UNIT-II: PROJECTIONS OF POINTS

1. Draw the Projections of the following points on the same ground line, keeping the Projectors 25 mm apart.

i. A is in the H.P. and 20 mm behind the V.P.

ii. B is 40 mm above the H.P. and 25 mm in front of the V.P.

iii. C is in the V.P. and 40 mm above the H.P.

iv. D is 25 mm below the H.P. and 25 mm behind the V.P.

v. E is 15 mm above the H.P. and 50 mm behind the V.P.

vi. F is 40 mm below the H.P. and 25 mm in front of the V.P.

vii. G is in both the H.P. and the V.P

2. Draw the orthographic projections of the following points.

i. Point P is30 mm. above H.Pand40mm.infrontof VP.

ii. Point Q is25 mm. Above H.P and 35mm.behind VP.

iii. Point R is 32 mm. below H.P and 45mm behind VP.

iv. Point S is 35 mm. below H.P and 42mm in front to VP.

v. Point T is in H.P and 30 mm behind VP.

vi. Point U is in V.P and 40 mm. below HP.

vii. Point V is in V.P and 35 mm. above H.P.

viii. Point W is in H.P and 48 mm. in front of VP.

3. Draw the projections of the following points on the same XY line, keeping convenient Distance between each projectors. Name the quadrants in which they lie.

i. Point A is 30 mm above HP and 35 mm in front of VP.

ii. Point B is 35 mm above HP and 40 mm behind VP.

iii. Point C is 40 mm above HP and on VP.

iv. Point D is 35 mm below HP and 30 mm in front of VP.

4. Draw the projections of the following points on the same XY line, keeping convenient Distance between each projector. Name the Quadrants in which they lie.

i. Point E is 30 mm below HP and 25 mm behind VP.

ii. Point F is 35 mm below HP and 30 mm in front of VP.

iii. Point G is on HP and 30 mm in front of VP.

iv. Point H is on HP and 35 mm behind VP.

5. A point P is 50 mm from both the reference planes. Draw its projections in all possible positions.

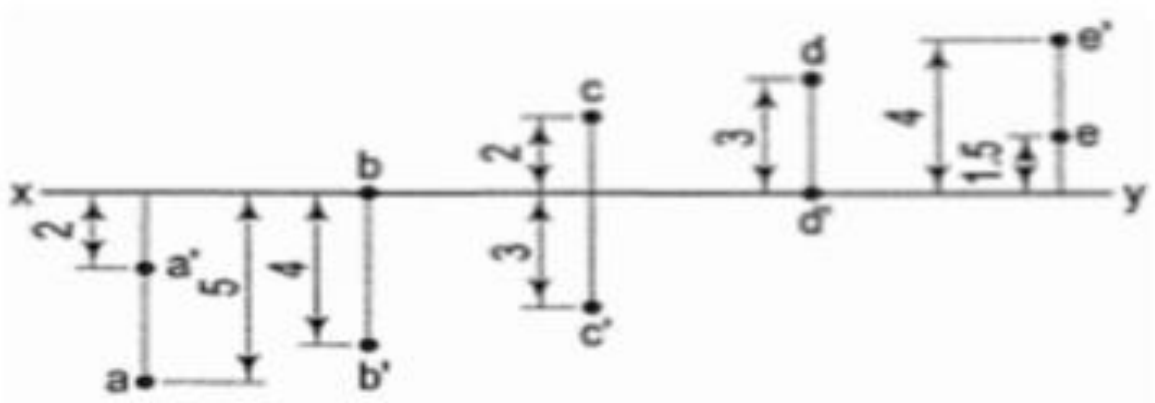
6. State the quadrants in which the following points are situated:

(a) A point P; its top view is 40 mm above xy; the front view, 20 mm below the top view.

(b) A point Q, its projections coincide with each other 40 mm below xy.

7. A point P is 15 mm above the H.P. and 20 mm in front of the V.P. Another Point Q is 25 mm behind the V.P. and 40 mm below the H.P. Draw projections of P and Q keeping the distance between their projectors equal to 90 mm. Draw straight lines joining (i) their top views and (ii) their front views.

8. Projections of various points are given in State the position of each point with respect to the planes of projection, giving the distances in centimetres.



9. Two points A and B are in the H.P. The point A is 30 mm in front of the V.P., While B is behind the V.P. The distance between their projectors is 75 mm and the line joining their top views makes an angle of 45° with xy. Find the Distance of the point B from the V.P.