

Lesson Plan

Name of the faculty	:	Manoj Kumar Goswami
Discipline	:	Mechanical Engineering
Semester	:	5th
Subject	:	Theory of Machines
Lesson Plan Duration	:	15 weeks (July-18 to Nov-18)
Work Load	:	(4 Periods/Week)

Theory		
Week	Lecture Day	Topics
1 st	1 st	Unit 1 Simple Mechanisms Introduction to link
	2 nd	kinematic pair
	3 rd	lower and higher pair,
	4 th	Kinematic chain,
2 nd	5 th	mechanism
	6 th	Inversions of mechanism
	7 th	Different types of mechanisms
	8 th	Degree of Freedom
3 rd	9 th	Unit 2 Power Transmission Introduction to Belt and Rope drives
	10 th	Types of belt drives and types of pulleys
	11 th	Concept of velocity ratio, slip and creep;
	12 th	crowning of pulleys
4 th	13 th	Flat and V belt drive: Ratio of driving tensions,
	14 th	power transmitted,
	15 th	centrifugal tension and condition for maximum horse power
	16 th	Different types of chains and their terminology
5 th	17 th	Gear terminology
	18 th	types of gears and their applications;
	19 th	simple and compound gear train
	20 th	power transmitted by simple spur gear
6 th	21 st	SESSIONAL I
	22 nd	Unit 3 Flywheel Principle and applications of flywheel
	23 rd	Turning - moment diagram of flywheel for different engines
	24 th	Fluctuation of speed
7 th	25 th	fluctuation of energy
	26 th	Coefficient of fluctuation of speed
	27 th	coefficient of fluctuation of energy
	28 th	Simple numerical problems on fluctuation of speed
8 th	29 th	Simple numerical problems on fluctuation of energy
	30 th	Unit 4 Governor Principal of governor
	31 st	Simple description and working of Watt governor
	32 nd	Simple description and working of Porter governor
9 th	33 rd	Simple description and working of Hartnel governor
	34 th	Simple numerical based on watt governor
	35 th	Hunting of governor
	36 th	Isochronisms of governor

10 th	37 th	Stability, sensitiveness of a governor
	38 th	Simple numerical on governor
	39 th	SESSIONAL II
	40 th	Unit 5 Balancing Introduction to Balancing
11 th	41 st	Concept of balancing
	42 nd	Introduction to balancing of rotating masses
	43 rd	simple numerical on rotating masses
	44 th	simple numerical on rotating masses on same plane
12 th	45 th	Simple problems related to several masses on same plane
	46 th	several masses rotating in different planes
	47 th	problems related to several masses rotating in different planes
	48 th	Revision of Balancing
13 th	49 th	Unit 6 Vibrations Concept of vibrations
	50 th	Types of vibrations
	51 st	longitudinal, transverse vibrations
	52 nd	torsional vibrations
14 th	53 rd	simple numerical on vibrations
	54 th	Damping of vibrations
	55 th	Causes of vibrations in machines
	56 th	harmful effects of vibrations
15 th	57 th	Remedies of vibrations
	58 th	Simple numerical on vibrations on longitudinal, transverse vibrations.
	59 th	Simple numerical on torsional vibrations.
	60 th	SESSIONAL III

Manoj Kumar Goswami

Lecturer in Mech. Engg.

GP Adampur