

# AS124 MECHANICS - I (3-0-0)

## Statics

### MODULE - I (Force Analysis)

Principles of Statics, Equilibrium of concurrent forces in a plane, Plane Trusses: Method of Joints, Method.

### MODULE II - (Centre of Gravity)

Centre of Parallel Forces in a plane, Centre of gravity, Centroids of composite Plane Figures, Centroids of curves, Distributed force in a plane.

## Dynamics

### MODULE - III (Kinematics)

Rectilinear Translation: Kinematics of rectilinear motion, Principles of dynamics, Differential equation of rectilinear motion, Force as a function of time, Force proportional to displacement,

### MODULE - IV

D'Alembert's Principles, Momentum and Impulse, Work and Energy, Conservation of Energy, Impact