**SARASWATI MAHILA MAHAVIDYALAYA,PALWAL**

SESSION:**2021-22**

**LESSON PLAN** Sem : Even

Name of faculty : Ms. Amrita Agrawal Class : BA-III

Designation : Assistant Professor in Maths Subject : Dynamics

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| **Sr.No.** | **Topics/chapters** | **Lectures** | **Topics of assignment/test** |
| 1. | Velocity and acceleration along radial, transverse, tangential and normal directions. Relative velocity and acceleration. Simple harmonic motion. Elastic strings. | Lect 1 to Lect 20 | Test of Elastic strings. |
| 2. | Mass, Momentum and Force. Newton’s laws of motion. Work, Power and Energy. Definitions of Conservative forces and Impulsive forces. | Lect 21 to Lect 40 | Assignment of Newton’s laws of motion. Work, Power and Energy. |
| 3. | Motion on smooth and rough plane curves. Projectile motion of a particle in a plane. Vector angular velocity. | Lect 41 to Lect 60 | Assignment of Projectile motion of a particle in a plane. |
| 4. | General motion of a rigid body. Central Orbits, Kepler laws of motion. Motion of a particle in three dimensions. Acceleration in terms of different co-ordinate systems. | Lect 61 to Lect 80 | Test of Kepler laws of motion. |