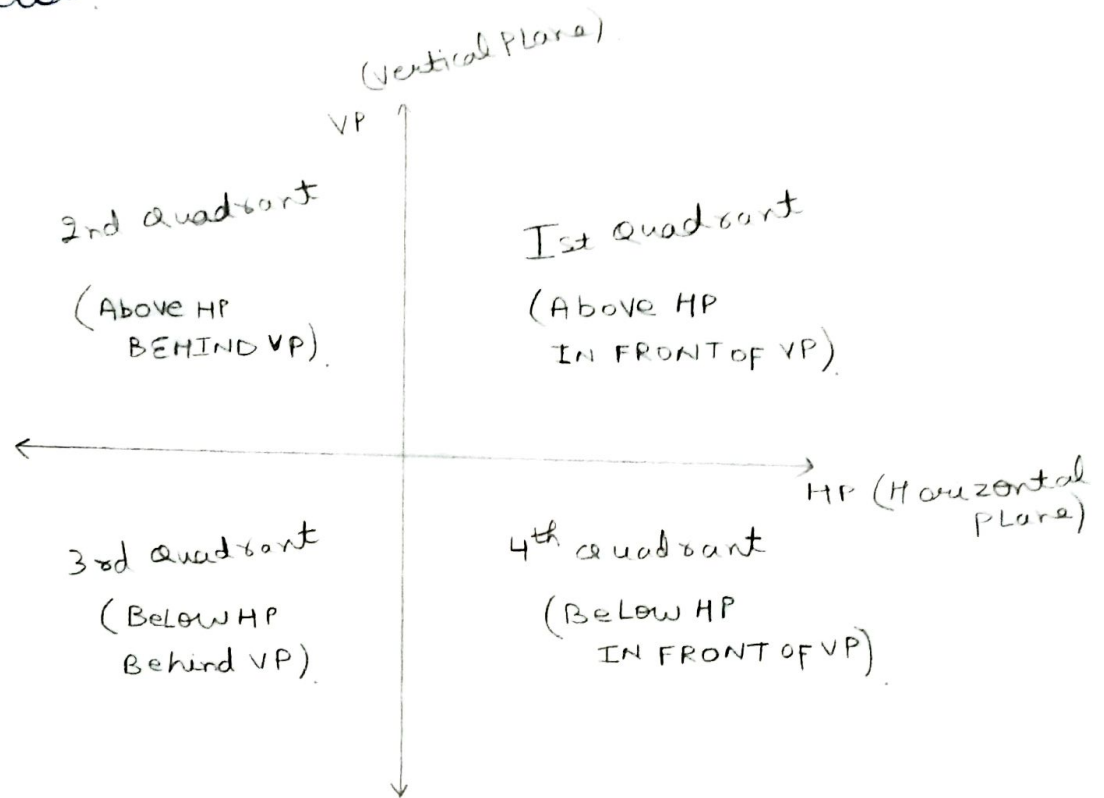nut-2 (Ist part)

Projection of Point :-

Point :- A point is that which has simply position but no magnitude. It is generally represented by a very small circle or a dot.

Note :- ① We use a' → Front View

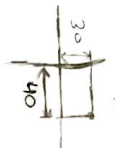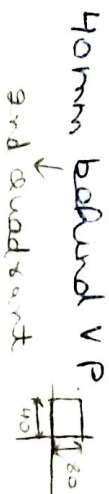② a → Top View.

③ a" → Side View.

④ If From top view, object lies on Horizontal Plane. while drawing top view, we rotate object 90° clockwise.

