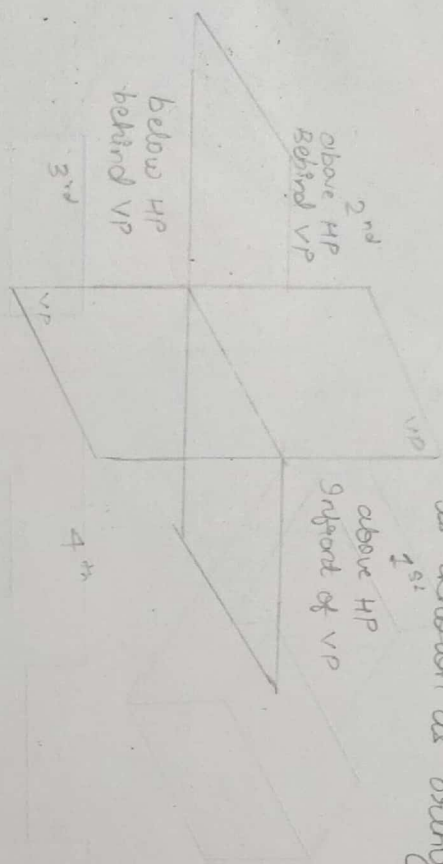
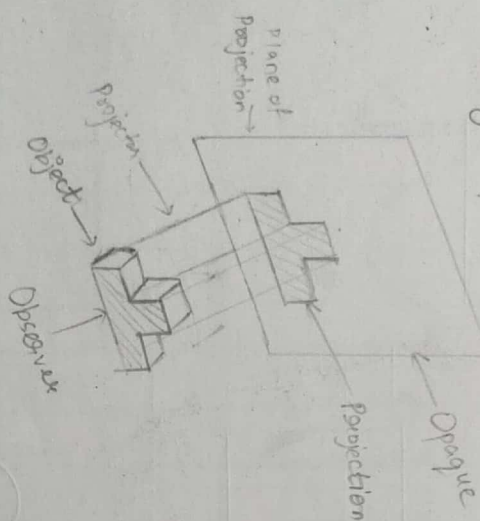


# Orthographic projections:-

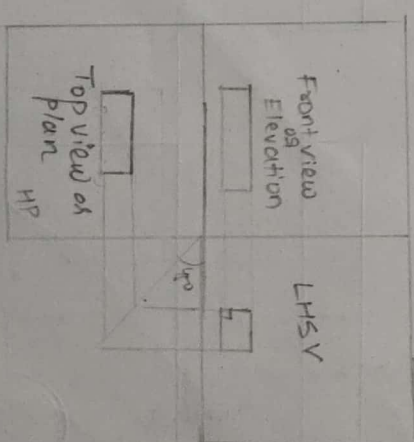
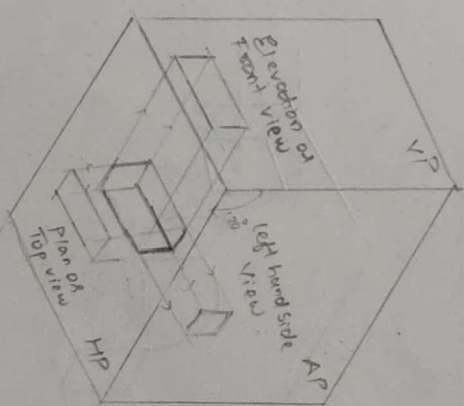
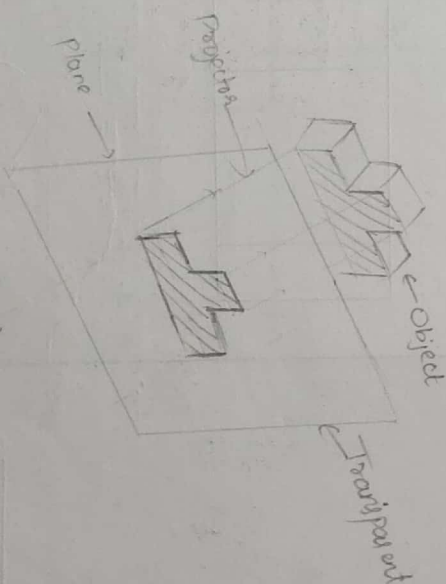
The projections or view obtained on plane of projection when the projector are parallel to each other but perpendicular to the plane of projection is known as orthographic projection.



