

Comp

BHUBANANANDA ODISHA SCHOOL OF ENGINEERING, CUTTACK
DEPARTMENT OF MECHANICAL ENGINEERING



LESSON PLAN

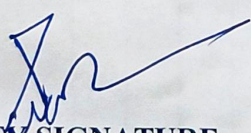
SUBJECT: THEORY OF MACHINES (TH 1)

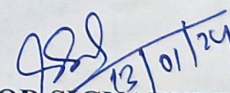
FACULTY: Prabir Kumar Swain

ACCADEMIC SESSION: 2023-24

SEMESTER: 4th

SEC: A


FACULTY SIGNATURE


HOD SIGNATURE

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LESSON PLAN

DISCIPLINE: Mechanical Engineering	SEMESTER: 4 th (A)		NAME OF TEACHING FACULTY: Prabir Kumar Swain
SUBJECT: (TH-2) THEORY OF MACHINES	No. of Days/ per week class allotted: 04 periods per week MON-1Period, TUE-1Period, WED-1Period,FRI-1Period		Semester From Date: 16-01-2024 To Date: 26-04-2024 No. of weeks: 14 weeks
Week	Class Day	No of period available	Theory Topics
1 st	16/01/2024	1	1.1 Link, kinematic chain
	17/01/2024	1	1.1 mechanism, machine
	19/01/2024	1	1.2 Inversion, four bar link mechanism
2 nd		1	1.2 four bar link mechanism and its inversion
3 rd	29/01/2024		1.3 Lower pair
	30/01/2024		1.3 higher pair
	31/01/2024		1.3 Cam and followers
	02/02/2024	1	Class test-1 2.1 Friction between nut and screw for square thread
	05/02/2024	1	2.1 screw jack

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LESSON PLAN

4 TH	06/02/2024	1	2.2 Bearing and its classification
	07/02/2024	1	2.2 Description of roller, needle roller & ball bearings
	09/02/2024	1	2.3 Torque transmission in flat pivot bearings
5 th	12/02/2024	1	2.3 Torque transmission in conical pivot bearings
	13/02/2024	1	2.4 Flat collar bearing of single and multiple types
	16/02/2024	1	2.5 Torque transmission for single clutches
6 th	19/02/2024	1	2.5 Torque transmission for multiple clutches
	20/02/2024	1	2.6 Working of simple frictional brakes
	21/02/2024	1	2.7 Working of Absorption type of dynamometer
	23/02/2024	1	3.1 Concept of power transmission 3.2 Type of drives, belt, gear and chain drive
7 th	26/02/2024	1	3.3 Computation of velocity ratio, length of open belts with and without slip
	27/02/2024	1	3.3 Computation of velocity ratio, length of cross belts with and without slip
	28/02/2024	1	3.4 Ratio of belt tensions, centrifugal tension

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	01/03/2024	1	3.4 initial tension 3.5 Power transmitted by the belt
	04/03/2024	1	3.6 Determine belt thickness and width for given permissible stress for open and crossed belt considering centrifugal tension
8 th	06/03/2024	1	3.7 V-belts and V-belts pulleys
9 th	11/03/2024	1	3.8 Concept of crowning of pulleys
	12/03/2024	1	3.9 Gear drives and its terminology
	13/03/2024	1	3.10 Gear trains, working principle of simple, compound
	15/03/2024	1	3.10 Gear trains, working principle of reverted and epicyclic gear trains.
9 th	18/03/2024	1	4.1 Function of governor 4.2 Classification of governor
	19/03/2024	1	4.3 Working of Watt governors
	20/03/2024	1	4.3 Working of Porter governors
	22/03/2024	1	Class test-2 4.3 Working of Proel governors
10 th	27/03/2024	1	4.3 Working of Hartnell governors
11 th	02/04/2024	1	Internal Assessment
	03/04/2024	1	4.4 Conceptual explanation of sensitivity, stability and isochronism
	05/04/2024	1	4.5 Function of flywheel 4.6 Comparison between flywheel & governor
12 th	08/04/2024	1	4.7 Fluctuation of energy and coefficient of fluctuation of speed

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	09/04/2024	1	5.1 Concept of static and dynamic balancing 5.2 Static balancing of rotating parts 5.3 Principles of balancing of reciprocating parts
	10/04/2024	1	5.3 Principles of balancing of reciprocating parts
	12/04/2024	1	5.4 Causes and effect of unbalance 5.5 Difference between static and dynamic balancing
13 th	15/04/2024	1	6.1 Introduction to Vibration and related terms (Amplitude, time period and frequency, cycle) Class test-3 6.2 Classification of vibration
	16/04/2024	1	6.3 Basic concept of natural, forced & damped vibration 6.4 Torsional and Longitudinal vibration
	19/04/2024	1	6.5 Causes & remedies of vibration
14 th	22/04/2024	1	Previous Year question Discussion
	23/04/2024	1	REVISION
	24/04/2024	1	REVISION
	26/04/2024	1	REVISION