

Lesson Plan

Discipline: Mechanical, Semester:4TH, Name of Faculty : B.SIVA SANKAR ACHARYA

Subject:

Theory of Machine

**No. of days/
week Class
allotted: 4**

Semester From Date: 10.03.2022 To date : 30.06.2022

Week	Class Day	Theory
1st	1st	Link ,kinematic chain, mechanism, machine
	2nd	Inversion, four bar link mechanism and Its Inversion
	3rd	Inversion, four bar link mechanism and Its Inversion
	4th	Cam and followers
2nd	1st	Cam and followers
	2nd	Bearing and its classification, Description of roller, needle roller& ball bearings
	3rd	Torque transmission in flat pivot& conical pivot bearings.
	4th	Flat collar bearing of single and multiple types
3rd	1st	Doubt Solving Class
	2nd	Torque transmission for single and multiple clutches
	3rd	Numerical problems
	4th	Working of simple frictional brakes.
4th	1st	Working of Absorption type of dynamometer
	2nd	Class Test Of First And Second Chapter
	3rd	Concept of power transmission
	4th	Type of drives, belt, gear and chain drive
5th	1st	Computation of velocity ratio, length of belts (open and cross)with and without slip
	2nd	Computation of velocity ratio, length of belts (open and cross)with and without slip
	3rd	Ratio of belt tensions, centrifugal tension and initial tension.
	4th	Ratio of belt tensions, centrifugal tension and initial tension.
6th	1st	Revision Class
	2nd	Power transmitted by the belt
	3rd	Numerical problem solving
	4th	Determine belt thickness and width for given permissible stress for open and crossed belt considering centrifugal tension
7th	1st	Class Test of Probloms
	2nd	V-belts and V-belts pulleys.
	3rd	Concept of crowning of pulleys.
	4th	Gear drives and its terminology.
8th	1st	Gear trains, working principle of simple, compound, reverted and epicyclic gear trains.
	2nd	Function of governor
	3rd	Numerical problem solving
	4th	Classification of governor

9th	1st	Working of Watt, Porter, Proel and Hartnell governors
	2nd	Working of Watt, Porter, Proel and Hartnell governors
	3rd	Conceptual explanation of sensitivity, stability and isochronisms.
	4th	Function of flywheel
10th	1st	Comparison between flywheel & governor
	2nd	Numerical problem solving
	3rd	Fluctuation of energy and coefficient of fluctuation of speed.
	4th	numerical
11th	1st	numerical
	2nd	Class Test Of Third And Fourth Chapter
	3rd	Concept of static and dynamic balancing.
	4th	Static balancing of rotating parts.
12th	1st	Principles of balancing of reciprocating parts
	2nd	Doubt Class
	3rd	Causes and effect of unbalance
	4th	Difference between static and dynamic balancing
13th	1st	Introduction to Vibration and related terms (Amplitude, time period and frequency, cycle)
	2nd	Classification of vibration.
	3rd	Basic concept of natural, forced & damped vibration
	4th	Torsional and Longitudinal vibration.
14th	1st	Revision Class
	2nd	Causes & remedies of vibration.
	3rd	numericals
	4th	Doubt clearing
15th	1st	Overall subject revision
	2nd	Previous year question answer discussion
	3rd	Previous year question answer discussion
	4th	Model test

B. Shiva Sankar Achary

mechanical
HOD MECHANICAL
GOVT. POLYTECHNIC KANDHAMAL
PHULBANI

lecturer in charge
GOVT. Polytechnic Kandhamal