

22207

11920

4 Hours / 70 Marks

Seat No.

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- Instructions :**
- (1) All Questions are *compulsory*.
  - (2) Answer each next main Question on a new page.
  - (3) Figures to the right indicate full marks.
  - (4) Assume suitable data, if necessary.

**Marks**

**1. Attempt any FIVE :**

**10**

- (a) Draw neat & proportionate free hand sketch of Double Rivetted Lap joint.
- (b) Draw the conventional representation of :
  - (i) Spot Weld
  - (ii) Single J-butt Weld
- (c) Draw neat & proportionate free hand sketch of pulley with web.
- (d) Draw the conventional representation of following material :
  - (i) Concrete
  - (ii) Brass
- (e) Draw neat & proportionate free hand sketch of Half lap muff coupling.
- (f) Draw conventional representation of broken section.
- (g) A line AS, 55 mm long is lying on both HP & VP. Draw its projection.

**2. Attempt any THREE :**

**12**

- (a) A line AP, 75 mm long has its end A in both HP & VP. It is inclined at an angle of  $30^\circ$  to HP &  $45^\circ$  to VP. Draw the projections.
- (b) A hexagonal lamina of 24 mm side has its surface inclined at  $30^\circ$  to HP and resting on one of its corner on HP. Draw its projections.
- (c) A pentagonal lamina of 40 mm side has a circular hole of 35 mm diameter of its centre. It stands on one of its sides on VP with its plane perpendicular to HP, and  $45^\circ$  inclined to VP. Draw the projection.
- (d) Draw the projections of a cube of side 40 mm when it rests on the ground on one of its corners and a face containing that corner is inclined at  $30^\circ$  to ground and perpendicular to VP.
- (e) A triangular prism, side of base 30 mm & height 60 mm lies with one of its longer edges on H.P., such that its axis is parallel to V.P. Draw its projections.

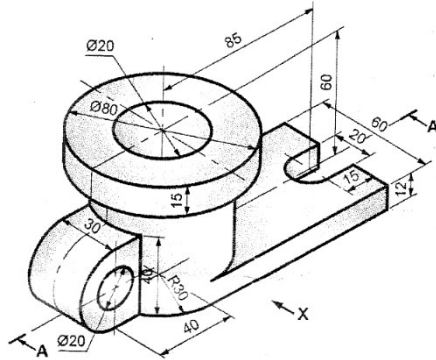


(b) Figure 2 Shows isometric view of a machine component.

Draw :

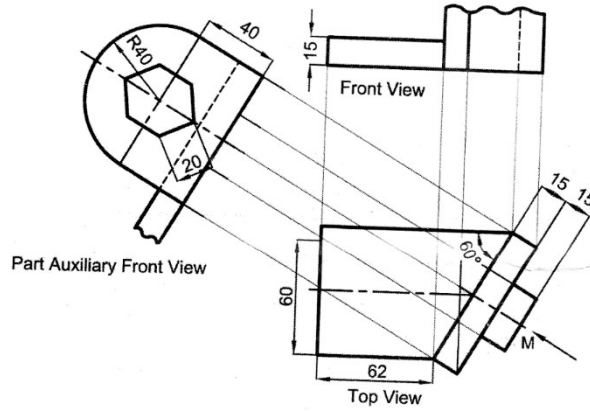
(i) Sectional F.V. in X direction

(ii) Top view



**Fig. 2**

(c) Figure 3 Shows incomplete front view, top view & partial auxiliary front view. Draw the given views and complete the front view.



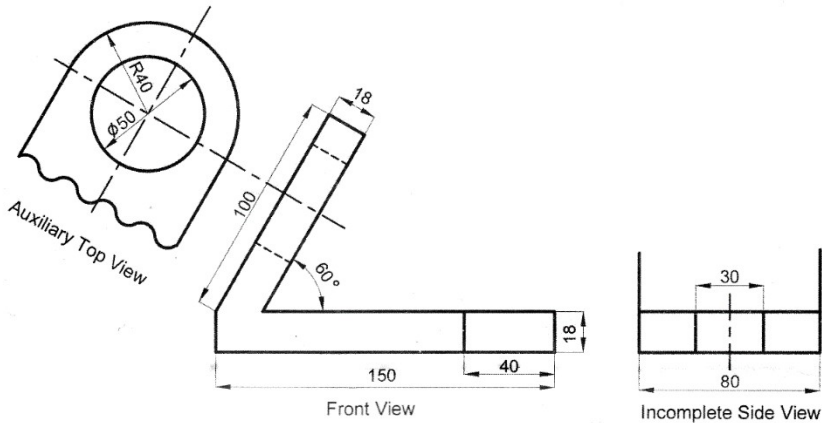
**Fig. 3**

5. **Attempt any TWO :**

16

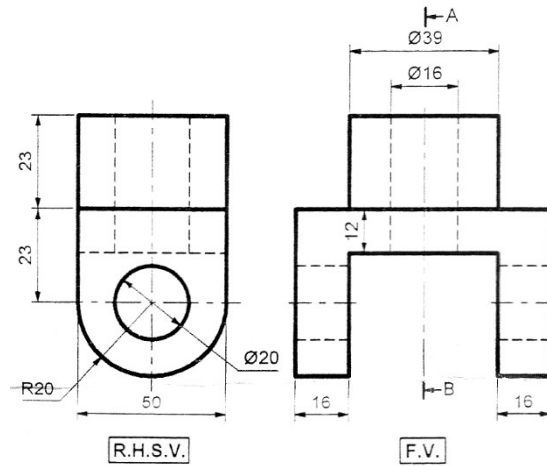
(a) Figure 4 Shows front view, auxiliary top view and incomplete side view.

Draw the given views and complete the side view.



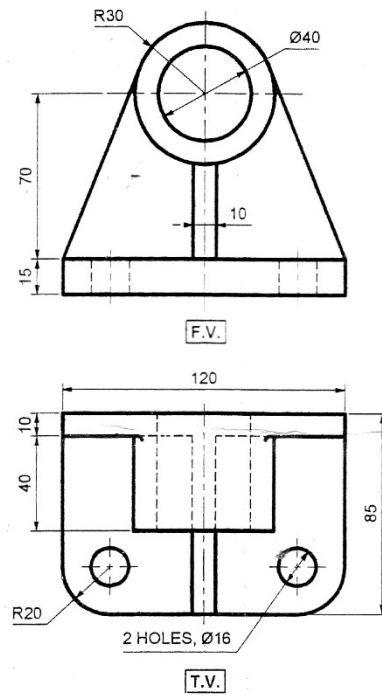
**Fig. 4**

- (b) Figure 5 shows front view and right hand side view of an object. Draw :
- (i) Top view
  - (ii) Front view
  - (iii) Sectional R.H.S.V. along A – B



**Fig. 5**

- (c) Figure 6 shows F.V. & T.V. of a bracket drawn by first angle method of projection. Redraw F.V. & T.V. and complete L.H.S.V.



**Fig. 6**