

Vidyalankar

F.E. : Sem. II

Engineering Drawing

Syllabus

Time : 3 Hrs.

Theory : 75 Marks

Term Work : 25 Marks

Practical : 50 Marks

1. Introduction :

Drawing Instruments, symbolic lines, lettering, dimensioning, systems as per I.S. conventions, geometrical constructions and tangential arcs.

2. Projections :

- Projections of points and lines inclined to both the reference planes including HT and VT.
- Projections of right regular solids (cube, prism, pyramid, cylinder and cone) inclined to both HP and VP (excluding spheres, hollow and composite solids).
- Development of surface (excluding reverse development)

3. Sections :

Section of solids (cube, prism, pyramid, cylinder, cone) cut by plane perpendicular to at-least one reference plane (excluding curved cutting planes).

4. Orthographic projections :

- Multi-view orthographic projections of simple machine parts by first angle method as recommended by Indian standards.
- Sectional view of simple machine parts (full section and half section only).
- Reading of orthographic projections (missing views).

5. Isometric projections :

Isometric projections/drawing of blocks (plain and cylindrical excluding spheres)

6. Engineering Curves :

Parabola, Ellipse, Hyperbola, Cycloid and Involutés

Free hand sketches of fasteners

Thread profile – IS conventions of external and internal threads, drilled hole, blind hole and tapped hole.

Bolts, Nuts, Set screws,

Foundation bolts and locknuts.

Recommended Books :

- Elementary Engineering Drawing (*N. D. Bhatt*) Charotar Publishing House.
- Mastering AutoCAD, (*G. Omura by Sybers*) (Autodesk Press), Wiley India.
- Understanding AutoCAD (*Shah Tiekou*) Autodesk Press, Wiley India.
- Machine Drawing (*N. D. Bhatt*) Charotar Publishing House.
- Engineering Drawing (*M. B. Shah and B. C. Rana.*)
- Engineering Graphics with Auto-Cad 2007 by (*James D. Bethune*) 1st Edition, Pearson Education.

