

## **Tutorial - 4**

### **Orthographic Projection – Projection of Lines**

**Please draw manually the following questions based on Orthographic projections on your sketchbook-**

1. Draw orthographic projections of a 70mm long line PQ in following cases.
  - a. Line is parallel to both HP and VP.
  - b. Line is perpendicular to HP and its lower end is 20mm above HP and 30mm in front of VP.
  - c. Line is parallel to VP and inclined  $45^\circ$  to HP and point P is 20mm above and 35mm in front of VP
2. A line AB of length 60 mm has one of its ends 15 mm above HP and 30 mm in front of VP. The line is perpendicular to the HP. Draw the projection.
3. The top view of a 75 mm long line measures 55 mm. The line is in the VP and one of its ends being 25 mm above the HP. Draw its projections.