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# **UNIT-V**

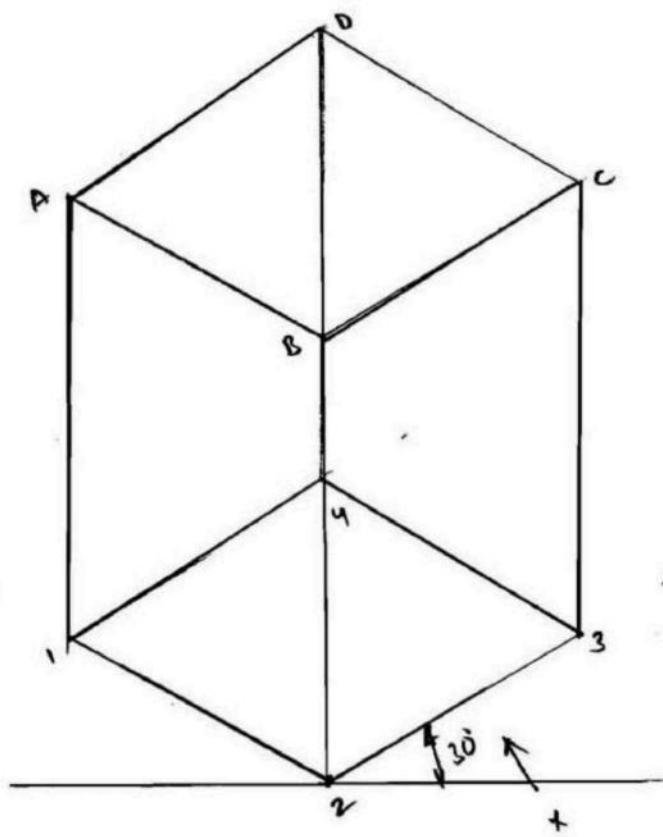
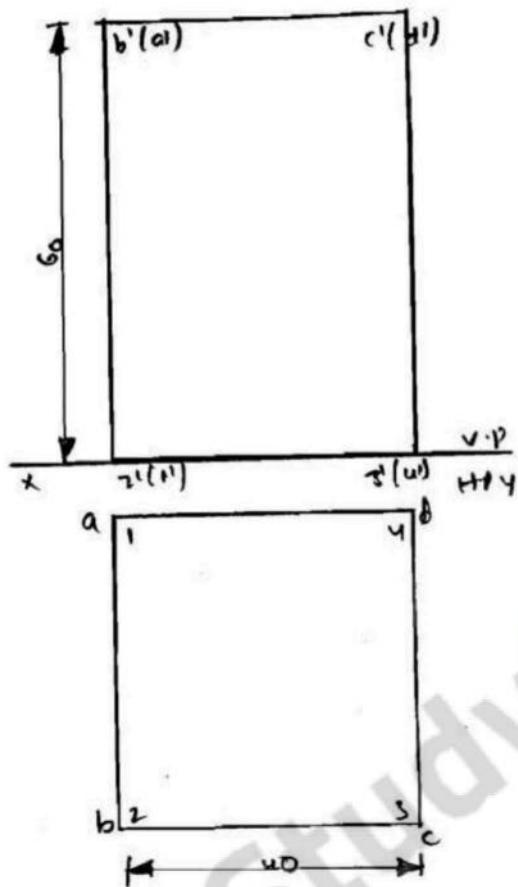
## **Content**

**Isometric Projections:** Principles of Isometric Projection – Isometric Scale – Isometric Views – Conventions – Isometric Views of Lines, Plane Figures, Simple and Compound Solids – Isometric Projection of objects having non-isometric lines. Isometric Projection of Spherical Parts.

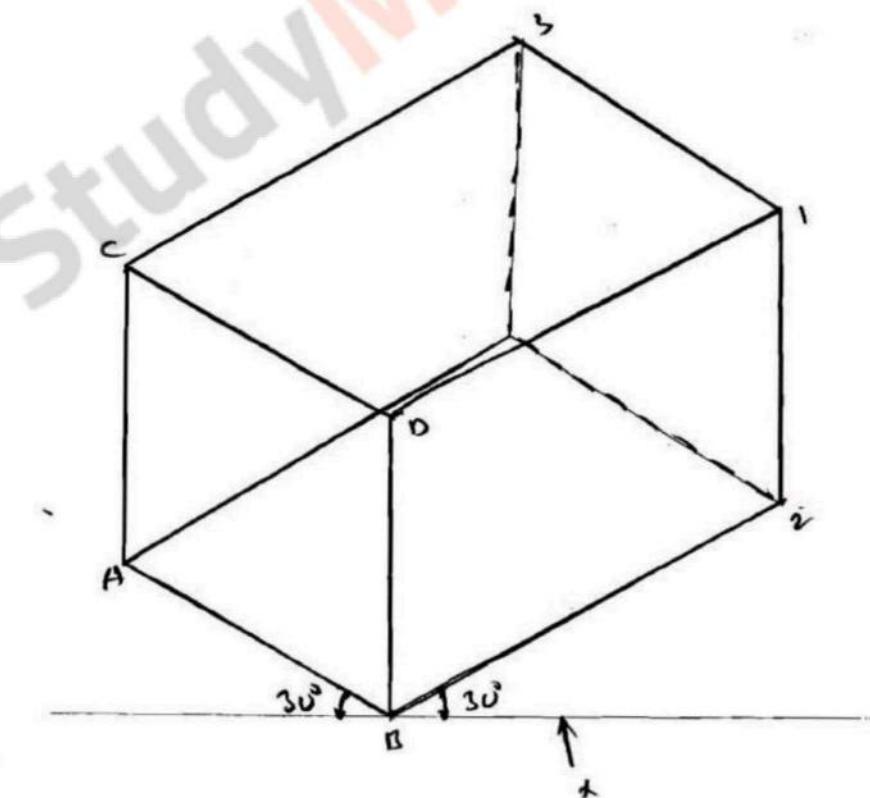
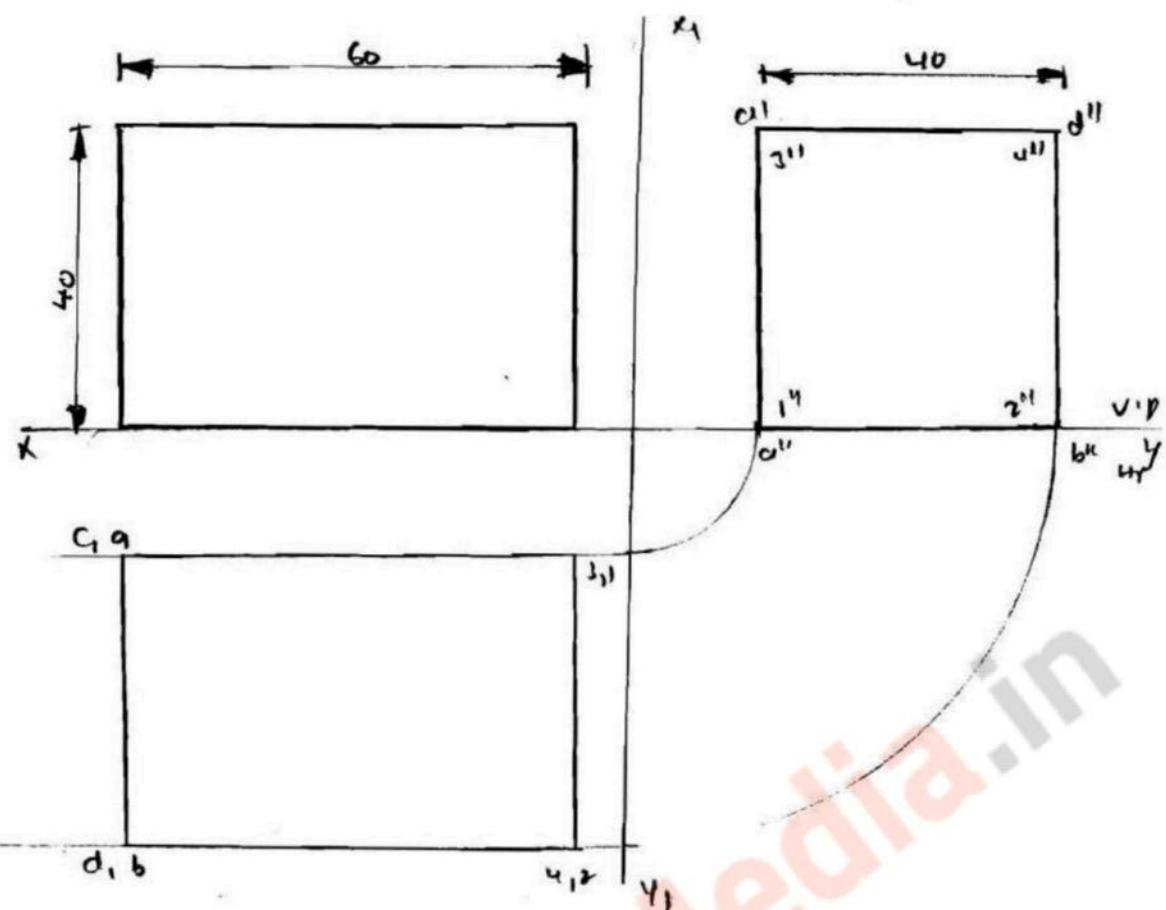
Conversion of Isometric Views to Orthographic Views and Vice-versa –Conventions

