

SUDDHANANDA ENGINEERING AND RESEARCH CENTER || Lesson Plan

Discipline : MECHANICAL ENGG.		Semester: 4th Sem	Name of the P.K. SWAIN
Subject : TOM		No. of Days / per week class allotted : 04	
MONTH	Week	Day	Topics
FEBRUARY	3rd	2nd	Inversion, four bar link mechanism and its inversion
		3rd	Inversion, four bar link mechanism and its inversion
		5th	Study of Lower pair and higher pair with example
	4th	1st	Introduction to Cam and followers
		2nd	Different types of Cam and followers
		3rd	Friction between nut and screw for square thread
		5th	Introductio to Friction between nut and screw for screw jack
	5th	1st	Friction between nut and screw for screw jack
		2nd	Numericals on above
	MARCH	1st	3rd
5th			Description of roller bearings
1st			Description of needle roller bearings, Description of ball bearings.
2nd		5th	Torque transmission in flat pivot bearings with derivation
		1st	Torque transmission in conical pivot bearings.
3rd		2nd	Numericals on above
		3rd	Revision
		5th	Flat collar bearing of single and multiple types.
		1st	Torque transmission for single and multiple clutches with derivation
4th		2nd	Numericals on above
		3rd	Working of simple frictional brakes.
		5th	Working of Absorption type of dynamometer
		1st	Concept of power transmission
5th		2nd	Type of drives, belt, gear and chain drive.
		3rd	Type of drives, belt, gear and chain drive.
		5th	Computation of velocity ratio with and without slip.
	1st	Computation of length of belts (open and cross)with and without slip.	
APRIL	2nd	2nd	Ratio of belt tensions, centrifugal tension and initial tension.
		3rd	Power transmitted by the belt.
		1st	Determine belt thickness and width for open and crossed belt considering centrifugal tension.
	3rd	2nd	V-belts and V-belts pulleys.
		3rd	Concept of crowning of pulleys.
		1st	Gear drives and its terminology.
	4th	2nd	Gear train, working principle of simple, compound, reverted and epicyclic gear trains.
		3rd	Revision
		5th	Function and classification of governor
		1st	Working of Watt, Porter governor.
	5th	2nd	Working of Proel and Hartnell governors.
		3rd	Conceptual explanation of sensitivity, stability and isochronisms.
5th		Function of flywheel and comparison of flywheel and governor	
1st		Fluctuation of energy and coefficient of fluctuation of speed.	
MAY	1ST	2nd	Concept of static and dynamic balancing.
		3rd	Static balancing of rotating parts.
		1st	Principles of balancing of reciprocating parts.
	2ND	2nd	Causes and effect of unbalance
		3rd	Difference between static and dynamic balancing
		5th	Introduction to Vibration and related terms
		1st	Classification of vibration.
	3rd	2nd	Basic concept of natural, forced & damped vibration
		3rd	Torsional and Longitudinal vibration.
		1st	Causes & remedies of vibration.
	4TH	2nd	Revision