

## **ASSIGNMENT-3**

### **CASE I to CASE V: PROJECTION OF STRAIGHT LINES**

- 1) Draw the projections of a 75 mm long line in the following positions
  - i. Parallel to both H.P and V.P 25 from each
  - ii. Parallel to and 30 mm above H.P, in V.P.
  - iii. Parallel to and 40 mm in front of V.P and in H.P
- 2) Draw the projections of a 75mm long line in the following positions
  - i. Perpendicular to H.P, 20 mm in front of V.P, and its one end is 15mm above H.P
  - ii. Perpendicular to V.P, 25 mm above H.P, and its one end is in V.P
  - iii. Perpendicular to H.P in V.P, and its one end is in H.P
- 3) Draw the projections of a 75mm long line in the following positions
  - i. Inclined at  $30^{\circ}$  to H.P, its one end 2mm above H.P parallel to and 30mm in front of V.P
  - ii. Inclined at  $60^{\circ}$  to V.P, its one end 15mm in front of V.P. Parallel to and 25mm above H.P
  - iii. Inclined at  $45^{\circ}$  to V.P in H.P and its one end is in V.P
- 4) A. 100mm long line is parallel to and 40 mm above H.P. Its two ends are 25mm and 50 mm in front of V.P. Draw its projections and find its inclination with V.P.
- 5) A line 90 mm long is parallel to and 25mm in front of V.P. It's one end is in H.P, while the Other end is 50mm above H.P. Draw its projections and find its inclinations with H.P.
- 6) The Top view of a 75mm long line measures 55mm. The line is in V.P its one end being 25 mm above H.P. Draw its projections.
- 7) The Front view of a line inclined at  $30^{\circ}$  to V.P is 65mm long. Draw the projections of the line when it is parallel to and 40mm above H.P, its one end being 30mm in front of V.P.
- 8) The Front view of a 75mm long line measures 55mm. The line is parallel to H.P and one of its ends is in V.P and 25mm above H.P. Draw the projections of the line and determine its inclinations with V.P.
- 9) The length of the Top view of a line Parallel to V.P and inclined at  $45^{\circ}$  to H.P is 50 mm. one end is 12mm above H.P and 25mm in front of V.P. Draw the Projections of the line and determine it True length.

## ASSIGNMENT-3

### CASE-VI: PROJECTION OF STRAIGHT LINES

- 1) A line AB 80mm long is inclined at an angle of  $30^{\circ}$  to H.P and  $45^{\circ}$  to V.P. The point A is 20mm above H.P and 30mm in front of V.P. Draw its projections.
- 2) A line PQ 70mm long has its end P 10mm above H.P and 15mm in front of V.P. Its Top view and Front view measures 60mm and 40mm respectively. Draw the projections of the line and determine its inclinations with H.P and V.P.
- 3) A line AB measuring 70mm has its end A 20mm above H.P and 15mm in front of V.P and the other end B is 60mm in front of V.P and 50mm above H.P. Draw the projections of the line and find the inclinations of the line.
- 4) A line PQ has its end P 15mm above H.P and 10mm in front of V.P. The end Q is 55mm above H.P and the line is inclined at  $30^{\circ}$  to H.P. The distance between the end projectors of the line when measured parallel to the line of intersection of H.P and V.P is 50mm. Draw the projections of the line and find its inclination with V.P.
- 5) The Front view of a line 90mm long is inclined at  $45^{\circ}$  to XY line. a'b' being 50 mm long. a' is 15mm above H.P and a is on V.P. Draw the projections of the line and find its inclinations with H.P and V.P.
- 6) The Top view of a 75mm long line measures 65mm. While the length of its Front view is 50mm. it's one end A is in H.P and 12mm in front of V.P. Draw the projections of AB and determine its inclinations with H.P and V.P.
- 7) A line AB 90mm long is inclined at  $45^{\circ}$  to HP and its Top view makes an angle of  $60^{\circ}$  to V.P. The end A is in H.P and 12mm in front of V.P. Draw its Front view and find its True inclination with V.P.
- 8) The mid-point of a straight-line AB is 60mm above H.P and 50mm in front of V.P. The line measures 80mm long and inclined at an angle of  $30^{\circ}$  to the H.P and  $45^{\circ}$  to the V.P. Draw the projection of the line.