

LESSION PLAN

Discipline :Mechanical engineering		Semester : 3RD		Name of the Teachnig Faculty : Mrs LOPAMUDRA SWAIN	
Subject: Strength Of Materials	No. of days/Per weeks Class	Semester :3rd		No.of Weeks : 4	
Weeks	Alloted Weeks	Theory			
3rd week(Sep-2022)	1st	Simple stress& strain , Types of load, stresses & strains,(Axial and tangential) Hooke's Law			
	2nd	Types of load, stresses & strains,(Axial and tangential) Hooke's Law			
	3rd	Young's modulus, bulk modulus, modulus of rigidity			
	4th	Temperature stress, determine the temperature stress in composite bar (single core)			
4th week	1st	Temperature stress, determine the temperature stress in composite bar (single core)			
	2nd	Poisson's ratio, derive the relation between three elastic constants			
	3rd	Principle of super position, stresses in composite section			
	4th	Strain energy and resilience, Stress due to gradually applied, suddenly applied and impact load			
2nd week (Oct-2022)	1st	Simple problems on above, Thin cylinder and spherical shell under internal pressure			
	CLASS TEST -1				
	2nd	Definition of hoop and longitudinal stress, strain, Derivation of hoop stress, longitudinal stress, hoop strain			
	3rd	Computation of the change in length, diameter and volume, longitudinal strain and volumetric strain			
3rd week	4th	Two dimensional stress systems ,Determination of normal stress, shear stress and resultant stress on oblique plane			
	1st	Determination of normal stress, shear stress and resultant stress on oblique plane			
	2nd	Location of principal plane and computation of principal stress			
	3rd	Location of principal plane and computation of principal stress and Maximum shear stress using Mohr's circle			
4th week	4th	Location of principal plane and computation of principal stress and Maximum shear stress using Mohr's circle			
	1st	Bending moment& shear force			
	2nd	Types of beam and load			
	3rd	Types of beam and load			
1st week (Nov -2022)	4th	Concepts of Shear force and bending moment			
	1st	Shear Force and Bending moment diagram and its salient features			
	2nd	Illustration of SFD & BMD in cantilever beam, simply supported beam			