## Isometric Projections and Isometric Views -

- 1) Draw an isometric view of a square prism, back side up and  
O.I's Gmms long hidden on the H.P  
a) on its back with C.M's Ltr to the H.P

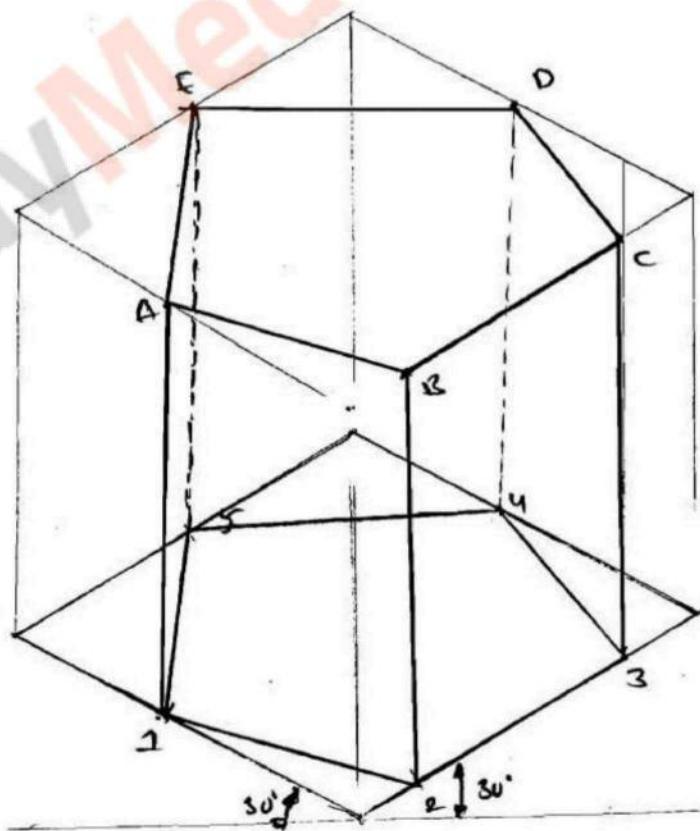
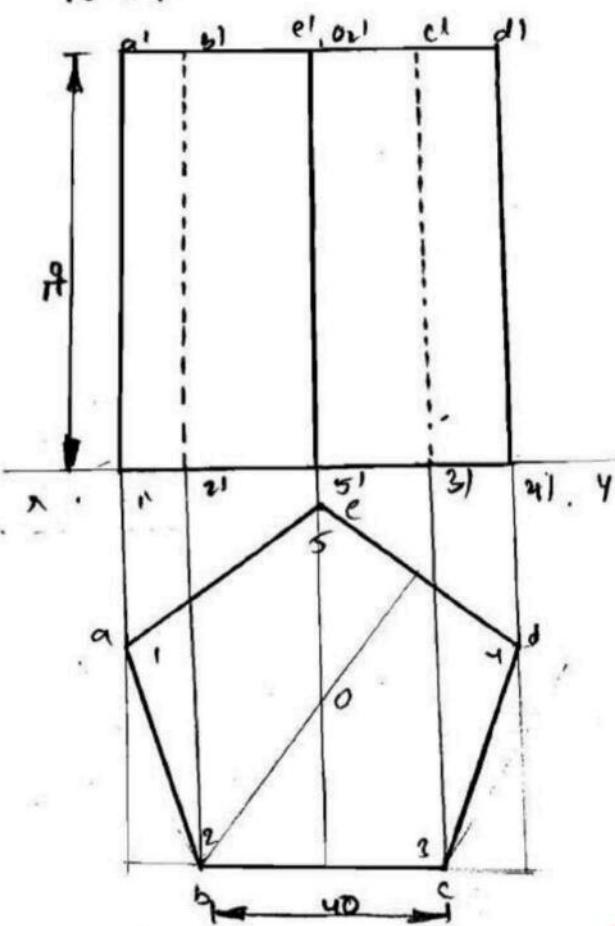