Q-1. Draw the projections of the following points on a common XY line. Keep the distance between two consecutive projectors as 20 mm.
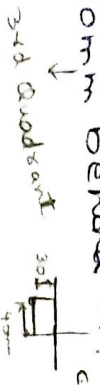
a) A 30 mm above HP & → 1st Quadrant
40 mm in front of VP.

b) B 80 mm above HP &
40 mm behind VP.
3rd Quadrant

c) C 30 mm below HP &
40 mm behind VP.
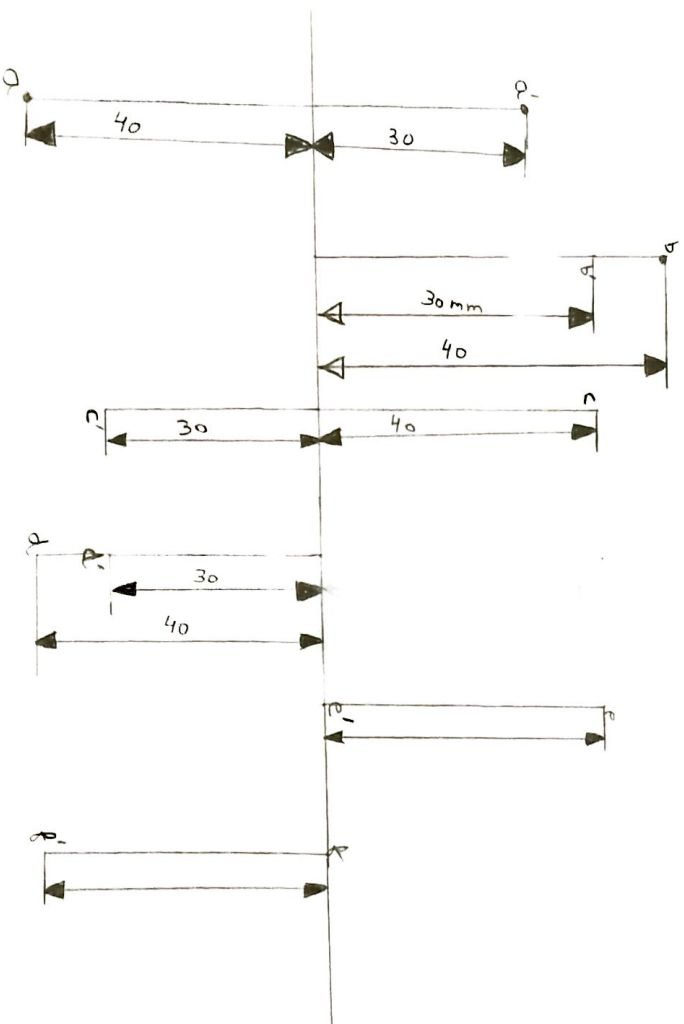3rd Quadrant

d) D 30 mm below HP &
40 mm in front of VP.

e) E, in the HP and 40 mm
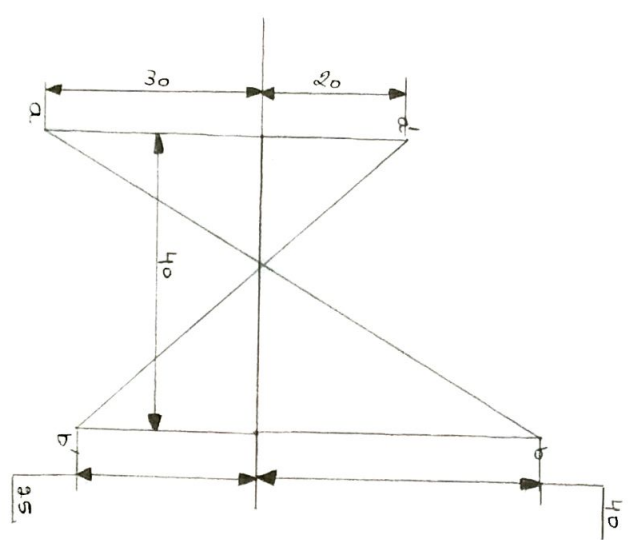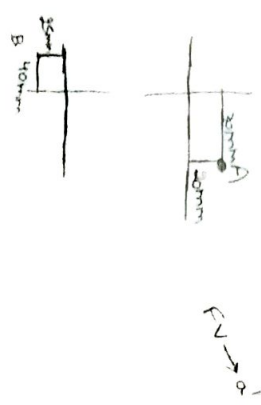behind the VP.

