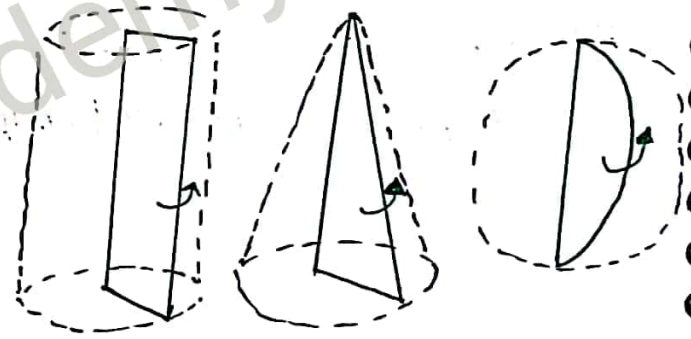
chapter - 6

* Projection of Solids *

Types of solids

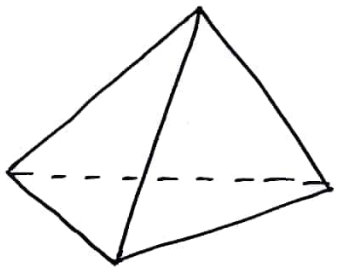
- Polyhedra
  - Regules polyhedra
    1. Tetrahedron
    2. Cube
    3. Octahedron
    4. Dodecahedron
    5. Icosahedron.
  - Prism
  - Pyramid.
- Solids of Revolution.
  - cylinder
  - cone
  - Sphere



Regules Polyhedra :-

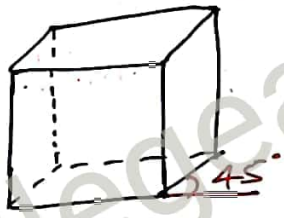
① Tetrahedron :-

4 equal equilateral Δ's, 4 corners, 6 edges.



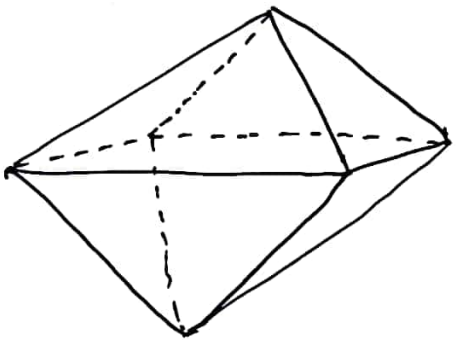
② Cube :-

6 equal squares, 8 corners, 12 edges.



③ octahedran :-

8 equal equilateral Δ's, 6 corners, 12 edges.



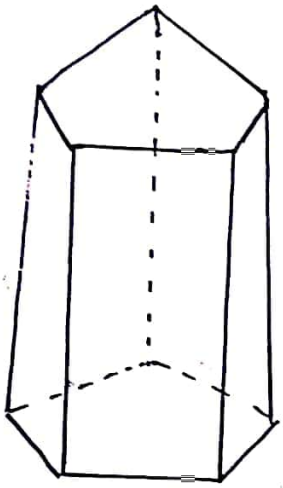
④ Dodecahedron :-

12 equal regules pentagones, 20 corners, 30 edges.

⑤. Icosahedran :-

20 equal equilateral Δ's, 12 corners, 30 edges.

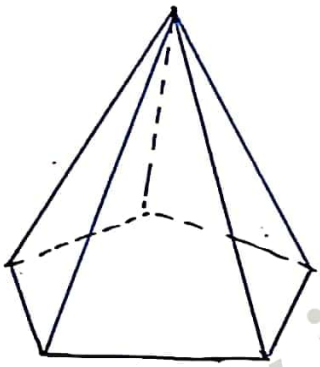
Prism :-



Faces = 7
corners = 10
edges = 15

Pentagonal prism.

Pyramid

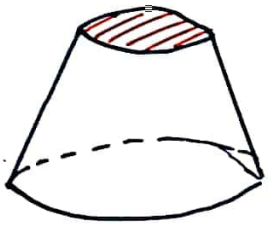


F = 6
C = 6
E = 10

pentagonal Pyramid.

Frustum :-

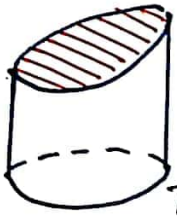
when a cone (or) pyramid cut by a section plane llel to Its base Then after removing top portion, Then Remaining portion is called frustum.



