MOHANLAL SUKHADIA UNIVERSITY, UDAIPUR
SECOND YEAR   B. Sc. MATHEMATICS   2016-17

PAPER – III
MECHANICS

Duration: 3 Hours   **Max. Marks: 75**

UNIT – I
Equilibrium of bodies under three or more forces, Friction, common category.

UNIT –II
Virtual work, Projectile on inclined plane and Impact.

UNIT – III
Velocity and Accelerations (Tangential, normal, radial, transversal), Rectilinear motion, Hooke's law and motion of horizontal and vertical strings.

UNIT –IV
Constrained motion (circular and cycloidal), motion under resisting medium (resistance varies as velocity and square of velocity).

UNIT –V

Fluid pressure and thrust on immersed plane surfaces. Center of pressure.

References:

1. S. L. Loney   : Statics, Macmillan and Company,London.
2. R.S. Verma   : A Text book of Statics (Pothishala)
3. Ray & Sharma   : A Text book of Hydrostatics
4. N.Sharma   : A Text book of Dynamics.
5. M Ray   : A Text book of Dynamics.
6. Bhargava & Agrawal   : Gati Vigyan
7. Gokhroo, Saini   : Uchch Gati Vigyan
8. Gokhroo & Others   : Hydrostatics(Hindi Ed.)
9. Gokhroo & Others   : Statics (Hindi Ed.)
10. Bhargava & Others   : Hydrostatics (Hindi Ed.)
11. Bhargava & Others   : Statics (Hindi Ed.)