

**SYLLABUS FOR DRAUGHTSMAN**

1. Drawing instruments, equipment and materials; their use, care and maintenance. Introduction to Bureau of Indian Standards (BIS). Code of Practice for general and architectural drawings.
2. Geometrical drawings:- definition, construction of plain geometrical figures. Orthographic projections:- Principles, representation and construction of different types Scales, graphic scales, recommended scales for drawings with reference to BIS codes.
3. Brick Masonry-bricks and brick tiles, principles of construction, bonds in brick masonry
4. Principles of stone masonry construction, classification, terms used. Types of rubble masonry, ashlar masonry.
5. Different components of building-foundation and footing, walls, doors, windows, roofing.
6. Introduction to RCC structure, and materials used in RCC construction.
  - a. Auto CAD commands and
  - b. use of different Icons of Auto CAD: Knowledge about different Co-ordinate systems:
  - c. Knowledge about geometrical drawings and 2D drafting: Knowledge about different edit Commands: Knowledge about different codes of the system: Knowledge about 3D drafting: Basic knowledge about layout and printing of drawings.
7. Knowledge about Architectural Desktop and creating modelling.
8. Arithmetical calculation:-
  - (i) Application of fractions and decimals.
  - (ii) Ratio and proportion.
  - (iii) Conversion of different system
  - (iv) Simple equation, Quadratic equation.
  - (v) Areas of triangles, rectangles, square, circle.
  - (vi) Logarithms
  - (vii) Trigonometrical Ratios, functions, applied problems height and distances.
  - (viii) Problems related to stress, strain, yang's modules, lever's Heat & Temperature.
  - (ix) Problems on simply supported beam, Overhanging beam.
9. Construction of plain geometrical figures (lines, angles, triangles, rhombus, quadrilaterals, Polygons, ellipses, hyperbola, etc.)
10. Drawing Plan, elevation of points, lines, surfaces, solids.
11. Orthographic projection of furniture- table, chairs, desk, stool, etc.
12. Reducing and enlarging of drawing objects by graphical method and by instrument method. Measured drawing of any object.
13. Free hand lettering. Sketching of set of objects, landscape, mountains.

14. Applied trade problems-involving multiplication, division, common fraction, addition, subtraction, multiplication and division. Application of fractions and decimals to trade problems. Ratio and proportion. Conversion of different units.
15. Algebra-simple equation, problems involving trade.
16. Problems related to triangles, rectangles, square, circle, regular polygons etc.

