

Engineering Drawing

List of Exercises

I. Geometrical Constructions

1. Exercise 1: Drawing standard types of lines and dimensioning as per BIS.
2. Exercise 2: Bisecting a given straight line and a given angle.
3. Exercise 3: Dividing a straight line into any number of equal parts.
4. Exercise 4: Construction of regular polygons (Pentagon and Hexagon) using general methods.

II. Construction of Conics

Exercise 5: Construction of ellipse using the general method.

Exercise 6: Construction of parabola using the oblong method.

Exercise 7: Construction of hyperbola using the concentric circles method.

III. Simple Projections (Orthographic – First Angle)

Exercise 8: Projections of a point in all four quadrants.

Exercise 9: Projections of straight lines:

Parallel to one or both reference planes

Contained in one or both planes

Exercise 10: Projections of straight lines:

Perpendicular to one plane

Inclined to one plane and parallel to the other

IV. Projections of Planes

Exercise 11: Projections of planes:

Plane parallel to one of the reference planes

Exercise 12: Projections of planes inclined to one reference plane.

V. Projections of Solids

Exercise 13: Projections of polyhedra (cube, tetrahedron, prism, pyramid) in simple positions.

Exercise 14: Projections of solids with axis inclined to the VP and parallel to the HP.

Exercise 15: Projections of solids with axis inclined to the HP and parallel to the VP.

VI. Orthographic & Isometric Projections

Exercise 16: Conversion of isometric view into orthographic views (front, top, and side).

Exercise 17: Isometric projections of plane figures (square, triangle, circle).

Exercise 18: Isometric drawings of prisms and pyramids.

Exercise 19: Conversion of orthographic views into isometric drawings using isometric scale.