

# PADMASHREE KRUTARTHA ACHARYA INSTITUTE OF ENGINEERING & TECHNOLOGY, BARGARH



## PROGRESS REGISTER Session-2022-2023

Discipline: Mechanical Engg.

Semester: 3rd

Subject: \_\_\_\_\_












SM (sectn A)

Name of the Teaching Faculty: \_\_\_\_\_












D.K. Meherg

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 Hooke's Law	Types of Load stresses, Hooke's Law	Load types, Stress, strain Hooke's Law	
16	Young's modulus Bulk modulus	Young's modulus Bulk modulus	Young's & Bulk modulus	
20	Mod. of rigidity Poisson's Ratio	Mod. of rigidity Poisson's Ratio	Mod. of rigidity Poisson's ratio	
21	Rel <sup>n</sup> between three elastic constants	Rel <sup>n</sup> bet <sup>n</sup> three elastic constants	Rel <sup>n</sup> bet <sup>n</sup> three elastic constants	
22	Principle of Super position	Principle of Super position	Principle of Super position	
23	Temp <sup>r</sup> stress of Composite sect <sup>n</sup>	Temp <sup>r</sup> st. of Composite sect <sup>n</sup>	Temp <sup>r</sup> st. of Composite sect <sup>n</sup>	
27	Problems on above	Problems on above	Problems on above	
28	Strain energy resilience, st. due to gradually applied load	Strain energy stress due to gradually 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	
12/10	Define hoop st. longitudinal stress	Define hoop st. longitudinal st.	Define hoop st. longitudinal st.	

Subject: SM No. of Days/per week class allotted 4Semester From Date : 15/9/22 To Date : 2/1/23 No. of Weeks : 15

Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
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 on above	
19	Computat <sup>n</sup> of change in length	Computat <sup>n</sup> of change in length	Computat <sup>n</sup> 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	Determinat <sup>n</sup> of normal & sh. st.	Determinat <sup>n</sup> of normal & sh. stress	Determinat <sup>n</sup> of normal & sh. stress	
27	Resultant st. on oblique plane	Resultant st. on oblique plane	Resultant st. on oblique plane	
28	Resultant stress determinat <sup>n</sup>	Resultant st. determinat <sup>n</sup>	Resultant st. determinat <sup>n</sup>	
1/11	Principal plane	Principal plane	Principal plane	




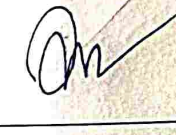

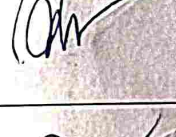



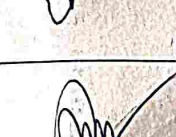

Subject: SM No. of Days/per week class allotted 04

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	Computat <sup>n</sup> of Principal st.	Computat <sup>n</sup> of Principal stress	Principal stress	
3	Simple Problems	Simple Problems	Simple Problems	
4	Locat <sup>n</sup> of Principal plane	locat <sup>n</sup> of Principal plane	Locat <sup>n</sup> of Principal plane	
9	Principal st.	Principal st.	Principal st.	
10	Max-st. using Mohor's circle	Mohor's circle	Mohor'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: 2/1/23 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	
2/1	Explain simple bend <sup>g</sup>	Explain simple bend <sup>g</sup>	Explain simple bend <sup>g</sup>	
6	Theory of simple bend <sup>g</sup>	Theory of simple bend <sup>g</sup>	Theory of simple bend <sup>g</sup>	
7	Bend <sup>g</sup> eq <sup>n</sup>	Bend <sup>g</sup> Eq <sup>n</sup>	Bend <sup>g</sup> Eq <sup>n</sup>	
8	Simple Problems	Simple Problems	Simple Problems	
9	Moment of resistance	Moment of resistance	Moment of resistance	
13	Cent <sup>r</sup> modulus of neutral axis	Cent <sup>r</sup> modulus of neutral axis	Cent <sup>r</sup> modulus of 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 <sup>n</sup> of neutral axis	Posit <sup>n</sup> of neutral axis	Posit <sup>n</sup> 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 Column	Define Column	Define Column	
22	Axial load, Eccentric load on Column	Axial load, Eccentric load on Column	Axial load Eccentric load	
23	Direct Stress Bending Stress	Direct Stress Bending Stress	Direct Stress Bending Stress	
27	max <sup>m</sup> and min <sup>m</sup> stress	max <sup>m</sup> and min <sup>m</sup> stress	max <sup>m</sup> and min <sup>m</sup> stress	
28	Simple Problems	Simple Problems	Simple Problems	
29	Euler's formula	Euler's formula	Euler's formula	
30	Explain Lossion	Explain Lossion	Explain Lossion	

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	Comparison bet <sup>n</sup> solid and hollow shaft	Comparison bet <sup>n</sup> solid and hollow shaft	Comparison bet <sup>n</sup> solid and hollow shaft	
10	Problems on above	Problems on above	Problems on above.	