List of Problems to be solved in Sketch book
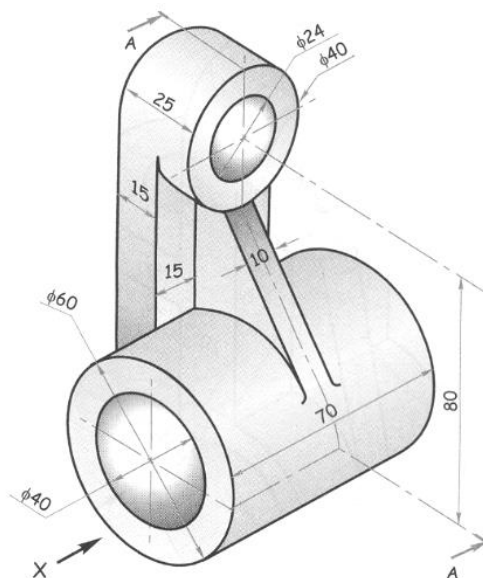
Sheet:-1

CO$_1$: Projection of lines and planes**.**

1. The FV of line AB 80mm long is inclined at 50° to XY, measures 60mm. The end point A is 15mm above HP and 25mm in front of VP. Draw projections of line AB and find inclination with HP and VP. Point B lies in first quadrant.

2. A line CD, 50mm long, has its end C in both the reference planes. It is inclined at an angle of 30^0 to the HP and at an angle of 45° to the VP. Draw the projections of the line if point D is in 1st quadrant.

3. Draw the projections of a regular pentagon of 40mm side resting on one of its side in VP. Its surface is inclined at 40° to the V.P

4. A circular plate of 60mm diameter is resting on the HP on point A on its rim. Draw the projections if its surface is inclined at 30° to the HP.
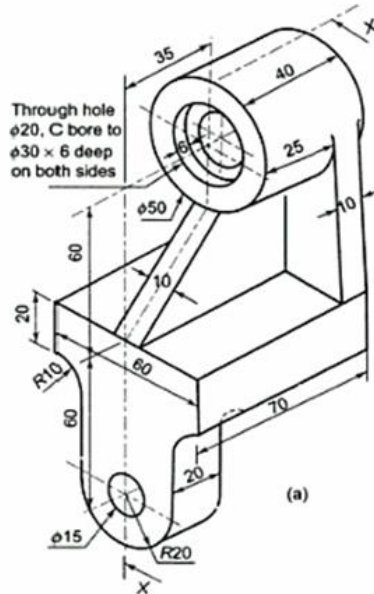
Sheet:-2

CO$_2$: Orthographic and sectional views of any 3D object**.**

1. Using First angle Projection method draw F.V. in the direction of arrow X, T.V., and R.H.S.V.

2. Figure shows pictorial view of C.I. Block. Draw the following views by using first angle method of projection,
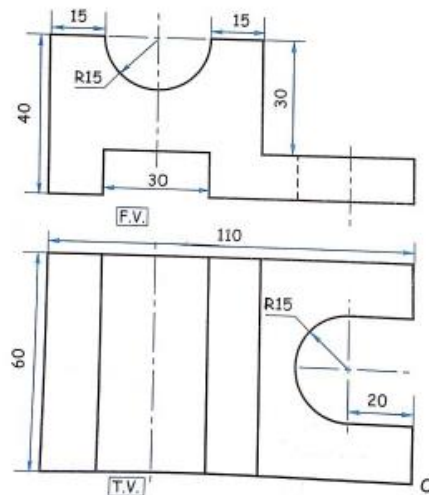- Sectional FV along the section plane X-X;
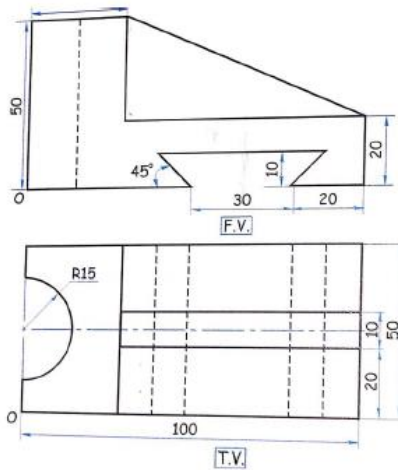- Top View and
- LHSV

Sheet:-3

CO₃: Isometric drawing**.**

1. Figure shows the front view and side view of an object. Draw isometric drawing about an origin 'O'

2. Figure shows the front view and Top view of an object. Draw isometric drawing about an origin 'O'.

Sheet:-4

CO₄: Projection of regular solids.

1. A pentagonal prism, side of base 40mm and length of axis 70mm, has an edge of its base in the VP. The axis is making an angle of 55° with the VP draw the projections of prism.

2. A cone of 60mm diameter of the base and 70mm length of the axis is having one of its generators in the HP. Draw the projections of cone.

Sheet:-5

CO₅: Section and lateral development of regular solids.

1. A square pyramid of base side 25mm and altitude 40mm rests on the HP on its base with the base edges equally inclined to the VP. It is cut by a plane perpendicular to the VP and inclined at 30˚ to the HP meeting the axis at 21mm above the HP. Draw the sectional plan and the true shape of the section. Also draw the development of the retained part.

2. A Right circular cylinder 50 mm diameter base, 70 mm length of axis, is resting on its base in H.P It is cut by a section plane perpendicular to V.P and inclined to the H.P such that the angle between the axis of cylinder and cutting plane is 60 degrees. Assume that the cutting plane is passing through the point on the axis 15 mm from the top. Draw front view, sectional top view, and true shape of section. Also draw the development of lateral surface of cylinder.