## 1<sup>st</sup> angle projection:-

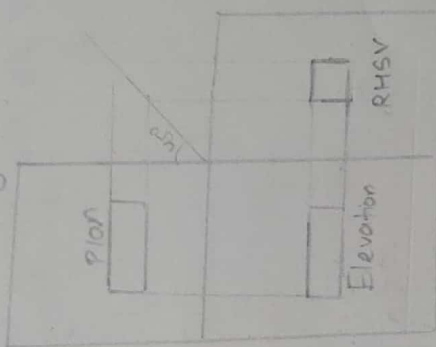


## 3<sup>rd</sup> angle projection:-

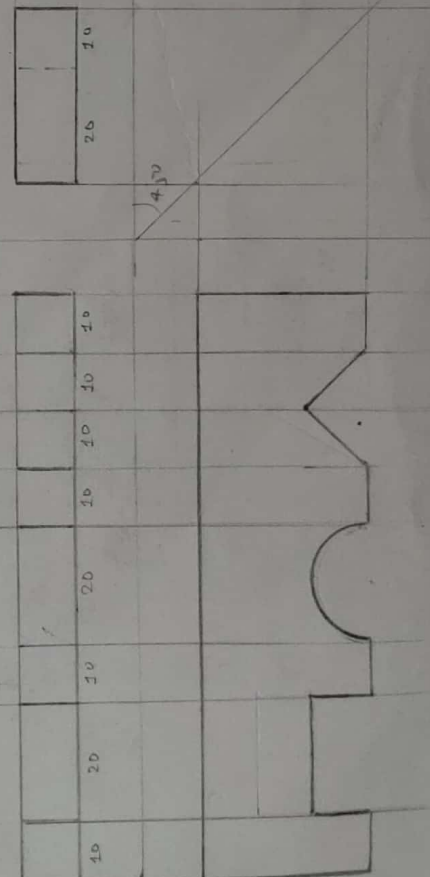
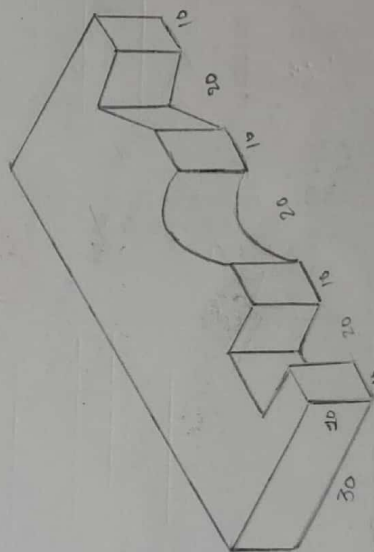


