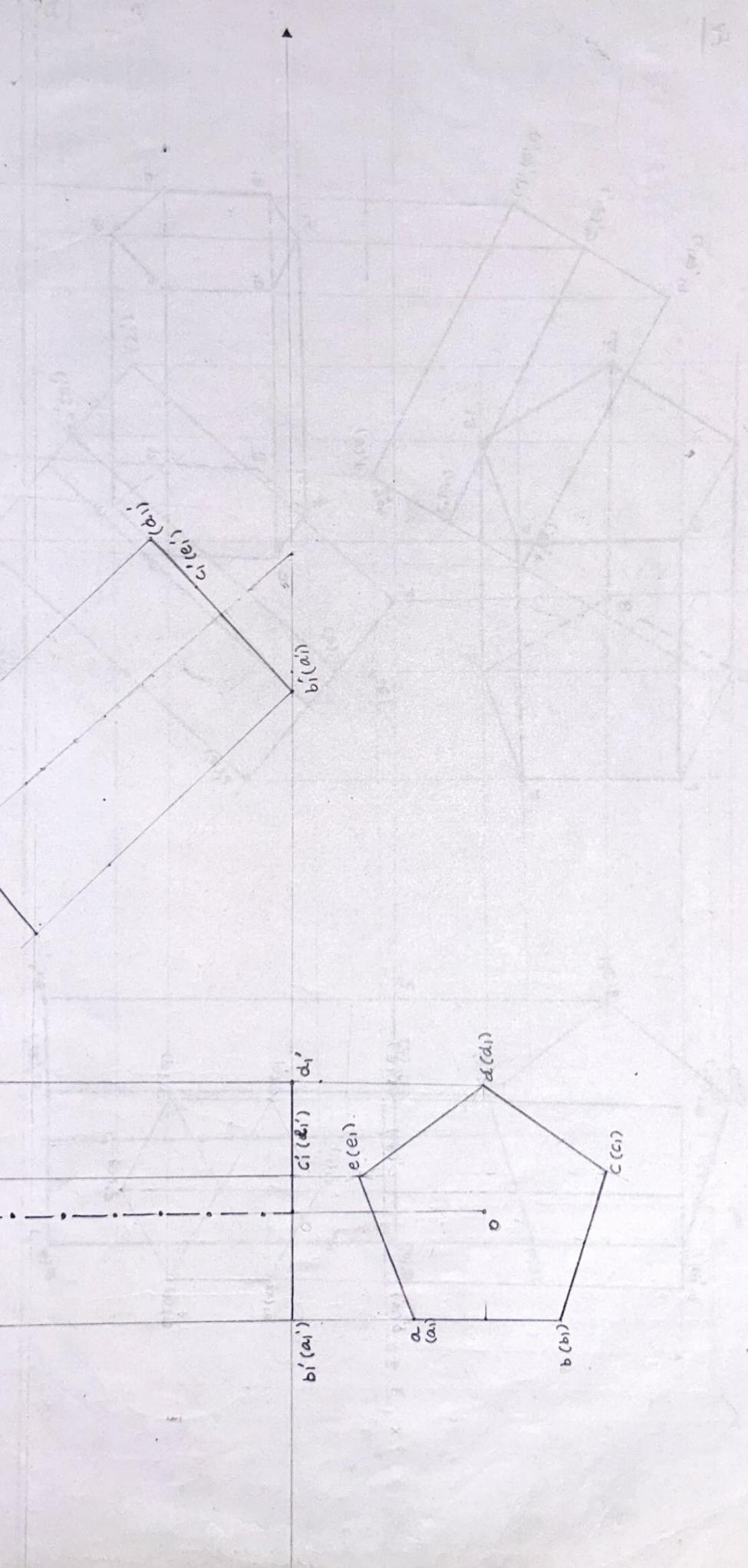


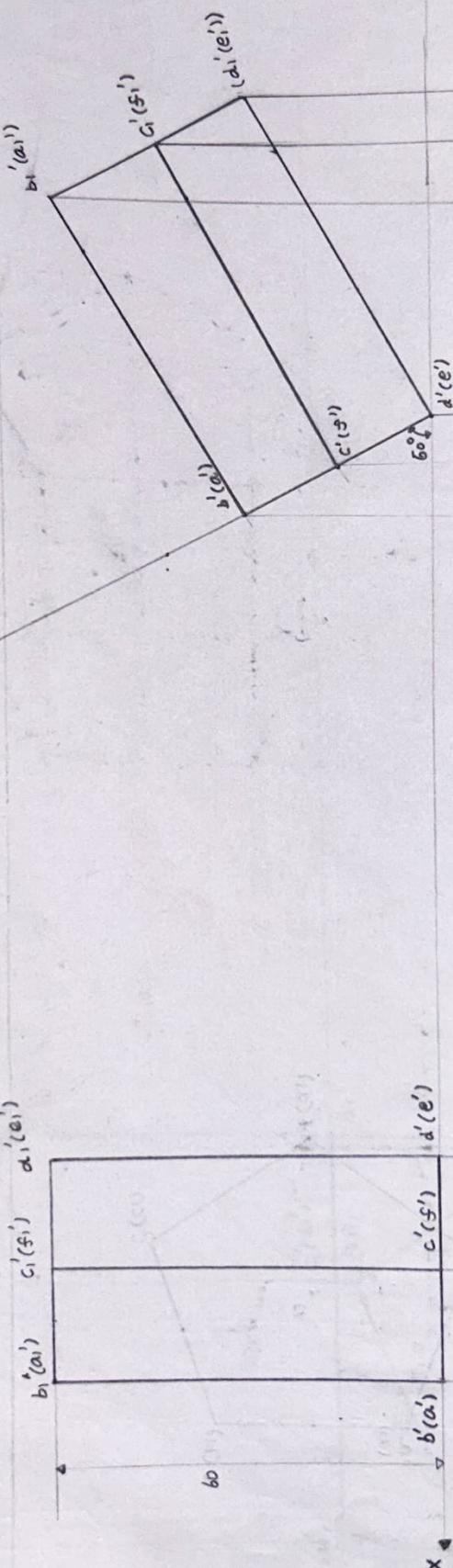
A pentagonal block has base 30mm and axis 20mm height 70mm resting on its base edge on H.P. D.S. axis is inclined at 50° to H.P and 110° to V.P. Draw 3 projections.



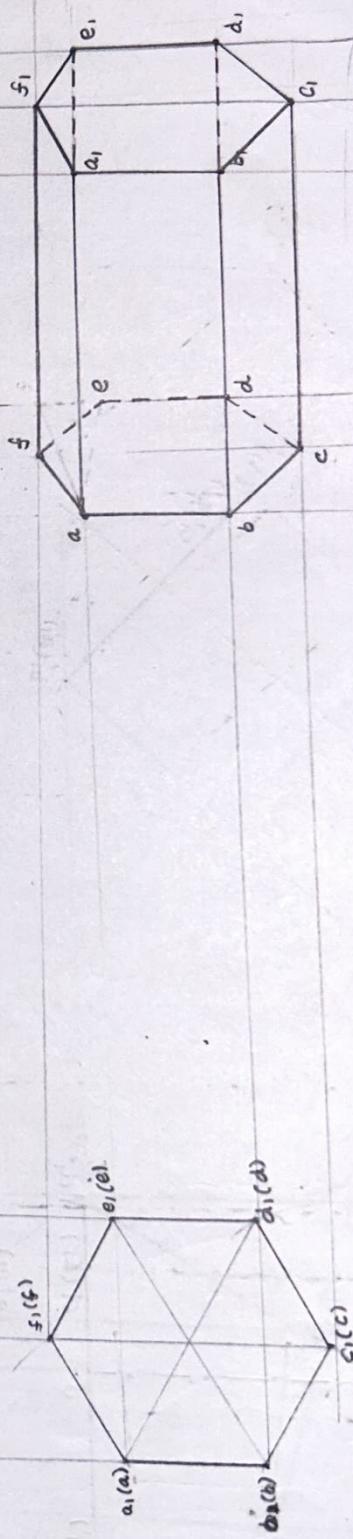
A hexagonal prism of base side 20mm and axis 25mm height 60mm resting on its base on H.P. Such that one of the base edge is 1^{st} to V.P. And the base is inclined at 60° to H.P. and inclined to V.P.

Isometric
Line on Conv
Dark Blue
Circles (Side)
Dotted Line

FV



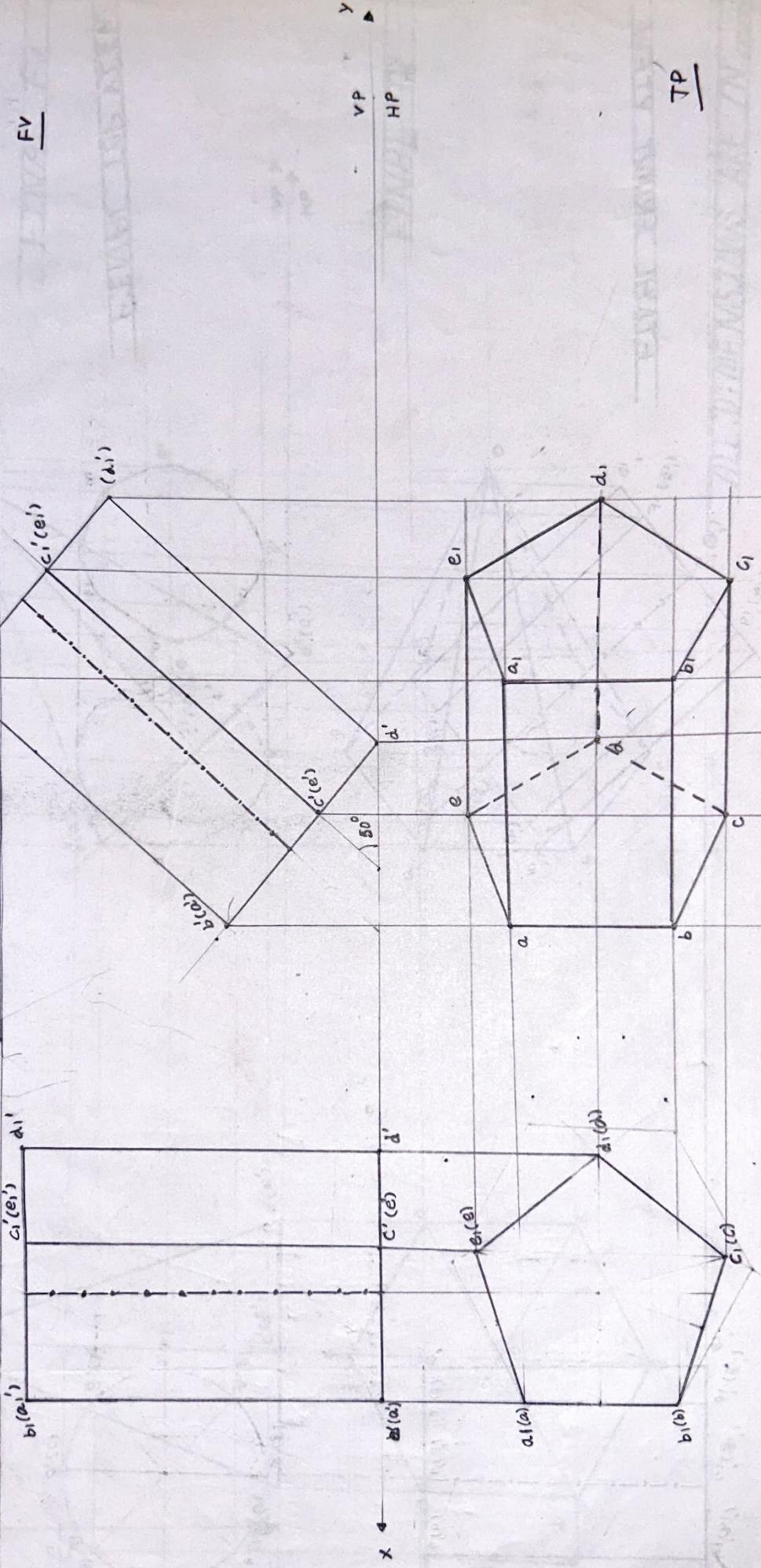
VP
HP



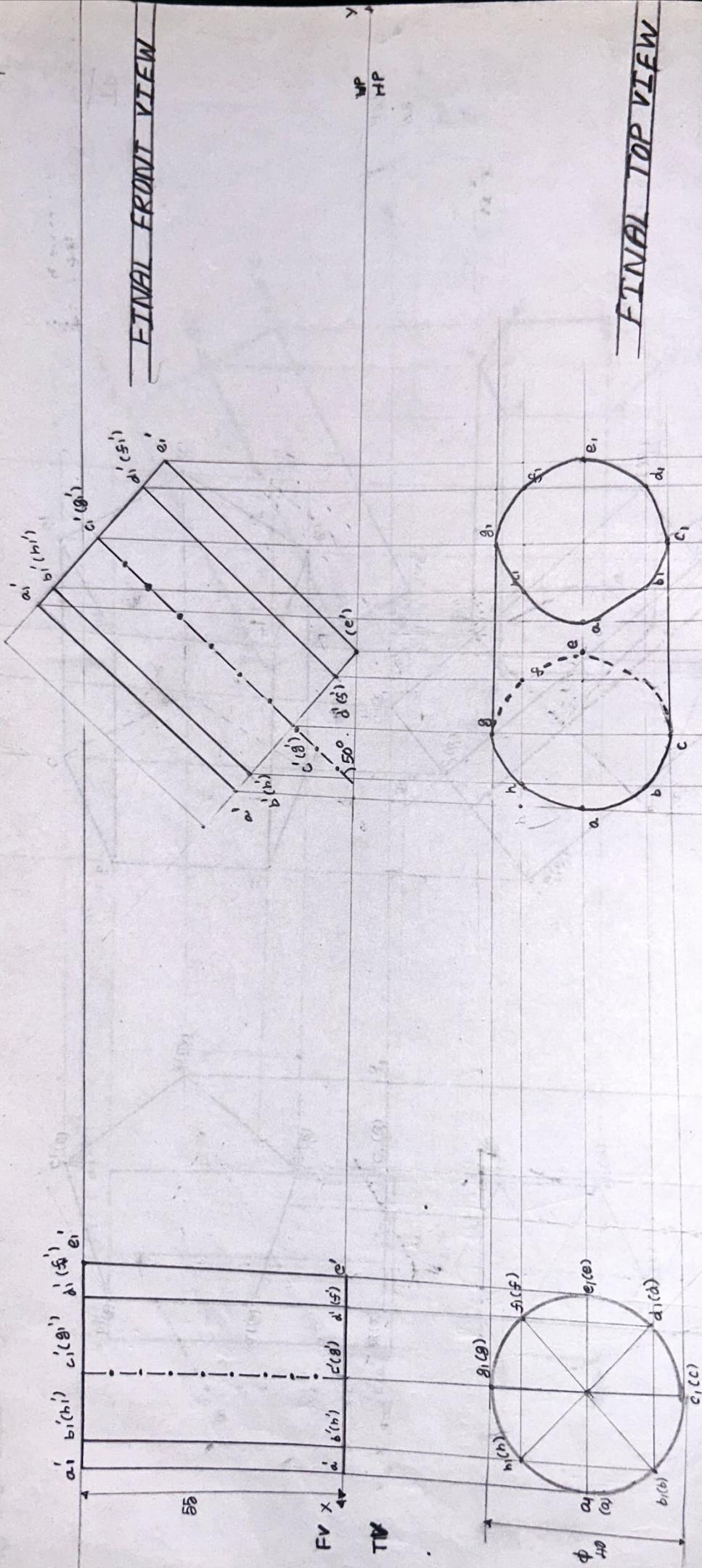
TV

Isometric drawing of a hexagonal prism resting on its base on H.P. and 1st to V.P. and axes

A pentagonal pyramid of base 30mm and height 70mm lies resting on its base on H.P. and 1st F.O.V.P. and axis is inclined at 50° to H.P. Draw Proj.

