

## GANESH INSTITUTE OF ENGINEERING AND TECHNOLOGY, POLYTECHNIC

## DEPARTMENT OF AUTOMOBILE ENGINEERING

FACULTY NAME- AVAYA KUMAR BALIARSINGH

LESSONPLAN CUM PROGRESS REPORT

SUBJECT: Theory of Machines.

SEMESTER:4 th

BRANCH: AUTOMOBILE ENGINEERING

LECTURE NO.	CO	BTL	TOPIC TO BE COVERED	BOOK NAME./CHAPT NO./PAGE	WEB REFERENCE IF ANY	TEACHING LEARNING METHOD	PLAN	ACTION	REVIEW BY HOD
							DATE	DATE	
1	CO1	1	<b>CHAPTER-1</b> -Simple mechanism: Link ,kinematic pair and types (Lower pair and higher pair) , kinematic chain	R.S KHURMI&J.K GUPTA PAGENO94S.S .Rattan ,Tata McGraw-Hill	<a href="https://www.youtube.com/watch?v=c0gf-CjDQOs&amp;pp=ygVsIkNIQVBURVItMSAtU2ltcG">https://www.youtube.com/watch?v=c0gf-CjDQOs&amp;pp=ygVsIkNIQVBURVItMSAtU2ltcG</a>	1-Introduction 10 min 2- PPT/Smart board-20 min 3-Lecturer-30 min	05.01.2026		
2	CO1	2	kinematic chain, mechanism	R.S KHURMI&J.K GUPTA PAGENO-98	<a href="https://www.youtube.com/watch?v=7WppBa-cLuk&amp;list=PLSp9OSVmeyJSYB4gKPL8UrmB_a3kfHYI">https://www.youtube.com/watch?v=7WppBa-cLuk&amp;list=PLSp9OSVmeyJSYB4gKPL8UrmB_a3kfHYI</a>	1-Previous class topic Review-10 min 2-Lecturer-50 min	06.01.2026		
3	CO1	3	Inversion, four bar link mechanism	R.S KHURMI&J.K GUPTA PAGENO-106	<a href="https://www.youtube.com/watch?v=7WppBa-cLuk&amp;list=PLSp9OSVmeyJSYB4gKPL8UrmB_a3kfHYI">https://www.youtube.com/watch?v=7WppBa-cLuk&amp;list=PLSp9OSVmeyJSYB4gKPL8UrmB_a3kfHYI</a>	1-Previous class topic Review-10 min 2-Lecturer-50 min	07.01.2026		
4	CO1	3	Inversion, four bar link mechanism and its inversion	R.S KHURMI&J.K GUPTA PAGENO-106	<a href="https://www.youtube.com/watch?v=7WppBa-cLuk&amp;list=PLSp9OSVmeyJSYB4gKPL8UrmB_a3kfHYI">https://www.youtube.com/watch?v=7WppBa-cLuk&amp;list=PLSp9OSVmeyJSYB4gKPL8UrmB_a3kfHYI</a>	1-Previous class topic Review-10 min 2-Lecturer-50 min	08.01.2026		
5	CO1	3	Inversion, four bar link mechanism and its inversion	R.S KHURMI&J.K GUPTA PAGENO-108	<a href="https://www.youtube.com/watch?v=7WppBa-cLuk&amp;list=PLSp9OSVmeyJSYB4gKPL8UrmB_a3kfHYI">https://www.youtube.com/watch?v=7WppBa-cLuk&amp;list=PLSp9OSVmeyJSYB4gKPL8UrmB_a3kfHYI</a>	1-Previous class topic Review-10 min 2- PPT/Smart board-20 min 3-Lecturer-30 min	12...01.2026		
6	CO1	2	<b>Cams and Followers:</b> Concept; Definition and application of Cams and Followers; Classification of Cams and Followers;	R.S KHURMI&J.K GUPTA PAGENO-774	<a href="https://www.youtube.com/watch?v=7WppBa-cLuk&amp;list=PLSp9OSVmeyJSYB4gKPL8UrmB_a3kfHYI">https://www.youtube.com/watch?v=7WppBa-cLuk&amp;list=PLSp9OSVmeyJSYB4gKPL8UrmB_a3kfHYI</a>	1-Previous class topic Review-10 min 2- PPT/Smart board-20 min 3-Lecturer-30 min	13...01.2026		

