Lesson Plan

Name of Institute : Ambala College of Engineering and Applied Research
Name of the Faculty member : Ashok Kumar
Discipline : Mechanical Engineering
Semester : 3rd
Subject : Theory of machines (MEC-201 A)
Lesson Plan Duration : 15 weeks (from October 2021 to January 2022)
Work Load : L 3 T 1 P 0

Week	Theory	
	Lecture day	Topic (including assignment/ test)
1st	**1**	Introduction of mechanism and machine
	2	Kinematic links, pairs and chains
	3	Mobility of mechanisms
	Tutorial	Numerical Problem
2nd	**1**	Equivalent mechanism
	2	Four bar chain
	3	Inversion of four cahin
	Tutorial	Numerical Problem
3rd	**1**	Slider crank chain and inversion
	2	Determination of link velocities
	3	Relative velocity method
	Tutorial	Numerical on velocity method
4th	**1**	Velocity in four bar mechanism
	2	Slider crank mechanism
	3	Crank and slotted lever mechanism
	Tutorial	Numerical problem
5th	**1**	Instantaneous centre method
	2	Types and location of centers
	3	Arnold kennedy theorem
	Tutorial	
6th	**1**	Method of locating instantaneous centers
	2	Steering gear mechanism
	3	Numerical problem
	Tutorial	numerical
7th	**1**	Acceleration analysis
	2	Four bar mechanism and slider crank mechanism
	3	Coriolis compenenst of acceleration
	Tutorial	Numerical Problem

8th	**1**	Cam and followers classification and terminology
	2	Cam profile by graphical method
	3	With knife edge and radial roller follower for uniform velocity
	Tutorial	Numerical Problem
9th	**1**	Numerical Problem
	2	Simple harmonic moyion
	3	Numerical Problem
	Tutorial	Numerical Problem
10th	**1**	Constant acceleration and deceleration
	2	Numerical problem
	3	Numerical Problem
	Tutorial	numerical
11th	**1**	Cycloidal motion of followers
	2	Numerical Problem
	3	Numerical Problem
	Tutorial	Numerical Problem
12th	**1**	Static and dynamic force analysis
	2	Two ot three force member
	3	Dynamic force analysis
	Tutorial	Equivalent offset interia
13th	**1**	Numerical Problem
	2	Angular velocity and angular acceleration
	3	Turning moments of crank shaft
	Tutorial	Turning moment diagrams ,fluctuation of energy
14th	**1**	Numerical Problem
	2	Balancing of rotating masses
	3	Analytical method for balancing
	Tutorial	Numerical Problem
15th	**1**	Numerical Problem
	2	Belts and chain drives
	3	Gears and gear traind
	Tutorial	Numerical Problem

(Signature of the teacher concerned with date)