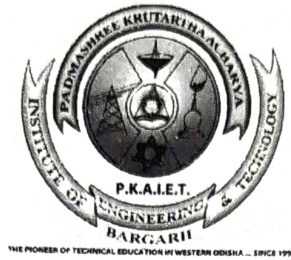


PADMASHREE KRUTARTHA ACHARYA INSTITUTE OF ENGINEERING & TECHNOLOGY, BARGARH



PROGRESS REGISTER Session-2021-2022

Discipline: Mechanical (sect.-A) Engg. Semester: 3rd

Name of the Teaching Faculty: Dillip Kumar Meher

Subject: SM (Section-A)No. of Days/per week class allotted 04Semester From Date : 01/10/2021 To Date : 04/02/2022 No. of Weeks : 24/15

Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
01/10/2021	Types of load, stress, strains, Hooke's law	Types of load, stresses, strains, Hooke's law	Load types, stress, strain, Hooke's law	<u>Deher</u>
7	Young's modulus Bulk modulus	Young's modulus Bulk modulus	Young's modulus Bulk modulus (derivations)	<u>Deher</u>
8	Modulus of rigidity Poisson's ratio	Rigidity modulus Poisson's ratio	Rigidity modulus Poisson's ratio (derivation)	<u>Deher</u>
9	Relation between three elastic constants	Relation between three elastic constant	Three elastic constant's relation (in details)	<u>Deher</u>
21	Principle of super position, stresses in Composite section	Principle of super position, stresses in Composite section	Principle of super position, stresses in Composite section calculation	<u>Deher</u>
22	Temperature stress Temperature stress of Composite bar	Temperature stress Temperature stress of Composite bar (Single bar)	Temperature stress, calculation of stress of Composite bar (Single core)	<u>Deher</u>
23	Problems on above	Simple problems on above	Carryout some problems	<u>Deher</u>
3/11/2021	strain energy, resilience, stress due to gradually applied load	strain energy, resilience, stress due to gradually applied load	strain energy, resilience, stress due to gradually applied load	<u>Deher</u>
4	stress due to suddenly applied & impact load	stress due to suddenly & impact applied load	Explain about suddenly & impact load due to stress	<u>Deher</u>
5	Simple problems	Simple problems	Carryout some simple problems with doubt clearing	<u>Deher</u>
6	Define hoop, longitudinal stress & strain	Define hoop, longitudinal stress & strain	Definition of hoop, longitudinal stress & strain	<u>Deher</u>

Subject: SM (Section-A) No. of Days/per week class allotted 04
 Semester From Date: 01/10/2021 To Date: 04/02/2022 No. of Weeks: 24

Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
10	Derivation of hoop & longitudinal stress	Derive hoop & longitudinal stress	-hoop stress -longitudinal stress (derivations)	Deher
11	Derivation of hoop & volumetric strain	Derivation of hoop, volumetric strain	hoop strain volumetric strain	Deher
12	Derivation of Longitudinal strain	Longitudinal strain & its related problem	Longitudinal strain Workout some related problems	Deher
13	Workout some problems	Simple problems on above	Simple problems on above	Deher
17	Computation of change in length	Computation of the length change	change in length (computation)	Deher
18	Computation of change in diameter & volume	change in diameter & volume (Computation)	change in diameter & volume computation	Deher
24	Simple problems on above	Simple problems on above	Simple problems on above	Deher
25	Determination of normal & shear stress	Determination of normal & shear stress	shear stress normal stress	Deher
26	Determination of resultant stress on oblique plane	Determination of resultant stress on oblique plane	Resultant stress on oblique plane	Deher
01/12/2021	Determination of resultant stress on oblique plane	Determination of resultant stress on oblique plane	Resultant stress on oblique plane	Deher
2	Location of principal plane	Principal plane location	Principal plane	Deher

