**Dr. BhimRao Ambedkar Govt. College Jagdishpura (Kaithal)**

**Lesson Plan: (from 08 January, 2024 to 30 April, 2024)**

N**ame of Assistant professor: Sonia**

**Class and Section: B. SC/B.A. III (Even Sem)**

**Subject: Dynamics**

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| Week | Topic |
| Jan-2 | Introduction about Syllabus |
| Jan-3 | Basic definitions |
| Jan-4 | Velocity and acceleration along Radical and transverse Direction |
| Feb-1 | Velocity and acceleration along tangential and normal Direction |
| Feb-2 | Introduction about Simple Harmonic Motion |
| Feb-3 | Examples related S.H.M. |
| Feb-4 | Elastic Strings |
| Feb-5 | Test and Query |
| March-1 | Mass and Momentum |
| March-2 | Force and continue |
| March-3 | Newton’s law of motion |
| April-1 | Introduction about Work and Power and Energy |
| April-2 | Examples related Work and Power and Energy |
| April-3 | Definition of conservative forces and impulsive forces |
| April-4 | Revision. |

**Signature**

**Department of Mathematics, G.C. Kaithal**

**Dr. BhimRao Ambedkar Govt. College Jagdishpura (Kaithal)**

**Lesson Plan: (from 08 January, 2024 to 30 April, 2024)**

N**ame of Assistant professor: Sonia**

**Class and Section: M. SC F**

**Subject: MM-509 (opt. i)**

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| **DATES** | **LESSON PLAN** |
| **WEEK-2nd of January** | Introduction, Two dimensional problems: Plane strain and Plane stress, |
| **WEEK-3rd of January** | Generalized plane stress, Airy stress function, Boundary conditions |
| **WEEK-4th of January** | Goursat formula, General solution of biharmonic equation, Stress and displacements in terms of complex potentials. The structure of functions |
| **WEEK –5th of January** | First and second Boundary value problems in plane elasticity. Existence and uniqueness of the solutions Tests and Problems taken |
| **WEEK-1st of February** | Propagation of Waves in an isotropic elastic solid medium ,Waves of dilatation and distortion |
| **WEEK-2nd of February** | Plane Waves, Elastic surface waves: Rayleigh waves and love waves |
| **WEEK -3rd of February** | Extension: Extension of beams, Bending of beams by own weight and terminal couples |
| **WEEK-4th of February** | Torsion: Torsion of cylindrical bars; Torsional rigidity. Torsion and stress function |
| **WEEK -1st of March** | Line of shearing stress. Torsion of anisotropic beams; simple problems related to circle, ellipse and equilateral triangle |
| **WEEK-2nd of March** | Assignments and problems taken |
| **WEEK- 3rd of March** | Variational methods: Theorem on minimum potential energy. |
| **WEEK –1st of April** | . Theorem of minimum complementary energy. Reciprocal theorem |
| **WEEK-2nd of April** | Deflection of elastic string central line of a beam and elastic memberane |
| **WEEK-3rd of April** | Solution of Euler Equation |
| **WEEK-4th of April** | Assignment and test taken |

**Signature**

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