GOVERNMENT POLYTECHNIC MAYURBHANJ LESSONPLAN -2022/23(W)				
discipline: MECHANICAL ENGINEERING		semester : 4TH		name of the teaching faculty : D. D. Pramanik
subject : TOM		No. of daysper week classified:04		semester from date:13.02.23 To 25.05.2023
MONTH	WEEK	DAY		TOPICS
FEB	3rd	1st	UNIT-1	Link ,kinematic chain, mechanism, machine
		2nd		Inversion, four bar link mechanism and its inversion
		3rd		Lower pair and higher pair
		5th		Cam and followers
	4th	1st		Cam and followers
		2nd		Revision of unit 1
		3rd	UNIT-2	Friction between nut and screw for square thread, screw jack
		5th		Bearing and its classification, Description of roller, needle roller& ball bearings.
MARCH	1st	2nd		Torque transmission in flat pivot& conical pivot bearings.
		3rd		Flat collar bearing of single and multiple types.
		5th		Torque transmission for single and multiple clutches
	2nd	1st		Working of simple frictional brakes.
		2nd		Features of Iron-Carbon diagram with salient micro-constituents of Iron and Steel
		3rd		Working of Absorption type of dynamometer
		5th		Revision of unit 2
	3rd	1st	UNIT -3	Concept of power transmission
		2nd		Type of drives, belt, gear and chain drive.
		3rd		Computation of velocity ratio, length of belts (open and cross)with and without slip.
		5th		Class Test -1
	4th	1st		Class Test -1
		2nd		Ratio of belt tensions, centrifugal tension and initial tension,3.5 Power transmitted by the belt.
		5th		Determine belt thickness and width for given permissible stress for open and crossed belt considering centrifuga
APRIL	1st	2nd		V-belts and V-belts pulleys.
		3rd		Concept of crowning of pulleys.
		5th		Gear drives and its terminology.
	2nd	1st		Gear trains, working principle of simple, compound, reverted and epicyclic gear trains.
		2nd		Revision of Unit 3
		3rd	UNIT -4	Function of governor
		5th		Classification of governor
	3rd	1st		Working of Watt, Porter, Proel and Hartnell governors.
		2nd		Internal Exam
		3rd		Internal Exam
		5th		Conceptual explanation of sensitivity, stability and isochronisms.
		1st		Function of flywheel.

	4th	2nd		Comparison between flywheel &governor.
		3rd		Fluctuation of energy and coefficient of fluctuation of speed.
		5th		Revision of Unit 4
MAY	1st	1st	UNIT -5	Concept of static and dynamic balancing.
		2nd		Static balancing of rotating parts.
		3rd		Principles of balancing of reciprocating parts.
		5th		Causes and effect of unbalance.
	2nd	1st		Difference between static and dynamic balancing
		2nd		Revision of Unit 5
		3rd	UNIT -6	Introduction to Vibration and related terms (Amplitude, time period and frequency, cycle)
		5th		Classification of vibration.
	3rd	1st		Basic concept of natural, forced & damped vibration
		2nd		Torsional and Longitudinal vibration.6.5 Causes & remedies of vibration.
		3rd		Class Test 2
		5th		Class Test 2
	4th	1st		Previous Year Question Paper discussion
		2nd		Previous Year Question Paper discussion