ACADEMIC SESSION: 2023-24 (Winter-2023)

Discipline : Mechanical Engineering			Semester : 3rd	Name of the Teaching Faculty : Baneswar Munda Designation: Workshop Superintendent
Subject : Strength of Material			Semester From date: 01/08/2023 to 30/11/2023	
SL NO.	**DATE**	**CHAPTER**	**THEORY TOPIC NAME**	**NO.OF PERIODS**
1	1.08.23	**1.Simple Stress and Strain.**	Types of load, stresses & strains,(Axial and tangential)	1
2	2.08.23		Hooke's law, Young's modulus, bulk modulus, Poisson's ratio	1
3	4.08.23		Derivation of the relation between three elastic constants.	1
4	5.08.23		Principle of superposition	1
5	7.08.232		stresses in composite section	1
6	8.08.23		Temperature stress, determination of the temperature stress in composite bar(single core)	1
7	10.08.23		Strain energy and resilience, Stress due to gradually applied, suddenly applied	1
8	11.08.22		Stress due to suddenly applied load and impact load	1
9	14.08.22		Numericals on above topic.	1
10	17.08.23	**2.Thin Cylinder and Spherical shell under internal pressure.**	Thin cylinder and spherical shell and its use	1
11	18.08.23		Definition of hoop stress and strain, longitudinal stress, strain	1
12	21.08.23		Derivation of hoop stress, hoop strain	1
13	22.08.23		Derivation of longitudinal stress and strain	1
14	24.08.23		Derivation of volumetric strain	1
15	25.08.23		Computation of the change in length, diameter and volume	1
16	28.08.23		Simple Numericals on above	1
17	29.08.23	**3.Two Dimensional Stress System.**	Determination of normal stress on oblique plane.	1
18	31.08.23		Determination of shear stress on oblique plane.	1
19	01.09.23		Determination of resultant stress on oblique plane	1

	06.11.23	**6.Combined direct and bending stress.**	Maximum& Minimum stresses on column subjected to stress	1
42	07.11.23		Buckling load computation using Euler's formula (no derivation) in various end conditions	1
43	10.11.23		Numerical problems on above.	1
44	13.11.23	**7.Torsion.**	Assumption of pure torsion	1
45	16.11.23		The torsion equation for solid shaft	1
46	17.11.23		The torsion equation for hollow circular shaft	1
47	23.11.23		Comparison between solid and hollow shaft subjected to pure torsion	1
48	24.11.23		Revision of whole subject	1
49	30.11.23		Revision of whole subject	1
			TOTAL CLASS	49

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HOD 31.7.23
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31/7/23
Academic Coordinator