Doc. No.: DCE/0/10
Revision: 01

DRONACHARYA College of Engineering

Khentawas, Farrukh Nagar,Gurgaon

Lesson Plan & Execution

Department: MECHANICAL ENGINEERING

Academic Session: 2017-18

Subject with code: KINEMATICS OF MACHINES (ME-204-F)

Name of Faculty with Designation: Mr. RAJESH MATTOO (ASSOCIATE PROFESSOR)

S. No.	Month	Date	Sem/ Class	Unit	Topic/Chapter covered	Academic activity	Test / Assignment
1	II -JAN	8-1-2018	IV-ME	A-I	Introduction about the subject, Syllabus to be covered, Books referred, Teaching Methodology.		
2	II -JAN	9-1-2018			Introduction about machine, structure. Concept of kinematics links, pairs, chains & mechanism. Classification of all the Above topics, Grasshof's criterion.Types of constrained motion		
3	II -JAN	10-1-2018			Inversion of four bar chain mechanism.Inversion of single slider crank mechanism.		
4	III - JAN	15-1-2018			Inversion of double slider crank mechanism.Degree of Freedom .Kutzbach & Grubler's criterion.		
5	III - JAN	16-1-2018			Straight line mechanism		
6	III - JAN	17-1-2018			Pantograph .Steering Mechanism.		
7	IV-JAN	22-1-2018		A-II	Introduction about I.C.R. of velocity of all the mechanisms.		
8	IV-JAN	23-1-2018			Graphical & Analytical methods of velocity & acceleration analysis of all the mechanisms.		
9	IV-JAN	24-1-2018			Graphical & Analytical methods of velocity & acceleration analysis of all the mechanisms.		
10	IV-JAN	29-1-2018		B-I	Introduction about gears, Classification, advantages & disadvantages .Applications.Gear Terminology. Formation of teeth profile.		
11	V-JAN	5-2-2018			Law of gearing.Expression for length of Path of contact, length of arc of contact, contact ratio.		
	II-FEB						

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12	II-FEB	6 - 2-2018			Introduction about Interference & under cutting, Expression for minimum number of teeth required for wheel to avoid interference.Expression for minimum number of teeth required for pinion to avoid interference, Expression for minimum number of teeth required for rack & pinion to avoid interference.		
13	II-FEB	7-2-2018		B-I	Expression for length of Path of contact, length of arc of contact, contact ratio to avoid interference.		
14	IV-FEB	19-2-2018			Non standard gear teeth, helical, spiral bevel and worm gears.		
15	IV-FEB	20-2-2018			Introduction about cam & follower, Classification of cam & Follower, advantages & disadvantages .Applications,Disc cam nomenclature.		
16		21-2-2018		B-II	How to draw cam profile for uniform velocity of follower motion.		
17	IV-FEB	26-2-2018	IV-ME		How to draw cam profile S.H.M. case & uniform acceleration & retardation of follower motion .How to draw cam profile for Cycliodal case of follower motion.		
18	V-FEB	27-2-2018		C-I	Introduction about Gear trains, Classification, advantages & disadvantages .Applications.		
19	V-FEB	5-3-2018			Synthesis of simple, compound & reverted gear trains		
20	II-MAR	6-3-2018			Analysis of epicyclic gear trains		
	II-MAR						

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21	II-MAR	7-3-2018	IV-ME	C-II	Introduction about kinematic synthesis of mechanism, Types, Function generation, path generation, scale factor.		
22	III-MAR	12-3-2018			Body guidance two & three position synthesis of four bar & slider crank mechanism by Graphical & analytical methods.		
23	III-MAR	13-3-2018			Chebychev spacing of precession points. Freudenstein's equation.		
24	III-MAR	14-3-2018		D-I	Friction : Types of friction, laws of friction, motion along inclined plane, screw threads, efficiency on inclined plane.		
25	V-MAR	26-3-2018			Friction in journal bearing, friction circle and friction axis.		
26	V-MAR	27-3-2018			Pivots and collar friction, uniform pressure and wear theory.		
27	II-APR	2-4-2018		D-II	Belts and pulleys: Open and cross belt drive, velocity ratio, slip, creep, material for belts, crowning of pulleys, law of belting, types of pulleys.		
28	II-APR	3-4-2018			Length of belts, ratio of tension, centrifugal tension, power transmitted by belts and ropes.		
29	II-APR	4-4-2018			Initial Tension, Chain Drives, Length of Chain Drives, Classification of Chain Drives		