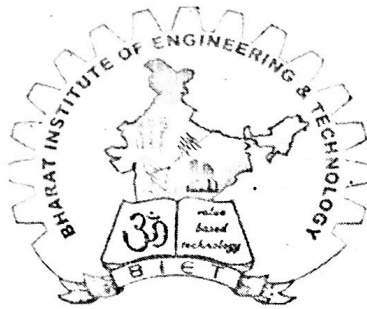


BHARAT INSTITUTE OF ENGINEERING & TECHNOLOGY

SIVARAM VIHAR, GHATAKESWAR HILLS
MOHADA, BERHAMPUR (GM.)



STUDENT'S ATTENDANCE REGISTER

Time	9.05	10.45	11.35	2.45	
Day	9.55	11.35	12.25	3.35	
Mon	Mech.				
Tue		Mech.			
Wed					
Thu			Mech.		
Fri				Mech.	
Sat					

Year/ Session : 2023 (winter)	Semester from Date: 18/08/23	To Date: 4/12/23
Semester & Branch	1st Sem	EEE
Subject with Code	Engineering	Mechanics Th-4
Name of the Faculty Member	Dharmendra	Kumar Sahu
No of Weeks: 15	No of Days per Week Class Allotted :	04

B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
August	3rd	18/08/23	<u>Ch-1</u> : Fundamentals of Engg. Mechanics • Def ⁿ of Mechanics • Statics & Dynamics • Rigid bodies
		19/08/23	force - Def ⁿ • force system & classification • Line of action ↳ Effects of force ↳ characteristics of force
	4th	21/08/23	Principle of Transmissibility of force Principle of Superposition Resultant force Composition of force
		22/08/23	Law of parallelogram of force
		24/08/23	Numericals of law of parallelogram of forces
		25/08/23	Action & Reaction; Tension & Compression; Concept of 'free body' diagram
		5th	28/08/23
	29/08/23		Types of force Components; Perpendicular & Non-perpendicular Components

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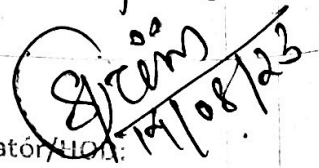
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B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
Sept.	1 st	31/08/23	Space diagram ; Vector diagram ; Polygon law of forces ;
		01/09/23	Moment of force ; Def ⁿ & Geometrical meaning ; S.I. units & measurements ;
		4/09/23	classification of moments ; Sign Convention ; Law of moments
		5/09/23	Varignon's theorem
		07/09/23	Couple - Definition ; S.I. units ; Properties ; Measurement
		08/09/23	Numericals on Resolution of force
	2 nd	11/09/23	Numericals on Resolution of force
		12/09/23	Numericals on moment of force
		<u>chapter - 2 :</u>	
		14/09/23	Equilibrium : Definition Cond ⁿ of equilibrium
		15/09/23	Analytical Conditions of equilibrium of Concurrent & Non-Concurrent forces

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B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic	
October	3 rd	18/09/23	Lami's theorem ; Statement & proof	
		21/09/23	Application of Lami's theorem for Solving various engineering problems	
		22/09/23	Numericals on Lami's theorem	
	4 th	25/09/23	<u>Chapter - 3 :</u> <u>Friction :</u> Definition ; Limiting frictional force ; Coefficient of friction	
			26/09/23	Angle of friction ; Angle of Repose ; Laws of friction ; Advantages & Disadvantages of friction
		28/09/23	Equilibrium of bodies when body moves up (or) down the inclined plane when force is applied along the inclined plane	
		1 st	03/10/23	Equilibrium of bodies when body moves up (or) down the inclined plane when force is applied horizontally
			05/10/23	Equilibrium of bodies when body moves up (or) down the inclined plane when force is applied at an angle to plane

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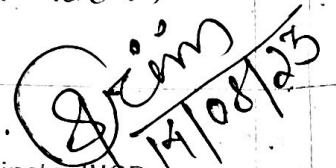
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B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic	
November	2 nd	06/10/23	Ladder friction	
		09/10/23	Ladder friction (Numericals)	
		10/10/23	Wedge friction	
		12/10/23	Wedge friction (Numericals)	
			<u>chapter - 4 :</u>	
		13/10/23	<u>Centroid</u> - Definition ; - Moment of an area about an axis ; - Centroid of geometrical figures	
	3 rd	16/10/23	Centroid of Composite figures ;	
		17/10/23	Numericals related to Centroid	
		19/10/23	<u>Moment of Inertia</u> - Definition ; - Parallel axis theorem - Perpendicular axis theorem	
		5 th	30/10/23	MI of Composite figures
			31/10/23	MI of Composite figures
	1 st		02/11/23	Numericals related to M.I
			03/11/23	Numericals related to M.I
		2 nd	<u>chapter - 5 - :</u>	
	6/11/23		Def ⁿ of Simple machine ; Velocity ratio of Simple gear train	

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 14/08/23

B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
		07/11/23	Def ⁿ of compound gear train
		09/11/23	Simple & compound lifting machines
		10/11/23	Def ⁿ of M.A., V.R., & Efficiency
	3 rd		Rel ⁿ bet ⁿ them
		13/11/23	Labels of Machine ; Reversibility of Machine ; Self-locking machine
		14/11/23	Simple axle & wheel ;
		16/11/23	Single purchase crab winch
		17/11/23	Double purchase crab winch
	4 th	20/11/23	Worm & worm-wheel
		21/11/23	Screw jack
		23/11/23	Hoisting machines like derricks ; Use & working principle
			<u>chapter-6-</u> : Dynamics
		24/11/23	Kinematics & Kinetics ; Equations of motion
	5 th	28/11/23	Principle of Dynamics ; Newton's laws of Motion ; De-Alembert's principle Motion of particle acted upon by a constant force.
		30/11/23	Work Power & Energy ; Kinetic & Potential Energy ; Its application

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 14/08/23

B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
December	1 st	01/12/23	Momentum & Impulse ; Conservation of Linear momentum
		04/12/23	Conservation of Energy ; Collision of Elastic bodies ; Coefficient of Restitution

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