c) on its rectangular face with axis  $uvvp$

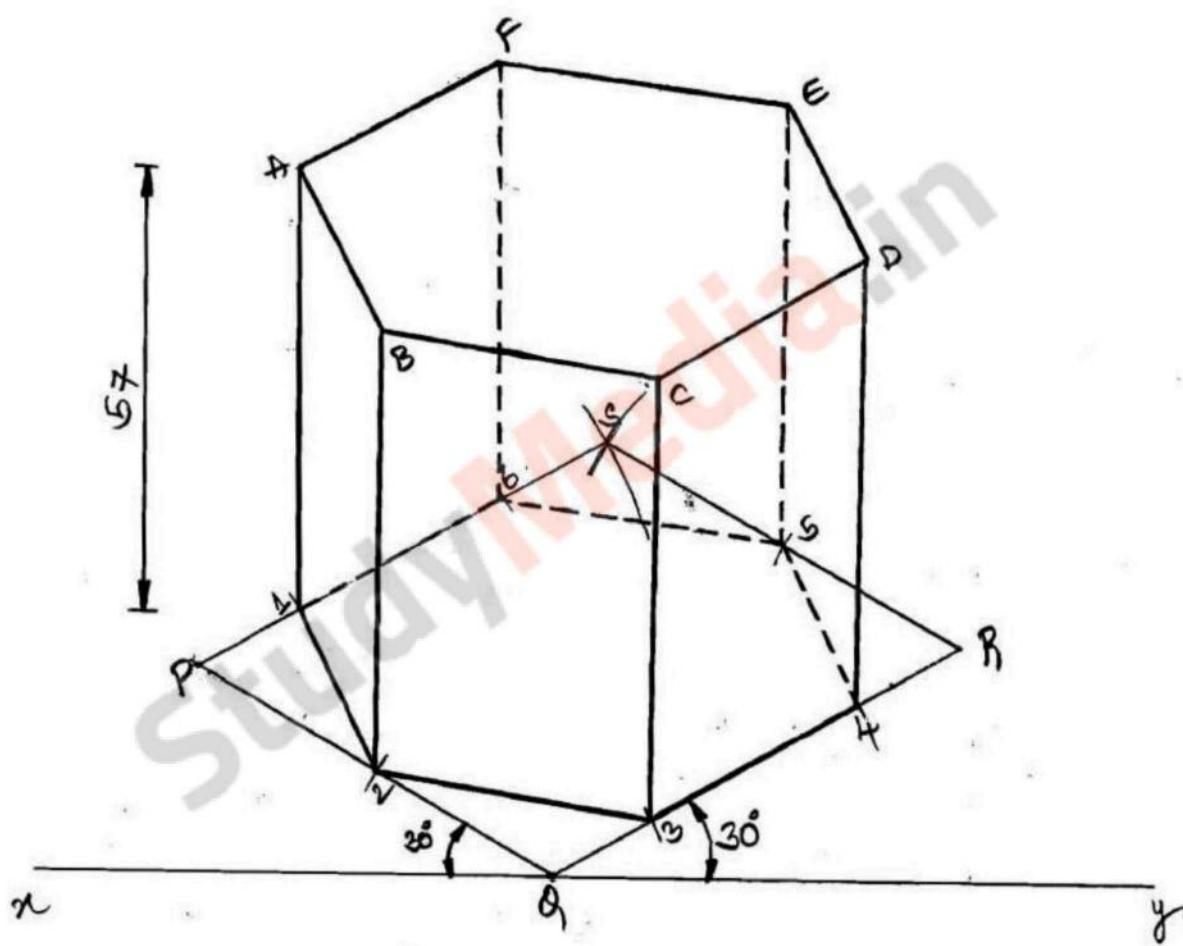


Junctions resting on its base on the H.P. with an edge of the base is 161

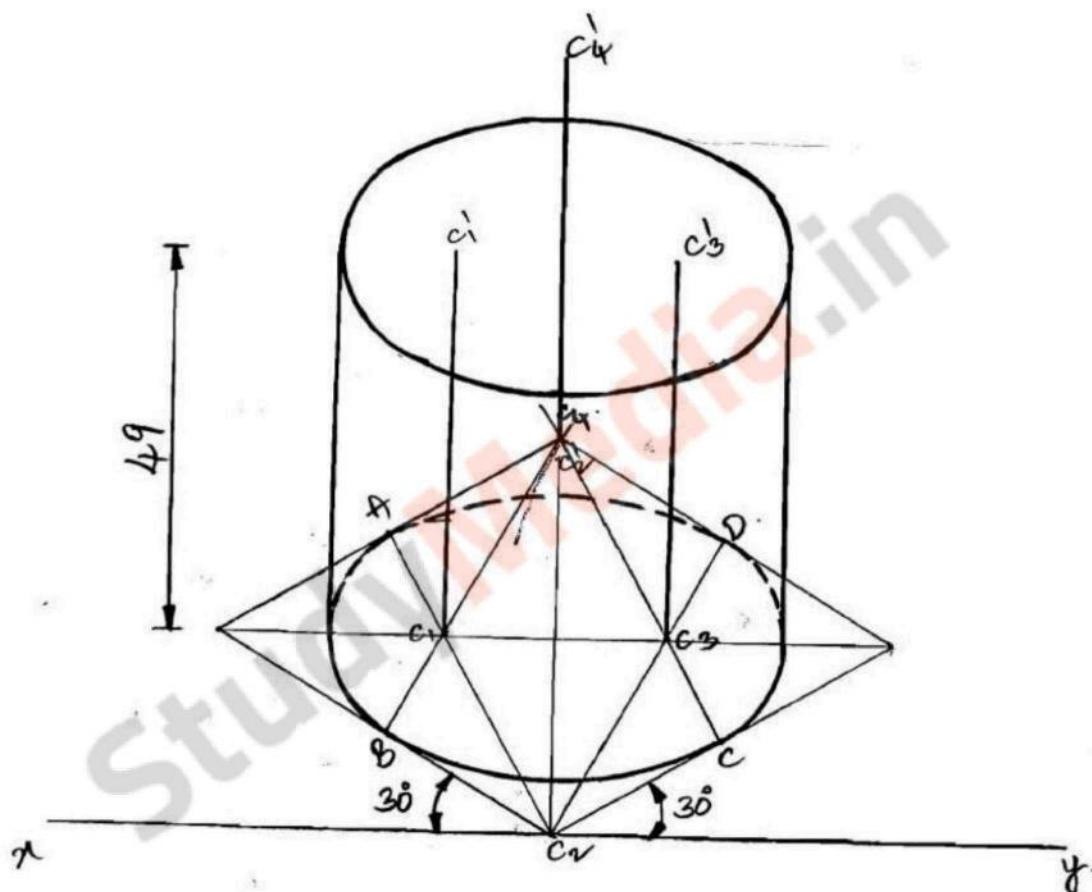
To V.P.