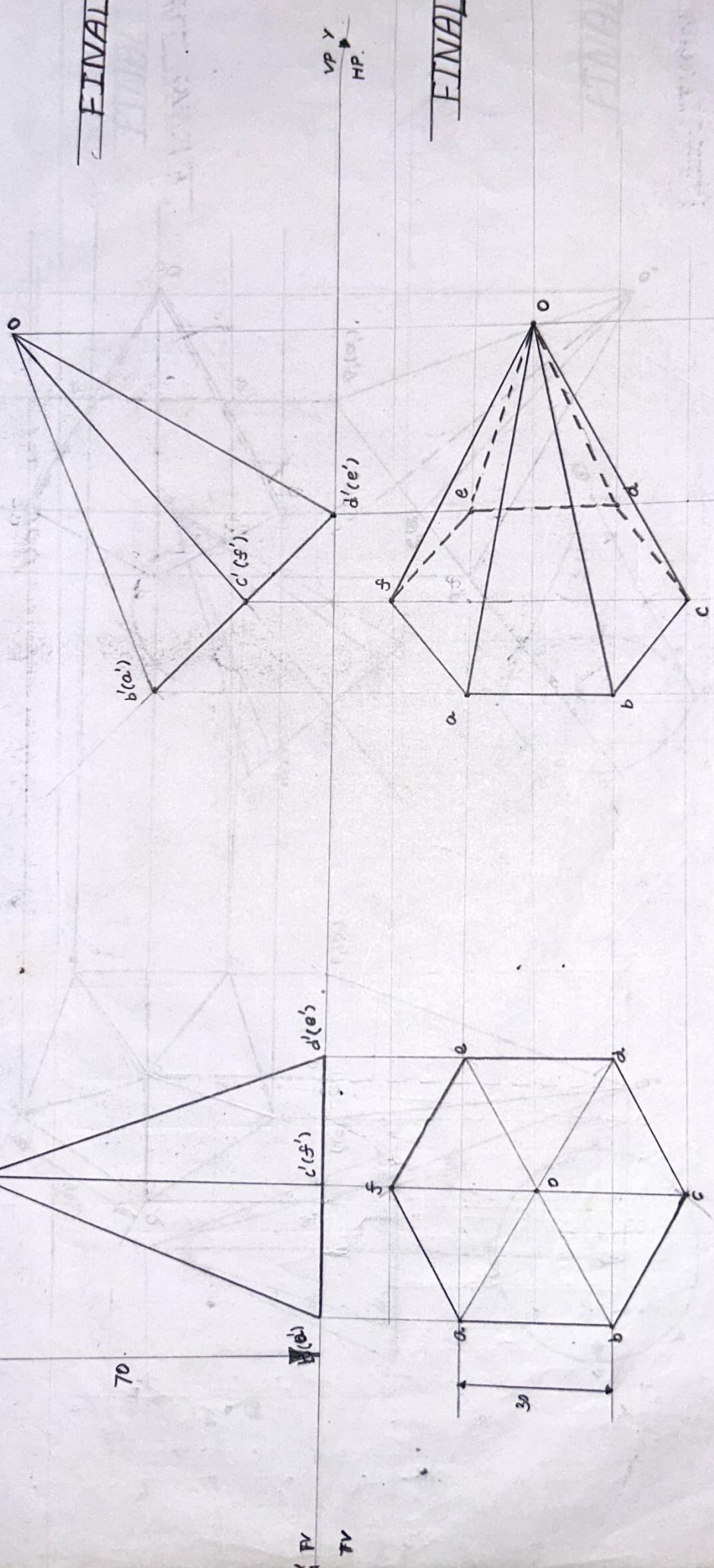


17/11/19
draw the P.P. of a cylinder of base diameter 40mm and axis height 55mm by setting on H.P. On a point of its circumference. Axis is inclined at 50° to H.P. and 115° to V.P.
(Cylinder centre point drawn)



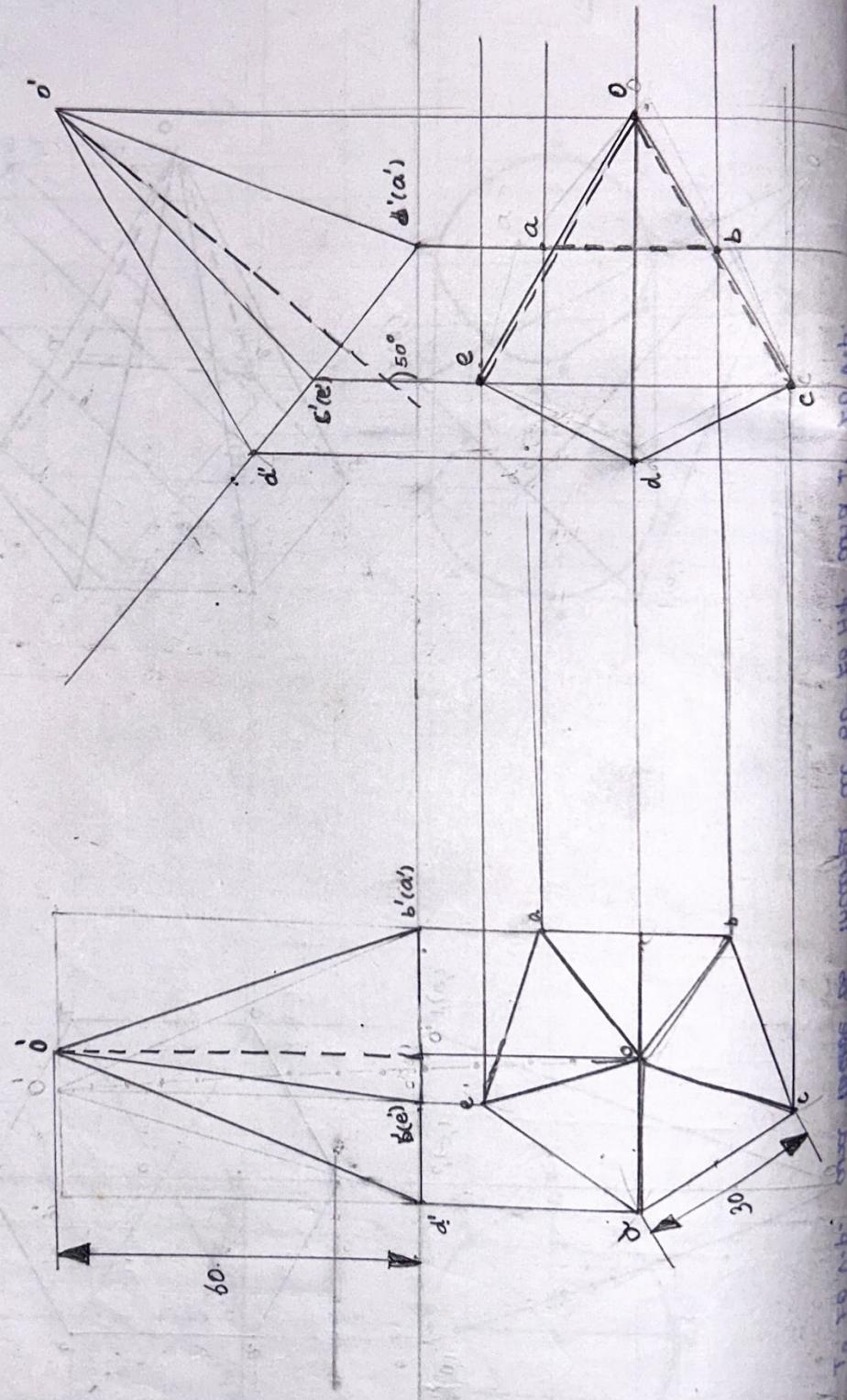
17/11/19
A hexagonal pyramid of base side 30mm and axis 70mm is resting on H.P. with one of its base edges such that it makes an angle of 45° to V.P. and 50° to H.P. and its top face is horizontal.

A hexagonal pyramid of base side 30mm and axis 70mm is resting on HP. with one of its base edge such that base edge is 15° to V.P. and base is inclined at 60° to HP. and 15° to V.P.



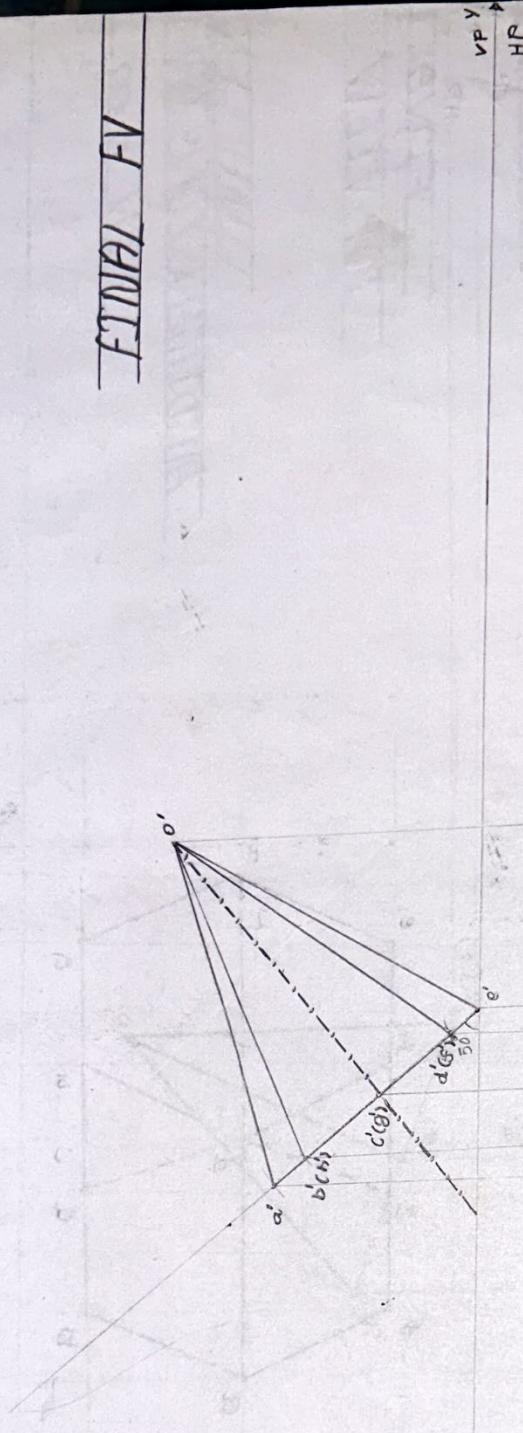
ALL DIMENSIONS ARE IN mm

A Pentagonal Pyramid of base side 30mm and axis height 40mm resting on HP with one of its containing the base axis inclined at 60° to H.P. and line to V.P. Draw its projections.



~~THE BASE IS PLATE OF 50 MM X 50 MM X 25 MM RESTING ON THE GROUND. ITS AXIS IS INCLINED AT 40° TO H.P. AND 30° TO V.P. DRAW~~

FINAL FV



FINAL TV



ALL DIMENSIONS ARE IN mm

Special type Problem: Hexagonal Prism of base side 25mm and axis 50mm long is freely suspended from a corner. (Freely suspended \rightarrow Resting on H.P.) At one end. draw its projection by Change of position method.

