

LESSON PLAN WINTER - 2021

SUBJECT- STRENGTH OF MATERIAL SEM-3RD BRANCH- MECHANICAL ENGG.

SL NO	DATE	CHAPTER	TOPIC NAME	NO OF PERIODS
1	1.10.2021	1.0 Simple stress & strain	Types of load, stresses & strains,(Axial and tangential)	1
2	5.10.2021		Hooke's law, Young's modulus, bulk modulus, modulus of rigidity, Poisson's ratio,	1
3	8.10.2021		derive the relation between three elastic constants,	1
4	9.10.2021		Principle of super position, stresses in composite section	1
5	16.10.2021		Problem Practice	1
6	22.10.2021		Temperature stress, determine the temperature stress in composite bar (single core)	1
7	23.10.2021		Problem Practice	1
8	26.10.2021		Problem Practice	1
9	27.10.2021		Strain energy and resilience, Stress due to gradually applied, suddenly applied and impact load	1
10	29.10.2021		Problem Practice	1
11	30.10.2021	2.0 Thin cylinder and spherical shell under internal pressure	Definition of hoop and longitudinal stress, strain	1
12	2.11.2021		Derivation of hoop stress, longitudinal stress	1
13	3.11.2021		hoop strain, longitudinal strain and volumetric strain	1
14	5.11.2021		Problem Practice	1
15	6.11.2021		Problem Practice	1
16	9.11.2021		Computation of the change in length, diameter and volume	1
17	10.11.2021		Problem Practice	1
18	12.11.2021		Problem Practice	1
19	13.11.2021	3.0 Two dimensional stress system	Determination of normal stress, shear stress and resultant stress on oblique plane	1
20	16.11.2021		continued	1
21	17.11.2021		continued	1
22	20.11.2021		Location of principal plane and computation of principal stress	1
23	23.11.2021		Problem Practice	1
24	24.11.2021		Location of principal plane and computation of principal stress and	1
25	26.11.2021		Problem Practice	1
26	27.11.2021		Problem Practice	1
27	30.11.2021	4.0 Bending moment & shear force	Types of beam and load	1
28	1.12.2021		Concepts of Shear force and bending moment	1
29	3.12.2021		Shear Force and Bending moment diagram and its salient features illustration in cantilever beam,	1
30	4.12.2021		Problem Practice	1
31	7.12.2021		Problem Practice	1
32	8.12.2021		simply supported beam under point load and uniformly distributed load	1
33	10.12.2021		Problem Practice	1
34	11.12.2021		over hanging beam under point load and uniformly distributed load	1

35	14.12.2021		Problem Practice	1
36	15.12.2021		Problem Practice	1
37	17.12.2021		Problem Practice	1
38	18.12.2021	5.0 Theory of simple bending	Assumptions in the theory of bending,	1
39	21.12.2021		Bending equation,	1
40	22.12.2021		Moment of resistance, Section modulus & neutral axis.	1
41	24.12.2021		Problem Practice	1
42	25.12.2021		Problem Practice	1
43	28.12.2021		Problem Practice	1
44	29.12.2021		Problem Practice	1
45	31.12.2021	6.0 Combined direct & bending stresses	Define column, Axial load, Eccentric load on column	1
46	1.01.2022		stresses. Numerical problems	1
47	4.01.2022		Problem Practice	1
48	5.01.2022		Buckling load computation using Euler's formula for Columns with various end conditions	1
49	7.01.2022		Problem Practice	2
50	8.01.2022	7.0 Torsion	Assumption of pure torsion	1
51	11.01.2022		The torsion equation for solid and hollow circular shaft	2
52	12.01.2022		Comparison between solid and hollow shaft subjected to pure torsion	1
53	15.1.2022		Problem Practice	2
54	18.01.2022		Problem Practice	2
55	19.1.2022		Problem Practice	2

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