UTKAL INSTITUTE OF ENGINEERING & TECHNOLOGY

DISCIPLINE:	SEMESTER:			
MECHANICAL	4TH Sem	NAME OF THE TEACHING FACULTY: Er.Snehasis das		
SUBJECT:	No of Days/Per week class allotted: 4 Class P/W**(60)**	Semester From Date:16/01/2024		
THEORY OF MACHINE		To Date:26/04/2024		
		No. Of Weeks: **15**		

WEEK	CLASS DAY	THEORY TOPICS	REMARKS	
1st	1st	Link ,kinematic chain, mechanism, machine	Date	Dean/Principal
	2nd	Inversion, four bar link mechanism and its inversion		
	3rd	Lower pair and higher pair		
	4th	Cam and followers		
2nd	1st	PFriction between nut and screw for square thread, screw jack 2.Bearing and its classification, Description of roller, needle roller& ball bearings		
	2nd	Torque transmission in flat pivot& conical pivot bearings.		
	3rd	Flat collar bearing of single and multiple types. 2.Torque transmission for single and multiple clutches		
	4th	Working of simple frictional brakes.		
3rd	1st	Concept of power transmission 3.2 Type of drives, belt, gear and chain drive.		
	2nd	Computation of velocity ratio, length of belts (open and cross)with and without slip		
	3rd	Ratio of belt tensions, centrifugal tension and initial tension.		
	4th	Power transmitted by the belt. 3.6 Determine belt thickness and width for given permissible stress for open and crossed belt considering centrifugal tension.		

4th	1st	3.6 Determine belt thickness and width for given permissible stress for open and crossed		
	2nd	DOUBT CLEAR CLASS		
	3rd	DOUBT CLEAR CLASS		
	4th	V-belts and V-belts pulleys.		
5th	1st	moment of resistance and area of steel for rectangular sections		
	2nd	Concept of crowning of pulleys.		
	3rd	Gear drives and its terminology.		
	4th	Gear trains, working principle of simple, compound, reverted and epicyclic gear trains.		
6th	1st	Governors and Flywheel 4.1 Function of governor		
	2nd	Governors and Flywheel 4.1 Function of governor		
	3rd	Classification of governor		
	4th	CLASS TEST		
7th	1st	Working of Watt, Porter, Proel and Hartnell governor		
	2nd	Conceptual explanation of sensitivity, stability and isochronisms		
	3rd	Function of flywheel		
	4th	Comparison between flywheel &governor.		
8th	1st	Fluctuation of energy and coefficient of fluctuation of speed.		
	2nd	Fluctuation of energy and coefficient of fluctuation of speed..		
	3rd	Assignment		
	4th	Assignment		
9th	1st	**Doubt Clear Class**		
	2nd	**Doubt Clear Class**		
	3rd	Concept of static and dynamic balancing		
	4th	Concept of static and dynamic balancing		
10th	1st	Concept of static and dynamic balancing		
	2nd	Concept of static and dynamic balancing		
	3rd	Static balancing of rotating parts.		
	4th	Static balancing of rotating parts.		
11th	1st	Principles of balancing of reciprocating parts.		
	2nd	Principles of balancing of reciprocating parts.		
	3rd	**Doubt Clear Class**		

	4th	Doubt Clear Class		
12th	1st	CLASS TEST		
		CLASS TEST		
	2nd	Causes and effect of unbalanc		
	3rd	Causes and effect of unbalanc		
		Causes and effect of unbalanc		
	4th	Difference between static and dynamic balancing		
13th	1st	Difference between static and dynamic balancing		
	2nd	Introduction to Vibration and related terms (Amplitude, time period and frequency, cycle)		
	3rd	Introduction to Vibration and related terms (Amplitude, time period and frequency, cycle)		
	4th	Introduction to Vibration and related terms (Amplitude, time period and frequency, cycle)		
14th	1st	Classification of vibration		
	2nd	Classification of vibration		
	3rd	Doubt Clear Class		
	4th	Doubt Clear Class		
15th	1st	Basic concept of natural, forced & damped vibration		
	2nd	Torsional and Longitudinal vibration		
	3rd	Causes & remedies of vibration.		
	4th	Causes & remedies of vibration.		

Snehasis Das

HOD

Chittaranjan Parida

DEAN

PRINCIPAL