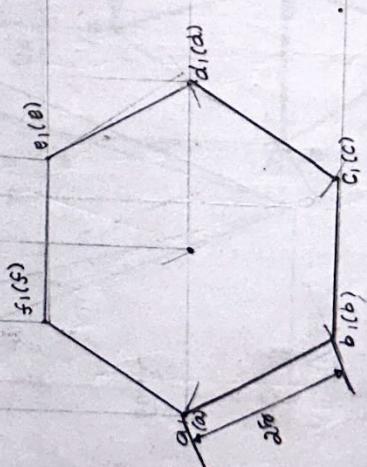
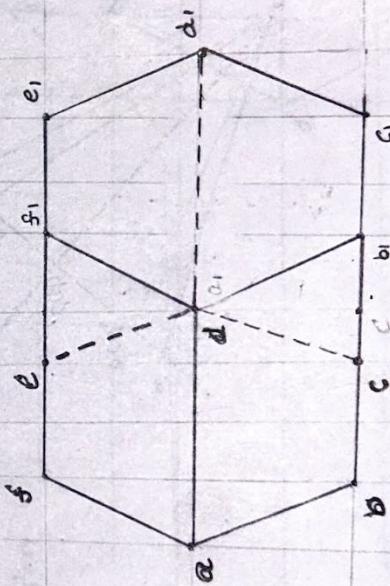
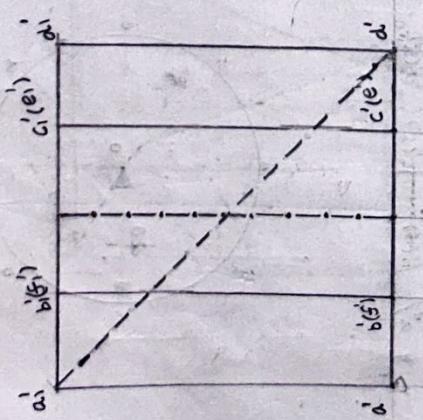
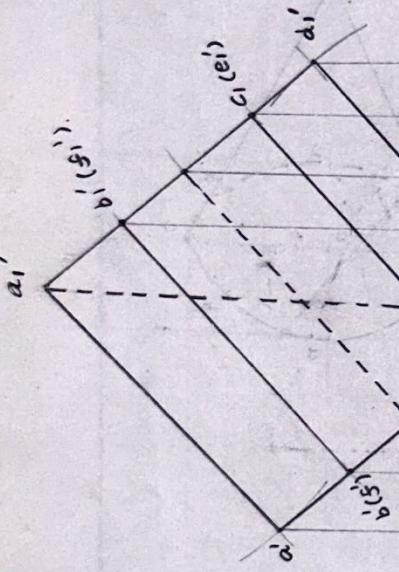
Base edges:
 $a'b', b'c', c'd', d'a'$, $e'f', f'e'$
Face edges:
 $a'b', b'c', c'd', d'e', e'f', f'a'$,
 $a'_b, b'_c, c'_d, d'_e, e'_f, f'_a$,
Longer edges:
 $a_1g, b_1h, c_1i, d_1j, e_1k, f_1l$

FINAL
FRONT VIEW

VP
HP
FINAL
TOP VIEW

All dimensions are

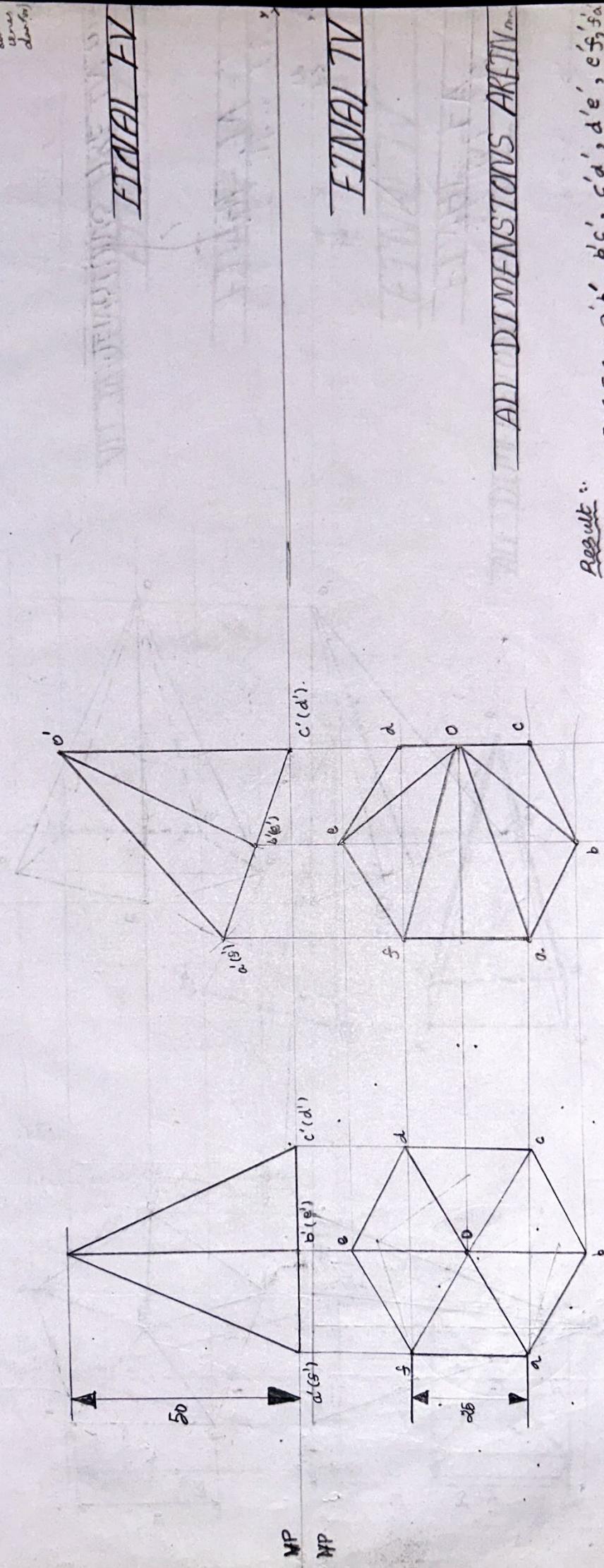
IN mm



(below)
a'v

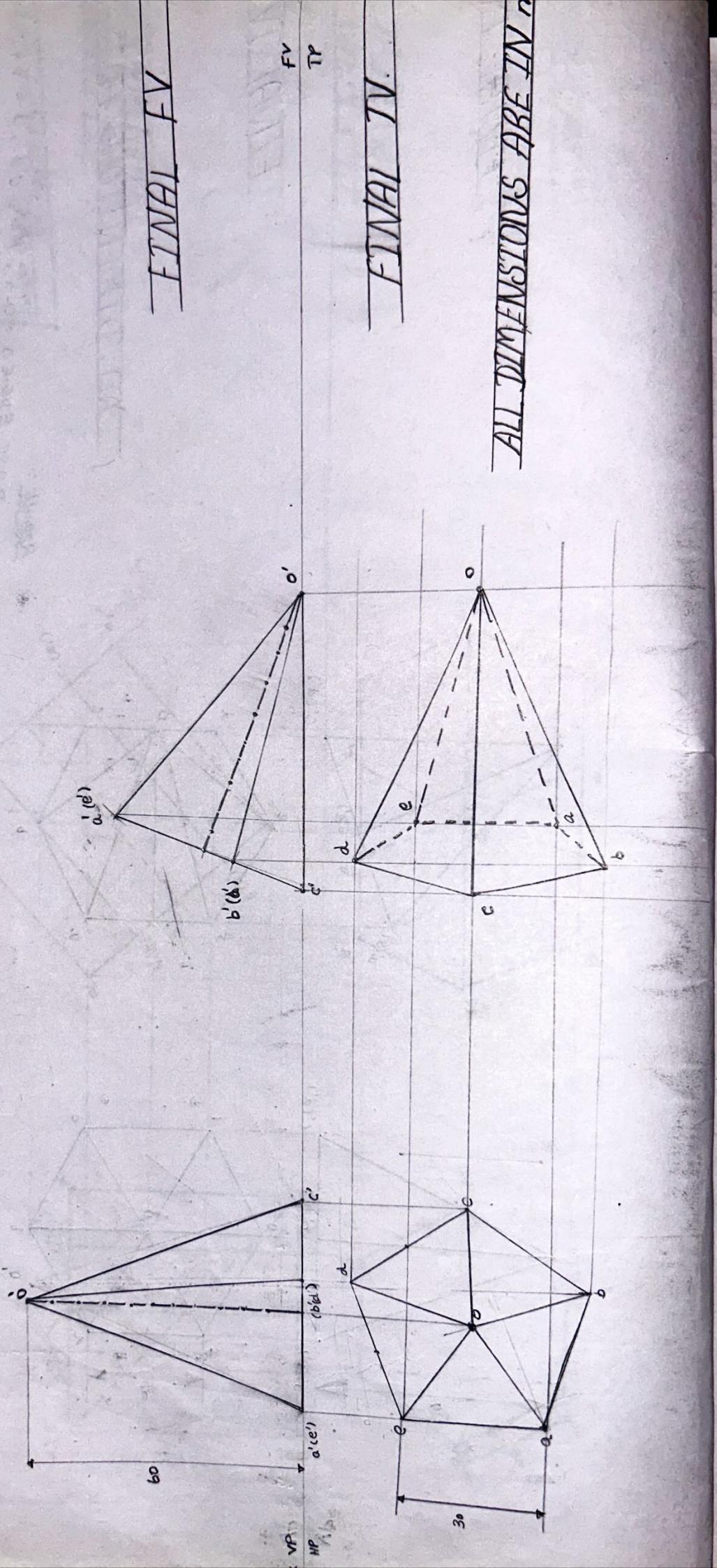
draw the projection of a hexagonal pyramid of base 25mm and axis height 50mm resting on HP. Such that one of the total edges lies on VP.

(i) both of and
L.T. then
at Front view
Let's make
and
use
done)



Result:
BASE EDGES = $a'b'$, $b'c'$, $c'd'$, $d'e'$, $e'f'$, $f'a'$
SLANTING EDGES = Oa' , Ob' , Oc' , Od' , Oe' , Of'

A pentagonal pyramid of base 30 mm and axis height 40 mm is resting on H.P. with one of its slant edges and axis is parallel to V.P. Draw its projections.



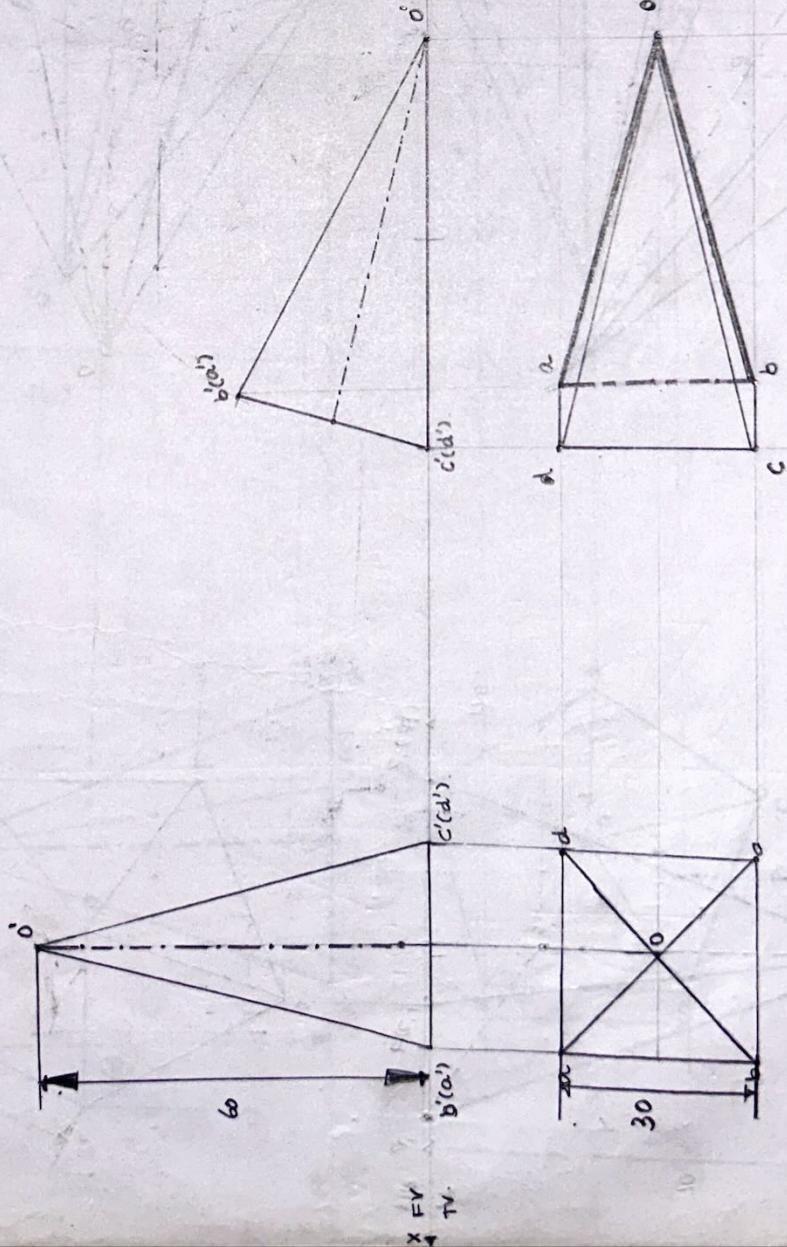
A square pyramid of base side 30 mm and axis height 40 mm is resting on H.P. and end edge, res. A face is rec'd to v.p. Draw Pts. Proj.

