

LESSON PLAN.

1ST SEMESTER W.E.F-25/10/2022 Total Period :- 56
 SUBJECT-ENGINEERING MECHANICS (Sub code-TH-4) Theory periods: 4 P/WEAKLY

Teacher :- ABHOY MOHANTA (PTGF, MECHANICAL ENGINEERING DEPT.)

SL NO	MO NTH	We ek	Date	UNIT NO/ PERIOD	Topic to be covered as per Syllabus	Topic actually covered as per Syllabus	Short fall if any/syllabus	rem arks
1	OCT	5TH	25/10/2022	14	Fundamentals. Definitions of Mechanics, Statics, Dynamics, Rigid Bodies,	COVERED	NIL	
2			26/10/2022		Force Force System. Definition, Classification of force system according to plane & line of action	COVERED	NIL	
3			28/10/2022		Characteristics of Force & effect of Force. Principles of Transmissibility & Principles of Superposition. Action & Reaction Forces & concept of Free Body Diagram.	COVERED	NIL	
4		6TH	31/10/2022		Resolution of a Force. Definition, Method of Resolution, Types of Component forces, Perpendicular components & non-perpendicular components.	COVERED	NIL	
5	NOV	1ST	1/11/2022		Composition of Forces. Definition, Resultant Force, Method of composition of forces, such as	COVERED	NIL	
6			2/11/2022		1.4.1 Analytical Method such as Law of Parallelogram of forces & method of resolution.	COVERED	NIL	
7			4/12/2022		. Graphical Method. Introduction, Space diagram, Vector diagram, Polygon law of forces.	COVERED	NIL	
8			2ND		7/11/2022	1.4.3 Resultant of concurrent, non-concurrent & parallel force system by Analytical & Graphical Method.	COVERED	NIL
9		9/11/2022			Moment of Force. Definition, Geometrical meaning of moment of a force, measurement of moment of a force	COVERED	NIL	
10		11/11/2022			its S.I units. Classification of moments according to direction of rotation, sign convention, Law of moments, Varignon's Theorem,	COVERED	NIL	
11		14/11/2022			its S.I units. Classification of moments according to direction of rotation, sign convention, Law of moments, Varignon's Theorem,	COVERED	NIL	
12		3RD	15/11/2022		its S.I units. Classification of moments according to direction of rotation, sign convention, Law of moments, Varignon's Theorem,	COVERED	NIL	
13			16/11/2022		Couple – Definition, S.I. units, measurement of couple, properties of couple	COVERED	NIL	
14			18/11/2022		Couple – Definition, S.I. units, measurement of couple, properties of couple	COVERED	NIL	
15			4TH	21/11/2022	EQUILIBRIUM 2.1 Definition, condition of equilibrium,	COVERED	NIL	
16		22/11/2022		Analytical & Graphical conditions of equilibrium for concurrent, non-concurrent & Free Body Diagram.	COVERED	NIL		
17		23/11/2022		Analytical & Graphical conditions of equilibrium for concurrent, non-concurrent & Free Body Diagram.	COVERED	NIL		
18		25/11/2022		Analytical & Graphical conditions of equilibrium for concurrent, non-concurrent & Free Body Diagram.	COVERED	NIL		
19	5TH	8	28/11/2022	2 Lamia's Theorem – Statement, Application for solving various engineering problems.	COVERED	NIL		
20			29/11/2022	2 Lamia's Theorem – Statement, Application for solving various engineering problems.	COVERED	NIL		
21			30/11/2022	2 Lamia's Theorem – Statement, Application for solving various engineering problems.	COVERED	NIL		