1<sup>st</sup> angle

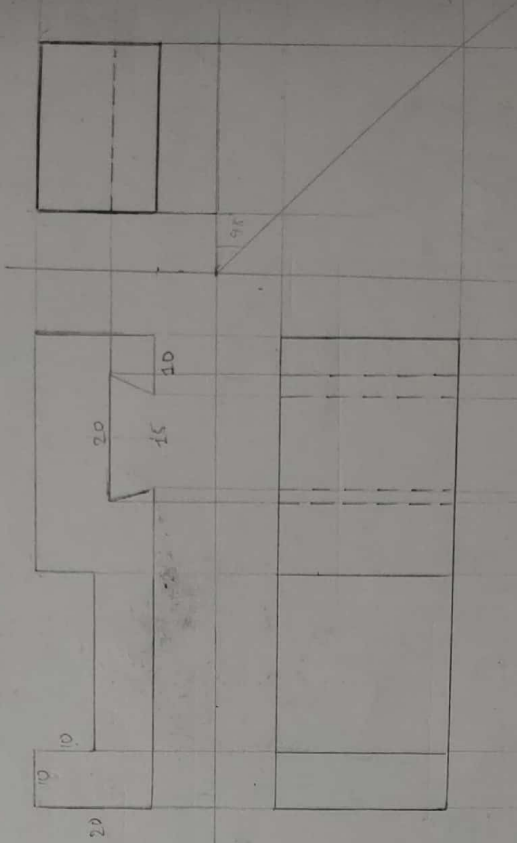
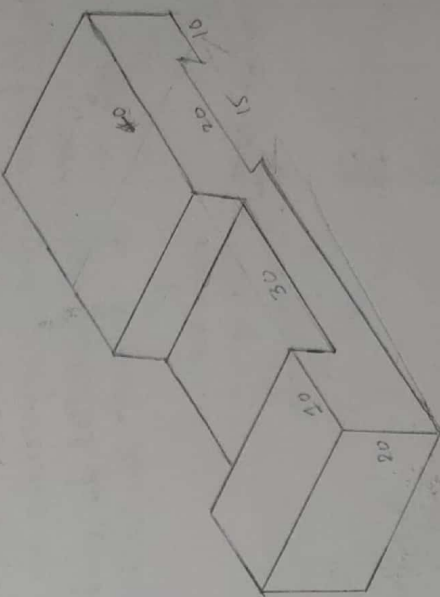
3rd angle



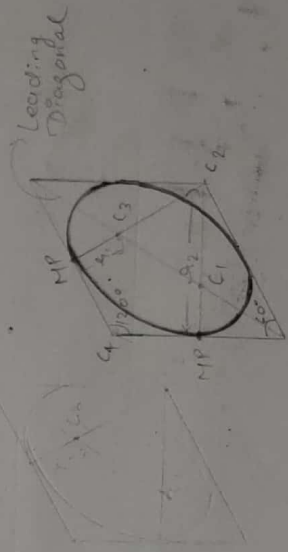
1)



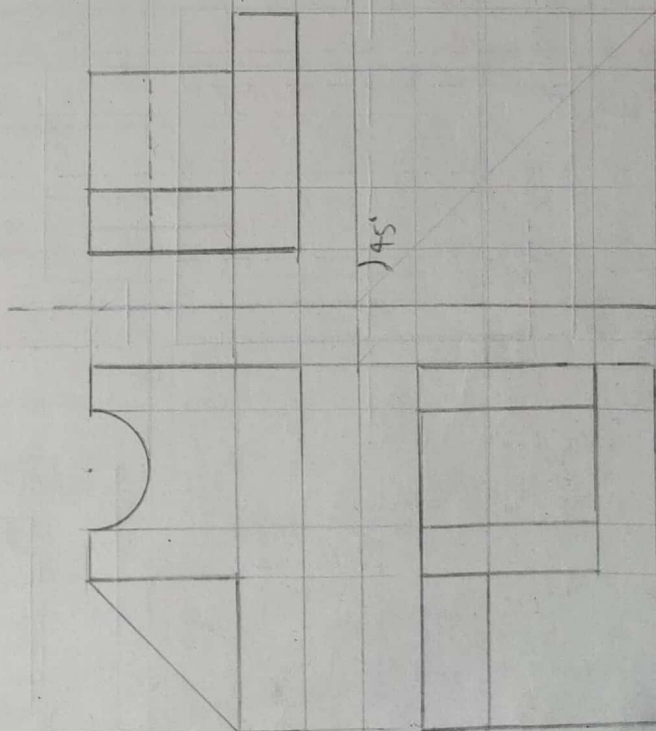
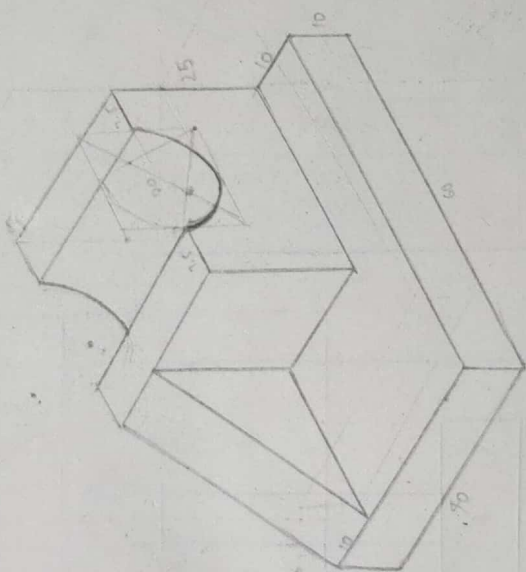
2)