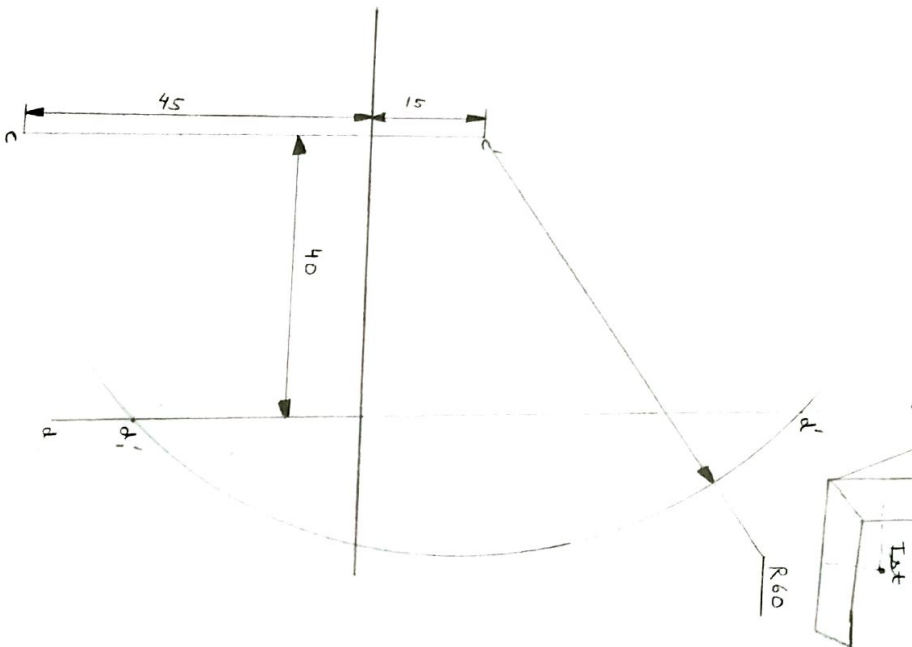f) F, in the VP & 40 mm below HP

g) G, in both the HP & VP.

Line → 2H
Point of intersection
then → HB

F.V.

T.V.

40   30

a'   a

b'   30mm   b
      40

c' 30   c   40   c

d' 30   d'
    40

e'   e

f'   f

Q.2. Point A is 20mm above HP & 30mm in Front of VP and point B is 25mm below HP and 40mm behind the VP. The end projectors for these points are 40mm apart.

Draw the projections of the points and Find the length of Front View and the top view of the line joining points A & B.

30

20

40

25

40

a

d'

b

a'

EV → a'

20mm A
40mm

B
25mm
40mm

Length of Front View joining A & B is
Length of top view joining A & B is.

