

4th dfg 20-21

**LESSON PLAN 2020-21**  
**SEMESTER- 4TH(AUTOMOBILE ENGG.)**  
**SUBJECT – THEORY OF MACHINES**

FROM 20.04.2021

NAME OF THE TEACHING FACULTY-  
KULADEEP MOHAPATRA

**BHUBANANDA ORISSA SCHOOL OF ENGINEERING, CUTTACK**

**DEPARTMENT - AUTOMOBILE ENGINEERING**

**SUBJECT NAME –THEORY OF MACHINE (Th.1)**

**SEMESTER – 4<sup>TH</sup>**

**NAME OF TEACHING FACULTY - KULADEEP MOHAPATRA**

WEEK & DATE	NO. OF PERIODS ALLOTTED	TOPICS TO BE COVERED	TOPICS ACTUALLY COVERED	SHORTFALL IF ANY	REASON OF SHORTFALL	HOW TO MAKE UP	REMARKS/ SIGNATURE WITH DATE
1 <sup>st</sup> 20.04.2021	03	<b>SIMPLE MECHANISM</b> 1.1 Link, kinematic chain, mechanism, machine 1.2 Inversion, four bar link mechanism 1.2, four bar link mechanism and its inversion	1.1 completed	Nil	N.A	N.A	<i>Kuldeep</i> 20.04.2021
			1.2 Inversion and four bar chain	Nil	N.A	N.A	<i>Kuldeep</i> 22.4.21
			1.2 completed	Nil	N.A	N.A	<i>Kuldeep</i> 24.4.21
2 <sup>nd</sup> 26.04.2021	04	1.3 Lower pair and higher pair 1.4 Cam and followers  <b>FRICTION</b> 2.1 Friction between nut and screw for	1.3 and 1.4 completed	Nil	N.A	N.A	<i>Kuldeep</i> 26.4.21
			2.1 continue	Nil	N.A	N.A	<i>Kuldeep</i> 27.4.21

29.04.2021		square thread	2.1 friction in screwjack	2.1 completed	Nil	N.A	N.A	Handwritten signature 29.4.21
			2.2 Bearing and its classification, Description of roller, needle roller & ball bearings	2.2 completed	Nil	N.A	N.A	Handwritten signature 01.5.21
3 <sup>rd</sup>	03.05.2021	04	2.3 Torque transmission in flat pivot & conical pivot bearings	2.3 completed	Nil	N.A	N.A	Handwritten signature 03.5.21
			2.4 Flat collar bearing of single and multiple types	2.4 completed	Nil	N.A	N.A	Handwritten signature 04.5.21
			2.5 Torque transmission for single and multiple clutches	2.5 completed	Nil	N.A	N.A	Handwritten signature 06.5.21
08.05.2021			2.6 Working of simple frictional brakes	2.6 completed	Nil	N.A	N.A	Handwritten signature 08.5.21
			2.7 Working of Absorption type of dynamometer	cond	Yes			
11.05.2021			<b>POWER TRANSMISSION</b>	cond	Yes			Handwritten signature 11.5.21
			3.1 Concept of power transmission					
4 <sup>th</sup>	10.05.2021	04						



5 <sup>th</sup>	13.05.2021	3.2 Type of drives, belt, gear and chain drive	-	Yes				Amdeep 13.5.21
		3.3 Computation of velocity ratio, length of belts (open & cross) without slip.	-	Yes				Amdeep 15.5.21
	15.05.2021	3.4 Ratio of belt tensions, centrifugal tension and initial tension.	-	Yes				Amdeep 17.5.21
	17.05.2021	3.5 Power transmitted by the belt	-	Yes				Amdeep 18.5.21
	18.05.2021	3.6 Determine belt thickness and width for given permissible stress for open and crossed belt considering centrifugal tension	-	Yes				Amdeep 20.5.21
	20.05.2021	3.7 V-belts and V-belt pulleys	-	Yes				Amdeep 22.5.21
	22.05.2021	3.8 Concept of crowning of pulleys	-	Yes				Amdeep 24.5.21
	24.05.2021	3.9 Gear drives and its terminology	correct	Yes				Amdeep 24.5.21
6 <sup>th</sup>	24.05.2021	3.10 Gear trains, working principle of simple, compound, reverted and	2.7 completed	Not	N.A	N.A		Amdeep 24.5.21