7	CO1	2	Different follower motions and their displacement diagrams like uniform velocity, SHM, uniform acceleration and Retardation	R.S KHURMI&J.K GUPTA PAGENO-778	<a href="https://www.youtube.com/watch?v=7WppBa-cLuk&amp;list=PLSp9OSVmeyJSYB4gKPL8UrmB_a3kfHYI">https://www.youtube.com/watch?v=7WppBa-cLuk&amp;list=PLSp9OSVmeyJSYB4gKPL8UrmB_a3kfHYI</a>	1-Previous class topic Review-10 min 2- PPT/Smart board-20 min 3-Lecturer-30 min	16...01.2026		
8	CO2	2	<b>CHAPTER-2</b> -Power Transmission: Types of Drives – Belt, Chain, Rope, Gear drives & their comparison; Belt Drives	R.S KHURMI&J.K GUPTA PAGENO-325	<a href="https://www.youtube.com/watch?v=Su0ICzJFTNk">https://www.youtube.com/watch?v=Su0ICzJFTNk</a>	1-Previous class topic Review-10 min 2- PPT/Smart board-20 min 3-Lecturer-30 min	17..01.2026		
9	CO2	3	Derive the length in flat and cross belt.	R.S KHURMI&J.K GUPTA PAGENO-334,336	<a href="https://www.youtube.com/watch?v=Su0ICzJFTNk">https://www.youtube.com/watch?v=Su0ICzJFTNk</a>	1-Previous class topic Review-10 min 2- PPT/Smart board-20 min 3-Lecturer-30 min	19.01.2026		
10	CO2	3	V– belt & its applications; Material for flat and V-belt; Angle of lap,	R.S KHURMI&J.K GUPTA PAGENO-270	<a href="https://www.youtube.com/watch?v=tKv-llr3AhE">https://www.youtube.com/watch?v=tKv-llr3AhE</a>	1-Previous class topic Review-10 min 2- PPT/Smart board-20 min 3-Lecturer-30 min	20..01.2026		
11	CO2	3	Slip and Creep; Determination of Velocity Ratio, Ratio of tight side and slack side tension	R.S KHURMI&J.K GUPTA PAGENO-332	<a href="https://www.youtube.com/watch?v=4jmv2YsFCI4">https://www.youtube.com/watch?v=4jmv2YsFCI4</a>	1-Previous class topic Review-10 min 2- PPT/Smart board-20 min 3-Lecturer-30 min	21..01.2026		
12	CO2	4	Centrifugal tension and Initial tension; Condition for maximum power transmission	R.S KHURMI&J.K GUPTA PAGENO-345,346	<a href="https://www.youtube.com/watch?v=4jmv2YsFCI4">https://www.youtube.com/watch?v=4jmv2YsFCI4</a>	1-Previous class topic Review-10 min 2-Lecturer-50 min	22..01.2026		
13	CO2		Numerical problems.	R.S KHURMI&J.K GUPTA PAGENO-347,348	<a href="https://www.youtube.com/watch?v=JCvdisaEkr4">https://www.youtube.com/watch?v=JCvdisaEkr4</a>	1-Previous class topic Review-10 min 2-Lecturer-50 min	27..01.2026		

