

FOCUSED SYLLABUS -2020-2021
CLASS-XI
ENGINEERING GRAPHICS (SUBJECT CODE: 046)

I. PLANE GEOMETRY

Printing English alphabets (capital and small) and numerals in standard proportions.

Unidirectional/aligned system of dimensioning as per SP 46:2003 (Revised).

Unit 1: Construction of lines, angles and their divisions. Simple questions based on triangles, square, rhombus, regular polygons-pentagon, and hexagon.

Unit 2: Construction of circles, inscribing and circumscribing of circles in equilateral triangle, square, rhombus, regular polygons-pentagon and hexagon.

II. SOLID GEOMETRY

Unit 3: Orthographic projection: dimensioning and conventions strictly as per SP-46:2003 (Revised). Orthographic projection of points and lines.

Unit 4: Orthographic projection of regular plane figures - triangle, square, pentagon, hexagon, circle and semi-circle.

Unit 5: Orthographic projection of right regular solids such as cubes; prisms and pyramids (square, triangular, pentagonal and hexagonal); cones; cylinders; spheres; hemispheres; frustum of pyramids and cone, when they are kept with their axis perpendicular to HP/VP.

III. MACHINE DRAWING

Unit 7: Orthographic projection of simple machine blocks.

Unit 8: Isometric Projection - Construction of isometric scale showing main divisions of 10 mm and smaller divisions of 1 mm each. Isometric projection (drawn to isometric scale) of regular plane figures - triangle, square, pentagon, hexagon, circle and semi-circle with their surface parallel to HP or VP (keeping one side either parallel or perpendicular to HP/VP).