FINAL FV

VP
HP

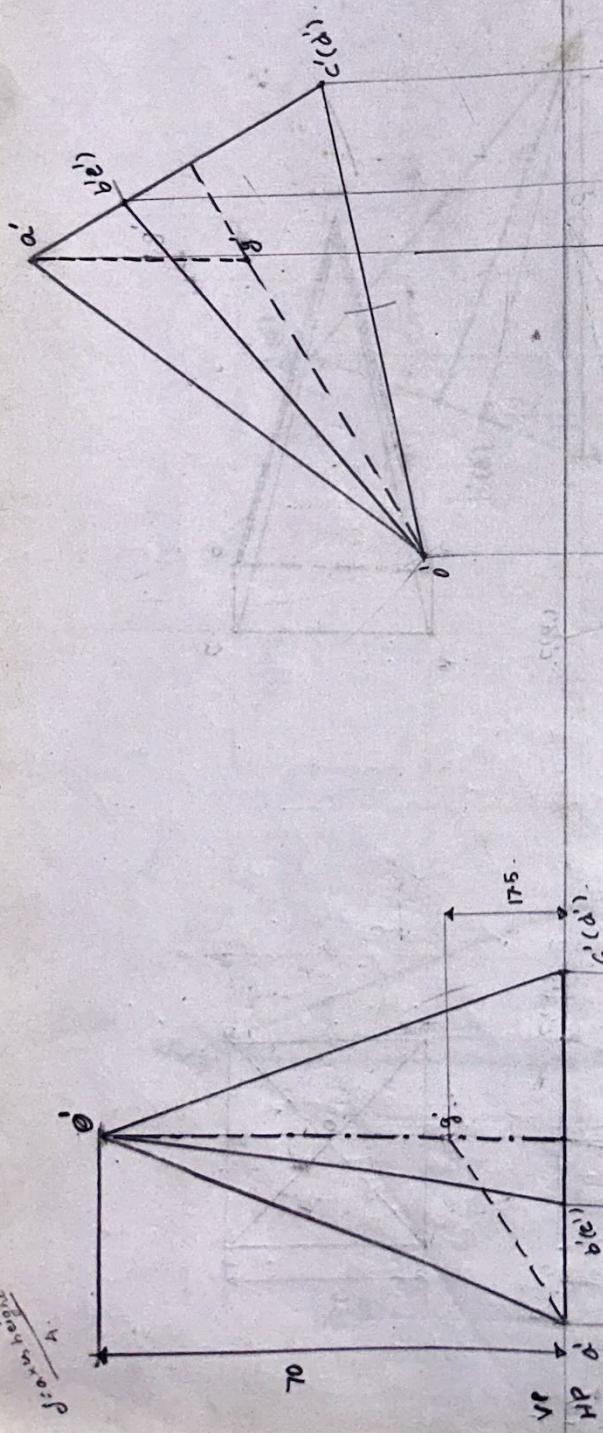
FINAL TV

ALL DIMENSIONS ARE IN mm



A pentagonal pyramid of base 30mm and axis height 30mm and axis length 70mm resting on H.P. with one of its slant edges axis is at corner of the base corner. A pentagonal pyramid of base 35mm and axis 70mm is freely suspended by means of a string from one of its base corner. with its axis given (H.P.) resting to the front face given.

Suspended
corner
prestly.



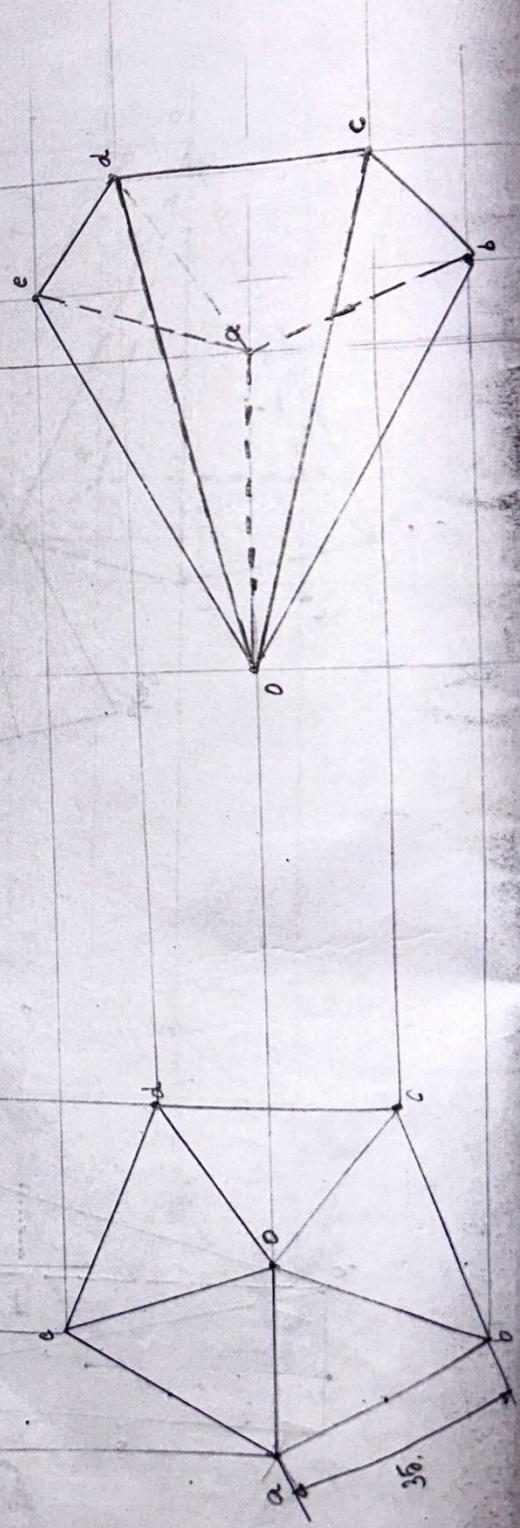
FINAL FV

FV

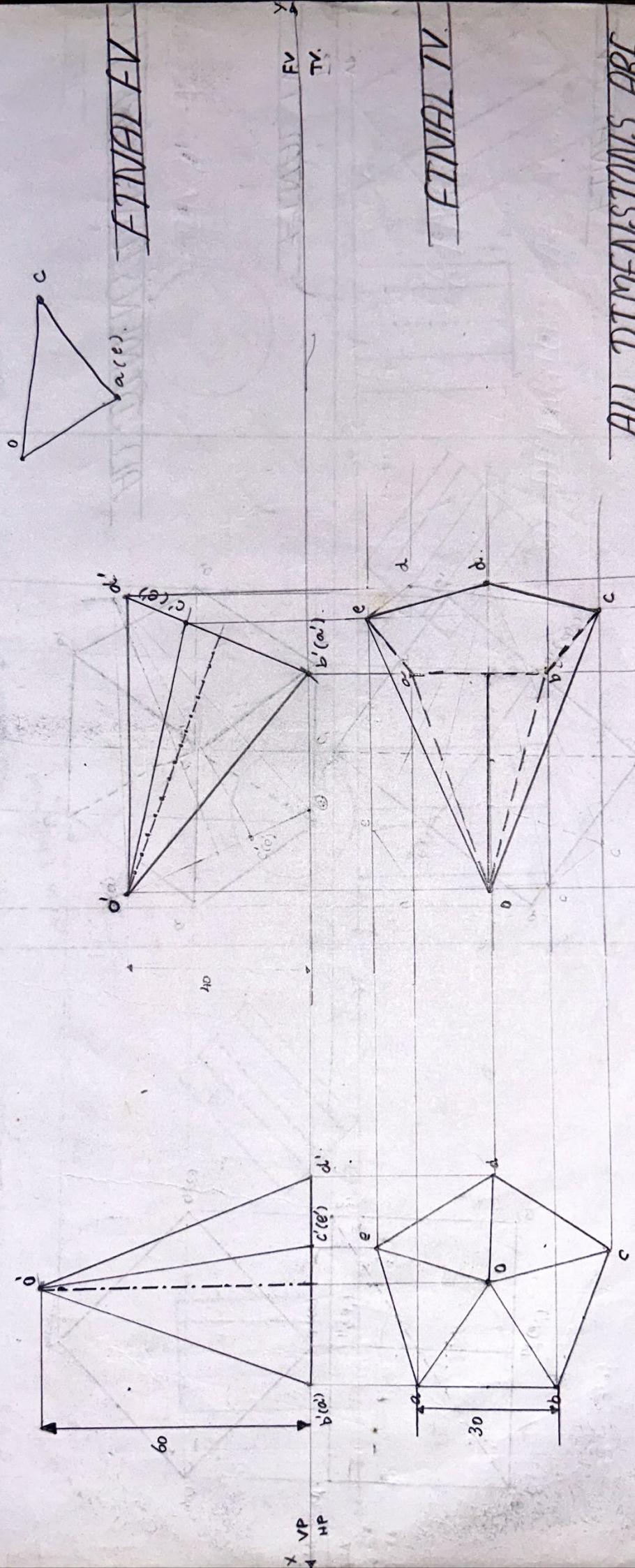
FINAL TV

ALL DIMENSIONS

IN mm

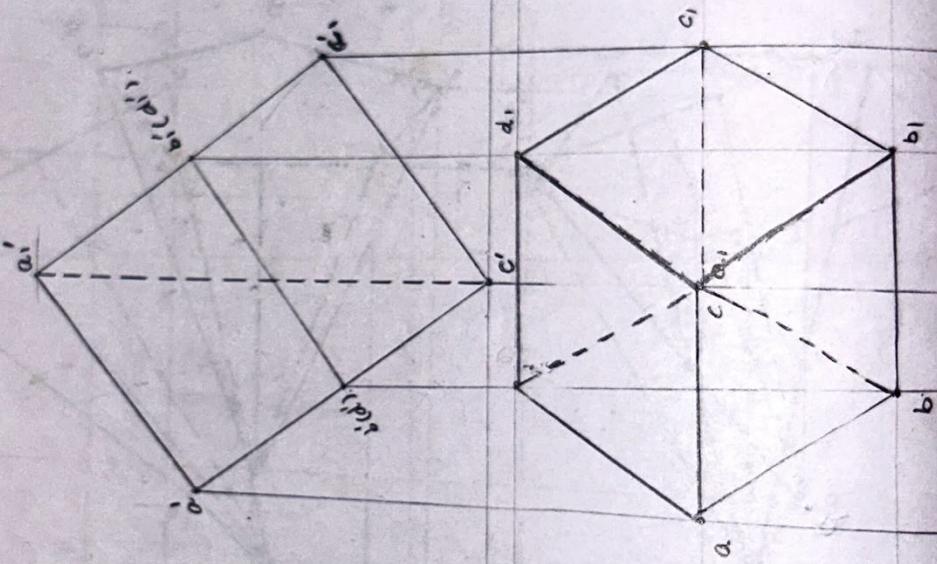


A pentagonal pyramid w/ base 30mm and altitude 60mm resting on one of its edges on base by HP. The base being listed up until the highest corner is at pt. 40mm above HP. Draw its projections.

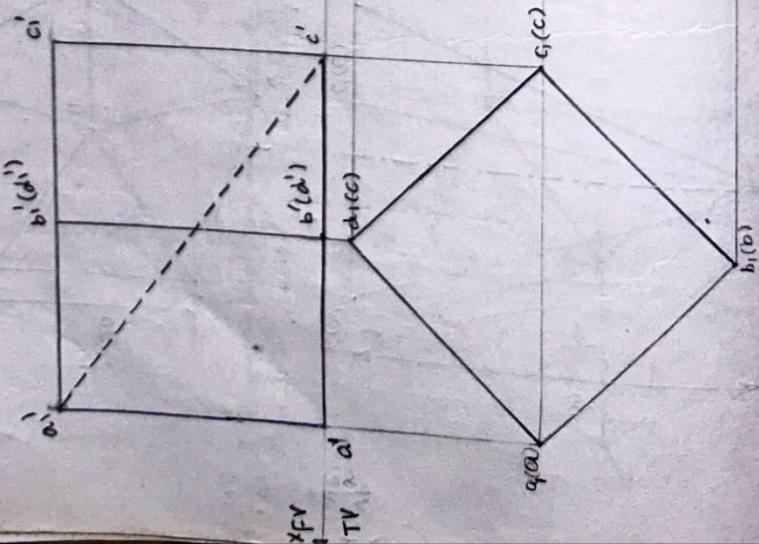


A pentagonal pyramid of base 30mm and axis height 30mm is resting on H.P. with one of its slant edges and axis to 11th Z.O.V.P. draw its projections. Draw the proj of cube of side 40mm resting on H.P or one of its corners with a solid diagonal to vertical position (V.P.).

FINAL FV



FINAL TV



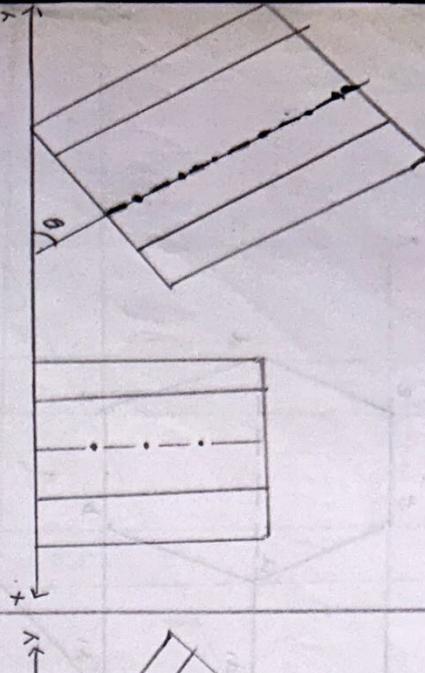
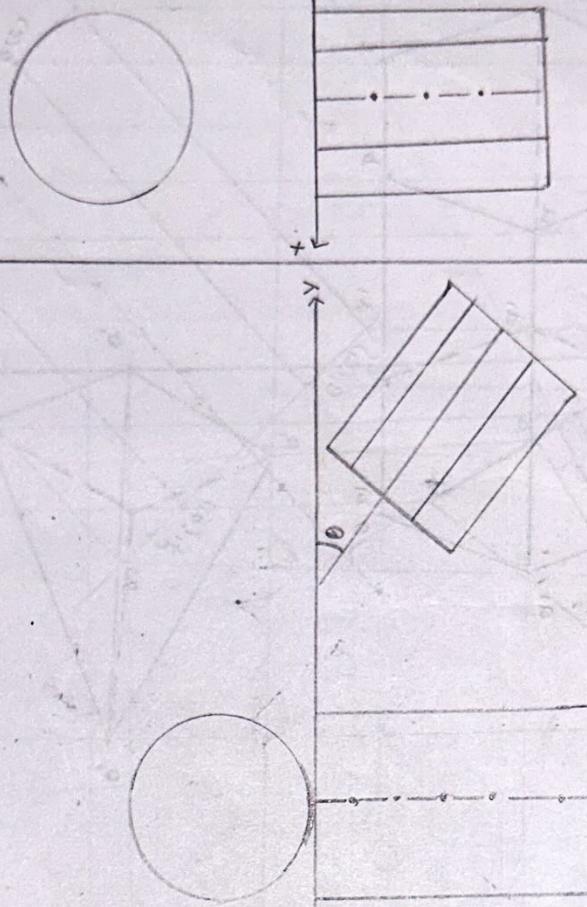
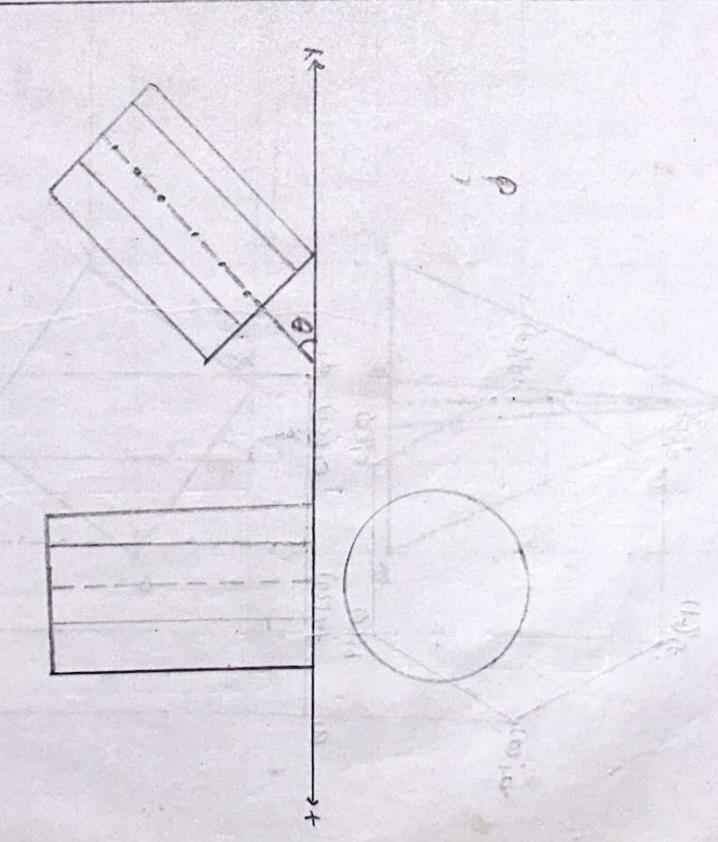
ALL DIMENSIONS ARE IN mm

