

AMPT05 THEORY OF PRINTING MACHINES

UNIT-1 FLUCTUATING LOADS AND STRESS CONCENTRATION

- 1.1 Reduction of stress concentration effect.
- 1.2 Fluctuating stress, endurance limit, noten sensitivity.

UNIT-2 CAMS AND FOLLOWERS:

- 2.1 Types of cams and followers, analysis of motion,
- 2.2 Determination of cam profiles, followers for cams with specified contours

UNIT-3 KINEMATICS LINKAGES AND LEVERS

- 3.1 Classification of linkage systems, study of typical kinematics systems used in machines.

UNIT-4 GEARS

- 4.1 Spur and helical gears, Terminology, types, selection criteria, tooth form, strength of teeth, minimum number of teeth, formative number of teeth, applications.
- 4.2 Worm and bevel gears: Terminology, strength, applications. Rack and Pinion, Ratchet and Pawl arrangements, gear trains, applications.
- 4.3 Metrology of cams, gear, screw thread, their measurement methods.
- 4.4 Synthesis of mechanisms, Geneva mechanism, intermittent mechanism.

UNIT-5 POWER TRANSMISSION DEVICES

UNIT-6 MACHINE DRAWINGS

- 6.1 Drawing of complete drive for printing machine.
- 6.2 Specification for fits, tolerances and materials.
- 6.3 Miscellaneous drawings of spur, helical and bevel gears etc.

UNIT-7 INTRODUCTION TO COMPUTER AIDED DESIGN.

References Books:

1. Thomas Bearn, The theory of Machine CBS Publisher and Distributors Delhi.
2. Anthony Esposito and J. Rober Thrower Machine Design II edition
3. Joseph E. Shigley, John Vickev Theory of Machine & Mechanisms McGraw Hill International Boom company.