List of Problems to be solved in Sketch Book

SB:-1

CO_1: Projection of lines and planes**.**

1. A straight line AB of true length 100 mm has its end A 20 mm above HP and 30 mm in front of VP. The top view of the line is 80 mm and front view is 70 mm. Draw the projections (TV and FV) of the line AB and obtain the true inclinations of the line AB with HP and VP.

2. The end A of a straight line AB 90 mm long is in the second quadrant and 15 mm from both the HP and VP. End B is in third quadrant. The line is inclined at 30° with the HP and the distance between the end projectors measured parallel to the XY line is 60 mm. Draw the projections of line and find its inclination with the VP.

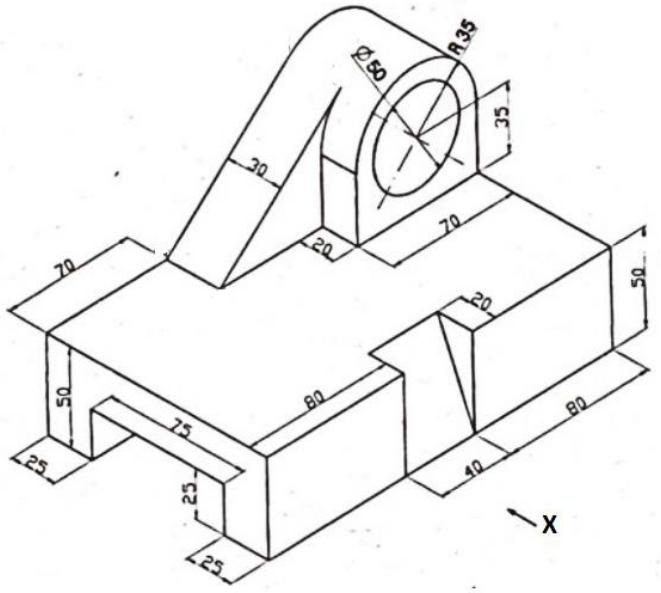
3. A square lamina of side 80 mm rests on a corner on V.P. and it is inclined with V.P. such that its elevation is a rhombus with a diagonal of 40 mm. Draw its projections and determine its inclination with V.P.

4. A regular hexagonal plate ABCDEF has its corner A in the HP. The plate is inclined to the HP at 40°. Draw its projections. The side of the plate is 35 mm.

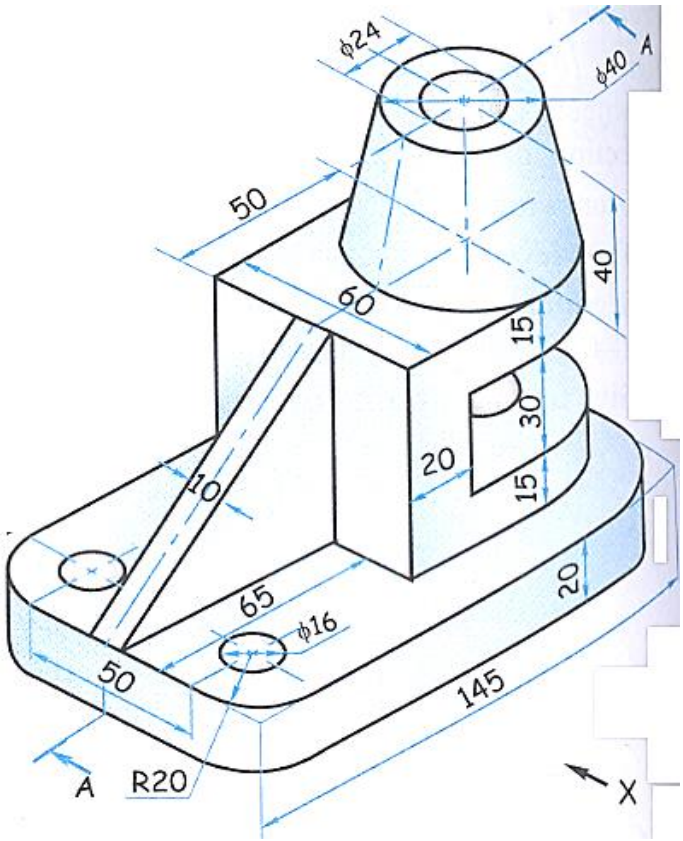
SB:-2

CO_2: Orthographic and sectional views of any 3D object**.**

1. Figure shows pictorial view of object. Draw the following views using the first angle method of projections, a) Plan b) Elevation in the direction of arrow X c) Left Hand Side View.



