PADMASHREE KRUTARTHA ACHARYA INSTITUTE OF ENGINEERING & TECHNOLOGY, BARGARH

LESSON PLAN

Session-2022-2023

Discipline: Elect/CSE/ Mett./ Civil/Mechanical Engg. Semester: 2nd

Subject: Engg. Mechanics

Name of the Teaching Faculty: Mr. Dillip Kumar Meher

Subject: EMS No. of Days/per week class allotted 4

Semester From Date : 20/3/23 To Date : 24/6/23 No. of Weeks : 15

Week	Class Day	Theory /Practical Topics
01	01	Defination of mechanics, statics, Dynamics
	02	Rigid bodies, force system
	03	Principle of transmissibility Super position
	04	Action & reaction force FBD
02	05	Resolution of force Method of resolution
	06	Components of force Perpendicular Components
	07	Resultant & Composition of force
	08	Laws of parallelogram of force
03	09	Space diagram Vector diagram
	10	Polygon laws of forces
	11	Resultant of Concurrent & non-concurrent force
	12	Moment of force Classification of force

Signature of the Faculty

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

Semester From Date : 20/3/23 To Date : 24/6/23 No. of Weeks : 15

Week	Class Day	Theory /Practical Topics
04	13	Laws of moments Varignon's theorem
	14	Couple, its unit
	15	Defination, conditions of equillibrium
	16	Equillibrium conditions for Concurrent force
05	17	Equillibrium conditions for non-concurrent force
	18	FBD
	19	Lami's theorem
	20	Lami's theorem (Derivation)
06	21	Problems
	22	Problems
	23	Defination of friction Frictional force
	24	C.O.F., Angle of friction Laws of friction

Signature of the Faculty

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

Semester From Date : 20/3/23 To Date : 24/6/23 No. of Weeks : 15

Week	Class Day	Theory /Practical Topics
07	25	Friction Advantages & disadvantages
	26	Equillibrium of bodies on level, horizontal & inclined plane
	27	Force applied on horizontal plane
	28	Force applied on inclined plane
08	29	Problems
	30	Ladder friction
	31	Wedge friction
	32	Problems
09	33	Centroid, Moment of an area about an axis
	34	Centroid of rectangle, triangle
	35	Centroid of square
	36	Centroid of Circle

Signature of the Faculty

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

Semester From Date : 20/3/23 To Date : 24/6/23 No. of Weeks : 15

Week	Class Day	Theory /Practical Topics
10	37	Centroid of semicircle quarter circle
	38	Centroid of Composite section
	39	Problems
	40	Defination of M.I.
11	41	Parallel axis theorem
	42	Perpendicular axis theorem
	43	M.I. of square, rectangle etc.
	44	M.I. of T-section, I-section etc.
12	45	M.I. of Z-section, L-section etc.
	46	Problems
	47	Defination of Simple & Compound m/c
	48	Compound gear train

Signature of the Faculty

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

Semester From Date : 20/3/23 To Date : 24/6/23 No. of Weeks : 15

Week	Class Day	Theory /Practical Topics
13	49	Simple & Compound Lifting m/c
	50	Defination of MA, VR & η Relation between them
	51	Laws of machine
	52	Study of wheel & Axle
14	53	Study of worm & Worm wheel
	54	Screw Jack
	55	Kinetics, Kinematics Newton's laws of motion
	56	De-Alembert Principle
15	57	Work, energy & Power
	58	KE, PE & their applications
	59	Momentum, Impulse Conservation of energy
	60	Collision of elastic bodies Coefficient of restitution

Signature of the Faculty