

LESSON PLAN-2019-20
SWAMI VIVEKANANDA SCHOOL OF ENGG & TECH, BBSR

BRANCH- MECHANICAL,CIVIL	Semester-2ND	NAME OF THE TEACHING FACULTY-RANJAN KUMAR MOHANTY
Subject- Mechanics	No class allotted/ per week -5	SEM From date- 02/01/20 TO 30/04/20 No of weeks- 19
Week	Class day	Theory Topics
1st	1/2/2020	Definitions of Mechanics,statics,dynamics,rigid bodies,mass,weight,length,time,scalar & vector,Fundamental
	1/4/2020	Force,definition of force & its units,Representation of force by vector,characterstics of force & effect of force.
	1/6/2020	Principle of Transmissibility
2nd	1/7/2020	Princile of Superposition
	1/9/2020	Action &Reaction forces & concept of free body diagram
	1/11/2020	Resolution of force definition,method of resolution
	1/13/2020	Types of component forces,perpendicular components & non perpendicular components.
	1/14/2020	Moment of a force Definition, Geometrical meaning of moment of a force, measurement of moment of a force & its S.I units. Classification of
3rd	1/16/2020	Law of moments, Varignon's Theorem, Couple – Definition, S.I. units,
	1/18/2020	measurement of couple, properties of couple
	1/20/2020	solved problems
	1/21/2020	solved problems
4th	1/23/2020	Force System,Definition, Classification of force system according to plane & line of action, Composition of Forces.Definition, Resultant Force
	1/25/2020	solved problems
	1/27/2020	solved problems
	1/28/2020	Graphical Method.Introduction, Space diagram, Vector diagram, Polygon law of forces. Resultant ofconcurrent, non-concurrent & parallel force
	1/30/2020	solved problems
5th	2/1/2020	solved problems

	2/3/2020	Definition, condition of equilibrium, Analytical conditions of equilibrium for concurrent, non-concurrent
	2/4/2020	solved problems
	2/6/2020	Graphical conditions of equilibrium for concurrent, non-concurrent
1st	2/8/2020	solved problems
2nd	2/10/2020	solved problems
	2/11/2020	Free Body Diagram.
	2/13/2020	Lami's Theorem – Statement, Application for solving various engineering problems.
	2/15/2020	solved problems
	2/17/2020	solved problems
3rd	2/18/2020	solved problems
	2/20/2020	Definition of friction, Frictional forces, Limiting frictional force, Coefficient of Friction.
	2/22/2020	Laws of Friction.
	2/24/2020	solved problems
	2/25/2020	Angle of Friction & Repose, Advantages & Disadvantages of Friction
4th	2/27/2020	Equilibrium of bodies on level plane – Force applied on horizontal & inclined plane (up & down).
	2/29/2020	solved problems
	3/2/2020	solved problems
	3/3/2020	solved problems
5th	3/5/2020	solved problems
	3/7/2020	Ladder
	3/9/2020	Wedge friction
	3/10/2020	Centroid – Definition, Moment of an area about an axis, centroid of geometrical figures.
	3/12/2020	solved problems

1st	3/14/2020	solved problems
	3/16/2020	centroid of composite figures.
	3/17/2020	solved problems
	3/19/2020	solved problems
	3/21/2020	solved problems
2nd	3/23/2020	Moment of Inertia – Definition, Parallel axis & Perpendicular axis Theorems.
	3/24/2020	solved problems
	3/26/2020	M.I. of plane lamina & different engineering sections.
	3/28/2020	INTERNAL EXAM
	3/30/2020	INTERNAL EXAM
4th	3/31/2020	M.I. of composite sections
	4/2/2020	solved problems
	4/4/2020	solved problems
	4/6/2020	solved problems
	4/7/2020	Definition of simple machine, velocity ratio of simple and compound gear train
5th	4/9/2020	simple & compound lifting machine, define M.A, V.R. & Efficiency & State the relation between them.
	4/11/2020	State Law of Machine. Reversibility of Machine, Self Locking Machine.
	4/13/2020	solved problems
1st	4/14/2020	solved problems
	4/15/2020	solved problems
2nd	4/16/2020	solved problems
	4/17/2020	Worm & Worm wheel
	4/18/2020	Screw jack

	4/20/2020	Define & Kinetics, State Principles of Dynamics, Newton's Laws of Motion,
	4/21/2020	Motion of Particle acted upon by a constant force.
3rd	4/22/2020	Equations of motion, De-Alembert's Principle
	4/23/2020	solved problems
	4/24/2020	Work, Power, Energy & its Engineering Applications, explain Kinetic & Potential energy & its application.
	4/25/2020	solved problems
	4/27/2020	Define Momentum & impulse, explain conservation of energy & linear momentum
4th	4/28/2020	explain collision of elastic bodies, and define Coefficient of Restitution
	4/29/2020	PROBLEM
5th	4/30/2020	Assignment