

# PANIPAT INSTITUTE OF ENGINEERING & TECHNOLOGY

## Department of Mechanical Engineering

Faculty Name: - Mr. Abhishek Sharma

Subject Name: -MOS-I

Year/Semester: 2<sup>nd</sup> /3<sup>rd</sup>

Subject Code: -MEC-203A

### LESSON PLAN

1	L1	Force, Types & Characteristics of forces	01-09-2021
2	L2	Resolution of forces & Laws of equilibrium	02-09-2021
3	L3	Free body diagrams	07-09-2021
4	L4	Lami's Theorem	08-09-2021
5	L5	M.O.I. of various Shapes	09-09-2021
6	L6	Numerical Practices M.O.I.	14-09-2021
7	L7	Hook's Law, Polson's ratio	15-09-2021
8	L8	Stress-Strain Diagram of Mild Steel	16-09-2021
9	L9	Elastic constants & their relationships, Derivations	21-09-2021
10	L10	Thermal Stresses & Strain in simple	22-09-2021
11	L11	compound bars under axial loading	23-09-2021
12	L12	Two dimensional systems	28-09-2021
13	L13	Stresses on an Inclined Plane	29-09-2021
14	L14	Principal Stresses	30-09-2021
15	L15	Principal Strains	05-10-2021
16	L16	Mohr's circle of Construction Procedure	06-10-2021
17	L17	Types of Loads and Beams	07-10-2021
18	L18	General Equations for SFD and BMD	19-10-2021
19	L19	SFD and BMD of UDL	20-10-2021
20	L20	SFD and BMD of Combined Loads	21-10-2021
21	L21	SFD & BMD of UVL	26-10-2021
22	L22	Derivation of equation of torsion,	27-10-2021
23	L23	Solid and hollow circularshafts, tapered shaft,	28-10-2021
24	L24	Stepped shaft & composite circular shafts,	02-11-2021
25	L25	Theory of simple bending	03-11-2021
26	L26	Assumptions, derivation ofequation of bending,	09-11-2021
27	L27	Neutral axis, Determination of bending stresses, section modulus of rectangular & circular (solid & hollow)	10-11-2021
28	L28	Bending Stresses on I,T, Angle, channel sections, composite beams,	11-11-2021
29	L29	Shear stresses in beams with derivation	23-11-2021
30	L30	Shear stress distribution across various beam sections	24-11-2021
31	L31	Combined bending and torsion, equivalent torque	25-11-2021
32	L32	Introduction to the column under axial load, concept of instability and buckling,Slenderness ratio	30-11-2021
33	L33	Derivation of Euler's formula for crippling load for columns of different ends	01-12-2021
34	L34	Concept of equivalent length	02-12-2021
35	L35	Rankine formulae for axial and eccentric loading	07-12-2021
36	L36	Introduction to the slope and deflection	08-12-2021
37	L37	Relationship between bending moment, slope & deflection, momentarea method, method of integration	09-12-2021
38	L38	Macaulay's method	12-12-2021

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(COURSE INCHARGE)