**COMPUTER AIDED ENGINEERING DRAWING**

Time: 3 Hours

(Common to All Branches) Max. Marks: 100

**Note:**
1. Answer three full questions
2. Use A4 sheets supplied.
3. Draw to actual scale.
4. Missing data, if any, may be assumed suitably.

1. **a.** A point is lying on HP, 20 mm behind VP and 25 mm from RPP. Draw its projections and name the side view.

   (10 Marks)

   **b.** The front view of the line PQ 80 mm long measures 50 mm and it is inclined to XY (reference line) at 50°. One end of the line P is 20 mm above the HP and 25 mm in front of the VP. Draw the front view and top view of the line and find the inclinations of the line with HP and VP.

   (20 Marks)

   **or**

1. A square lamina ABCD of 40mm side rests on corner C such that the diagonal AC appears to be at 45° to VP. The two sides BC and CD containing the corner C make equal inclinations with HP. The surface of the lamina makes 30° with HP. Draw its top and front views.

   (30 Marks)

2. A pentagonal pyramid 25 mm sides of base and 50 mm axis length rests on HP on one of its slant triangular faces. Draw the projections of the pyramid when the axis appears to be inclined to VP at 45°.

   (40 Marks)

3. A hexagonal pyramid of 30mm sides of base with a side of base parallel to VP. Draw the development of the lateral surfaces of the retained portion of the pyramid which is shown by dark lines in the following figure.

   (30 Marks)

   ![Diagram](image)

   **or**

3. A square pyramid of base side 40mm and height 70mm rests symmetrically on a cube of edge 50mm, which itself is placed on a cylinder of diameter 80mm and thickness 30mm. Draw the isometric projection of the solids, if the axes of the three solids are in common line.

   (30 Marks)

   *** ***