case: 1
base on HP (base)
rest on HP
Angle to HP

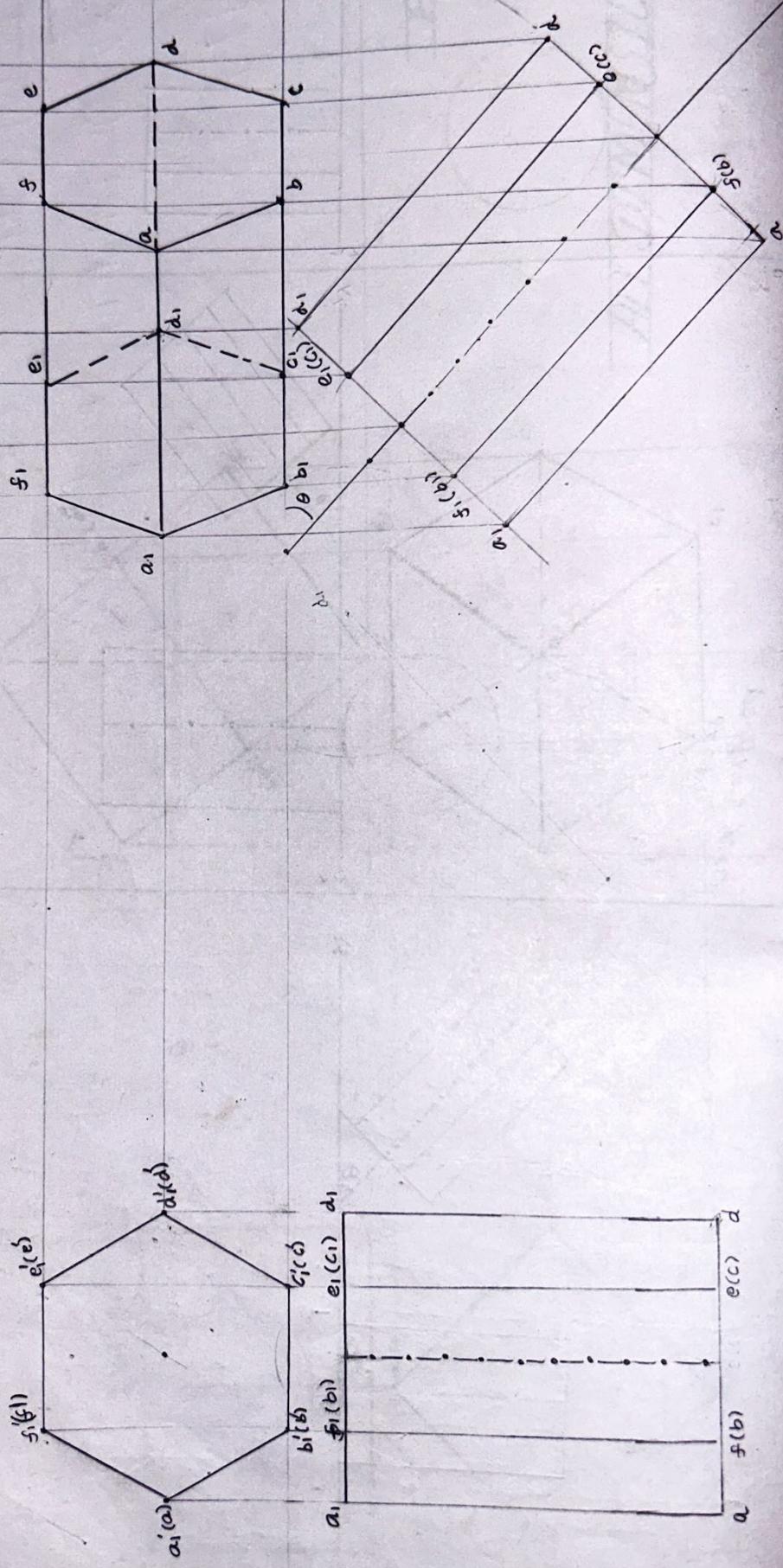
case: ii
(base)
or
coinc.

case: iii
Rest on HP (Generators, Rect face,
Tetragonal face)
axis inclined
to VP

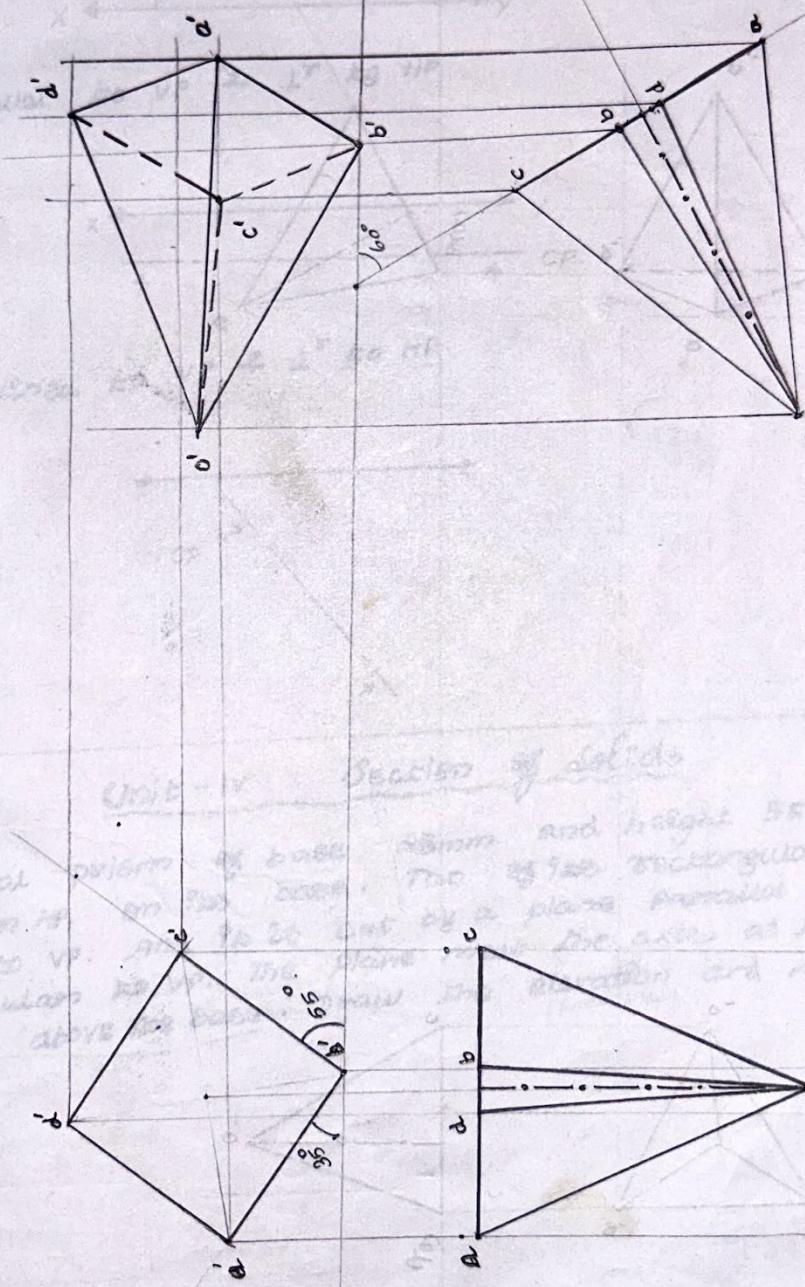
case: iv
Rest on VP (base or corner)
axis inclined to VP



A hexagonal prism of base 35mm and height 65mm is placed on one of its rectangular faces on HP. ZCS is inclined at 45° to V.P. Draw its Projections.



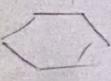
2519119. A horizone pyramid of base side 30mm and height 40mm resting on H.P. on one of its base corner with a base side containing 35° to H.P. the axis inclined at 30° to V.P. and 16° to H.P. Draw progs.



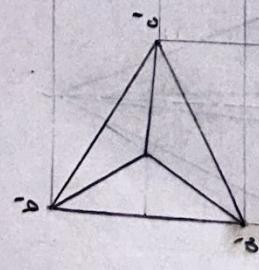
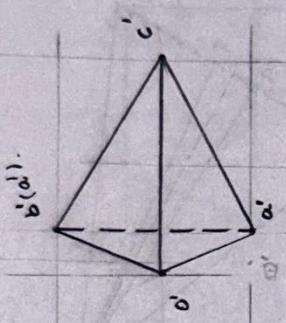
Section of solids

and right section. The two rectangular faces are parallel to the base. The two remaining faces are parallel to the base. The axes of the two remaining faces are parallel to each other.

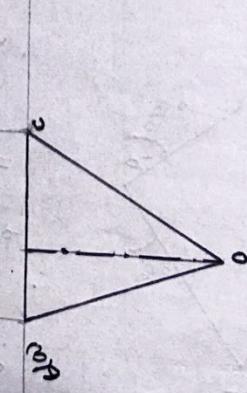
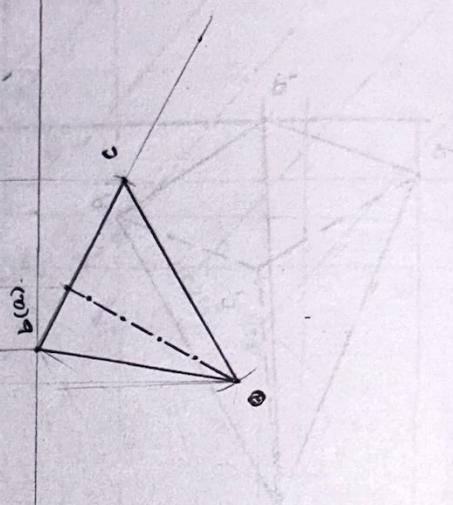
A tetrahedron of edge 30mm rests on one of its edges on VP. The edge is normal to H.P. Draw projections. It is inclined at 30° to VP. Draw projections.



FINAL FV



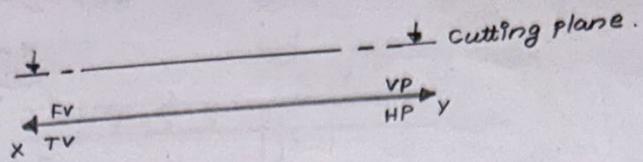
FINAL TV



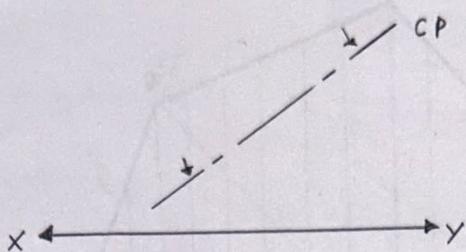
VP
HP

Types of Sections of Solids

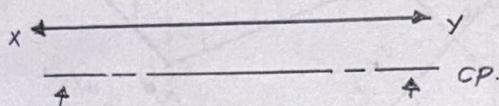
1) parallel to HP & perpendicular to VP.



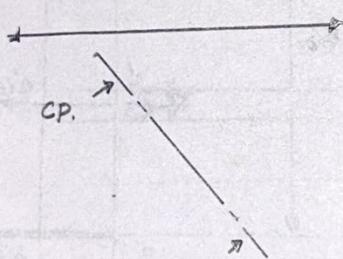
2) Inclined to HP & \perp^r to VP.



3) Parallel to VP & \perp^r to HP.



4) Inclined to VP & \perp^r to HP.



