Lesson Plan

Subject: **TOM** (Th -1) Name of faculty: SARBESWAR ROUT

Semester: 4TH Class allotted:4p/week Branch: Mechanical Session: 2024(S)

Discipline	Semester	From date: To date:	Teaching Aid
Subject:	No. of days/ per week	Theory/ Practical –Topics/Lesson	
Week	Date/Period		
1	16/01/2024 TO 20/01/2024	Link ,kinematic chain, mechanism, machine Inversion, four bar link mechanism and its inversion , Lower pair and higher pair . Cam and followers	White Board Marker Smart board
2	22/01/2024 TO 27/01/2024	Friction Friction between nut and screw for square thread, screw jack Bearing and its classification, Description of roller, needle roller& ball bearings Torque transmission in flat pivot& conical pivot bearings .	White Board Marker Smart board
3	29/02/2024 TO 03/02/2024	Flat collar bearing of single and multiple types Torque transmission for single and multiple clutches Working of simple frictional brakes. Numerical problem	White Board Marker Smart board
4	05/02/2024 TO 10/02/2024	**Power Transmission** Concept of power transmission Type of drives, belt, gear and chain drive. Computation of velocity ratio, length of belts (open and cross)with and without slip.	White Board Marker Smart board

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Week	Date/Period	Theory/ Practical –Topics/Lesson	Teaching Aids
5	12/02/2024 TO 17/02/2024	Ratio of belt tensions, centrifugal tension and initial tension Power transmitted by the belt. Determine belt thickness and width for given permissible stress for open and crossed belt considering centrifugal tension. V-belts and V-belts pulleys.	White Board Marker Smart board
6	19/02/2024 TO 24/02/2024	Concept of crowning of pulleys. Gear drives and its terminology. Gear trains, working principle of simple, compound reverted and epicyclic gear trains.	White Board Marker Smart board
7	26/02/2024 TO 02/03/2024	Numerical problem Function of governor Classification of governor , Working of Watt, Porter Proel and Hartnell governors.	Marker White Board
8	04/03/2024 TO 09/03/2024	Conceptual explanation of sensitivity, stability and isochronisms Function of flywheel. Comparison between flywheel &governor. Fluctuation of energy and coefficient of fluctuation of speed.	White Board Marker Smart board
9	11/03/2024 TO 16/03/2024	Numerical problem Concept of static and dynamic balancing. Static balancing of rotating parts. Principles of balancing of reciprocating parts.	White Board Marker Smart board
10	18/03/2024 TO 23/03/2024	Causes and effect of unbalance. Difference between static and dynamic balancing Numerical problem Numerical problem	Marker White Board Smart board
11	27/03/2024 TO 30/03/2024	Numerical problem Numerical problem	White Board Marker Smart board

		Numerical problem Numerical problem	
12	02/04/2024 TO 06/04/2024	Vibration of machine parts Introduction to Vibration and related terms (Amplitude, time period and frequency, cycle) Classification of vibration Basic concept of natural, forced & damped vibration.	Marker White Board Smart board
13.	08/04/2024 TO 13/04/2024	Torsional and Longitudinal vibration. Causes & remedies of vibration. Numerical problem . Numerical problem	White Board Marker Smart board
14	15/04/2024 TO 20/04/2024	Revision	White Board Marker Smart board
15	22/ 04/2024 TO 26/04/2024	Revision	White Board Marker Smart board

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