

**LESSON PLAN.**

**Academic Session :- 2022-23**

**Subject :-STRENGTH OF MATERIAL , Subject code - Th-2**

**Total Period :- 6**

**Teacher :-** SUBHASINI MUDULI (PTGF, MECHANICAL ENGINEERING

**Theory :- 4p/week**

**SEMESTER:-3rd**

SL NO	MO NTH	Week	DATE	UNIT NO/PERIOD ALLOTTED	Syllabus to be covered	Syllabus actually covered	Short fall	Signature
1	S E P T E M B E R	4TH	19/09/22	1.1/1p	1) - <b>SIMPLE STRESS AND STRAIN</b> - INTRODUCTION.,Types of load , Define stress and strain,Stress and Strain diagram for ductile and brittle material	COVERED	NILL	
2		4TH	21-09-22	1.1/2p	Types of stress and strain , Hooke's law,Define young's modulus , modulus of rigidity , Bulkmodulus ,Define poission's ratio and derieve relation between young's modulus,modulus of rigidity,bulk modulus and poission's ratio	COVERED	NILL	
3		4TH	24-09-22	1.1/1p	Derive the relation between three elastic constant	COVERED	NILL	
4		5TH	26-09-22	1.2/1p	principle of super position ,stress in composite section	COVERED	NILL	
5		5TH	28-09-22	1.2,1.3	problems related superposition,Tremperature stress and derieve the deformation and strain due to it	COVERED	NILL	
6	O C T O B E R	1ST	1-10-22	1.3/1p	etermine the temperature stress in composite bar	COVERED	NILL	
7		2ND	10-10-22	1.4/1p	Define strain energy and Resilience and Establish the formulae associated with it,	COVERED	NILL	
8		3RD	12-10-22	1.4/2p	Determine stress due to gradually applied load , suddenly applied load and impact load	COVERED	NILL	
9		3RD	15-10-22	2.1/1p	2) THIN CYLINDER AND SPHERICAL SHELL UNDER INTERNAL PRESSURE - Definition of hoop and longitudinal stress, strain	COVERED	NILL	
10		3RD	17-10-22	2.2/1p	Derieve Hoop stress and Longitudinal stress for thin cylinder	COVERED	NILL	
11		4TH	19-10-22	2.2/2p	Derieve Hoop strain, Longitudinal strain and Volumetric strain,Numericals on thin cylinder and spherical shell under internal pressure	COVERED	NILL	
12		4TH	22-10-22	2.3/1p	Computation of change in length , diameter and volume for thin cylinder	COVERED	NILL	
13		5TH	26-10-22	2.4/2p	Numericals on thin cylinder and spherical shell under internal pressure	COVERED	NILL	
14	5TH	29-10-22	2.4/1p	Numericals on thin cylinder and spherical shell under				
15	N	1ST	2-11-22	3.1/2p	3) Two dimensional stress systems-Determination of	COVERED	NILL	
16		1ST	5-11-22	3.2/1p	Location of principal plane	COVERED	NILL	
17		2ND	7-11-22	3.2/1p	Location of principal plane	COVERED	NILL	
18		2ND	9-11-22	3.2/2p	computation of principal stress	COVERED	NILL	

19	N O V E M B E R	2ND	12-11-22	3.3/1p	Location of principal plane and computation of	COVERED	NILL	
20		3RD	14-11-22	3.3/1p	computation of principal stress and	COVERED	NILL	
21		4TH	16-11-22	3.3/2p	Maximum shear stress using Mohr's circle	COVERED	NILL	
22		4TH	19-11-22	4.1/1p	4) Bending moment & shear force -Types of beam and load	COVERED	NILL	
23		4TH	21-11-22	4.2/1p	bending moment	COVERED	NILL	
24		4TH	23-11-22	4.2/2p	bending moment	COVERED	NILL	
25		5TH	26-11-22	4.3/1p	Shear Force and Bending moment diagram and its	COVERED	NILL	
26	5TH	28-11-22	4.3/1p	simply supported beam	COVERED	NILL		
27	1ST	30-11-22	4.3/2p	over hanging beam under point load and uniformly				
28	D E C E M B E R	1ST	3-12-22	4.3/1p	over hanging beam under point load and uniformly distributed load			
29		2ND	5-12-22	4.3/1p	over hanging beam under point load and uniformly			
30		2ND	7-12-22	5.1/2p	5) Theory of simple bending			
31		2ND	10-12-22	5.2/1p	Bending equation, Moment of resistance			
32		3RD	12-12-22	5.2/1p	section modulus			
33		3RD	14-12-22	5.2/2p	neutral axis.			
34		3RD	17-12-22	5.3/1p	simple problems.			
35		4TH	19-12-22	5.3/1p	simple problems.			
36		4TH	21-12-22	5.3/2p	simple problems.			
37		4TH	24-12-22	6.1/1p	6) Combined direct & bending stresses- Define column			
38		5TH	26-12-22	6.2/1p	Axial load, Eccentric load on column,			
39		5TH	28-12-22	6.3/2p	Direct stresses, Bending stresses, Maximum &			
40		5TH	31-12-22	6.4/1p	Buckling load computation using Euler's formula (no			
41		J A N U A R Y	1ST	2-01-23	6.4/1p	Buckling load computation using Euler's formula (no		
42	1ST		4-01-23	7.1/2p	7) Torsion -. Assumption of pure torsion			
43	1ST		7-01-23	7.2/1p	The torsion equation for solid shaft			
44	2ND		9-01-23	7.1/1p	The torsion equation hollow circular shaft			
45	2ND		11-01-23	7.2/2p	Comparison between solid and hollow shaft subjected			
46	2ND		14-01-23	revisio	Revision			
47	3RD		16-01-23	revisio	Revision			
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Subhasini Moduli