

SYNERGY POLYTECHNIC, BBSR

The Lesson Plan

Discipline: <i>Mechanical</i>	Semester: <i>2nd</i>	Name of the Teaching Faculty: <i>Abhishek Sathpathy</i>
Subject: <i>COM</i>	No of Days/per week class	Semester from Date: <i>15.9.2022</i> to Date: _____ No of Weeks: _____
Week	Class Day	Theory/Practical Topics
1st	1st	its salient features
	2nd	illustration in cantilever beam, simply supported beam and over hanging beam under point load and uniformly distributed load
	3rd	DO
	4th	Assumptions in the theory of bending,
	5th	DO
2nd	1st	Bending equation, Moment of resistance, Section modulus & neutral axis.
	2nd	DO
	3rd	Define column
	4th	DO
	5th	Axial load, Eccentric load on column
3rd	1st	Direct stresses, Bending stresses
	2nd	Maximum & Minimum stresses
	3rd	DO
	4th	Numerical problems on above.
	5th	DO
4th	1st	Buckling load computation using Euler's formula
	2nd	Columns with various end conditions
	3rd	DO
	4th	DO
	5th	Assumption of pure torsion
5th	1st	DO
	2nd	DO
	3rd	The torsion equation for solid and hollow circular shaft
	4th	Comparison between solid and hollow shaft subjected to pure torsion
	5th	DO

15/1/19
Sign of Faculty

SAW
15/1/19
HOD

Abhishek
Principal

SYNERGY POLYTECHNIC, BBSR

The Lesson Plan

Discipline:	Semester:	Name of the Teaching Faculty:	No of
Mechanical	3 rd	Ashutosh Sapatthy	
Subject:	No of Days/per week class	Semester from Date:	No of
SOM	05	15.9.2022 to Date:	
Week	Class Day	Theory/Practical Topics	
1st	1st	Types of load, stresses & strains HOOKE'S	
	2nd	law, Young's modulus, bulk modulus modulus of rigidity,	
	3rd	Poisson's ratio,	
	4th	DO	
	5th	derive the relation between three elastic constants,	
2nd	1st	Principle of super position, stresses in composite section	
	2nd	DO	
	3rd	Temperature stress, determine the temperature stress in composite bar (single core)	
	4th	Strain energy and resilience, Stress due to gradually applied	
	5th	suddenly applied and impact load	
3rd	1st	Definition of hoop and longitudinal stress, strain Derivation of hoop stress, longitudinal stress, hoop strain,	
	2nd	longitudinal strain and volumetric strain	
	3rd	DO	
	4th	DO	
	5th	Computation of the change in length, diameter and volume Determination of normal stress, shear stress and resultant stress on oblique plane	
4th	1st	DO	
	2nd	DO	
	3rd	Location of principal plane and computation of principal stress	
	4th	DO	
	5th	DO	
5th	1st	Location of principal plane and computation of principal stress and Maximum shear stress using Mohr's circle	
	2nd	DO	
	3rd	Types of beam and load	
	4th	Concepts of Shear force and bending moment	
	5th	Shear Force and Bending moment diagram	

AS 13.9.22
Sign of Faculty

ASW
13.9.
HOD

Principal