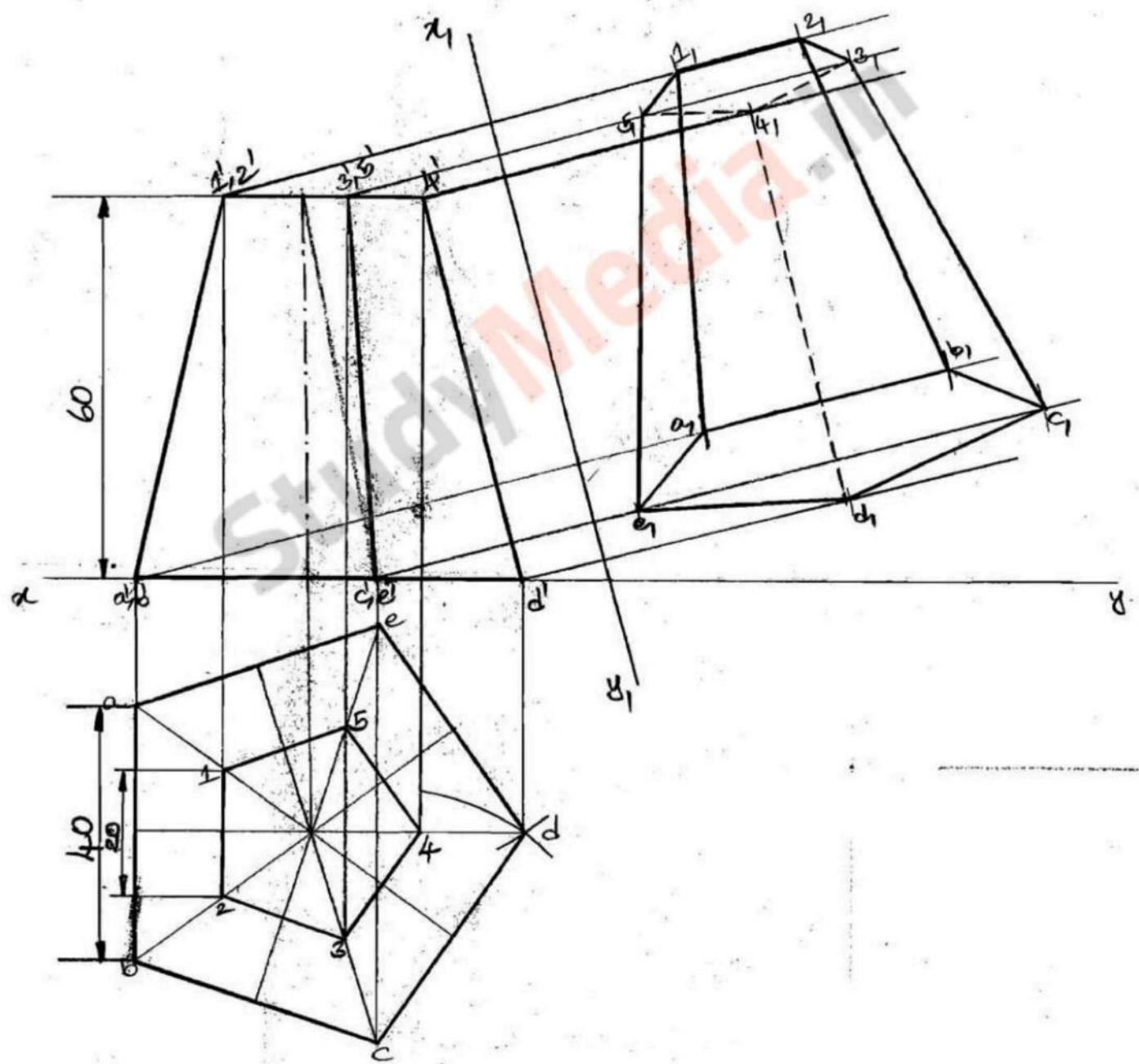
\* Isometric View (Hexagonal Prism)



## Isometric View (Cylinder)

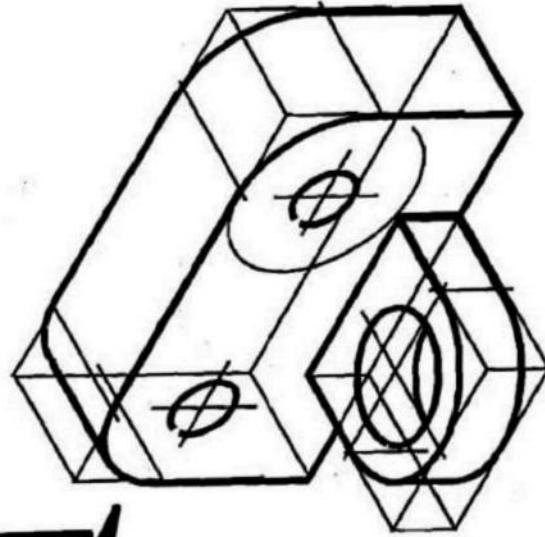


# \* Isometric View ( Pentagonal Frustum )

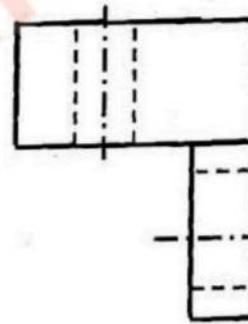
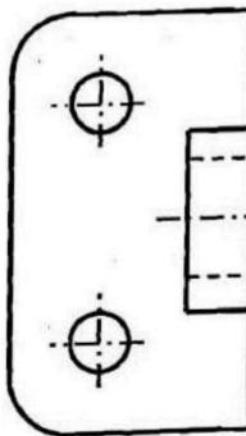
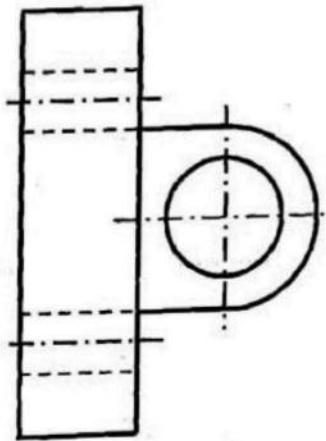