Truncated :-

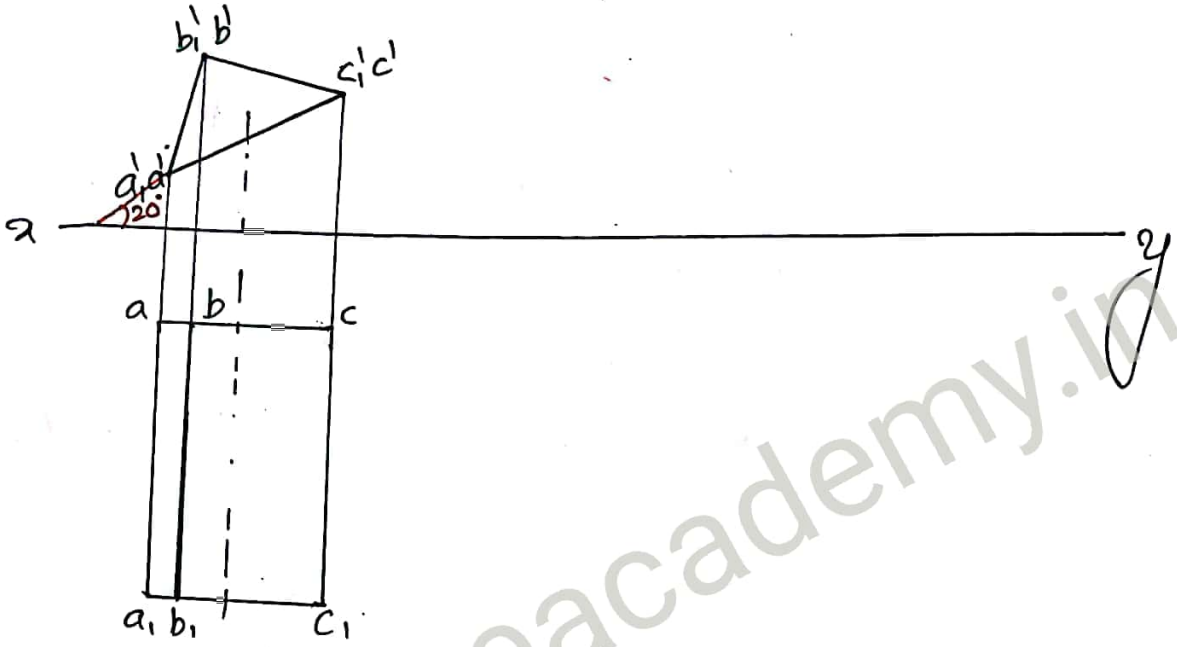
when a solid is cut by a section plane inclined to Its base Then after Remaining The top portion The Remaining portion is called as Truncated.

Truncated cone.



Truncated cylinder

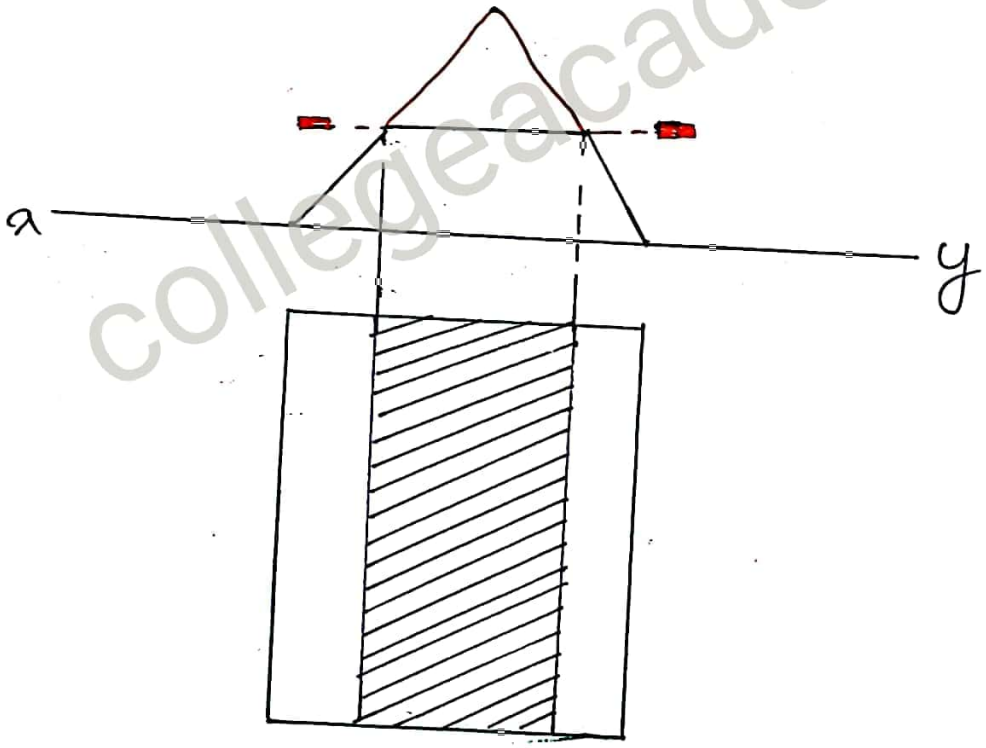
(9). A Sles prism of base Length 40 mm and axis Length 60mm is placed such That Its axis is ~~Les~~ to VP and one of Its Rectangular faces is inclined at 20° to HP. Draw Its projections.



