Projection of Points

* 1. Draw the projections of a point A lying on the HP and 50mm in front of the VP.
  2. Draw the projections of a point B lying on the VP and 15mm above the HP.
  3. Point C is 45mm above the HP and 30mm in front of the VP. Another point D is 35mm above the HP and 40mm in front of the VP. Distance between their projectors is 50mm. Draw their projections.
  4. Draw the projections of a point E which is in equal distance of 40mm above the HP and in front of the VP.
  5. A point E is 30mm above the HP and 45mm behind the VP. Another point F is 35mm below the HP and 25mm in front of the VP. Distance between their projectors is 50mm. Draw projections of the two points.
  6. A point G is 35mm away from both the HP and the VP. Draw the projections of the point with all possible locations.
  7. A point 30mm above xy line is the plan-view of two points P and Q. the elevation of P is 45mm above the HP while that of Q is 35mm below the HP. Draw the projections of the two points and state their position with reference to principal planes.
  8. Projections of various points are given in Figure 4.1. State the position of each point with reference to the principal planes.

Chart, scatter chart

Description automatically generated

Figure 4.1

Projection of Lines (Inclined to one plane)

* 1. A line PQ, 60mm long is perpendicular to the HP and 15mm in front of the VP. The end P is nearer to the HP and 20mm above it. Draw the projections of the line.
  2. A line PQ 70mm long is parallel to the HP and inclined at 30° to the VP. The end P is 20mm above H.P and 40mm in front of the VP. Draw the projections of the straight line.
  3. A line MN 70mm long lies in the V.P and has the end M in both the HP and the VP. It is inclined at 35° to the HP. Draw the projections of the line.
  4. A line PQ, 60mm long has one end P, 20 mm above the HP and 35mm in front of the VP. The line is parallel to the H.P. The front view has a length of 50 mm. Find its true inclination with the VP
  5. A line CD 50mm long has its end C on the HP and 20mm behind the VP. The end D is 15mm in front of the VP at a height of 20mm. Draw the projections of the line CD.