# Isometric drawing

How to draw an object containing rounded parts

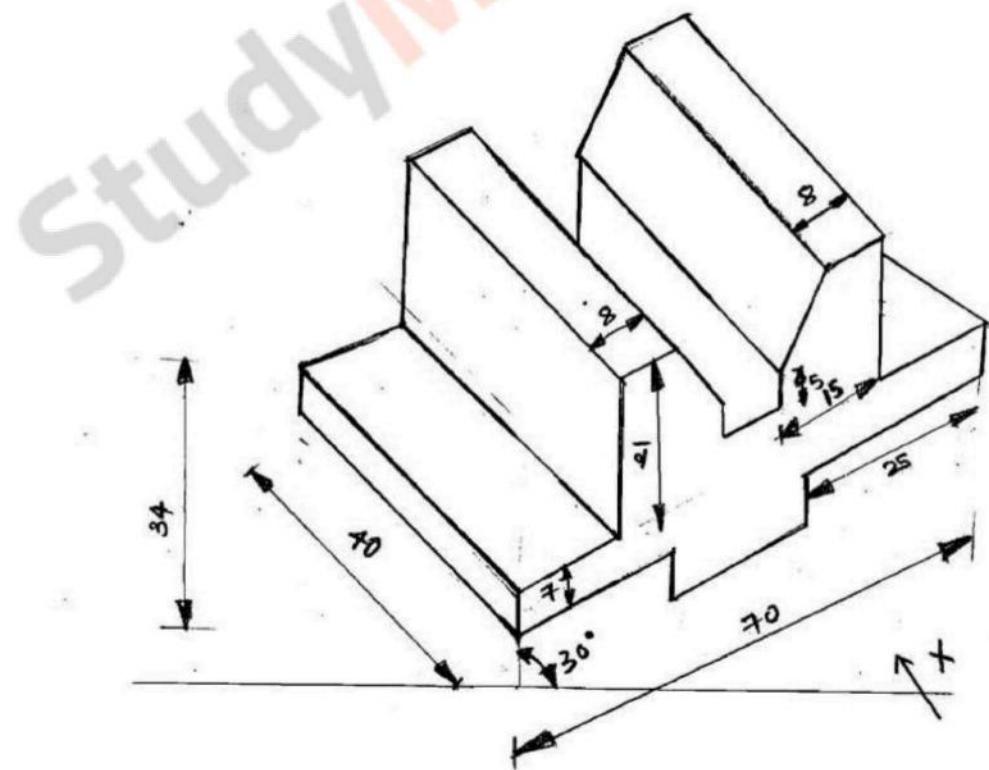
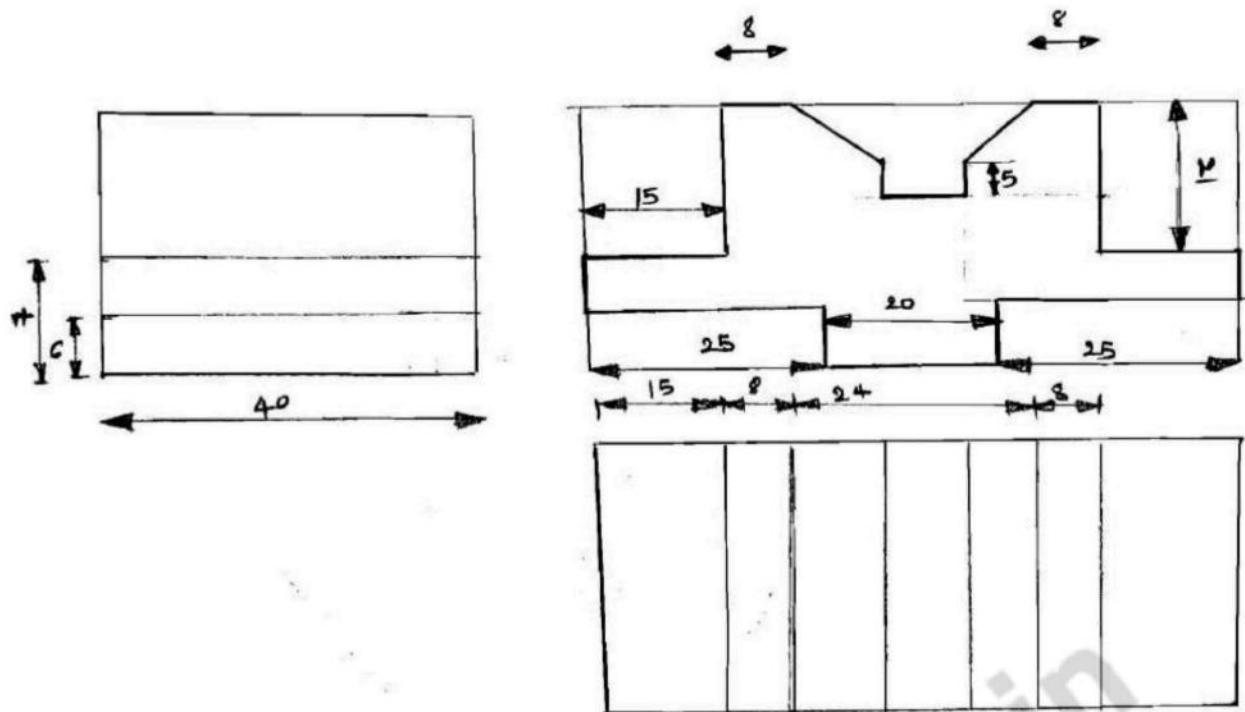


«Construction box»