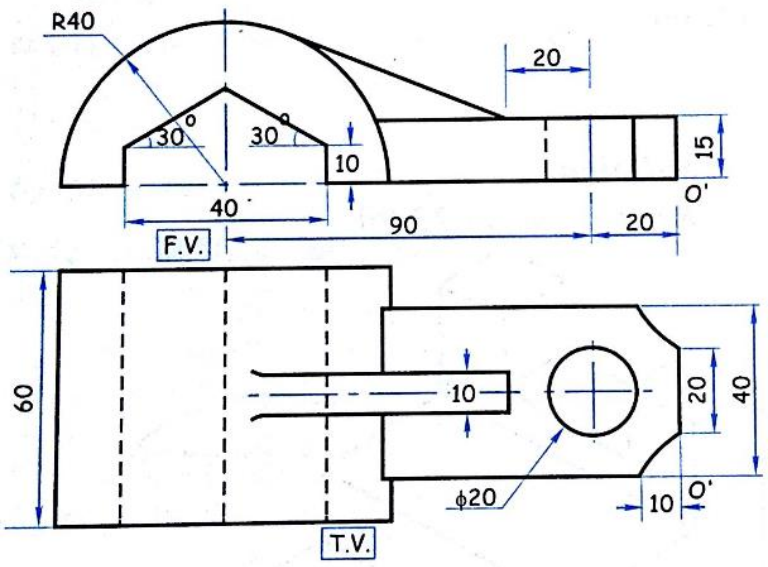
2. Figure shows pictorial view of Object. Draw using first angle method of projections,
i) Sectional Front view along A-A; ii) Top View; iii) LHSV.



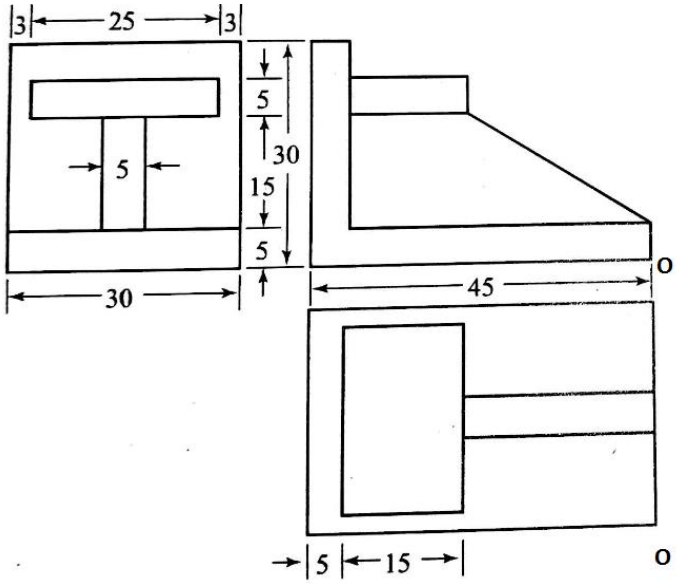
SB:-3

CO 3: Isometric drawing**.**

1. Figure shows the front view and TV of an object. Draw isometric drawing about origin ‘O’



2. Figure shows the front view and Top view and side view of an object. Draw its isometric view about an origin ‘O’.



SB:-4

CO 4: Projection of regular solids.

1. A pentagonal pyramid has an edge of the base in the VP and inclined at 30^0 to the HP, while triangular face containing that edge makes an angle of 45^0 with the VP. Length of side of the base is 30 mm, while that of the axis is 80 mm.

2. A cone, 50 mm base diameter and 70 mm axis is standing on its base on HP. The axis of cone is inclined at 45^0 to HP and TV of axis inclined at 40^0 to VP. Draw the projections.

SB:-5

CO 5: Section and lateral development of regular solids.

1. A hexagonal pyramid of 35 mm edges of base and 65 mm height rest on its base on HP with one of its side of base perpendicular to the VP. It is cut by section plane perpendicular to HP inclined at 30º to the VP and 15 mm away from apex of pyramid. Draw sectional elevation, plan and the true shape of section. Also draw the development of lateral surface.
2. A cylinder of 30 mm diameter and 50 mm long stands vertically on its circular base. It is cut by an AIP inclined at 60° to the HP which bisects the axis of the cylinder. Draw sectional TV, FV and true shape of the section. Also show the development of the lateral surface of cut cylinder.