D.B.F. Dayanand College of Arts and Science, Solapur

COURSE OUTCOME

Name of Department: **Physics**

B.A. / B.Sc. / M.A. / M.Sc.: **B.Sc.**		
NAME OF SUBJECT: **Physics**		
SEM I / II / III / IV / V / VI : **Sem-I**		
COURSE NUMBER (PAPER NUMBER): **Paper I**		
TITLE OF COURSE (NAME OF PAPER): **Mechanics and Properties of Matter**		
COURSE CONTENT	OBJECTIVES	OUTCOME
Moment of Inertia Review of M.I., Moment of Inertia of 1) Circular disc 2) Rectangular lamina 3) Spherical Shell 4) Fly wheel.	To understand the concept of Moment of Inertia and to calculate moment of inertia of various rigid bodies	Student understood the important concepts of Moment of Inertia. The students are able to calculate moment of inertia of various rigid bodies.
Pendulums Introduction, Theory of compound pendulum, Bar pendulum, Kater's Pendulum, Bassel's Theory, Bifilar pendulum (parallel suspensions of equal lengths), Torsional Pendulum.	To understand theory of compound pendulum. To study various pendulums like Bar pendulum, Kater's Pendulum, Bifilar pendulum, Torsional Pendulum.	Students understood the working theory of compound pendulum. Students are successfully able to understand theory of various pendulums like Bar pendulum, Kater's Pendulum, Bifilar pendulum, Torsional Pendulum.
Elasticity Introduction, Equivalence of shear strain to compression and extension strains, Relation between elastic constants, Poisson's ratio of rubber tube (Theory and experimental method)	To understand the concept of elasticity. To study elastic constant and relation between them. To study the Poisson's ratio of rubber tube.	Students understood the concept of elasticity. Students understood the relation between elastic constants. Students also studied the theory and experimental method to study Poisson's ratio.

Surface Tension Review of S.T., relation between excess pressure and surface tension, excess pressure inside a liquid drop and soap bubble, Jaeger's method to determine Surface Tension, Factors affecting Surface Tension, Applications of Surface Tension.	To understand the concept of surface tension. To understand relation between excess pressure and surface tension, excess pressure inside a liquid drop and soap bubble. To study the factors affecting Surface Tension and Applications of Surface Tension.	Students understood the concept of surface tension. Students understood the relation between excess pressure and surface tension, excess pressure inside a liquid drop and soap bubble. Students understood the factors affecting Surface Tension and Applications of Surface Tension.
Viscosity and Fluid dynamics Introduction, Newton's law of viscosity, streamline and turbulent flow, Critical velocity and Reynolds number, Equation of continuity, Energy possessed by liquid, Poiseuille's equation, Bernoulli's theorem and its applications to 1) Venturimeter 2) Automiser. Factors Affecting on viscosity.	To understand the concept of Viscosity and Fluid dynamics. To understand Energy possessed by liquid, Poiseuille's equation, Bernoulli's theorem and its applications.	Students understood concept of Viscosity and Fluid dynamics. To understand Energy possessed by liquid, Poiseuille's equation, Bernoulli's theorem and its applications.

Signature of HOD