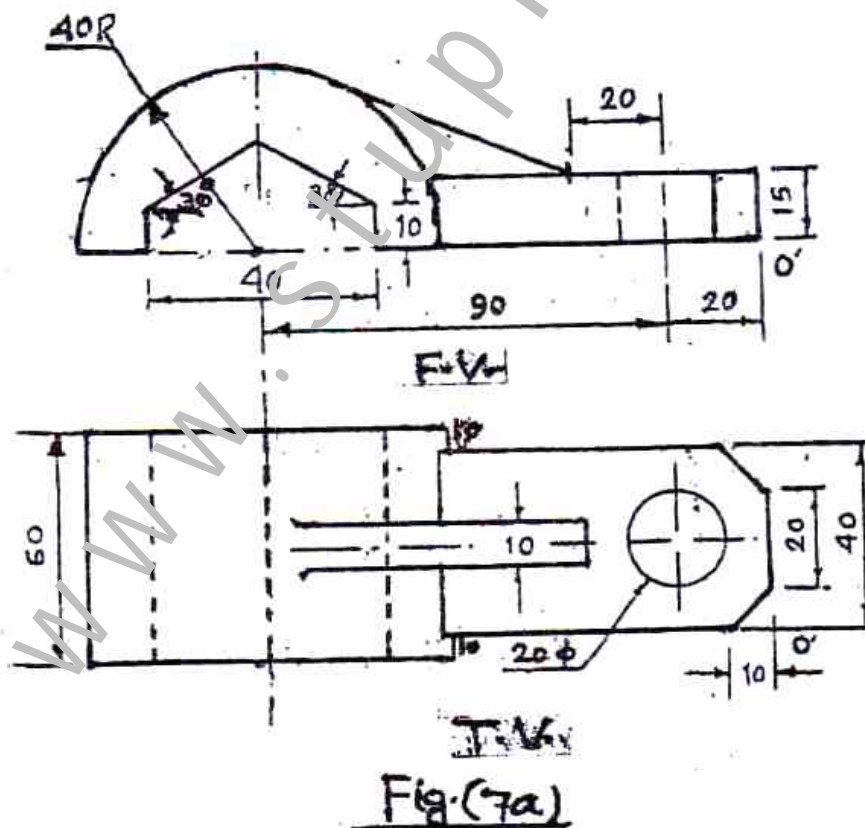
6. (a) A Square pyramid, side of base 50 mm and height 50 mm is resting on HP on its base with all the edges of the base equally inclined to V.P. A rectangular slot 40 mm wide and 15 mm high is made in the centre at the bottom of the pyramid. Draw the development of the lateral surfaces of the pyramid. Show the position of the slot in T.V. also. (11)

(b) Draw neat, proportionate free hand sketches (Two Views) of the following:-

(i) I.S. Conventional representation of internal thread (2)

(ii) Hexagonal headed bolt (2)

7. (a) Refer Fig. (7a), Draw an isometric view of the following using natural scale. (11)



(b) Draw neat, proportionate free hand sketches of the following: (4)

(i) Acme threads profile (ii) Cup or cylindrical headed and conical end set screw (Two Views)