22	DEC	1ST	2/12/2022	2 Lamia's Theorem – Statement, Application for solving various engineering problems.			
23		2ND	5/12/2022	10	Definition of friction, Frictional forces, Limiting frictional force,		
24			6/12/2022		Definition of friction, Frictional forces, Limiting frictional force,		
25			7/12/2022		Coefficient of Friction.		
26			9/12/2022		Angle of Friction & Repose, Laws of Friction, Advantages & Disadvantages of Friction		
27		3RD	12/12/2022		Angle of Friction & Repose, Laws of Friction, Advantages & Disadvantages of Friction		
28			13/12/2022		Angle of Friction & Repose, Laws of Friction, Advantages & Disadvantages of Friction		
29			14/12/2022		Angle of Friction & Repose, Laws of Friction, Advantages & Disadvantages of Friction		
30			16/12/2022		Equilibrium of bodies on level plane – Force applied on horizontal & inclined plane (up & down).		
31		4TH	19/12/2022		Ladder, Wedge Friction.		
32			20/12/2022		Ladder, Wedge Friction.		
33		5TH	21/12/2022	14	CENTROID & MOMENT OF INERTIA 4.1 Centroid – Definition, Moment of an area about an axis, centroid of geometrical figures		
34			23/12/2022		such as squares, rectangles, triangles, circles, semicircles & quarter circles, centroid of composite figures.		
35			26/12/2022		such as squares, rectangles, triangles, circles, semicircles & quarter circles, centroid of composite figures.		
36			27/12/2022		such as squares, rectangles, triangles, circles, semicircles & quarter circles, centroid of composite figures.		
37			28/12/2022		such as squares, rectangles, triangles, circles, semicircles & quarter circles, centroid of composite figures.		
38			30/12/2022		such as squares, rectangles, triangles, circles, semicircles & quarter circles, centroid of composite figures.		
39		1ST	2/1/2023	such as squares, rectangles, triangles, circles, semicircles & quarter circles, centroid of composite figures.			
40	3/1/2023		such as squares, rectangles, triangles, circles, semicircles & quarter circles, centroid of composite figures.				
41	4/1/2023		such as squares, rectangles, triangles, circles, semicircles & quarter circles, centroid of composite figures.				
42	6/1/2023		Moment of Inertia – Definition, Parallel axis & Perpendicular axis Theorems. M.I. of plane lamina & different engineering sections.				

43	JAN	2ND	9/1/2023		Moment of Inertia – Definition, Parallel axis & Perpendicular axis Theorems. M.I. of plane lamina & different engineering sections.			
44			10/1/2023		Moment of Inertia – Definition, Parallel axis & Perpendicular axis Theorems. M.I. of plane lamina & different engineering sections.			
45			11/1/2023		Moment of Inertia – Definition, Parallel axis & Perpendicular axis Theorems. M.I. of plane lamina & different engineering sections.			
46			13/1/2023		Moment of Inertia – Definition, Parallel axis & Perpendicular axis Theorems. M.I. of plane lamina & different engineering sections.			
47	3RD	5	16/1/2023		Definition of simple machine, velocity ratio of simple and compound gear train, explain simple & compound lifting machine, define M.A, V.R. & Efficiency			
48			17/1/2023		State the relation between them, State Law of Machine, Reversibility of Machine, Self Locking Machine.			
49			18/1/2023		Study of simple machines – simple axle & wheel, single purchase crab winch & double purchase crab winch, Worm & Worm Wheel, Screw Jack.			
50			20/1/2023		Types of hoisting machine like derricks etc, Their use and working principle. No problems			
51	4TH	6	23/1/2023		Kinematics & Kinetics, Principles of Dynamics, Newton's Laws of Motion, Motion of Particle acted upon by a constant force, Equations of motion, De ₁ Alembert's Princip			
52			24/1/2023		Work, Power, Energy & its Engineering Applications, Kinetic & Potential energy & its application.			
53			25/1/2023		Momentum & impulse, conservation of energy & linear momentum, collision of elastic bodies, and Coefficient of Restitution.			
54			27/1/2023		Momentum & impulse, conservation of energy & linear momentum, collision of elastic bodies, and Coefficient of Restitution.			
55	5TH		30/1/2023		Momentum & impulse, conservation of energy & linear momentum, collision of elastic bodies, and Coefficient of Restitution.			
56			31/1/2023		Momentum & impulse, conservation of energy & linear momentum, collision of elastic bodies, and Coefficient of Restitution.			

Abhoy Mohanta

Standard with
Calculator