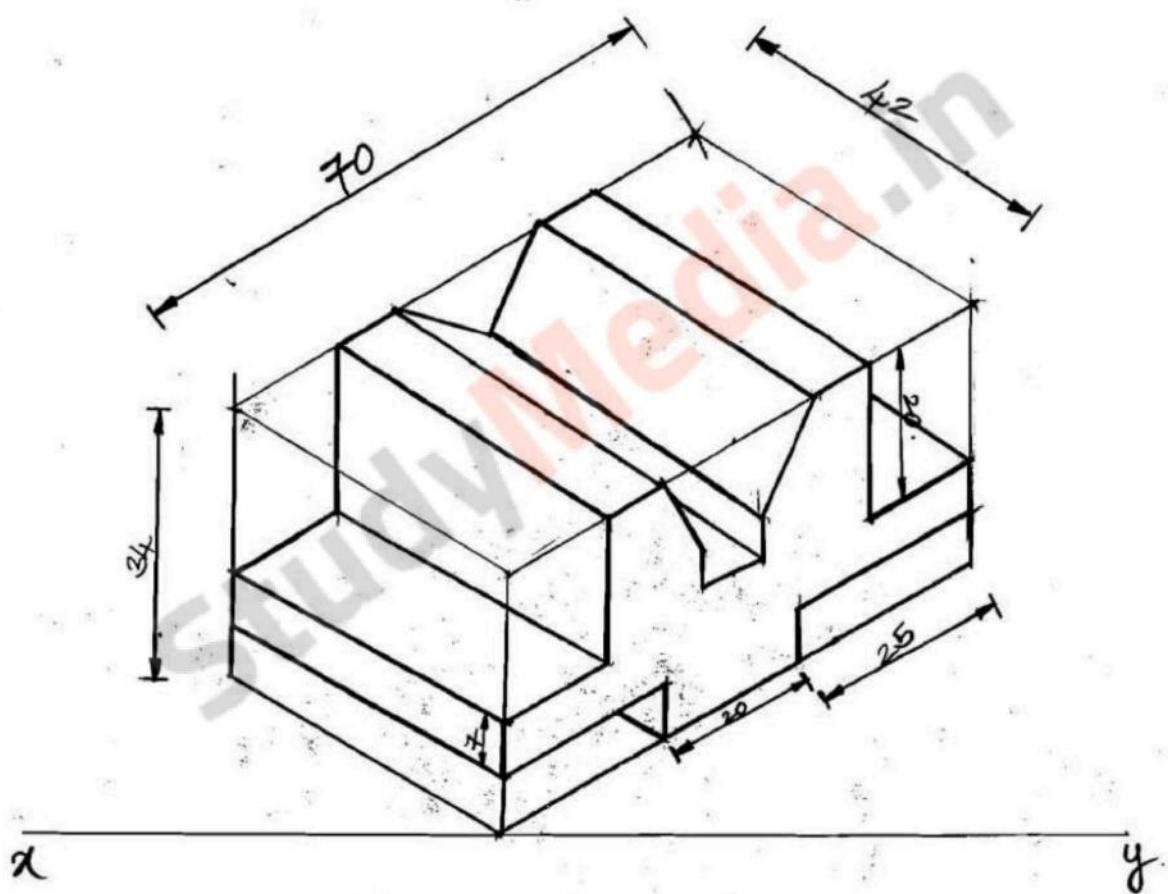


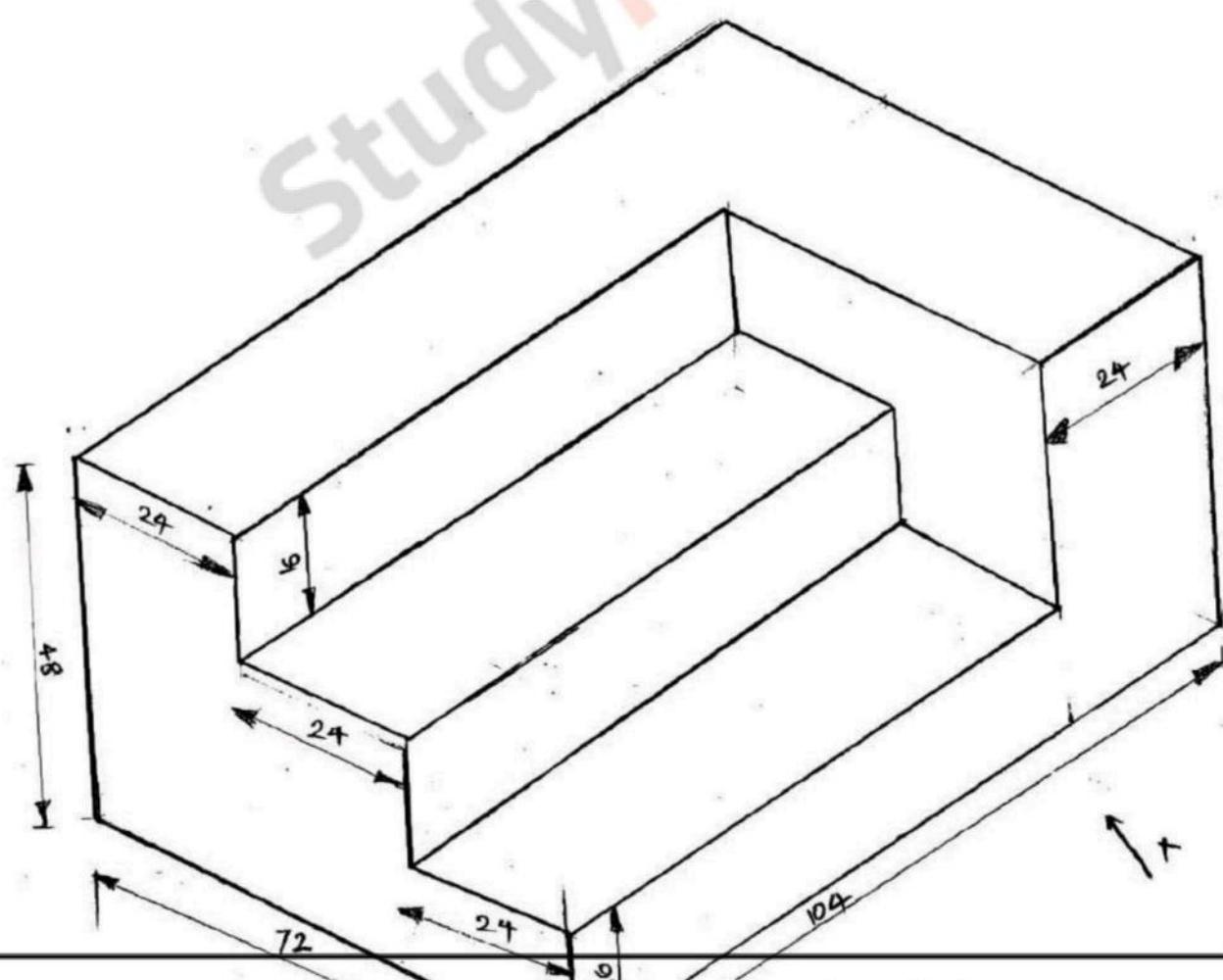
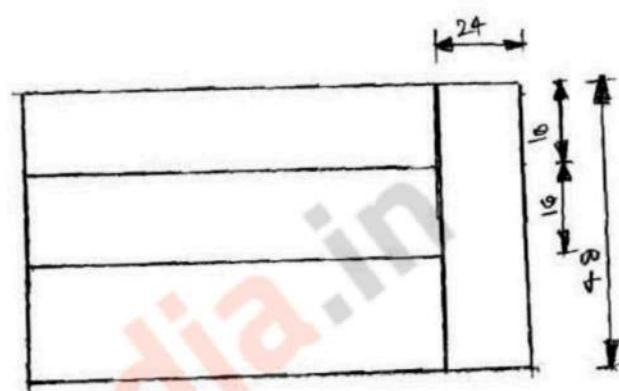
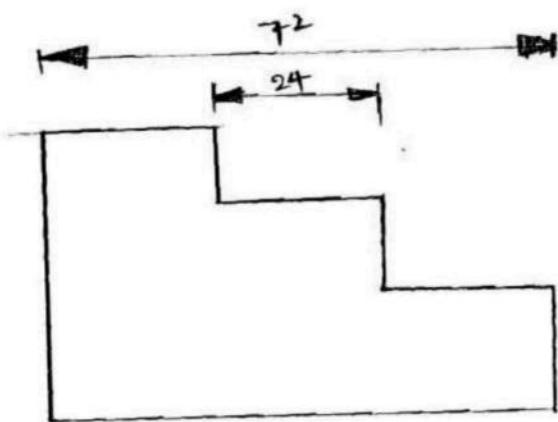
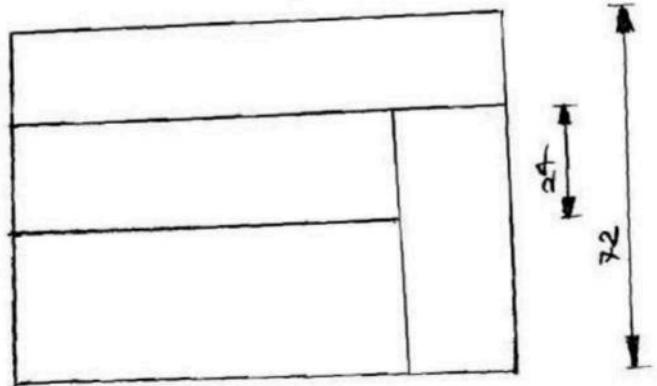
ORTHOGRAPHIC MULTI-VIEW PROJECTION

ISOMETRIC PROJECTION



\* Isometric View





### Example - I

Draw the orthographic projections of Fig. 1

#### Steps to draw projections

- Identify surfaces perpendicular or inclined to the view
- Surfaces parallel to the view would not be visible in that view.
- First draw horizontal and vertical reference planes (easily identifiable on drawing)
- Start drawing from the reference planes.

