Discipline:- Civil Engg | Semester:- 3rd | Name of the teaching faculty:- P. Padhi

Subject:- Structural Mechanics | No. of days/per week class allotted:- | Semester from:- 01/10/21 to | No. of weeks:- 1st

Weeks	class day	Theory / Practical Topics
	1st	
27/09/21	2nd	
to	3rd	
02/10/21	4th	
	5th	Basic Principle of Mechanics
	6th	← Gandhi Jayanti →
	1st	Support Condition, Equillibrium Condn
04/10/21	2nd	C.G of different Section
to	3rd	MI of different Section, free body diagram
9/10/21	4th	Introduction of stress & strain
	5th	Mechanical properties of materials
	6th	Mechanical properties of material
11/10/21	1st	
to	2nd	
16/10/21	3rd	
	4th	Durga puja
	5th	
	6th	
	1st	
18/10/21	2nd	Types of strains & stress
to	3rd	← Kumar purnima →
23/10/21	4th	Computation of stress, strain
	5th	Computation of stress, strain
	6th	change in dimension & volume in case of stress & strain.

Weeks	class days	Theory/Practical Topics
	1st	Hook's law - Elastic constant
25/10/21	2nd	stress strain Relationship Zone.
to	3rd	Derivation of relation between the
30/10/21	4th	elastic constant
	5th	Numerical of stress & strain
	6th	Numerical of stress & strain
	1st	Application of simple stress & strain
01/11/21	2nd	Behaviour of ductile & Brittle material
to	3rd	stress-strain Curve
06/11/21	4th	← Diwali →
	5th	limitation of proportionality
	6th	% age of elongation & reduction in area or area of cross-section
	1st	Definition of prismatic bar.
08/11/21	2nd	Due to uniaxial loading of self weight
to	3rd	Numerically of application of stress
13/11/21	4th	& strain
	5th	principle of stress & strain
	6th	Mohr's circle & its Application
	1st	← Last Monday of Kartika →
15/11/21	2nd	Numericals of Complex stresses
to	3rd	stress in beam due to bending
20/11/21	4th	shear stress in beam
	5th	← Rahas Purnima →
	6th	stress in shaft due to torsion
		Combined bending & direct stresses.

Weeks	class days	Theory/Practical Topics
	1st	Columns & struct. End Conditions
22/11/21	2nd	Equivalent length, slenderness ratio
to	3rd	Euler's theory & Numericals
27/11/21	4th	S.F & B.M. Types of load & Types
	5th	Types of beam, equilibrium Condition
	6th	← Prathamastami →
	1st	Sing Convention of SF & BM
29/11/21	2nd	Cantilever beam with point load & UDL
to	3rd	Numerically
04/12/21	4th	Simply supported beam with point load & UDL
	5th	Numericals
	6th	overhanging beam with point load & UDL
	1st	Point of contraflexure & Relation between
06/12/21	2nd	intensity of load, SF & BM.
to	3rd	Numericals
11/12/21	4th	Slope & deflection, elastic curvature
	5th	Relation between slope, deflection, curve
	6th	Importance of slope & deflection
		Numericals
	1st	Slope & deflection of cantilever & simply
13/12/21	2nd	under Concentrated load & UDL
to	3rd	Numericals of double integration method
18/12/21	4th	← Last Thursday of Margasira →
	5th	Macaulay's method
	6th	Numericals of slope & deflection

Weeks	Class Days	Theory/ Practical Topics
20/12/21	1st	Numericals of slope & deflection
to	2nd	Numericals of slope & deflection
25/12/21	3rd	Indeterminacy in beams.
	4th	Principle of consistent deformation
	5th	Analysis of propped cantilever
	6th	← X-mas Day →
	1st	fixed & two span continuous beam
	2nd	by principle of super position
27/12/21	3rd	S.F & B.M diagram point load & udl
to	4th	Numerical of indeterminate beam
01/01/22	5th	Numericals of indeterminate beam
	6th	← New Year →
	1st	Truss, type of truss, advantages,
03/01/22	2nd	statically determinate & indeterminate tru
to	3rd	Stable & unstable truss
08/01/22	4th	Degree of determinancy
	5th	Numericals of trusses
	6th	Numericals of trusses