**CE101 Engineering Drawing July- Nov 2019**

**Indian Institute of Technology Guwahati**

**Lab Sheet-4 Projections of Points, Lines and Traces Monday Morning**

**Max Marks: 25 × 4 = 100 Date: 02.09.2019**

1. Two points P and Q are lies on the HP. Point P is 40 mm in front of VP and point Q is behind the VP. If the line joining their top views makes an angle of 45⁰ with the reference line XY and the distance between their projectors is 70 mm. Draw the projection of both points and find the distance h of Q from VP.
2. A metallic rod of length 70 mm is placed parallel to the profile plane in 3rd quadrant such that the shortest distance of its one of the fixed pivoted end from the HP is 25 mm and the rod makes an angle of 30⁰ with VP. The rod is rotated in clockwise direction by an angle 120⁰ parallel to the profile plane from its original position. If the distance of VT from the pivot is 55 mm, draw its FV, TV and locate VT.
3. End A of a line AB is 15mm above HP & 20mm in front of VP while its end B is 50mm above HP and 75mm in front of VP. The distances between end projectors of the line is 50mm. Draw projections of the line and find its true length and true inclination with the principal planes.
4. A line AB with its one end is 80 mm in front of VP and its other end is 15 mm above the HP. Its HT and VT are 40 mm and 25 mm below XY while its FV is 30⁰ inclined to XY. Draw projections and find TL and its inclination with VP and HP.