

PADMASHREE KRUTARTHA ACHARYA INSTITUTE OF  
ENGINEERING & TECHNOLOGY, BARGARH



LESSON PLAN  
Session-2022-2023

Discipline: civil Engg. Semester: 3<sup>rd</sup>

Name of the Teaching Faculty: Dilip Kumar Meher

Subject: SM No. of Days/per week class allotted 04

Semester From Date: 15/9/2022 To Date: 22/12/2022 No. of Weeks: 15

Week	Class Day	Theory /Practical Topics
1	1	Force, moment, Support conditions, Equilibrium
	2	CG, MI, FBD
	3	CG of different sections
	4	MI of different sections
2	5	Mechanical properties of materials
	6	stress, Types of stress
	7	Strain, types of strain
	8	Poisson's ratio, Hooke's law
3	9	Elastic constants & relationship between them
	10	stress & strain diagram
	11	Percentage elongations
	12	Reduction in area of cross-section, Uniaxial load

  
Signature of the Faculty

Subject: \_\_\_\_\_ No. of Days/per week class allotted \_\_\_\_\_

Semester From Date : \_\_\_\_\_ To Date : \_\_\_\_\_ No. of Weeks : \_\_\_\_\_

Week	Class Day	Theory /Practical Topics
4	13	Deformation of prismatic bar
	14	Principal stress & strain, Normal & tangential stress
	15	Principal planes, Major & minor principal stress
	16	Mohr's circle
5	17	Solve problems
	18	Bending stress in beams, Theory of simple bending
	19	Moment of resistance Equation of flexure
	20	Flexural rigidity, stress (shear) distribution in beam, rectangular section
6	21	Circular section, Concept of torsion
	22	Torsion of solid & hollow sections
	23	Polar moment of Inertia
	24	Combination of stresses

  
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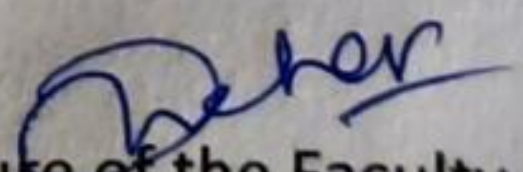
Week	Class Day	Theory /Practical Topics
7	25	Column & struts
	26	Short & Long Columns, End conditions
	27	Euler's theory of long columns
	28	SF. & BM, Types of loads
8	29	Types of supports
	30	Shear force diagrams
	31	Bending moment diagrams
	32	Types of reactions
9	33	Point loads & UDL
	34	Cantilever beam
	35	Simply supported beam
	36	Overhang beams,

  
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Semester From Date : \_\_\_\_\_ To Date : \_\_\_\_\_ No. of Weeks : \_\_\_\_\_

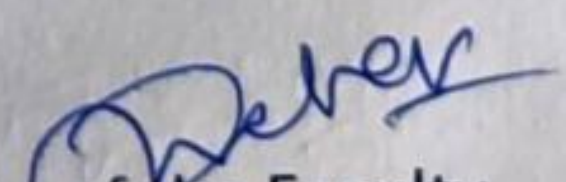
Week	Class Day	Theory / Practical Topics
10	37	Position of maximum BM Point of Contraflexure
	38	Relation between intensity of loads, SF & BM
	39	slope & deflections
	40	Deflection curve
11	41	Relation between slope, deflection & curve
	42	Importance of slope & deflection
	43	slope & deflection of cantilever
	44	Point load, UDL
12	45	Simply supported beam,
	46	Indeterminate beams
	47	Indeterminacy of beams
	48	Principle of consistent deformation

  
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Semester From Date : \_\_\_\_\_ To Date : \_\_\_\_\_ No. of Weeks : \_\_\_\_\_

Week	Class Day	Theory / Practical Topics
13	49	Analysis of propped cantilever
	50	SF & BM diagrams for beams
	51	Trusses
	52	Types of trusses
14	53	statically determinate
	54	Indeterminate truss
	55	Degree of indeterminacy
	56	stable truss
15	57	unstable truss
	58	Advantages of truss
	59	Problems of truss
	60	Problems on above

  
Signature of the Faculty