Subject: SM (Section-A) No. of Days/per week class allotted 04

Semester From Date : 1/10/2021 To Date : 04/02/2022 No. of Weeks : 24

Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
3	Computation of Principal stress	Computation of principal stress	Principal stress	<i>Deher</i>
4	Simple workout problems	Simple workout problems	Simple workout problems	<i>Deher</i>
8 7	Location of Principal plane	Location of principal plane	Principal plane location	<i>Deher</i>
9 5	Computation of Principal stress	Computation of principal stress	Principal stress	<i>Deher</i>
10	Maximum stress using Mohr's circle (shear stress)	Maximum stress using Mohr's circle	Mohr's circle	<i>Deher</i>
11 7	Simple problems on above	Simple problems on above	Simple problems (Mohr's circle)	<i>Deher</i>
14 15	Types of beam & load	Types of beam & loads	Beam types & loads	<i>Deher</i>
15 16	Concept of SF & BM	Concept for SF & BM	SF & BM Concept	<i>Deher</i>
16 17	SF & BM diagrams	SF & BM diagrams	Diagrams for SF & BM	<i>Deher</i>
17 18	Salient features of SF & BM	Salient features of SF & BM	Salient features of SF & BM	<i>Deher</i>
18 22	Cantilever beam with point load (illustration)	Cantilever beam with point load (illustration)	Cantilever beam with point load	<i>Deher</i>

Subject: SM (Section - A)No. of Days/per week class allotted 04Semester From Date : 1/10/2021To Date : 04/02/2022 No. of Weeks : 24

Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
23 05/01/2022	Cantilever beam with UDL (illustration)	Cantilever beam with UDL	Cantilever beam (UDL)	<u>Deher</u>
24	Simply supported beam with Point load (illustration)	Simply supported beam with point load	Simply supported beam (Point load)	<u>Deher</u>
31	Simply supported beam with UDL (illustration)	Simply supported beam with UDL	Simply supported beam (UDL)	<u>Deher</u>
05/01/2022 8	Overhang beam with point load (illustration)	Overhang beam with point load	Point load of overhang beam	<u>Deher</u>
6	Overhang beam with UDL (illustration)	Overhang beam with UDL	UDL of overhang beam	<u>Deher</u>
7	Explain simple bending	Simple bending (explanation)	Simple bending	<u>Deher</u>
8	Assumption in theory of simple bending	Assumption in theory of simple bending	Theory of simple bending (assumptions)	<u>Deher</u>
12 20	Bending equation	Bending equation	Bending equation	<u>Deher</u>
13	Simple problems	Simple problems	Simple problems	<u>Deher</u>
15	Moment of resistance	Moment of resistance	Moment of resistance	<u>Deher</u>
19 27	Section modulus & neutral axis	Section modulus & neutral axis	Section modulus & neutral axis	<u>Deher</u>

Subject: SM (Section-A) No. of Days/per week class allotted 04

Semester From Date: 1/10/2021 To Date: 04/02/2022 No. of Weeks: 24

Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
20 28	Position of neutral axis	Position of neutral axis	Neutral axis position	Deher
21 29	Simple problems	Simple Problems	Simple Problems	Deher
22 02/02/2022	Section modulus (2)	Section modulus (2)	Section modulus (2)	Deher
27 3	Problems on above	Simple problems	Carryover some problems	Deher
28 4	Define column	Define Column	Column (Definition)	Deher
29	Axial load, Eccentric load on column	Axial load, Eccentric load on column	Axial load Eccentric load	Deher
02/02/2022 12	Direct stress Bending stress	Direct stress Bending stress	Direct stress Bending stress	Deher
3 11	Maximum & minimum stress	Maximum & minimum stress	Maximum & minimum stress	Deher
4 12	Some simple problems	Some simple problems	Some simple problems	Deher
9	Buckling load by Euler's formula with various end conditions	Buckling load by Euler's formula with various end conditions	Buckling load by Euler's formula with various end conditions	Deher
10	Explain torsion	Torsion explanation	Torsion	Deher

Subject: SM (Section-A) No. of Days/per week class allotted 04

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