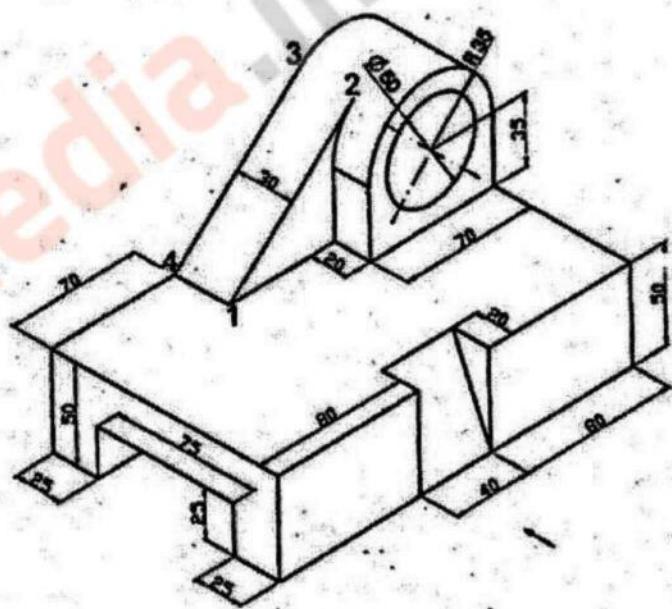
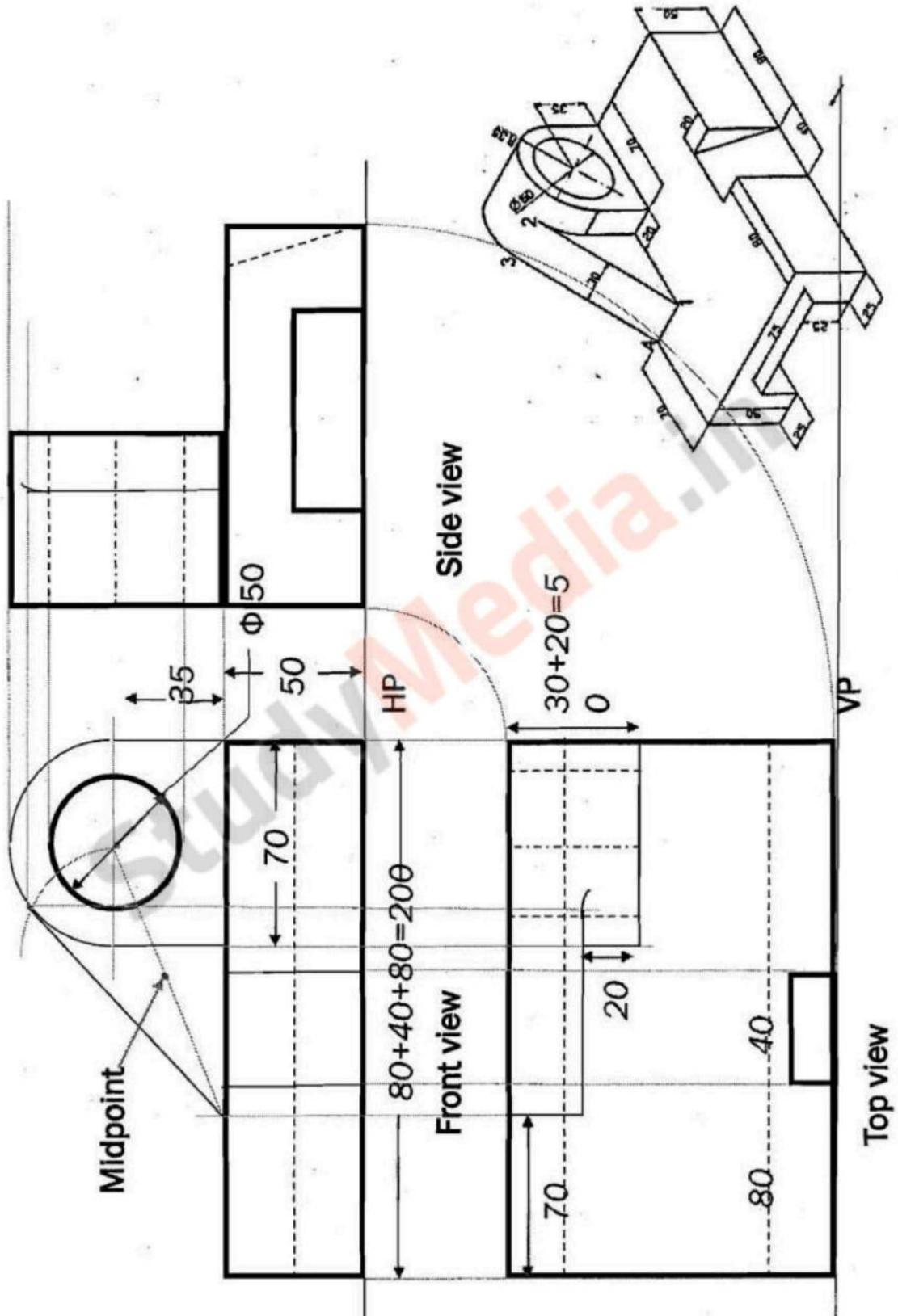
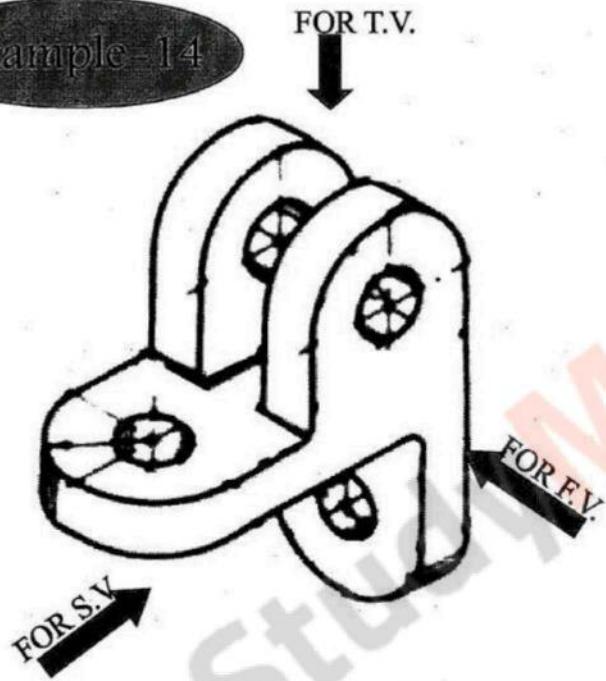


