



4th Mech

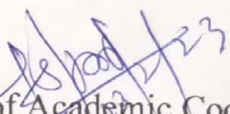
Discipline: MECHANICAL ENGG	Semester: 4 th	Name of the Teaching Faculty: MISS SHARMILA SABAR
Subject: THEORY OF MACHINES	No. of days/per week class allotted: 04	Semester From date: 14.02.2023 To Date: 23.05.2023 No. of Weeks: 15
Week	Class Day	Theory/Practical Topics
1 ST	1 ST	Simple mechanism : Link ,kinematic chain,
	2 ND	mechanism, machine
	3 RD	Inversion, four bar link mechanism
	4 TH	four bar link mechanism and its inversion
2 ND	1 ST	four bar link mechanism and its inversion
	2 ND	four bar link mechanism and its inversion
	3 RD	Lower pair and higher pair
	4 TH	Cam and followers
3 RD	1 ST	Friction : Friction between nut and screw for square thread, screw jack
	2 ND	screw jack, Bearing and its classification
	3 RD	Description of roller, needle roller& ball bearings
	4 TH	Torque transmission in flat pivot bearings.
4 TH	1 ST	Torque transmission in flat pivot bearings.
	2 ND	Torque transmission in conical pivot bearings.
	3 RD	Torque transmission in conical pivot bearings.
	4 TH	Flat collar bearing of single and multiple types.
5 TH	1 ST	Flat collar bearing of single and multiple types.
	2 ND	Torque transmission for single and multiple clutches
	3 RD	Working of simple frictional brakes.
	4 TH	Working of Absorption type of dynamometer
6 TH	1 ST	Power Transmission : Concept of power transmission
	2 ND	Type of drives, belt, gear and chain drive
	3 RD	Computation of velocity ratio, length of belts (open BELT)and without slip
	4 TH	length of belts (cross)with and without slip
7 TH	1 ST	Ratio of belt tensions, centrifugal tension and initial tension
	2 ND	Power transmitted by the belt
	3 RD	Determine belt thickness and width for given permissible stress for open and crossed belt considering centrifugal tension.
	4 TH	Determine belt thickness and width for given permissible stress for open and crossed belt considering centrifugal tension.
8 TH	1 ST	V-belts and V-belts pulleys., Concept of crowning of pulley
	2 ND	Gear drives and its terminology
	3 RD	Gear trains, working principle of simple, compound
	4 TH	reverted and epicyclic gear trains.
9 TH	1 ST	Governors and Flywheel Function of governor
	2 ND	Classification of governor
	3 RD	Working of Watt, Porter governor
	4 TH	Proel governors



Principal

10 TH	1 ST	Hartnell governors.
	2 ND	Conceptual explanation of sensitivity,
	3 RD	stability and isochronisms.
	4 TH	Function of flywheel.
11 TH	1 ST	Comparison between flywheel & governor
	2 ND	Fluctuation of energy and coefficient of fluctuation of speed.
	3 RD	Fluctuation of energy and coefficient of fluctuation of speed.
	4 TH	Fluctuation of energy and coefficient of fluctuation of speed.
12 TH	1 ST	Balancing of Machine : Concept of static and dynamic balancing.
	2 ND	Static balancing of rotating parts
	3 RD	Static balancing of rotating parts
	4 TH	Principles of balancing of reciprocating parts
13 TH	1 ST	Principles of balancing of reciprocating parts
	2 ND	Principles of balancing of reciprocating parts
	3 RD	Causes and effect of unbalance
	4 TH	Difference between static and dynamic balancing
14 TH	1 ST	Vibration of machine parts : Introduction to Vibration and related terms (Amplitude, time period and frequency, cycle)
	2 ND	Introduction to Vibration and related terms (Amplitude, time period and frequency, cycle)
	3 RD	Classification of vibration.
	4 TH	Classification of vibration.
15 TH	1 ST	Basic concept of natural, forced & damped vibration
	2 ND	Torsional and Longitudinal vibration
	3 RD	Torsional and Longitudinal vibration
	4 TH	Causes & remedies of vibration.


08/02/2023
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