Q-5. A point C is 15mm above HP and 45mm in Front of VP. In what quadrant another point D lies if the distance b/w the vertical projectors of C & D is equal to 60mm and the distance between the projectors through C & D be 40mm and point D is 40mm in Front of VP?
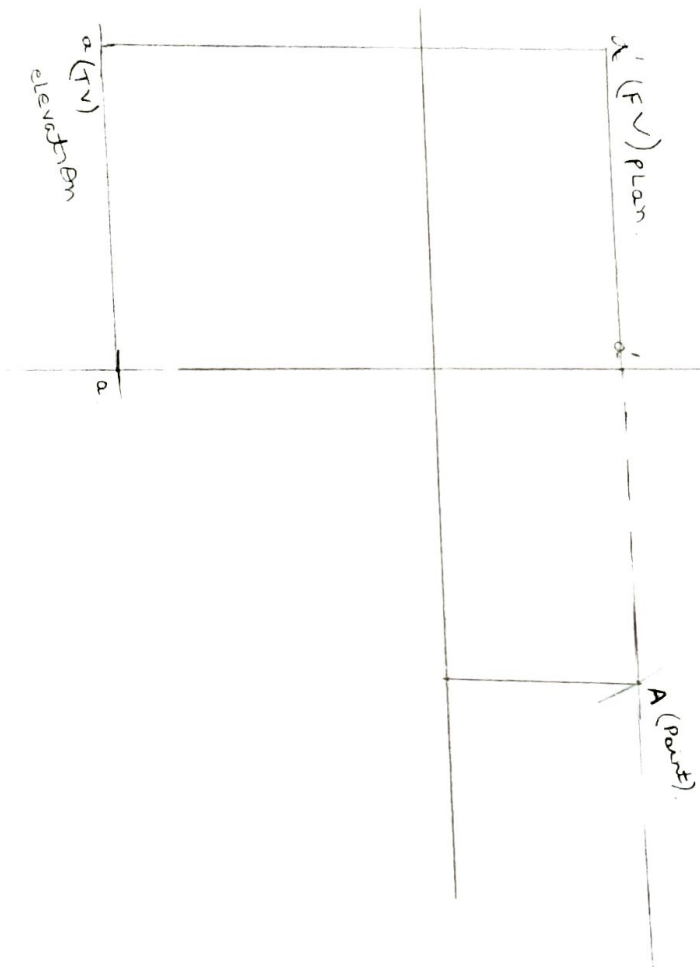

- All Front view are drawn on Vertical Plane or called Vertical Projections.

- All top view are called Horizontal Projections
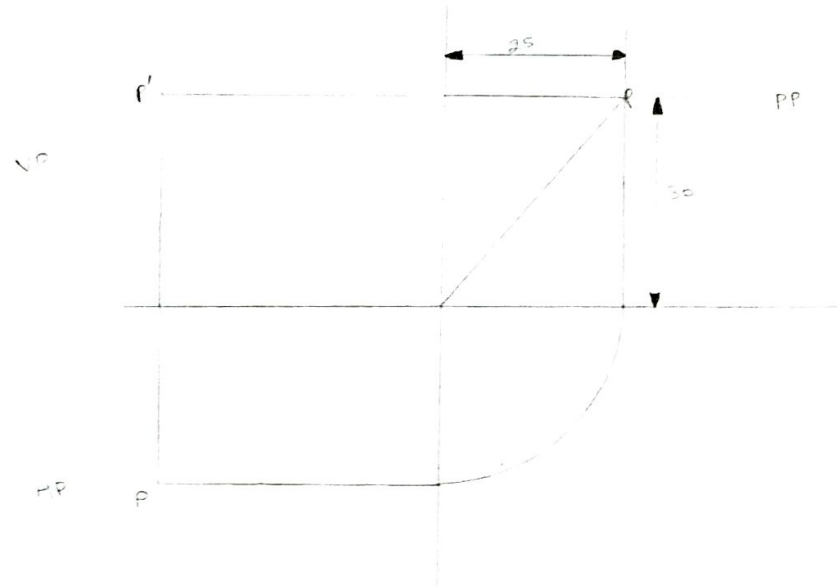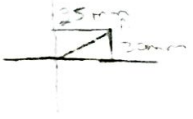
d' & d¹ are two possible positions of the elevation of point d

Q-6. A point, A, is 25mm above HP and is in First Quadrant. Its shortest distance from the XY line is 50mm. Draw its Plan and elevation.

a' (FV) Plan

a'

A (Point)

a (TV)
elevation

p

P
25
Projections
VP
HP

Shortest distance
diagonal

JSR

Q-6. A point P is 30mm above HP and 25mm in Front of VP. Determine the least distance from the XY line.

Ques 7 A Point P is 25mm below the HP and its shortest distance from xy line is 50mm
The point P lies in third Quadrant. Draw its Projections.

a

H P

50

25

p

A

p

V. P