PADMASHREE KRUTARTHA ACHARYA INSTITUTE OF ENGINEERING & TECHNOLOGY, BARGARH

PROGRESS REGISTER

Session-2022-2023

Discipline: Mechanical Engg.

Semester: 3rd Subject: SM (Sect^n A)

Name of the Teaching Faculty: D. K. Meher

Subject: SM No. of Days/per week class allotted 4

Semester From Date : 15/9/22 To Date : 21/1/23 No. of Weeks : 15

Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
15/9	Types of load, Stress, Strain Hookes Law	Types of Load stresses, Hookes law	Load types, Stress, strain Hookes law	
16	Young's modulus Bulk modulus	Young's modulus Bulk modulus	Young's & Bulk modulus	
20	Mod. of rigidity Poission's Ratio	Mod. of rigidity Poission's Ratio	Mod. of rigidity Poissons ratio	
21	Relⁿ between three elastic constants	Relⁿ betⁿ three elastic Constants	Relⁿ betⁿ three elastic Constants	
22	Principle of Super Position	Principle of superposition	Principle of super position	
23	Tempʳ stress of Composite sectⁿ	Tempʳ. st. of Composite sectⁿ	Tempʳ. st. of composite sectⁿ	
27	Problems on above	Problems on above	Problems on above	
28	Strain energy, resilience, st. due to goadually applied load	Strain energy stress due to goadually applied load	Strain energy, resilience	
29	st. due to suddenly applied & impact load	st. due to suddenly & impact load	st. due to suddenly applied & impact load	
30	Simple problems	Simple problems	Simple problems	
11/10	Define hoop st. Longitudinal stress	Define hoop st. Longitudinal st.	Define hoop st. Longitudinal st.	

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Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
12	Derivation of hoop & Longitudinal st.	Derivation of hoop & Longitudinal	- Hoop St. - Longitudinal st.	
13	Volumetric Strain	Volumetric Strain	Volumetric Strain	
14	Longitudinal Strain	Longitudinal Strain	Longitudinal Strain	
18	Workout Some Problem	Workout Some Problem	Simple Problem as above	
19	Computatn of Change in length	Computatn of Change in length	Computatn of Change in length	
20	Change in dia. & volume	Change in dia. & volume	Change in dia & volume	
21	Simple Problems	Simple Problems	Simple Problems	
26	Determinatn of normal & Sh. St.	Determinatn of normal & Sh. Stress	Determinatn of normal & Sh. Stress	
27	Resultant st. on oblique plane	Resultant st. on oblique plane	Resultant st. on oblique plane	
28	Resultant Stress determinatn	Resultant St. determinatn	Resultant st. determinatn	
1/11	Principal plane	Principal plane	Principal plane	

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

Semester From Date : 15/9/22 To Date : 21/1/23 No. of Weeks : 15

Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
2	Computatn of Principal st.	Computatn of Principal stress	Principal stress	
3	Simple Problems	Simple Problems	Simple Problems	
4	Locatn of Principal plane	locatn of Principal plane	Locatn of Principal plane	
9	Principal st.	Principal st.	Principal st.	
10	Max. st. using Mohr's circle	Mohr's circle	Mohr's circle	
11	Simple Problem	Simple Problem	Simple Problem	
15	Types of beam & loads	Types of beam & loads	Types of beam & loads	
17	Concept of SF & BM	Concept of SF & BM	Concept of SF & BM	
18	SFD & BMD	SFD & BMD	SFD & BMD	
22	Salient features of SF & BM	Salient Features of SF & BM	Salient features of SF & BM	
23	Cantilever beam with Pt. load	Cantilever beam with Pt. load	Cantilever beam with Pt. load	

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

Semester From Date : 15/9/22 To Date : 21/1/23 No. of Weeks : 15

Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
24	Cantilever beam with UDL	Cantilever beam with UDL	Cantilever beam with UDL	
25	Simply supported beam with pt. load	Simply supported beam with pt load	Simply supported beam with pt. load	
29	Simply supported beam with UDL	Simply supported beam with UDL	Simply supported beam with UDL	
30	Overhang beam with pt load	Overhang beam with pt load	Overhang beam with pt load	
1/12	Overhang beam with UDL	Overhang beam with UDL	Overhang beam with UDL	
2/	Explain simple bend^g	Explain simple bend^g	Explain simple bend^g	
6	Theory of simple bend^g	Theory of simple bend^g	Theory of simple bend^g	
7	Bend^g eq^n	Bend^g Eq^n	Bend^g Eq^n	
8	Simple Problems	Simple Problems	Simple Problems	
9	Moment of resistance	Moment of resistance	Moment of resistance	
13	Sect^n modulus & neutral axis	Sect^n modulus & neutral axis	Sect^n modulus & neutral axis	

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

Semester From Date : 15/9/22 To Date : 21/1/23 No. of Weeks : 15

Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
14	Posit^n of neutral axis	Posit^n of neutral axis	Posit^n of neutral axis	
15	Simple Problems	Simple Problems	Simple Problems	
16	Section modulus (Z)	Section modulus (Z)	Section modulus (Z)	
20	Problems on above	Simple Problems	Simple Problems	
21	Define Columns	Define Columns	Define Columns	
22	Axial load, Eccentric load on Columns	Axial load, Eccentric load on Columns	Axial load Eccentric load	
23	Direct Stress Bending Stress	Direct Stress Bending Stress	Direct Stress Bending Stress	
27	max^n and min^n stress	max^n and min^n Stress	max^n and min^n Stress	
28	Simple Problems	Simple Problems	Simple Problems	
29	Euler's formula	Euler's formula	Euler's formula	
30	Explain Torsion	Explain Torsion	Explain torsion	

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

Semester From Date : 15/9/22 To Date : 21/1/23 No. of Weeks : 15

Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
3/1	Assumption for Pure torsion	Assumption for Pure torsion	Assumption for Pure torsion	
4	Solid and hollow shaft	Solid and hollow shaft	Solid and hollow shaft.	
5	Simple Problems	Simple Problems	Simple Problems	
6	Comparision bet Solid and hollow shaft	Comparision bet Solid and hollow shaft	Comparision bet Solid and hollow shaft	
10	Problems on above	Problems on above	Problems on above.	