Rajiv Gandhi Institute of Petroleum Technology
(RGIPT), Jais
(Ministry of Petroleum and Natural Gas, GoI)
Department of Chemical Engineering and Biochemical Engineering

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Engineering Graphics

B. Tech. 1ˢᵗ year

Class Assignment-3 (Orthographic projection of points and lines)

Q1. Draw the projection of the following points on the same reference line, keeping the projections 25 mm apart.

(A) Point A in H.P. and 20 mm behind the V.P.

(B) Point B 40 mm above H.P. and 25 mm in front of the V.P.

(C) Point C in the V.P. and 40 mm above the H.P.

(D) Point D 25 mm below the H.P. and 25 mm behind the V.P.

Q2. The front view of a 7.5 cm long line measures 5.5 cm. The line is parallel to the H.P. and one of its ends is in the V.P. and 2.5 cm above the H.P. Draw the projections of the line and determine its inclination with the V.P.

Q3. Given the line AB, its inclinations θ with H.P. and Φ to the V.P. and the position of one of its end A. Draw its projections.

Q4. The top view ab and the front view a 'b' of a line AB are given. Determine its true length and the inclinations with the H.P. and V.P.

Q5. A line AB, 50 mm long, has its end A in both the H.P. and the V.P. It is inclined at 30° to the H.P. and at 45° to the V.P. Draw its projections.

Q6. A line PQ, 75 mm long, has its end P in the V.P. and the end Q in the H.P. The line is inclined at 30° to the H.P. and at 60° to the V.P. Draw its projections.