

AMSE10 ELEMENTS OF MACHINE DRAWING

UNIT-1 LIMITS

- 1.1 Fits & tolerances: IS 919 code, cylindrical fits, tolerance symbols,
- 1.2 Standard preferred sizes and fits,
- 1.3 Hole based dimensioning, symbology for form,
- 1.4 Location and run out, tolerancing for position, concentricity, location, roundness, perpendicularity and runout.

UNIT-2 DRAWINGS OF JOINTS

- 2.1 Welded joints, types,
- 2.2 Welding symbols, drawing of welded machine parts with details of welding.
- 2.3 Brackets, blocks, base plate and crank shaft.
- 2.4 Pipe joints: Coupler joints, nipple joints, union,
- 2.5 Socket and spigot, integral flanged joints and hydraulic joints.

UNIT-3 SCREWED FASTENINGS

- 3.1 Screw thread forms, vee and square threads,
- 3.2 Conventional representation of threads,
- 3.3 Hexagonal headed bolt and nut, square headed bolt,
- 3.4 Nut locking arrangements,
- 3.5 Various types of machine screws and set screws,
- 3.6 Foundation bolts, lock bolt with square head, ray bolt and Lewis foundation bolt.
- 3.7 Cotter and Pin joints: socket and spigot joints,
- 3.8 Gib and cotter joint for rectangular rods, sleeve and cotter joints, and knuckle joint.

References Books:

1. N.D.Bhatt :Machine Drawing, Charotar Publishing House,Anand
2. P.I. Varghese & K.C.John : Machine Drawing
3. P.S. Gill : Geometric Drawing, Kataria & Sons, Ludhiana
4. Parkinson : First year engineering Drawing, Pitman, London
5. K.R.Hert : Engineering Drawing with problems and solutions, ELBS