THEORY OF MACHINES

-: By

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(YOUTUBE) Channel

- 3-Points [ways to making Easy Life]

1. Have some Patience
2. कुछ बर्दाश्त करना है।
3. बहुत कुछ नजरअंदाज करना है।

- Syllabus [Gate, Ese, ISRO, DRDO, BARC....]
  ↓
  TOM

Kinematics of machines

Kinetics (dynamics) of machine

Mechanical Vibrations

1. Simple Mechanism
2. Motion Analysis
   - → Velocity Analysis
     - I-centre method
     - Relative velocity method
   - → Acceleration Analysis
3. Gears
4. Gear Trains
5. Governors
6. Motion Analysis of single-slider crank Mechanism
7. Flywheels
8. Balancing
9. Gyroscope

- Mechanical Vibrations
- CAM & FOLLOWERS

Mechanical Engineering

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Engg. of Mechanics

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Study of Motion (DYNAMICS)

(kinematics) ↓ ↓ (Kinetics)

Study of motion without considering the Basic case of motion i.e. Force

$\vec{V} = \frac{d\vec{s}}{dt}$

$\vec{a} = \frac{d\vec{V}}{dt}$

$\vec{j} = \frac{d\vec{a}}{dt}$

Study of motion with the Considering the basic cause of motion i.e. force

Dynamics Viscosity (μ) → $\frac{N\text{-}s}{m^2}$

Kinematic Viscosity (ν) = $\frac{\mu}{\rho}$

$= \frac{m^2}{s}$

- Text Book
  - → S.S. Rattan
  - → Prof V.P. Singh

- Reference Book (For Teachers)
  - → Shigley
  - → Norton
  - → Thomas Beven

- Weightage of TOM :→

GIATE → Min 8 marks from TOM

ESE

↳ Prelims : (22-30) Questions of TOM
(150 Total Questions)

↳ Mains : min. 125 marks of TOM
(300 marks of Paper-II)

After Learning Concepts