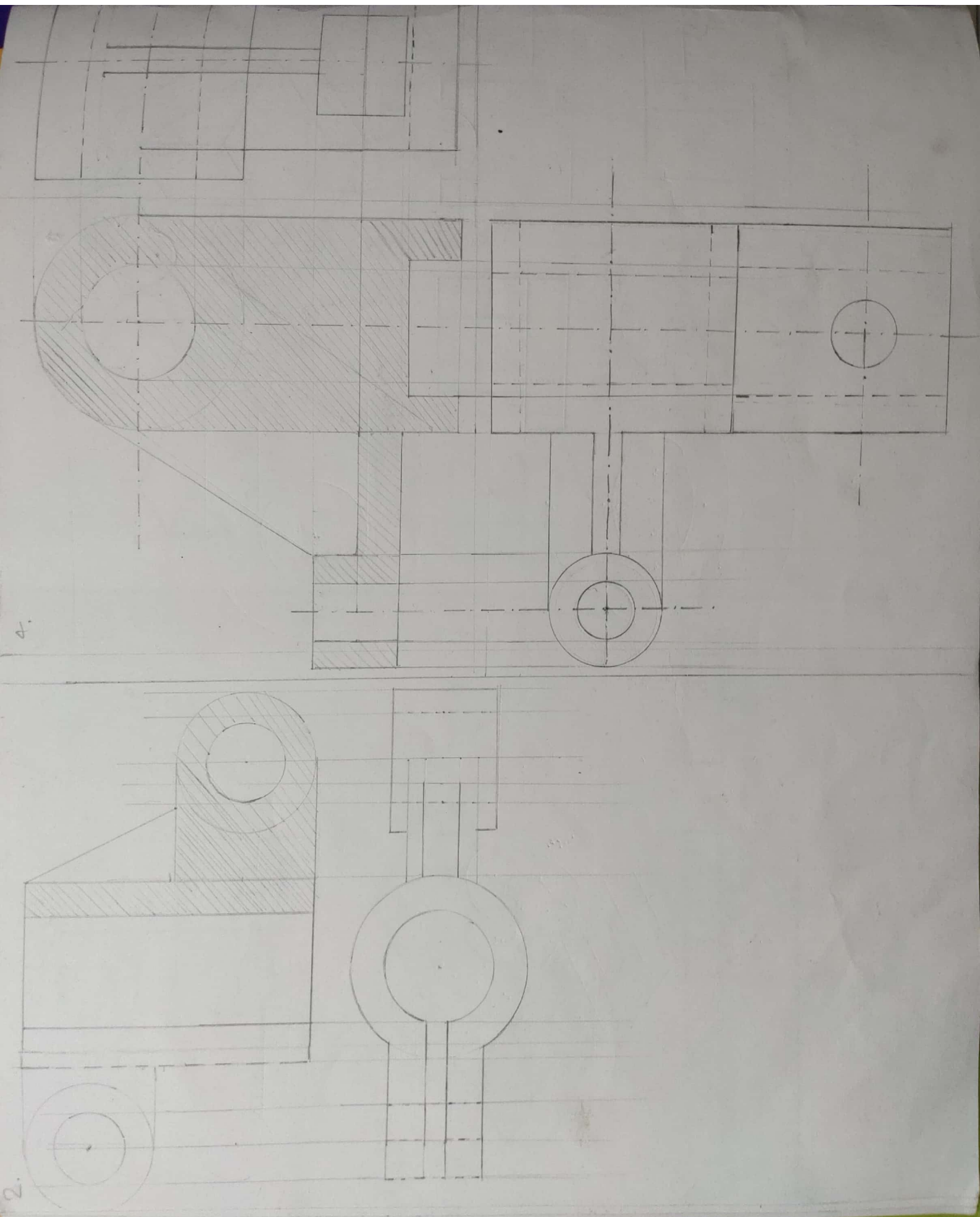


\* 4 centre 2 radii method :-

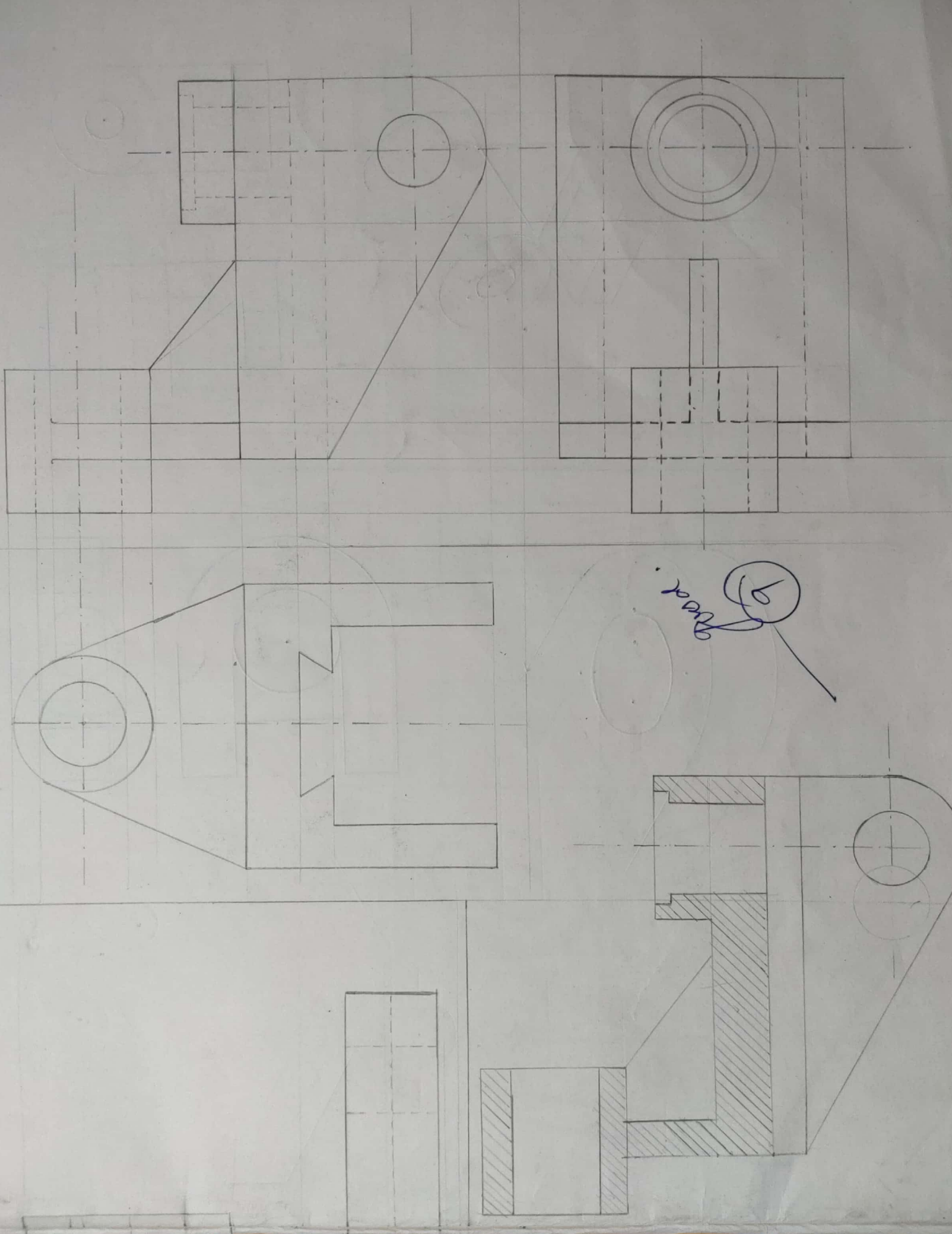


Rhombus of side equal to diameter of circle  
 $C_3, C_1$  |  $C_2, C_4$   
 $C_1, C_3$  |  $C_2, C_4$







