Lesson Plan for			
Theory of Machine - 4th Mechanical			
Sl. No.	**Topics to be Covered**	**Week No.**	**Dates to be Covered**
1.0 Simple Mechanism:			
1.1	Link ,kinematic chain, mechanism, machine	1st	14/02/23 to 18/02/23
1.2	Inversion, four bar link mechanism and its inversion		
1.3	Lower pair and higher pair	2nd	20/02/23 to 25/02/23
1.4	Cam and followers		
2.0 Friction:			
2.1	Friction between nut and screw for square thread, screw jack	3rd	27/02/23 to 04/03/23
2.2	Bearing and its classification, Description of roller, needle roller& ball bearings.		
2.3	Torque transmission in flat pivot& conical pivot bearings.	4th	06/03/23 to 11/03/23
2.4	Flat collar bearing of single and multiple types.		
2.5	Torque transmission for single and multiple clutches		
2.6	Working of simple frictional brakes.	5th	13/03/23 to 18/03/23
2.7	Working of Absorption type of dynamometer		
3.0 Power Transmission:			
3.1	Concept of power transmission	6th	20/03/23 to 25/03/23
3.2	Type of drives, belt, gear and chain drive.		
3.3	Computation of velocity ratio, length of belts (open and cross)with and without slip.		
3.4	Ratio of belt tensions, centrifugal tension and initial tension.	7th	27/03/23 to 01/04/23
3.5	Power transmitted by the belt		
3.6	Determine belt thickness and width for given permissible stress for open and crossed belt considering centrifugal tension.		
3.7	V-belts and V-belts pulleys.	8th	03/04/23 to 08/04/23
3.8	Concept of crowning of pulleys.		
3.9	Gear drives and its terminology.	9th	10/04/23 to 15/04/23
3.10	Gear trains, working principle of simple, compound, reverted and epicyclic gear trains.		

4.0 Governors and Flywheel:			
4.1	Function of governor	10th	17/04/23 to 22/04/23
4.2	Classification of governor		
4.3	Working of Watt, Porter, Proel and Hartnell governors.		
4.4	Conceptual explanation of sensitivity, stability and isochronisms.	11th	24/04/23 to 29/04/23
4.5	Function of flywheel.		
4.6	Solve simple numerical on above.		
4.7	Fluctuation of energy and coefficient of fluctuation of speed.		
5.0 Balancing of Machine:			
5.1	Concept of static and dynamic balancing.	12th	01/05/23 to 06/05/23
5.2	Static balancing of rotating parts.		
5.3	Principles of balancing of reciprocating parts		
5.4	Causes and effect of unbalance.	13th	08/05/23 to 13/05/23
5.5	Difference between static and dynamic balancing		
6.0 Vibration of machine parts:			
6.1	Introduction to Vibration and related terms (Amplitude, time period and frequency, cycle)	14th	15/05/23 to 20/05/23
6.2	Classification of vibration		
6.3	Basic concept of natural, forced & damped vibration		
6.4	Torsional and Longitudinal vibration	15th	22/05/23 to 23/05/23
6.5	Causes & remedies of vibration		

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