Fig. 1



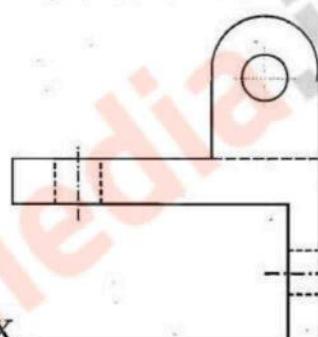


Example - 14

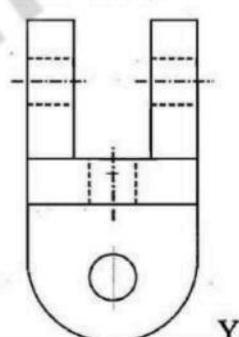


### ORTHOGRAPHIC PROJECTIONS

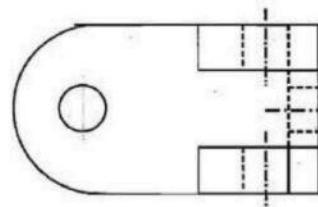
FRONT VIEW



L.H.SIDE VIEW



TOP VIEW

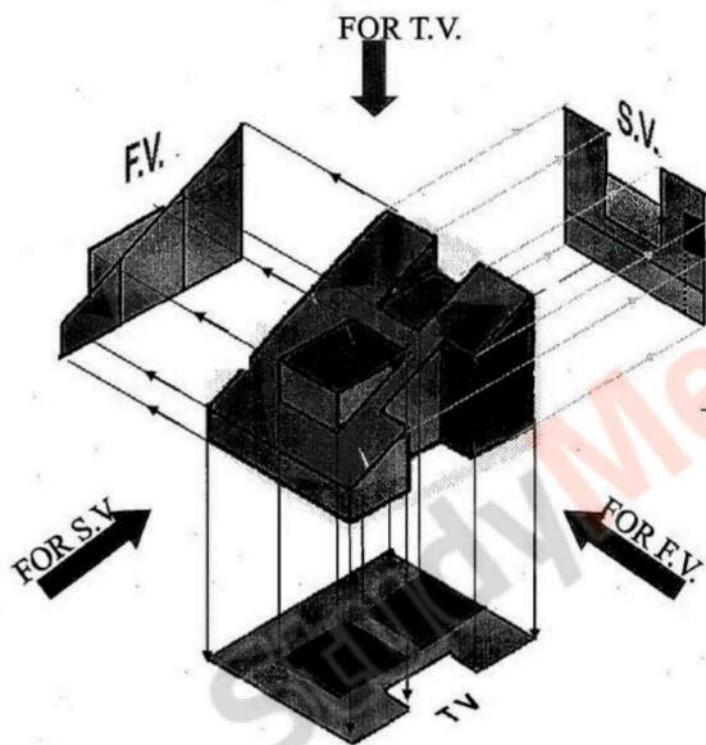


### **PICTORIAL PRESENTATION IS GIVEN**

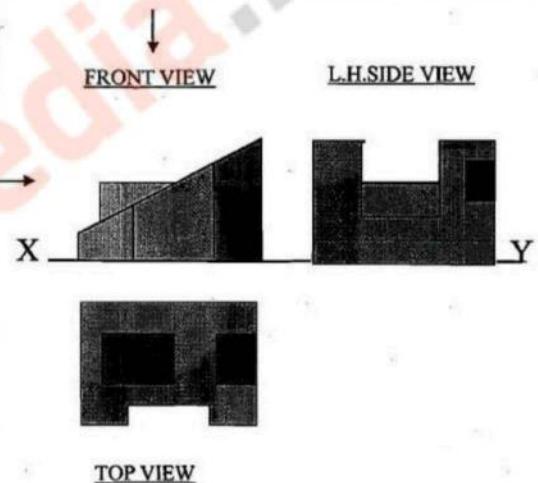
DRAW THREE VIEWS OF THIS OBJECT  
BY FIRST ANGLE PROJECTION METHOD

**QUESTION**

### Example - 3



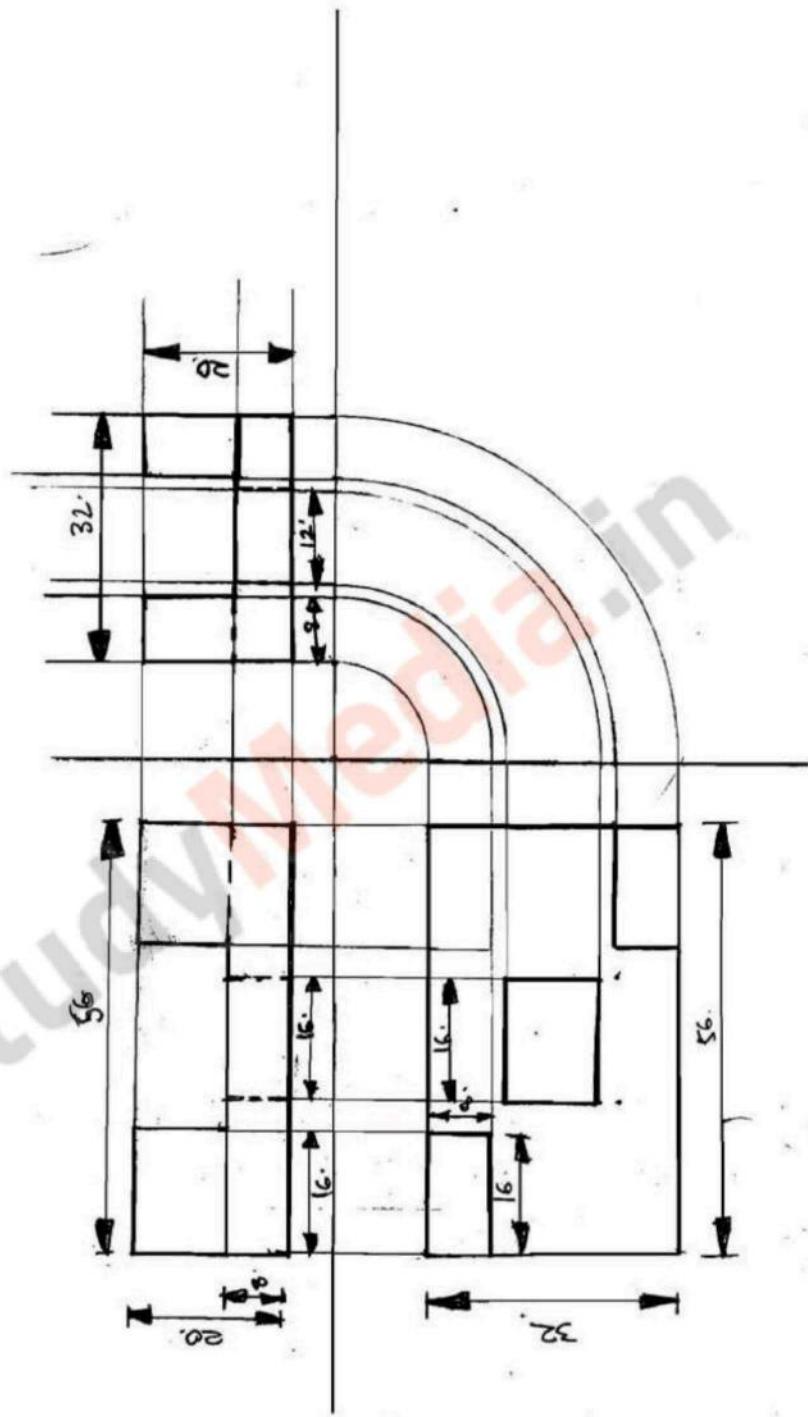
#### ORTHOGRAPHIC PROJECTIONS



#### **PICTORIAL PRESENTATION IS GIVEN**

DRAW THREE VIEWS OF THIS OBJECT  
BY FIRST ANGLE PROJECTION METHOD

## \* Orthographics Views (First Angle Projection)



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