(Somaiya Vidyavihar University)
K. J. Somaiya College of Engineering, Mumbai-77
(A Constituent College of Somaiya Vidyavihar University)

F.Y. BTech Sem. II – (Academic Year 2022-23)

List of Problems to be solved in Autocad

Sheet:-1

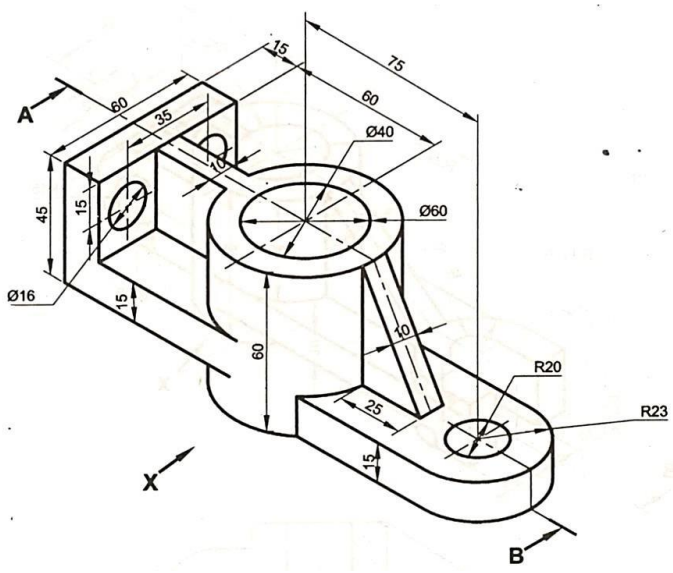
CO_1: Projection of lines and planes**.**

1. Elevation of a line AB is 75 mm and is inclined to XY line at 45°. End A is 25 mm above HP and end B is 10 mm behind VP. Draw its projection if the line is 95 mm and end B is in third quadrant. Find the inclination of line AB with HP and VP.
2. A line PQ 100 mm long is inclined at 40° to the HP and 30° to the VP. Its end P is 30 mm above the HP and 40 mm in front of VP. The end Q is in the third quadrant. Draw the projection of the line.
3. ABC is a thin triangular plate having its edges AB, BC and CA equal to 52mm, 70mm and 44mm respectively. The edge AB rests on HP and has point A towards VP and 20 mm away from it. The plane of plate is inclined to HP at 30^0. Draw the projections of plate.
4. Draw the projections of a circle of 70 mm diameter having end A on a diameter AB in HP and the plane of circle is inclined at 30^0 to 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. of diagram shown below.



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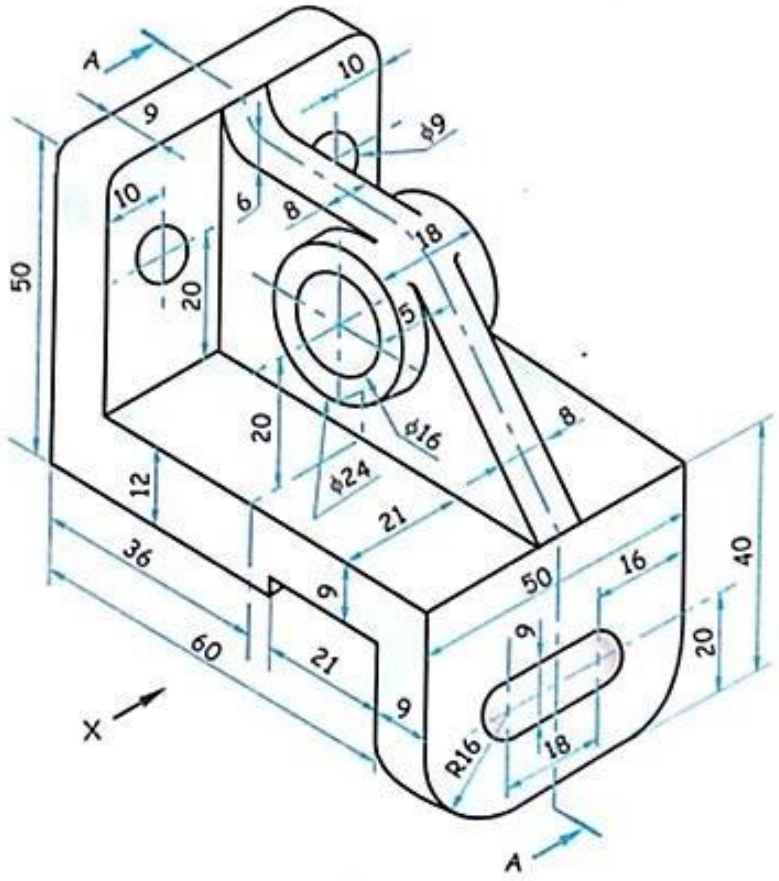
2. Figure shows pictorial view of C.I. Block. Draw the following views by using first angle method of projection,

