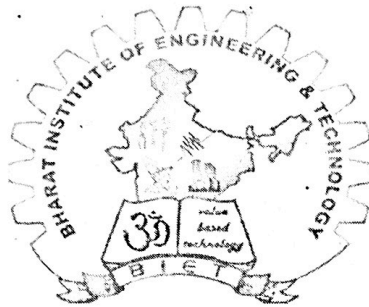


Engg. Mech - (Sec-E)

BHARAT INSTITUTE OF ENGINEERING & TECHNOLOGY

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



STUDENT'S ATTENDANCE REGISTER

Time	9:05	9:55	11:35		
Day	9:55	10:45	12:25		
Mon		✓			
Tue			✓		
Wed	✓				
Thu					
Fri					
Sat			✓		

Year/ Session : 2023 (winter)

Semester from Date: 16.8.23 To Date: 11.12.23

Semester & Branch

1st sem, ETC, Sec-E

Subject with Code

Engg. Mechanics (Th-4)

Name of the Faculty Member

Er. Ramkrushna Mohanty

No of Weeks: 15

No of Days per Week Class Allotted: 04

B.I.E.7., COURSE PLAN

Month	Week	Class Day	Topic
AUG			<u>CH-1</u> Fundamentals of Engg Mechanics.
	3 rd	19/08/23	Fundamentals. Definition of Mechanics. static, Dynamics, Rigid bodies.
	4 th	21/08/23	1.2. Definition of force, classifi- cation of force system, according to plane and line of action, characteristics and effects of force
		22/08/23	Principle of Transmissibility and Principle of Superposition, Action and reaction of force and concept of F.B.D.
		23/08/23	1.3. Resolution of force. Definition method of resolution. Types of component forces.

Signature of the Faculty:

Signature of the Principal/Course Co-ordinator/HOD:

 14.8.23

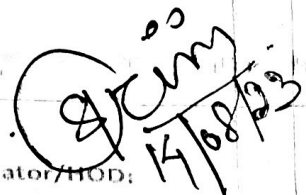
B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
AUG	4th	26/08/23	perpendicular and non perpendicular components.
	5th	28/08/23	1.4. Composition of forces. Definition, Resultant force Method of composition of force
		29/08/23	1.4.1. Analytical method such as Law of parallelogram of forces, and method of Resolution.
SEPT	1st	2/09/23	1.4.2. Graphical method. Introduction Space diagram, vector diagram polygon-law of forces.

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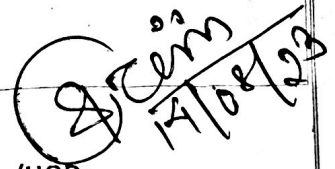
B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
SEPT		4/09/23	1.4.3. Resultant of concurrent non-concurrent and parallel force system by analytical and graphical method.
	2 nd	5/09/23	1.5 Moment of force. Definition geometrical meaning of moment of force. Measurement of moment of force and its S.I. unit
		9/09/23	classification of moments according to direction of rotation. sign convention. Law of moments.
	3 rd	11/09/23	Varignon's Theorem.
		12/09/23 13/09/23	couple, definition, S.I. units. Measurement of couple. properties of couple.

Signature of the Faculty:



Signature of the Principal/Course Co-ordinator/HOD:


 14/08/23

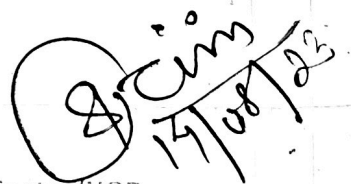
B.I.E.T. COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
SEPT.			<u>CH-2</u> <u>Equilibrium</u>
	3 rd	16/09/23 18/09/23	2.1. Definition, condition of equilibrium.
	4 th	23/09/23 25/09/23	Analytical and graphical cond ⁿ . of equilibrium for concurrent non-concurrent and F.B.D.
	5 th	26/09/23	2.2. Lami's Theorem. - Statement.
		27/09/23 30/09/23 3/10/23	Application for solving various engineering problems.

Signature of the Faculty:



Signature of the Principal/Course Co-ordinator/HOD:


 17/08/23

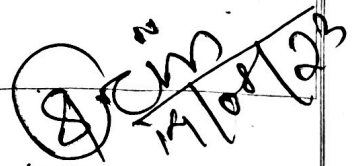
B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
			<p>CH-3</p> <p><u>Friction</u></p>
	1 st	4/10/23	3.1. Definition of friction. Frictional forces.
		7/10/23	Limiting frictional force coefficient of friction.
OCT	2 nd	9/10/23	Angle of friction and Repose Locus of friction.
		10/10/23	Advantage and disadvantage of friction.
	3 rd	11/10/23 16/10/23	3.2. Equilibrium of bodies on level plane - force applied on horizontal plane and inclined plane (up & Down).
		17/10/23	3.3. Ladders Friction,
		18/10/23	wedge Friction.

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Signature of the Principal/Course Co-ordinator/HOD:


 14/10/23

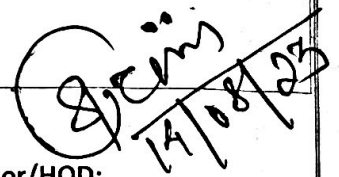
B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
NOV	4th		<p>CH-5</p> <p><u>Simple Machines.</u></p>
		20/11/23	<p>5.1. Definition - Simple machines. velocity ratio of simple and compound gear train. Explain simple and compound lifting machine</p>
		21/11/23	<p>Define M.A, V.R., efficiency and relation between them. State law of machine, Reversibility of machine. Self-locking machine</p>
		22/11/23	<p>5.2. Study of simple machines Simple axle and wheel. Single purchase crab winch. Double purchase crab winch</p>
25/11/23	<p>worm and worm wheel and screw jack.</p>		

Signature of the Faculty:



Signature of the Principal/Course Co-ordinator/HOD:


 14/08/23

B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
NOV	5th	28/11/23	5.3. Types of hoisting machines like derricks etc their use and working principle CH-6 <u>Dynamics</u>
		29/11/23	6.1. Kinematics, Kinetics, Principle of Dynamics, Newton's law of motion. Motion of particle acted upon by a constant force
DEC	2nd	4/12/23	Equation of motion, D'Alembert's principle

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Signature of the Principal/Course Co-ordinator/HOD:



14/08/23

B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory Practical Topic
DEC	2 nd	6/12/23	6.2. Work, power, Energy and its engineering applications. Kinetic and potential energy and its application.
	3 rd	9/12/23	6.3. Momentum and Impulse conservation of energy and linear momentum.
		11/12/23	collision of elastic bodies and coefficient of Restitution.

Pradyumna
14.8.23

Pradyumna
14/08/23

Signature of the Faculty:

Signature of the Principal/Course Co-ordinator/HOD: