

LESSON PLAN

Discipline:- MECHANICAL ENGG.	SEM:-4TH	Name of Teaching Faculty:- RAMESH CH PRADHAN
SUB:-Theory of Machines	No of Days /per week class allotted:- 6	Semester From Date:-04.02.2025 To Date:- 17.05.2025
		No of Weeks-10
Week	Class Day	Theory Topics
1ST	1st	Introduction, Link, kinematic chain
	2nd	Mechanism, machine
	3rd	Four bar link mechanism
	4th	Lower pair and higher pair, Cam and followers
	5th	Inversion
	6th	Inversion
2ND	1st	Introduction to Friction & Types of Fiction.
	2nd	Friction between nut and screw for square thread
	3rd	Friction, Related Problem
	4th	Friction between nut and screw for square thread
	5th	Screw jack
	6th	Screw jack
3RD	1st	Efficiency of Screw Jack
	2nd	Problem solved on Screw Jack
	3rd	Problem solved on Screw Jack
	4th	Bearing and its classification, Description of roller, needle roller & ball bearings
	5th	Torque transmission in flat pivot bearings,
	6th	Torque transmission in conical pivot bearings, Related Problem
4TH	1st	Flat collar bearing of single and multiple types, Related Problem
	2nd	Torque transmission for single and multiple clutches, Related Problem
	3rd	Working of simple frictional brakes
	4th	Working of Absorption type of dynamometer
	5th	Concept of power transmission, Type of drives, belt, gear and chain drive
	6th	Velocity Ratio of Compound Belt Drive.
5TH	1st	Length of belts (open) , Related Problem
	2nd	Length of belts (cross) , Related Problem
	3rd	Ratio of belt tensions, Related Problem
	4th	Centrifugal tension, Related Problem
	5th	Initial tension, Related Problem
	6th	V-belts and V-belts pulleys, crowning of pulleys
	1ST	Gear drives and its terminology

6TH	2nd	Gear trains, Working principle of simple gear
	3rd	Working principle of compound gear trains
	4th	Working principle of reverted gear trains
	5th	Working principle of epicyclic gear trains
	6th	Function of governor, Classification of governor
7TH	1st	Working of Watt governors
	2nd	Working of Porter governors
	3rd	Working of Hartnell governors
		Sensitivity, stability and isochronism
	4th	Function of flywheel, Comparison between flywheel & governor
	5th	Fluctuation of energy and coefficient of fluctuation of speed
	6th	Problem solved
8TH	1st	Concept of static and dynamic balancing
	2nd	Static balancing of rotating parts
	3rd	Principles of balancing of reciprocating parts
	4th	Causes and effect of unbalance, Difference between static and dynamic balancing
	5th	Vibration and related terms (Amplitude, time period and frequency, cycle)
	6th	Classification of vibration
9TH	1st	Basic concept of natural vibration
	2nd	Basic concept of forced vibration
	3rd	Torsional Vibration.
	4th	Longitudinal Vibration.
	5th	Causes & remedies of vibration
	6th	Causes & remedies of vibration
10TH	1st	Previous Years Questions solved.
	2nd	Previous Years Questions solved.
		Previous Years Questions solved.
	3rd	Revision
		Revision
	4th	Revision
	5th	Revision
6th	Revision	

Signature of Lecturer

Signature of HOD

Signature of Principal