Shree Swami Vivekanand Shikshan Sanstha Kolhapur,

DATTAJIRAO KADAM ARTS, SCIENCE AND COMMERCE COLLEGE, ICHALKARANJI

Class: B.Sc I

Paper: Mechanics II

Course Outcomes:

Topic No.1 Gravitation

1. *Student should* understand the basic laws of gravitation such as Newton's law of motion, Keplar*'s laws of planetary motion*
2. *Student* understand the geosynchronous orbit, *weightlessness, also* the motion of satellite in circular orbit and *expression for velocity and time period satellite*
3. *Student Should* understand the various applications of GPS and to know various applications of GPS in industrial, navigation and military areas
4. Student should acquire a skill to utilize the GPS system in everyday life problems

Topic No.*2 Oscillations*

1. Student should know the basic concepts of SHM, free oscillations, damped oscillations and forced oscillations and also about energy of SHM
2. Student should understand the differential equation and solution of SHM, damped and forced oscillations
3. Student should recognize the applications of SHM, damped and forced oscillations in real life
4. Student should solve for the solutions and describe the behavior of a damped and forced oscillations

Topic No.*3 Elasticity*:

1. Student should know about the basic concepts of elasticity, bending moment, torsional oscillations, and modulus of rigidity
2. Student should understand the elastic properties of matter and expression for bending of beam with applications as a cantilever
3. Student should understand torsional oscillations and the expression for torsional couple per unit twist
4. Student should determine the modulus of rigidity(η), Young's modulus(Y) and Poission's ratio(σ) by Searle's

Topic No.*4 Surface Tension*

1. Student should understand the concept of surface tension and its relation with the excess of pressure and radius of curvature
2. Student should understand the concept of angle of contact, wettability
3. Student should know about different applications of surface tensioin in everyday life
4. Student should solve the examples based on surface tension