- Sectional FV along the section plane A-A;
- Top View
- RHSV



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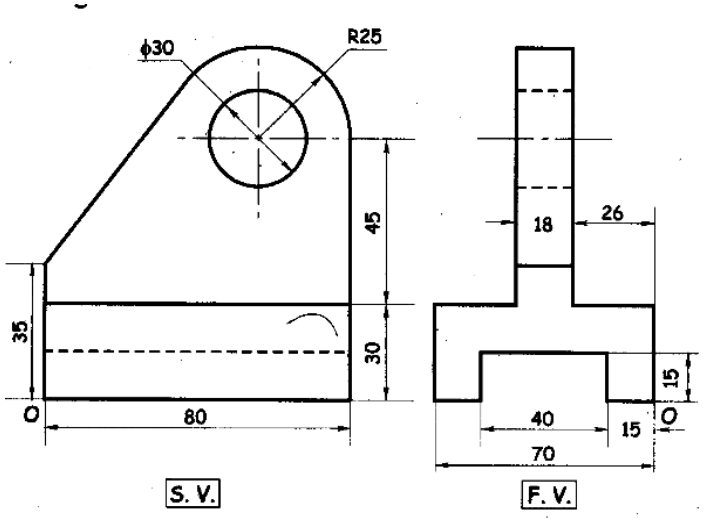
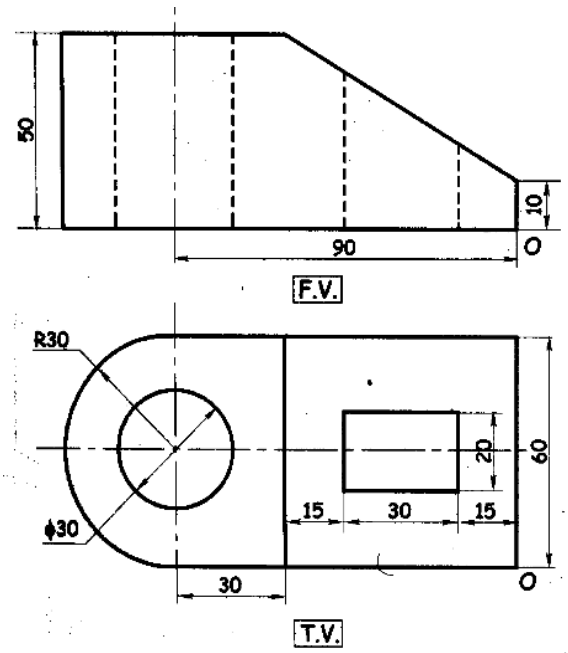
Sheet:-3

CO_3: 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’.



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Sheet:-4

CO_4: Projection of regular solids**.**

1. A pentagonal pyramid, 50 mm side of base and 80 mm height, rests on one of its corner of the base on the H.R.P. with axis making an angle of 30° to the HP. The side of the base, opposite to the corner on the H.R.P., is parallel to the VP. Draw the projection of pyramid.

2. A right circular cylinder diameter of base 50 mm and axis height 70 mm has one of the circumference point of base in HP such that its axis is inclined at 30^o to HP and axis appears to be inclined at 45^o to VP in its TV. Draw the projections.

Sheet:-5

CO_5: Section and lateral development of regular solids**.**

1. A pentagonal prism has one of the rectangular face normal to HP and VP. A section plane perpendicular to VP and inclined at 45° to HP cuts the axis of prism at a point 20 mm from the top. If base of prism is of 30 mm side and axis 70 mm long, draw its FV, Sec. TV, and true shape of section.

2. A right circular cone of base diameter 40 mm axis height 50 mm has its base on HP. It is cut by an AIP which makes an angle 45^o to HP and passes through the point on axis 20 mm below the apex. Draw FV, sectional TV, true shape of section. Develop the lateral surface of truncated cone.