Unit - IV Section of Solids

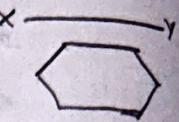
A hexagonal prism of base 25mm and height 55mm. is resting on HP. on its base. Two of its rectangular faces are parallel to VP. And it is cut by a plane parallel to HP and perpendicular to VP. The plane meet the axis at the distance of 20mm above the base. Draw the elevation and sectional top view. (Front View)

Soln:

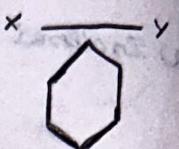
Rest on HP

Rectangular Face

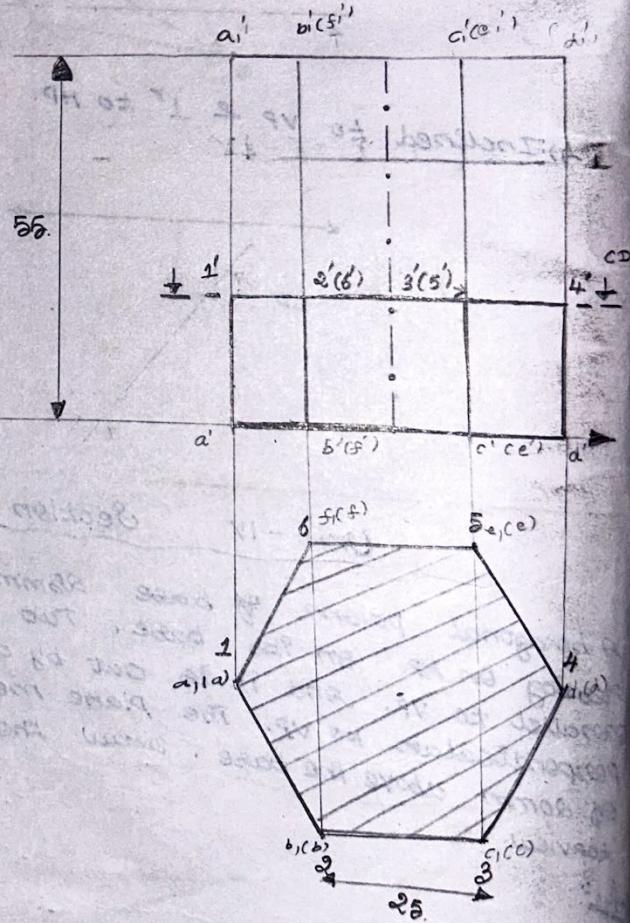
1) II^d to VP



2) L^r to VP =



SECTIONAL FV

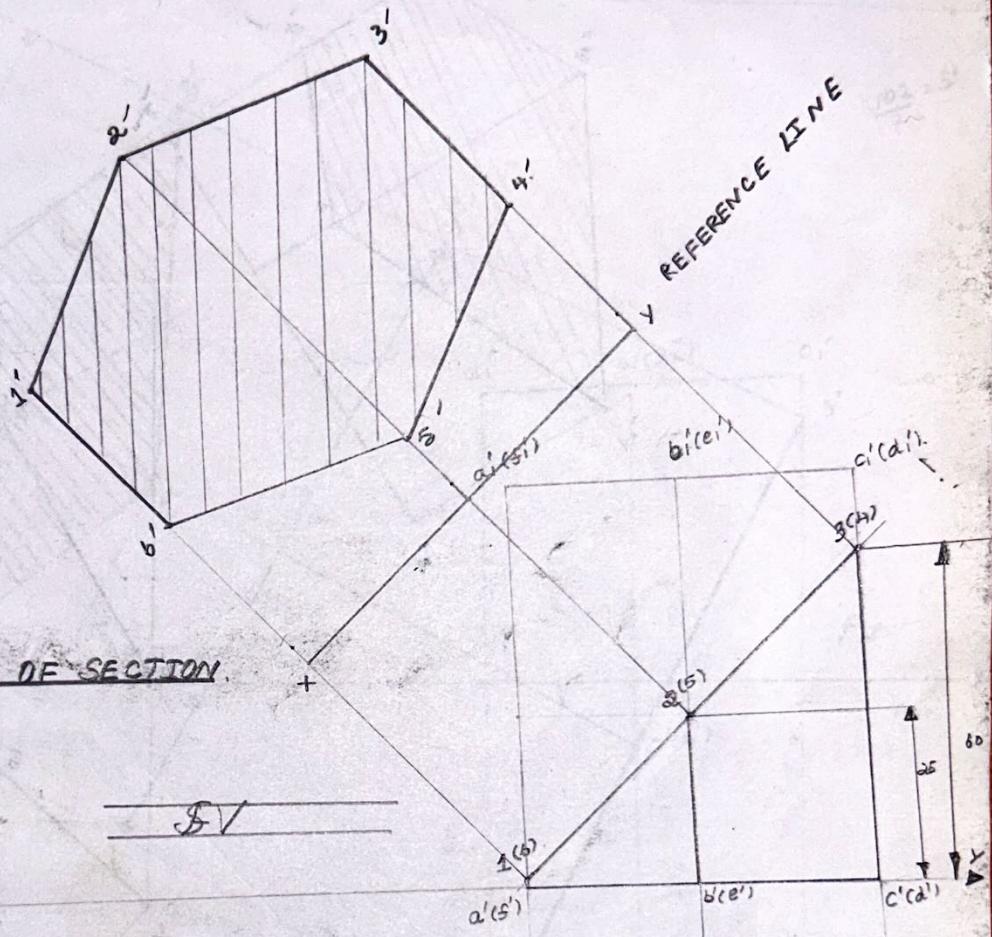


SECTIONAL TOP VIEW

A hexagonal prism of base 30mm and height 60mm rest on H.P. on its base. Two rectangular faces are 15° to V.P. It is cut by a plane 15° to V.P. and 40° to H.P. The cutting plane meet the axis at 25mm from the base. Draw the elevation, sectional top view and true shape of the section.

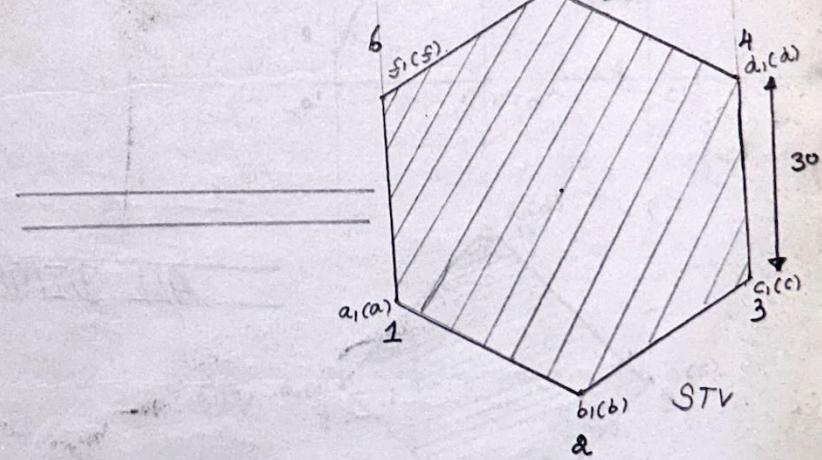
LE - $a_1(a)$, $b_1(b)$, $c_1(c)$, $d_1(d)$, $e_1(e)$

T.S.V



TRUE SHAPE OF SECTION

STV



ALL DIMENSIONS ARE IN mm

A square prism of base 30mm and axis 60mm rest on HP on its base. Such that two edges of base edges are equally inclined to V.P. It is cut by a plane \perp to V.P. and inclined at 60° to H.P. The cutting plane meet the axis at 40mm from the base. Draw the elevation, sectional plane and true shape of the section.

Soln:

Square Prism:

Rest on HP.
Equally inclined.

POSITION:

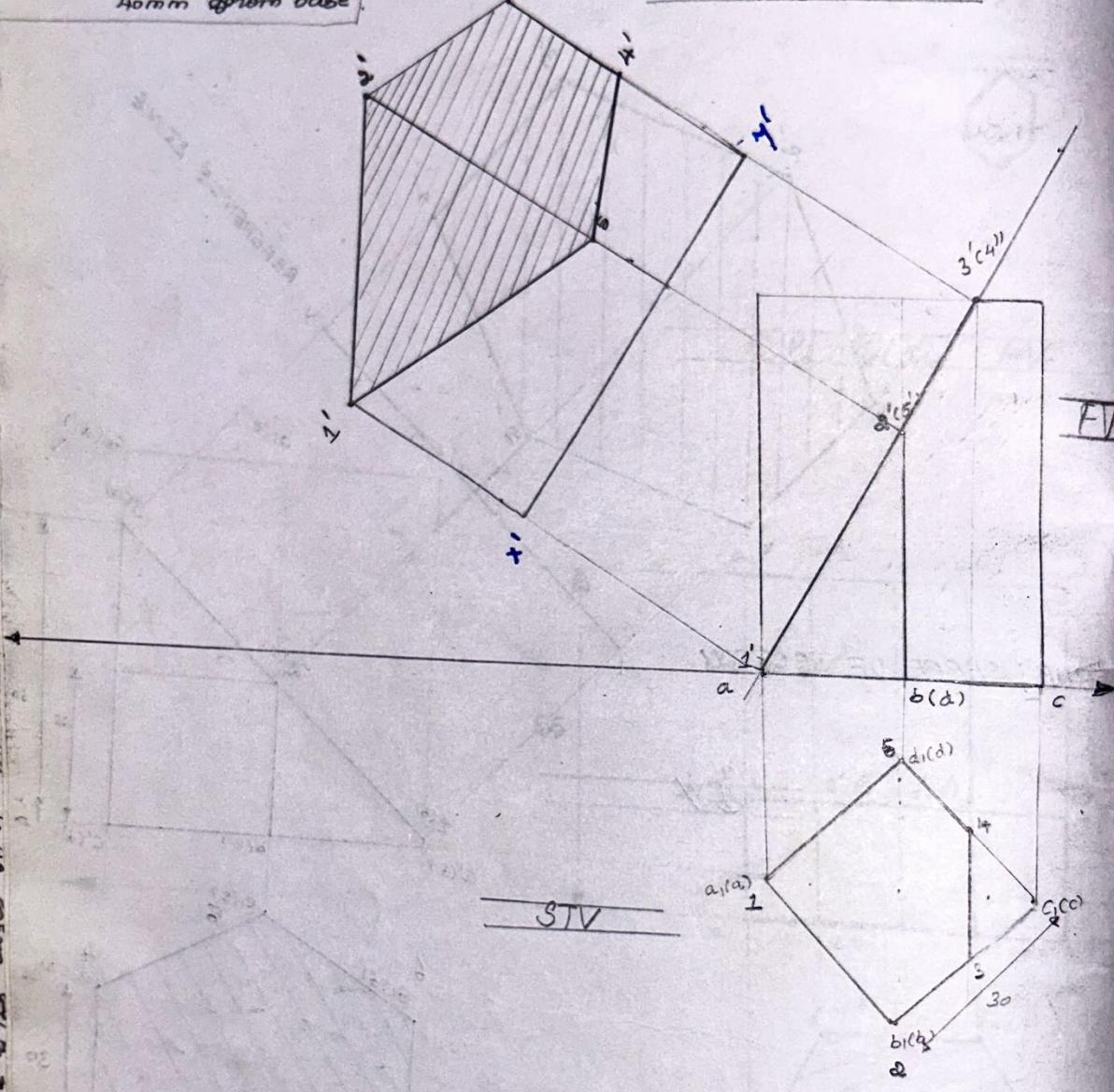
40mm from base

C.P.

60° to HP.

L.F. $\rightarrow a_1 a_1' b_1 b_1' c_1 c_1' d_1 d_1'$
F.F. $\rightarrow a_1 b_1' b_1 c_1' c_1 d_1' d_1 a_1'$
 $b \rightarrow a, b, b_1, c, c_1, d, d_1, d_1 a$

T.S.S.



ALL DIMENSIONS ARE IN mm.

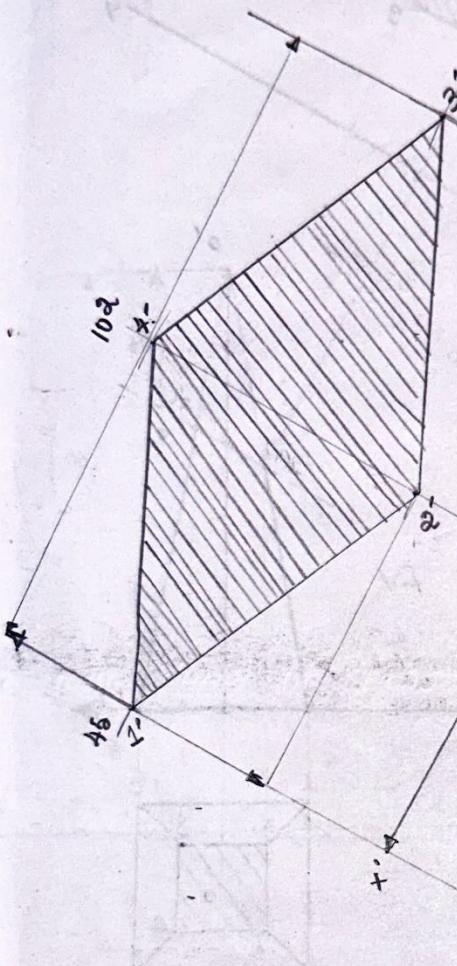
A Square prism of side 88mm and 100mm height is lying on its base on H.P. such that base is equally inclined to V.P. The prism is cut by a plane passing through the midpoint of the axes, such that the true shape of the section is a rhombus of diagonal 102 mm. and 45 mm.

Section is a rhombus of diagonal 102 mm. and 45 mm.