14	CO2		Numerical problems.	R.S KHURMI&J.K GUPTA PAGENO- 349,350	<a href="https://www.youtube.com/watch?v=6qKMcq784hA">https://www.youtube.com/watch?v=6qKMcq784hA</a>	1-Previous class topic Review-10 min 2-Lecturer-50 min	28..01.2026		
15	CO2		Chain Drives – Advantages & Disadvantages; Selection of Chain & Sprocket wheels; Methods of lubrication; Gear Drives – Spur gear terminology; Types of gears and gear trains	R.S KHURMI&J.K GUPTA PAGENO-382	<a href="https://www.youtube.com/watch?v=TwKnDXsuCol">https://www.youtube.com/watch?v=TwKnDXsuCol</a>	1-Previous class topic Review-10 min 2- PPT/Smart board-20 min 3-Lecturer-30 min	29..01.2026		
16	CO2		Derive train value ,velocity ratio of simple, compound ,reverted gear train.	R.S KHURMI&J.K GUPTA PAGENO- 428,429,431	<a href="https://www.youtube.com/watch?v=TwKnDXsuCol">https://www.youtube.com/watch?v=TwKnDXsuCol</a>	1-Previous class topic Review-10 min 2- PPT/Smart board-20 min 3-Lecturer-30 min	31..01.2026		
17	CO2	2	epicyclic gear train; Methods of lubrication; Law of gearing; Rope Drives – Types, applications, advantages & limitations of Steel ropes	R.S KHURMI&J.K GUPTA PAGENO-436	<a href="https://www.youtube.com/watch?v=TwKnDXsuCol">https://www.youtube.com/watch?v=TwKnDXsuCol</a>	1-Previous class topic Review-10 min 2- PPT/Smart board-20 min 3-Lecturer-30 min	26.01.2026		
18	CO2	5	Numerical problems.	R.S KHURMI&J.K GUPTA PAGENO-742	<a href="https://www.youtube.com/watch?v=TwKnDXsuCol">https://www.youtube.com/watch?v=TwKnDXsuCol</a>	1-Previous class topic Review-10 min 2- PPT/Smart board-20 min 3-Lecturer-30 min	27.01.2026		
19	CO3	2	<b>CHAPTER-3</b> Flywheel and Governors: Flywheel - Concept, function and application of flywheel with the help of turning moment diagram.	R.S KHURMI&J.K GUPTA PAGENO-565	<a href="https://www.youtube.com/watch?v=r3l0LKMUAN8">https://www.youtube.com/watch?v=r3l0LKMUAN8</a>	1-Previous class topic Review-10 min 2-Lecturer-50 min	28..01.2026		
20	CO3	2	turning moment diagram for single cylinder 4-Stroke I.C. Engine	R.S KHURMI&J.K GUPTA PAGENO-567	<a href="https://www.youtube.com/watch?v=r3l0LKMUAN8">https://www.youtube.com/watch?v=r3l0LKMUAN8</a>	1-Previous class topic Review-10 min 2-Lecturer-50 min	29..01.2026		

21	CO3	2	Coefficient of fluctuation of energy, Coefficient of fluctuation of speed and its significance	R.S KHURMI&J.K GUPTA PAGENO-569,571	<a href="https://www.youtube.com/watch?v=r3l0LKMUAN8">https://www.youtube.com/watch?v=r3l0LKMUAN8</a>	1-Previous class topic Review-10 min 2-Lecturer-50 min	30..01.2026		
22	CO3	2	Governors - Types and explanation with neat sketches of watt governor with problems.	R.S KHURMI&J.K GUPTA PAGENO-653	<a href="https://www.youtube.com/watch?v=r3l0LKMUAN8">https://www.youtube.com/watch?v=r3l0LKMUAN8</a>	1-Previous class topic Review-10 min 2-Lecturer-50 min	02.02.2026		
23	CO3	4	Governors - Types and explanation with neat sketches of Porter governor.	R.S KHURMI&J.K GUPTA PAGENO-657	<a href="https://www.youtube.com/watch?v=c2b160dGpXs&amp;list=PLWM0wjHbgpgVJhZiQTdBOwJysOFDsnz-9">https://www.youtube.com/watch?v=c2b160dGpXs&amp;list=PLWM0wjHbgpgVJhZiQTdBOwJysOFDsnz-9</a>	1-Previous class topic Review-10 min 2-Lecturer-50 min	03..02.2026		
24	CO3	4	Function of Centrifugal governor.	R.S KHURMI&J.K GUPTA PAGENO-655	<a href="https://www.youtube.com/watch?v=nBQrFonGTgk&amp;list=PLjk-Oql4WmPlyU1nQ3DMB1GchCLYmoXRu">https://www.youtube.com/watch?v=nBQrFonGTgk&amp;list=PLjk-Oql4WmPlyU1nQ3DMB1GchCLYmoXRu</a>	1-Previous class topic Review-10 min 2-Lecturer-50 min	04..02.2026		
25	CO3	2	Concept, function and applications & Terminology of Governors	R.S KHURMI&J.K GUPTA PAGENO-654	<a href="https://www.youtube.com/watch?v=fA2O8X_v3NQ&amp;list=PLPgv9oOOLgc1l83hSVdOixwmiAJeS22Hp">https://www.youtube.com/watch?v=fA2O8X_v3NQ&amp;list=PLPgv9oOOLgc1l83hSVdOixwmiAJeS22Hp</a>	1-Previous class topic Review-10 min 2-Lecturer-50 min	05..02.2026		
26	CO3	3	Concept, function and applications & Terminology of Governors (sensitivity, stability and isochronisms)	R.S KHURMI&J.K GUPTA PAGENO-700	<a href="https://www.youtube.com/watch?v=IMJjGYEcc3U&amp;t=138s">https://www.youtube.com/watch?v=IMJjGYEcc3U&amp;t=138s</a>	1-Previous class topic Review-10 min 2-Lecturer-50 min	09.02.2026		
27	CO3		Numerical problems about watt and porter governor.	R.S KHURMI&J.K GUPTA PAGENO-657,665	<a href="https://www.youtube.com/watch?v=IMJjGYEcc3U&amp;t=138s">https://www.youtube.com/watch?v=IMJjGYEcc3U&amp;t=138s</a>	1-Previous class topic Review-10 min 2-Lecturer-50 min	13..02.2026		