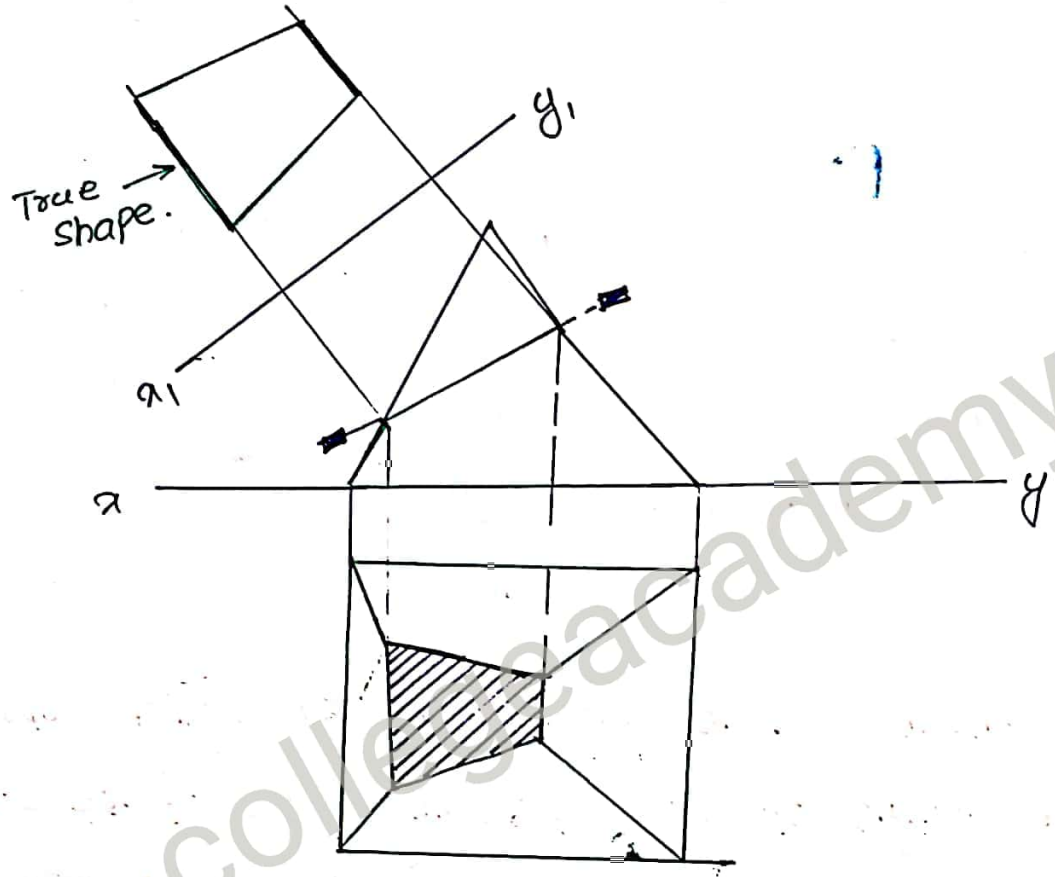
Chapter - 7

* Section of Solids *

(6) An equilatoral Δler prism is resting on of the Rectangular faces on H.P and its axes is ~~Ler~~ to V.P It is cut by a section plane ||el to H.P and passing through the centroid. Draw its projections.



⑨ A square pyramid is resting on its base on HP. with one of the waist lengths llel to VP. It is cut by a Section plane llel to AIP. Such that the True shape of the Section is Trapezium. Draw its projections.



When a Section plane cuts polyhedra Then the No of edges on Largest possible Section will be

1) n+2 → For prisms

2) n+1 → for pyramids.

where 'n' is number of edges in the base polygon.