LESSON PLAN-2022		
SWAMI VIVE KANANDA SCHOOL OF ENGINEERING & TECHNOLOGY, BBSR		
DISCIPLINE- MECHANICAL	SEMESTER- 3RD	NAME OF THE FACULTY: Mr. Ranjan Kumar Mohanty
SUBJECT-STRENGTH OF MATERIAL	NO. OF CLASS ALLOTED/ PER WEEK-5	SEM. From date:15.9.2022 to 22.12.2022 No. of weeks:15TH
WEEK	CLASS DAY	THEORY TOPIC
1ST	15.09.2022	Simple stress and strain
	16.09.2022	Types of load, stress & strain(Axial and tangential) Hooke's law
	17.09.2022	Young's modulus, bulk modulus, modulus of rigidity
2ND	19.09.2022	Poission ratio, derive the relation bvetween three elastic constants
	20.09.2022	Principal of super position, stresses in composite section
	21.09.2022	Temperature stress, determine the temperature sress in composite bar(single
	22.09.2022	Strain energy and resilience, stress due to gradully applied
	23.09.2022	Suddenly applied and impact load, simple problems on above
3RD	26.09.2022	DO
	27.09.2022	ASSIGNMENT
	28.09.2022	Thin cyclinder and spherical shell under internal pressure
	30.09.2022	Definition of hoop and longitudinal stress, strain
4TH	6.10.2022	Derivation of hoop stress, longitudinal stress, hoop strain
	7.10.2022	longitudinal strain and volumetric strain
5TH	10.10.2022	Computation of the change in length, diameter and volume
	11.10.2022	Simple problems on above
	13.10.2022	DO
	15.10.2022	Two dimensional stress systems
6TH	17.10.2022	Determination of normal stress, shear stress and resultant stress on oblique
	18.10.2022	Location of principal plane and computation of principal stress
	20.10.2022	Location of principal plane and computation of principal stress
	21.10.2022	Maximum shear stress using Mohr's circle
7TH	26.10.2022	DO
	27.10.2022	Bending moments and shear force
	28.10.2022	Types of beam and load
	29.10.2022	Concepts of shear force and bending moment
8TH	1.11.2022	Shear force and bending moment diagram and its salient features illsstration
	2.11.2022	simply supported beam and over hanging beam under point loa s &
	4.11.2022	DO
	5.11.2022	Theory of simple bending
9TH	7.11.2022	Assumptions in the theory of bending
	9.11.2022	Bending equation, moment of resistance, section modulus and neutral axis
	10.11.2022	Solve simple problems.
	11.11.2022	DO
10TH	14.11.2022	DO
	16.11.2022	Combined direct and bending stresses
	18.11.2022	Define column, Axial load, Eccentric load on column

	21.11.2022	Direct stresses, bending stresses, maximum and minimum stresses
	23.11.2022	Numerical problems on above
11TH	25.11.2022	Bucking load computaion using Euler's formula (no derivation) in Columns with various end conditions
	28.11.2022	DO
	30.11.2022	DO
12TH	2.12.2022	Torsion
13TH	6.12.2022	Assumption of pure torsion
	8.12.2022	The torsion equation for solid and hollow circular shaft
14TH	13.12.2022	Comparison between solid and hollow shaft subjected to pure
	16.12.2022	DO
15TH	19.12.2022	DO
	22.12.2022	ASSIGNMENT

HOD SIGN
PRINCIPAL SIGN