28	CO3	5	Numerical problems about watt and porter governor and comparison between Flywheel & Governor.	R.S KHURMI&J.K GUPTA PAGENO-661	<a href="https://www.youtube.com/watch?v=IMJjGYECc3U&amp;t=138s">https://www.youtube.com/watch?v=IMJjGYECc3U&amp;t=138s</a>	1-Previous class topic Review-10 min 2-Lecturer-50 min	14...02.2026		
29	CO4	2	<b>CHAPTER-4</b> Brakes, Dynamometers, Clutches & Bearings: Function of brakes and dynamometers; Types of brakes and Dynamometers; Comparison between brakes and dynamometers	R.S KHURMI&J.K GUPTA PAGENO-732,733	<a href="https://www.youtube.com/watch?v=IMJjGYECc3U&amp;t=138s">https://www.youtube.com/watch?v=IMJjGYECc3U&amp;t=138s</a>	1-Previous class topic Review-10 min 2-Lecturer-50 min	16...02.2026		
30	CO4	3	Construction and working of i) shoe brake, ii) Band Brake,	R.S KHURMI&J.K GUPTA PAGENO-734,741	<a href="https://www.youtube.com/watch?v=IMJjGYECc3U&amp;t=138s">https://www.youtube.com/watch?v=IMJjGYECc3U&amp;t=138s</a>	1-Previous class topic Review-10 min 2-Lecturer-50 min	17...02.2026		
31	CO4	5	Numerical problems to find braking force and braking torque for shoe & band brakes	R.S KHURMI&J.K GUPTA PAGENO-745	<a href="https://www.youtube.com/watch?v=aP3Gk9KvFoQ">https://www.youtube.com/watch?v=aP3Gk9KvFoQ</a>	1-Previous class topic Review-10 min 2-Lecturer-50 min	20...02.2026		
32	CO4	3	brakes;Concept of Self Locking & Self energizing brakes Construction and working of i) Rope Brake Dynamometer,	R.S KHURMI&J.K GUPTA PAGENO-764	<a href="https://www.youtube.com/watch?v=aP3Gk9KvFoQ">https://www.youtube.com/watch?v=aP3Gk9KvFoQ</a>	1-Previous class topic Review-10 min 2- PPT/Smart board-20 min 3-Lecturer-30 min	21...02.2026		
33	CO4	3	ii) Hydraulic Dynamometer Clutches- Uniform pressure and Uniform Wear theories; Function of Clutch and its function.	R.K.Bansal ,Laxmi publications page no-456	<a href="https://www.youtube.com/watch?v=ahj74EcctI">https://www.youtube.com/watch?v=ahj74EcctI</a>	1-Previous class topic Review-10 min 2-Lecturer-50 min	23..02.2026		
34	CO3	3	Construction and working of i) Single plate clutch, ii) Multiplate clutch,	R.S KHURMI&J.K GUPTA PAGENO-297,301	<a href="https://www.youtube.com/watch?v=aP3Gk9KvFoQ">https://www.youtube.com/watch?v=aP3Gk9KvFoQ</a>	Clearing the doubt	24..02.2026		

