

For Notes, Syllabus, Question Papers and Many more
32033 MACHINE DRAWING

DETAILED SYLLABUS

Unit I SECTIONAL VIEWS

Review of sectioning – Conventions showing the section – symbolic representation of cutting plane- types of section – full section, half section, offset section, revolved section, broken section, removed section – section lining.

Unit II LIMITS, FITS AND TOLERANCES

Tolerances – Allowances – Unilateral and Bilateral tolerances. Limits – Methods of tolerances – Indication of tolerances on linear dimension of drawings – Geometrical tolerances – application – Fits – Classifications of fits – Selection of fits – examples

Unit III SURFACE TEXTURE

Surface texture – importance – controlled and uncontrolled surfaces – Roughness – Waviness – lay – Machining symbols

Unit IV KEYS, SCREW THREADS AND THREADED FASTENERS

Types of fasteners – temporary fasteners – keys – classification of keys – Heavy duty keys – light duty keys. Screw thread – Nomenclature – different types of thread profiles – threads in sections – threaded fasteners – bolts – nuts – through bolt – tap bolt, stud bolt – set screw – cap screws – machine screws – foundation bolts

Unit V MANUAL DRAWING PRACTICE

Detailed drawings of following machine parts are given to students to assemble and draw the Elevations / Sectional elevations / Plan / and Side views with dimensioning and bill of materials

1. Sleeve & Cotter joint
2. Knuckle joint
3. Screw Jack
4. Foot step bearing
5. Plummer Block
6. Universal Coupling
7. Simple Eccentric
8. Machine Vice
9. Protected type flanged coupling

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10. Swivel bearing.

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Books:

- 1) Machine Drawing, P.S. Gill, Katsan Publishing House, Ludiana
- 2) A Text book of Engineering Drawing, R.B. Gupta, Satya Prakasan, Technical India Publications, New Delhi
- 3) Mechanical Draughtsmanship, G.L. Tamta, Dhanpat Rai & Sons, Delhi
- 4) Geometrical and Machine Drawing, N.D. Bhatt, Cheroter book stalls, Anand, West Railway
- 5) Engineering Drawing, D.N. Ghose, Dhanpat Rai & Sons, Delhi