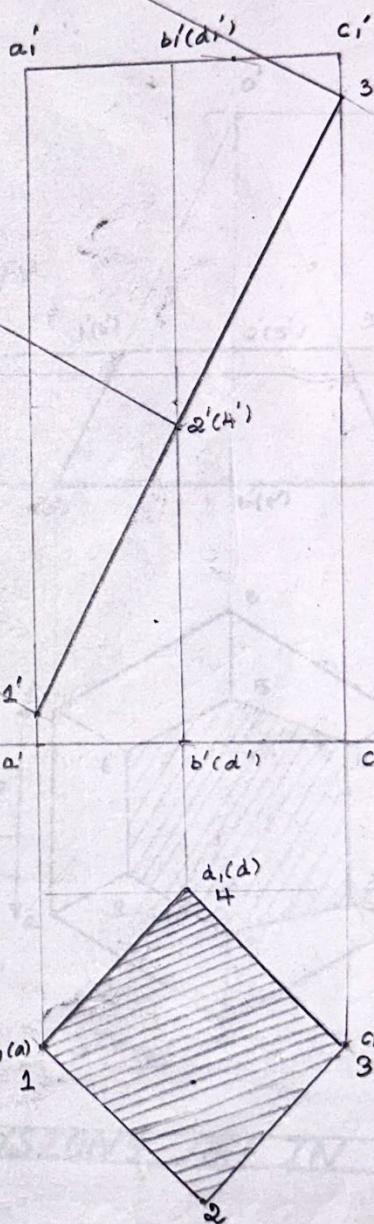
$$\text{midpoint of axis} = \frac{100}{2} = 50$$

$$\frac{102}{2} = 51$$

T.S.S.



F.V.

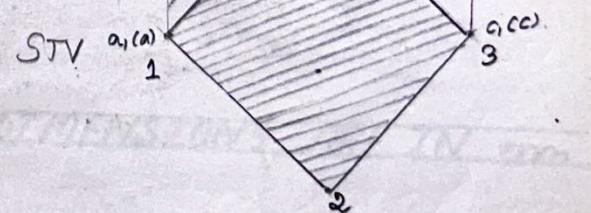


S.T.V

a,(a)

a,(d)

a,(c)

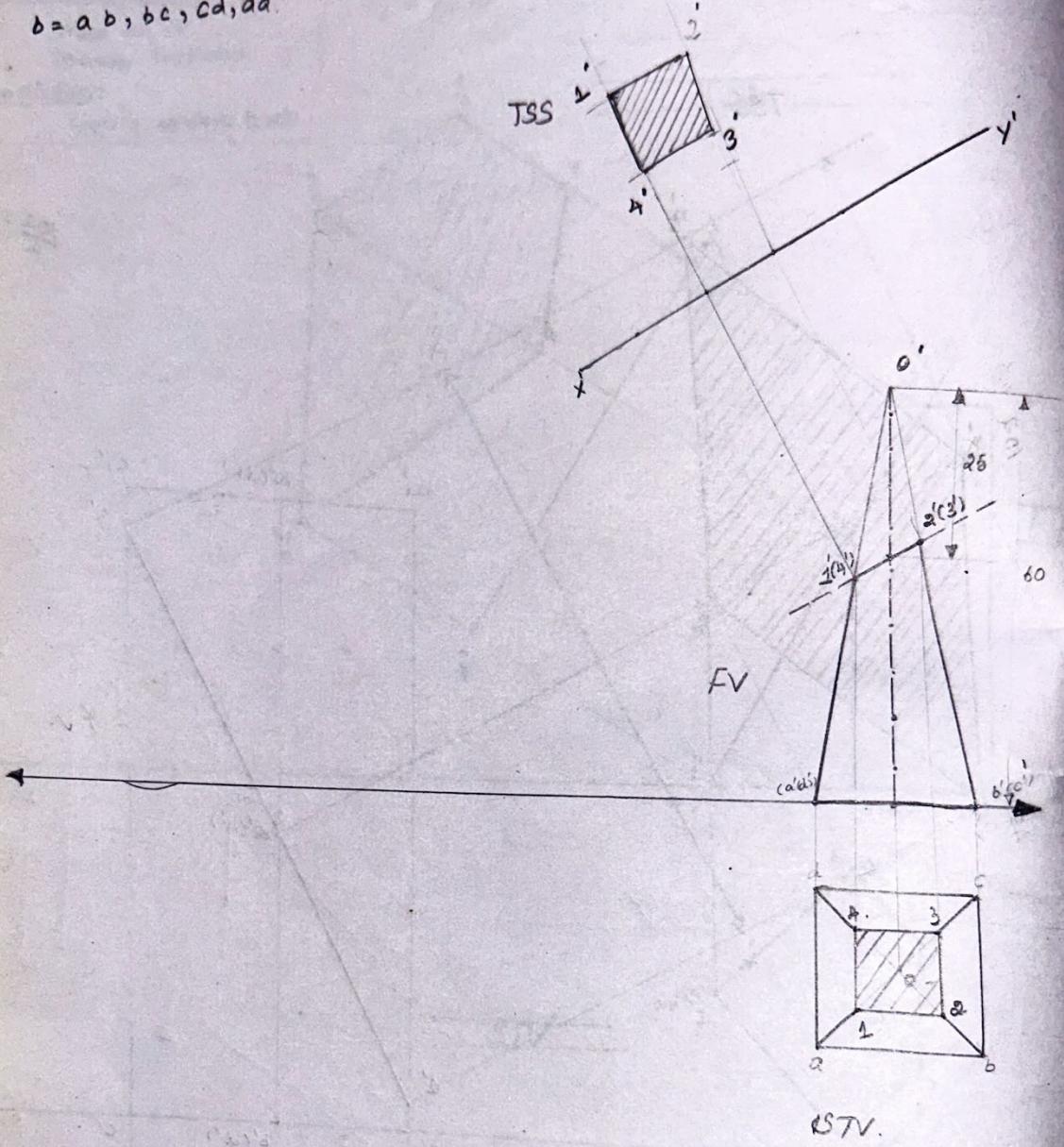


ALL DIMENSIONS ARE IN mm

A Square pyramid of base 25mm and height 60mm with base sides are parallel to V.P. It is cut by a plane 1" from base, and inclined at 30° to H.P. The cutting plane meet the axis at 25mm from the vertex. Draw Elevation, Sec Plane & True Shape.

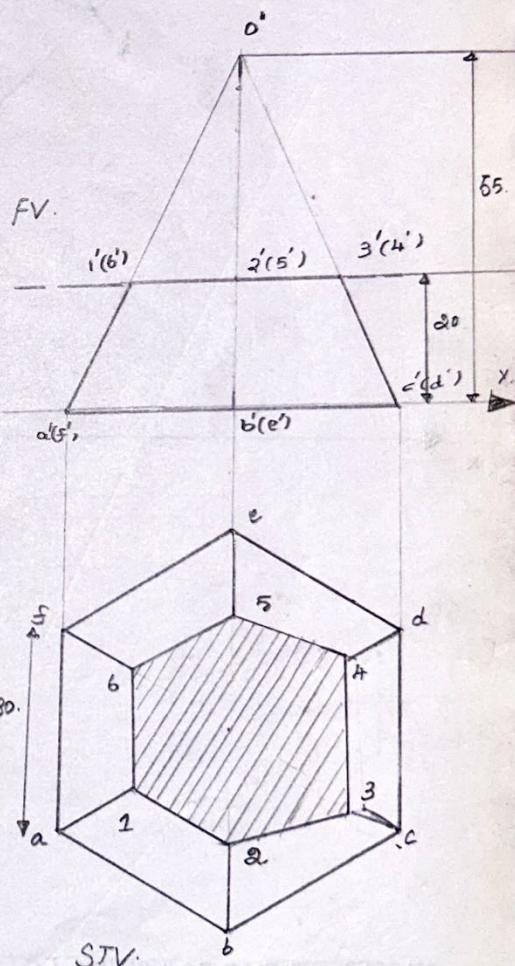
$$G = Oa, Ob, Oc, Od$$

$$b = ab, bc, cd, da$$



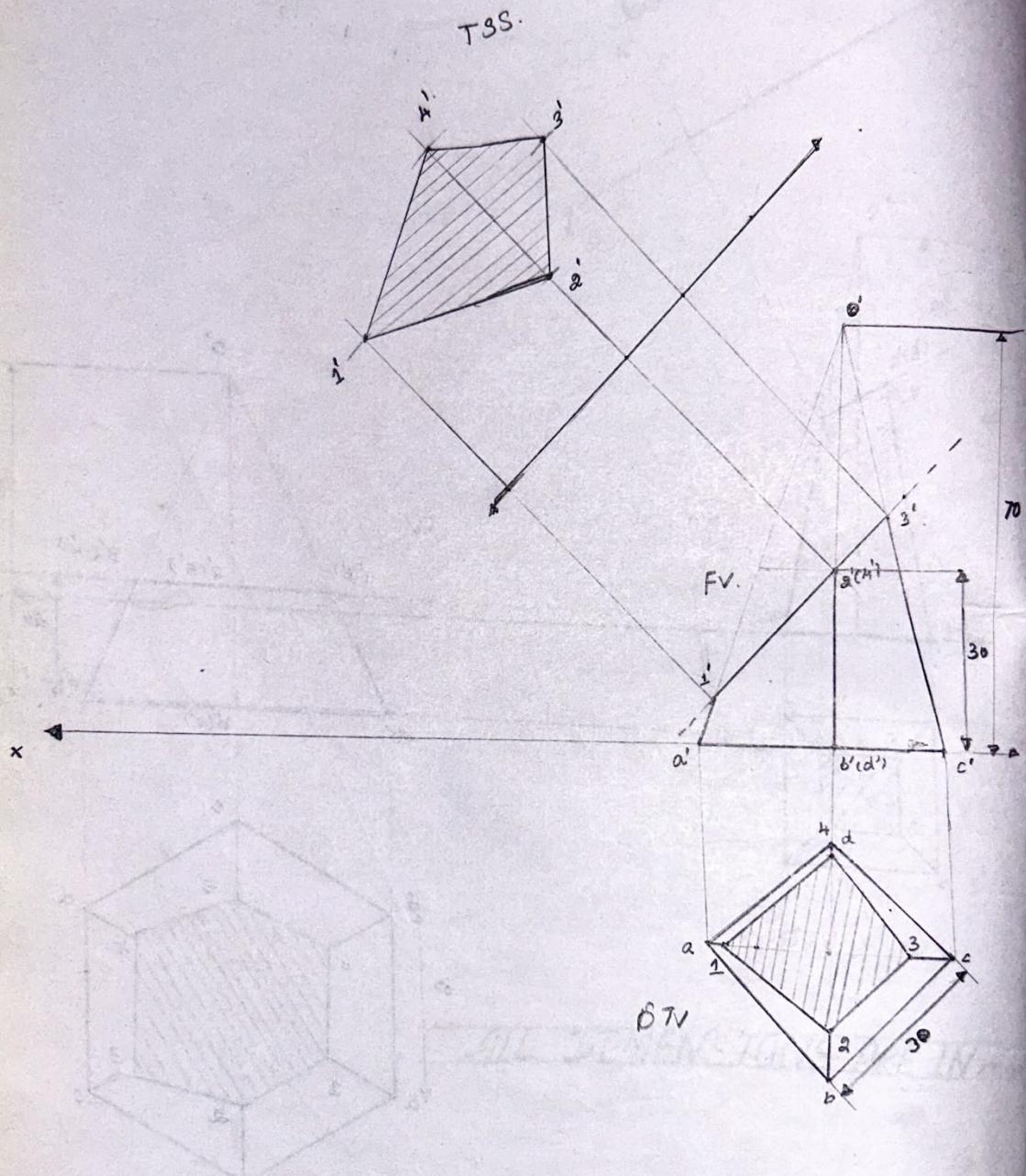
ALL DIMENSIONS ARE IN mm

A hexagonal pyramid of base height 30mm and height 55mm, rest on F.C.S
 base on H.P. with two of its base edges base edges are perp to V.P. and cutting
 Plane parallel to H.P. and perp to V.P. It is cut by a pyramid at a height
 of 20mm above the base. draw the F.V. and S.T.V.



ALL DIMENSIONS ARE IN mm

A Square Pyramid of base 30mm and height 70mm resting on its base on HP. with base sides are equally inclined to VP. It is cut by a plane 15° to VP and inclined at 40° to HP. The cutting plane meets the axes at 30mm above the base. Draw FV and TV and Sec view all true shapes sections

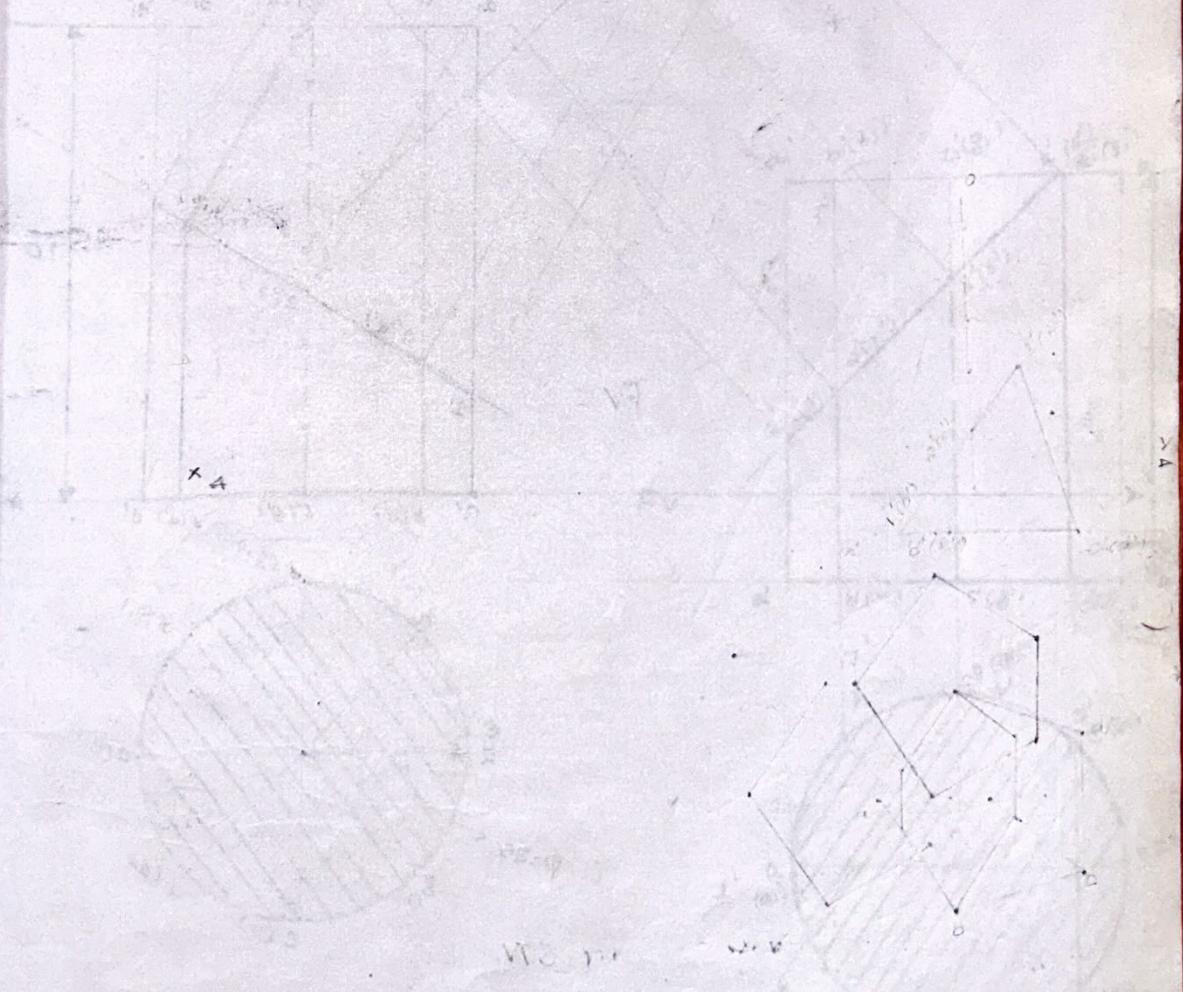


ALL DIMENSIONS ARE IN mm.