35	CO4	3	iii) Centrifugal Clutch iv) Cone clutch and v) Diaphragm clutch. (Simple numericals on single and Multiplate clutch)	R.S KHURMI&J.K GUPTA PAGENO-310,317	<a href="https://www.youtube.com/watch?v=IXMDDmSiXZw">https://www.youtube.com/watch?v=IXMDDmSiXZw</a>	1-Previous class topic Review-10 min 2-Lecturer-50 min	25...02.2026		
36	CO4	3	ii) Conical pivot. Torque & power lost in friction .	R.S KHURMI&J.K GUPTA PAGENO-289	<a href="https://www.youtube.com/watch?v=BnYBEbmVX98">https://www.youtube.com/watch?v=BnYBEbmVX98</a>	1-Previous class topic Review-10 min 2-Lecturer-50 min	27..02.2026		
37	CO4	5	Numerical problems.	R.S KHURMI&J.K GUPTA PAGENO-292	<a href="https://www.youtube.com/watch?v=ajBJnT5FTJI">https://www.youtube.com/watch?v=ajBJnT5FTJI</a>	1-Previous class topic Review-10 min 2-Lecturer-50 min	02..03.2026		
38	CO4	5	Numerical problems.	R.S KHURMI&J.K GUPTA PAGENO-296,302,303	<a href="https://www.youtube.com/watch?v=xSII-cTgkMM">https://www.youtube.com/watch?v=xSII-cTgkMM</a>	1-Previous class topic Review-10 min 2- PPT/Smart board-20 min 3-Lecturer-30 min	05..03.2026		
39	CO5	2	<b>CHAPTER-5</b> -Balancing & Vibrations: Concept of balancing; Balancing of single rotating mas	R.S KHURMI&J.K GUPTA PAGENO-833,834	<a href="https://www.youtube.com/watch?v=V07SpHulYjU">https://www.youtube.com/watch?v=V07SpHulYjU</a>	1-Previous class topic Review-10 min 2-Lecturer-50 min	06.03.2026		
40	CO5	3	Graphical method for balancing of several masses revolving in same plane;	R.S KHURMI&J.K GUPTA PAGENO-837	<a href="https://www.youtube.com/watch?v=V07SpHulYjU">https://www.youtube.com/watch?v=V07SpHulYjU</a>	1-Previous class topic Review-10 min 2-Lecturer-50 min	07..03.2026		
41	CO5	3	Graphical method for balancing of several masses revolving in same plane;	R.S KHURMI&J.K GUPTA PAGENO-838	<a href="https://www.youtube.com/watch?v=aP3Gk9KvFoQ">https://www.youtube.com/watch?v=aP3Gk9KvFoQ</a>	1-Previous class topic Review-10 min 2-Lecturer-50 min	09.-03-2026		
42	CO5	3	Graphical method for balancing of several masses revolving in different plane;	R.S KHURMI&J.K GUPTA PAGENO-841	<a href="https://www.youtube.com/watch?v=-Dt_Vnjllfo">https://www.youtube.com/watch?v=-Dt_Vnjllfo</a>	1-Previous class topic Review-10 min 2- PPT/Smart board-20 min 3-Lecturer-30 min	10...03.2026		

43	CO5	5	Numericals problems.	R.S KHURMI&J.K GUPTA PAGENO-843	<a href="https://www.youtube.com/watch?v=aP3Gk9KvFoQ">https://www.youtube.com/watch?v=aP3Gk9KvFoQ</a>	1-Previous class topic Review-10 min 2-Lecturer-50 min	11....03.2026		
44	CO5	2	Concept and terminology used in vibrations	R.S KHURMI&J.K GUPTA PAGENO-909	<a href="https://www.youtube.com/watch?v=aP3Gk9KvFoQ">https://www.youtube.com/watch?v=aP3Gk9KvFoQ</a>	1-Previous class topic Review-10 min 2-Lecturer-50 min	12.03.2026		
45	CO5	2	Causes of vibrations in machines; their harmful effects and remedies	R.S KHURMI&J.K GUPTA PAGENO-916	<a href="https://www.youtube.com/watch?v=aP3Gk9KvFoQ">https://www.youtube.com/watch?v=aP3Gk9KvFoQ</a>	1-Previous class topic Review-10 min 2-Lecturer-50 min	18..03..2026		

n of faculty

Sign of HOD

Sign of PRINCIPAL