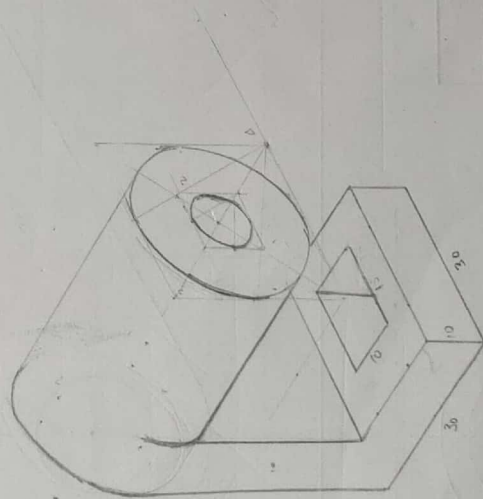


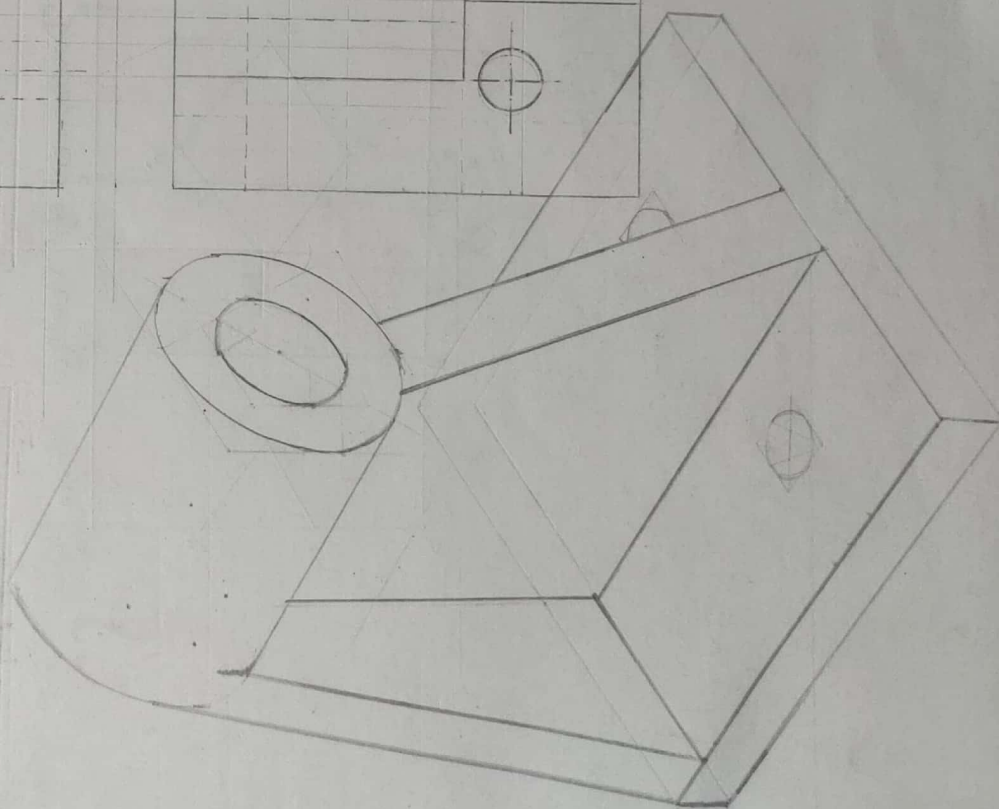
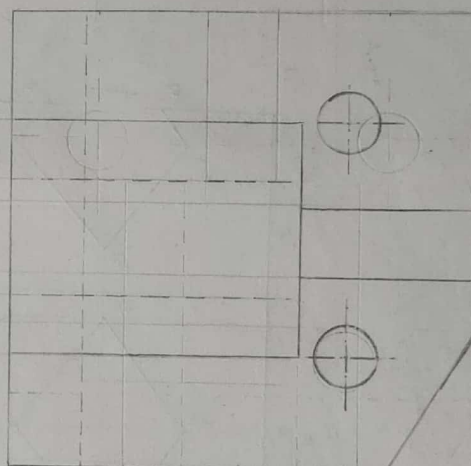
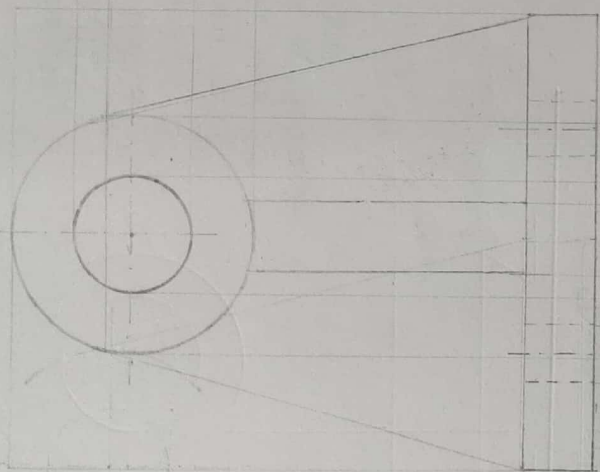
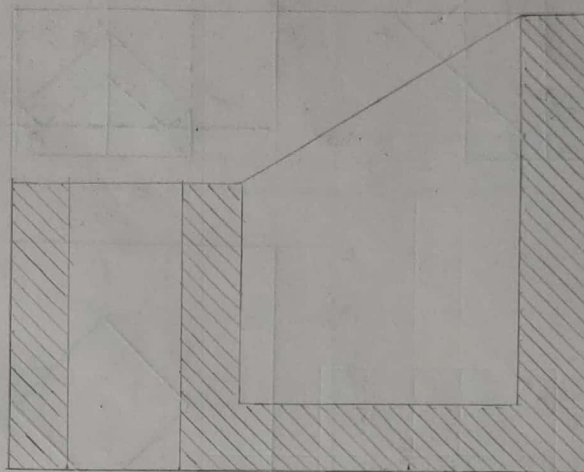
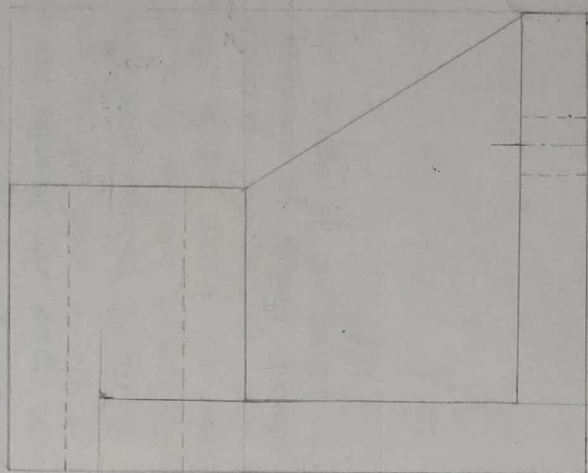
Isometric Drawing

The image shows a hand-drawn isometric drawing of a mechanical part, likely a bracket or a support. The part has a base with a semi-circular end of radius 30 and a rectangular section of width 30 and height 15. A circular hole with a diameter of 30 is located on the base. The part is shown in three views: a front elevation, a top plan, and an isometric view. The front elevation shows the part with a total width of 30 and a height of 15. The top plan shows the part with a total width of 30 and a depth of 15. The isometric view shows the part in a 3D perspective, with dimensions 30, 15, and 30 indicated. The drawing is on a grid background.

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# Penetration of Solids

Q. A square prism edge of the base 30mm & height 60mm resting on its base in HP is completely penetrated another square prism of 20mm base edge such that the axis of the penetrating prism is  $\perp$  to and 5mm in front of the axis of the vertical prism. The rectangular faces of two prisms are equal to the VP. Draw the projections of solids showing lines of intersection. Assume suitable length of the penetrating prism.