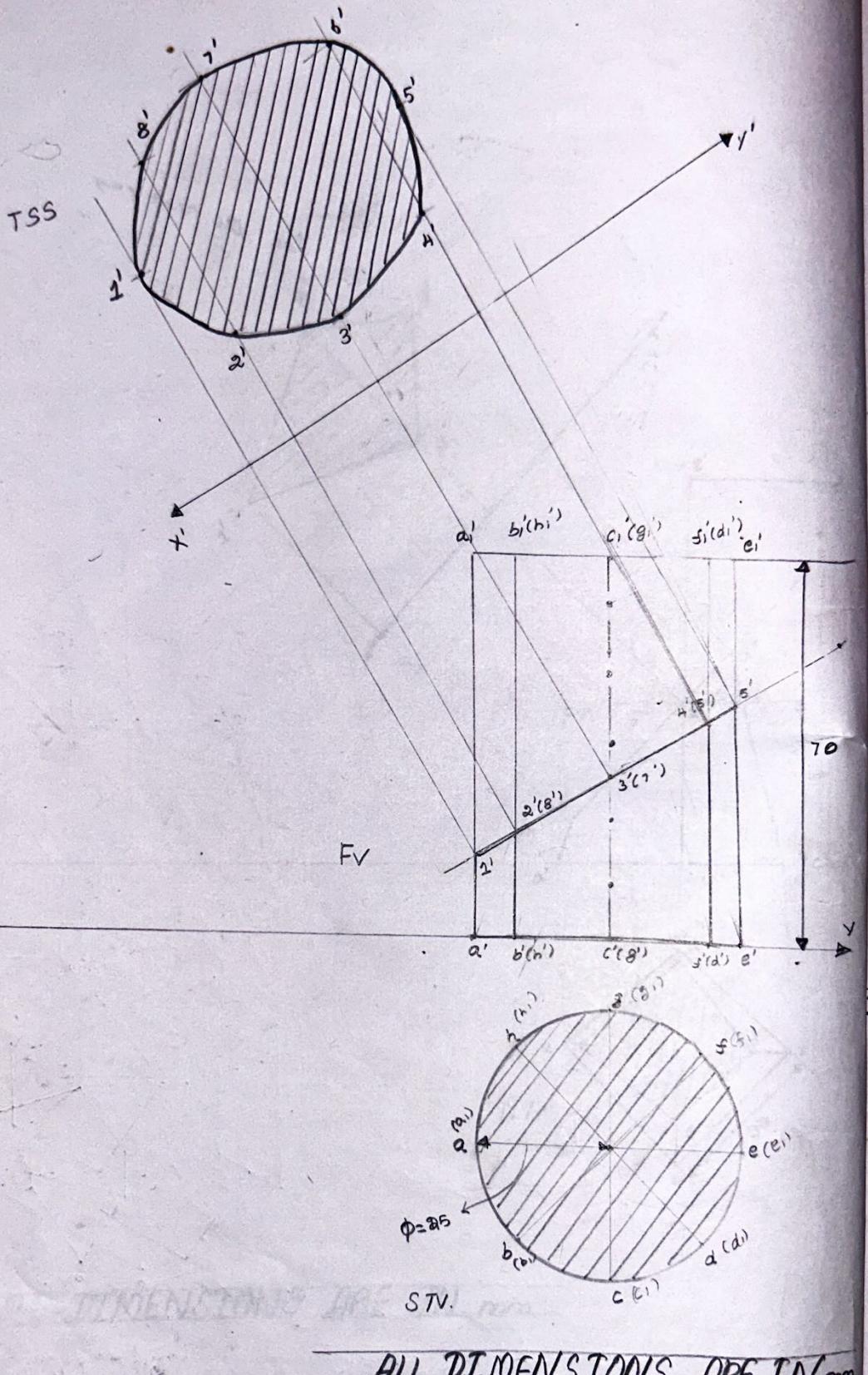
A pentagonal pyr. of base side 20mm and altitude 50mm rest on its base on H.P. with one of its base edges are 15° to V.P. It is cut by a plane 50° E. - the base. (HP). It meet the axis at 15mm above draw the FV and SV. TSS.

(Base edge)
 15°
(edge and
corner
available)

see At next page

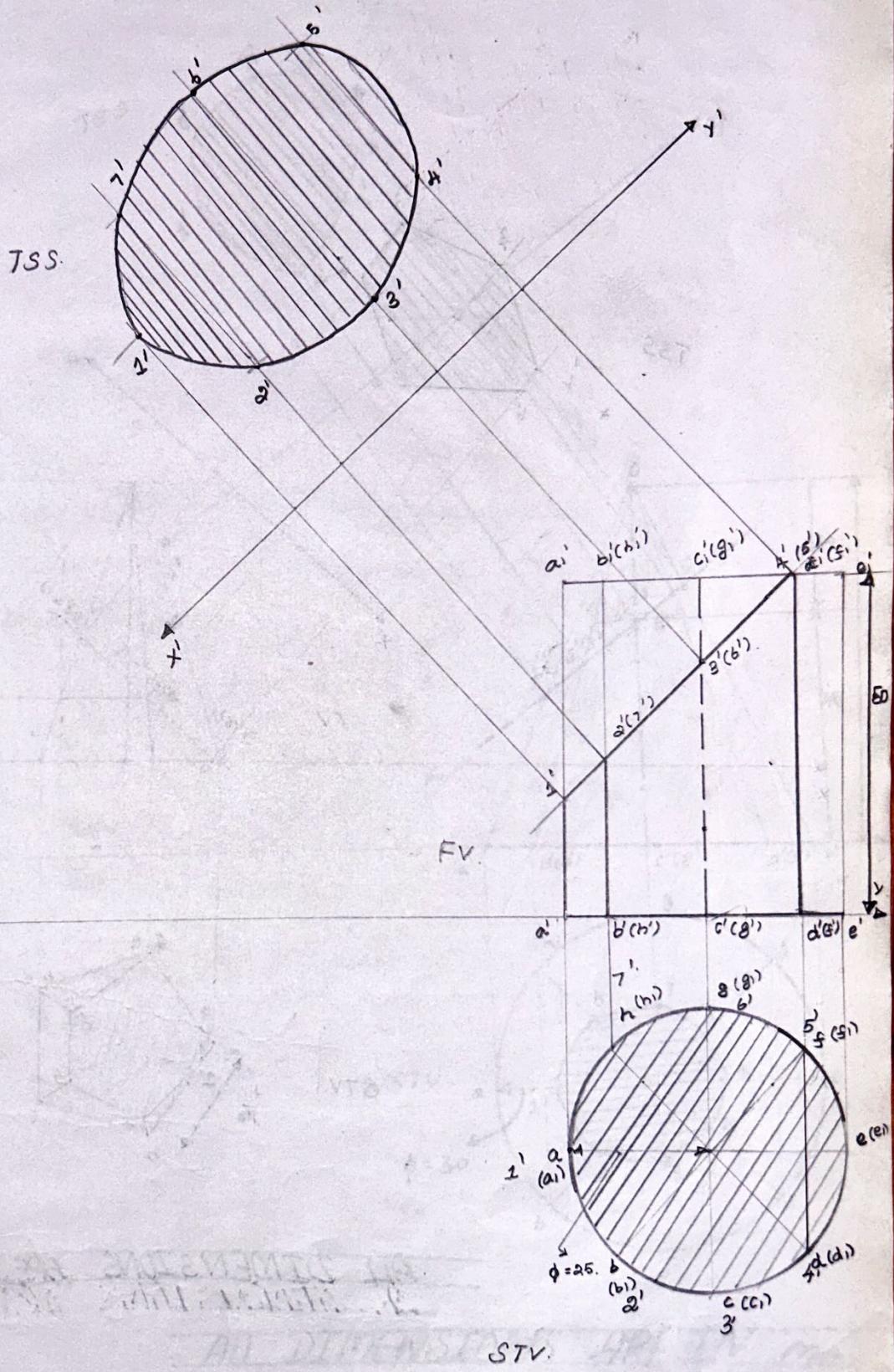


A cylinder of base diameter 50mm and height 70mm is resting on its base. It is cut by a plane 1' to VP and inclined at 80° to HP. The cutting plane meet the axis at 30mm from the base. Draw the FV and STV and TSS.



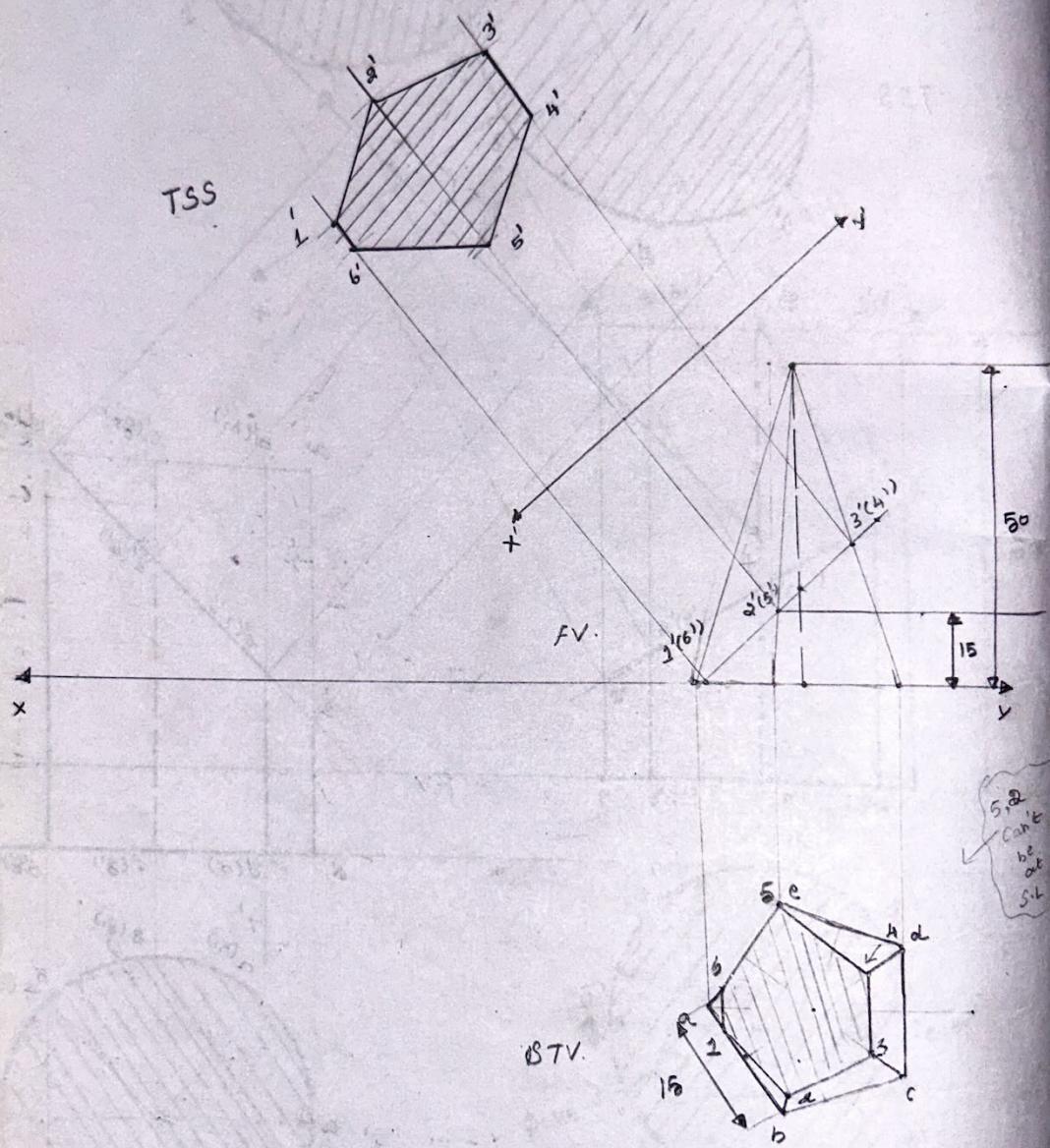
ALL DIMENSIONS ARE IN mm

A cylinder of base diam 50mm and height 60mm is rest on HP. It is cut by a plane \perp to VP and inclined at 45° to HP. The cutting plane meet the axis at a distance of 15mm from the top. Draw proje (FV, STV, TSS)



ALL DIMENSIONS ARE IN mm.

Continuation



ALL DIMENSIONS ARE IN mm