9 <sup>th</sup>	08.06.2021	02	dynamical balancing 5.2 Static balancing of rotating parts	4.1 and 4.2 completed	Nil	N.A	N.A	Handeep 08.6.21
	12.06.2021		5.3 Principles of balancing of reciprocating parts	4.3 continue	Nil	N.A	N.A	Handeep 12.6.21
	17.06.2021		5.4 Causes and effect of unbalance	4.3 continue	Nil	N.A	N.A	Handeep 17.6.21
	19.06.2021		5.5 Difference between static and dynamical balancing	4.3 completed	Nil	N.A	N.A	Handeep 19.6.21
10 <sup>th</sup>	21.06.2021	04	<b>VIBRATION OF MACHINE PARTS</b> 6.1 Introduction to Vibrations and related terms (Amplitude, time period and frequency, cycle)	4.4 completed	Nil	N.A	N.A	Handeep 21.6.21
	22.06.2021		6.2 Classification of vibration	4.5 and 4.6 completed	Nil	N.A	N.A	Handeep 22.6.21
	24.06.2021		6.3 Basic concept of natural, forced & damped vibration	4.7 completed	Nil	N.A	N.A	Handeep 24.6.21
	26.06.2021		6.4 Torsional and Longitudinal vibration 6.5 Causes & remedies of vibration	5.1 and 5.2 completed	Nil	N.A	N.A	Handeep 26.6.21
11 <sup>th</sup>	28.06.2021	02	REVISION	5.3 completed	Nil	N.A	N.A	Handeep 28.6.21



	29.06.2021		TEST							
			5.4 course work	Nil	N.A	N.A	N.A			Amdeep 09.6.21
<b>THE CLOSING DATE OF ATTENDANCE IS EXTENDED FROM 30.06.2021 TO 13.08.2021 BY SCTE&amp;VT</b>										
11 <sup>th</sup>	01.07.2021	02	5.4 Causes and effect of unbalance	Nil	N.A	N.A	N.A			Amdeep 01.7.21
	03.07.2021		5.5 Difference between static and dynamic balancing	Nil	N.A	N.A	N.A			Amdeep 03.7.21
12 <sup>th</sup>	05.07.2021	04	<b>VIBRATION OF MACHINE PARTS</b> 6.1 Introduction to Vibrations and related terms (Amplitude, time period and frequency, cycle)	Nil	N.A	N.A	N.A			Amdeep 05.7.21
	06.07.2021		6.2 Classification of vibration	Nil	N.A	N.A	N.A			Amdeep 06.7.21
	08.07.2021		6.3 Basic concept of natural, forced & damped vibration	Nil	N.A	N.A	N.A			Amdeep 08.7.21
13 <sup>th</sup>	10.07.2021		6.4 Torsional and Longitudinal vibration	Nil	N.A	N.A	N.A			Amdeep 10.7.21
	13.07.2021	03	6.5 Causes & remedies of vibration	Revision of chapter 1	N.A	N.A	N.A			Amdeep 13.7.21
	15.07.2021		REVISION OF 1 <sup>ST</sup> CHAPTER	Doubt clearing on chapter 1	N.A	N.A	N.A			Amdeep 15.7.21
			DOUBT CLEARING		N.A	N.A	N.A			

14 <sup>th</sup>	17.07.2021		REVISION OF 2 <sup>ND</sup> CHAPTER	Revision of chapter - 2	Nil	N.A	N.A	Handwritten 17.7.21
	19.07.2021	04	DOUBT CLEARING	Doubt clearing in chapter - 2	Nil	N.A	N.A	Handwritten 19.7.21
	20.07.2021		REVISION OF 3 <sup>RD</sup> CHAPTER	Revision of 3 <sup>rd</sup> chapter	Nil	N.A	N.A	Handwritten 20.7.21
	22.07.2021		DOUBT CLEARING	Doubt clearing in chapter - 3	Nil	N.A	N.A	Handwritten 22.7.21
	24.07.2021		REVISION OF 4 <sup>TH</sup> CHAPTER	Revision of chapter - 4	Nil	N.A	N.A	Handwritten 24.7.21
15 <sup>th</sup>	26.07.2021	04	DOUBT CLEARING	Doubt clearing of chapter - 4	Nil	N.A	N.A	Handwritten 26.7.21
	27.07.2021		REVISION OF 5 <sup>TH</sup> CHAPTER	Revision of chapter - 5	Nil	N.A	N.A	Handwritten 27.7.21
	29.07.2021		DOUBT CLEARING	Doubt clearing in chapter - 5	Nil	N.A	N.A	Handwritten 29.7.21
	31.07.2021		REVISION OF 6 <sup>TH</sup> CHAPTER	Revision of chapter - 6	Nil	N.A	N.A	Handwritten 31.7.21
16 <sup>th</sup>	02.08.2021	04	TEST	Test	Nil	N.A	N.A	Handwritten 02.8.21
	03.08.2021		DOUBT CLEARING	Over all doubt clearing	Nil	N.A	N.A	Handwritten 03.8.21
	05.08.2021		DOUBT CLEARING	Over all doubt clearing	Nil	N.A	N.A	Handwritten 05.8.21
	07.08.2021		DOUBT CLEARING	Over all doubt clearing	Nil	N.A	N.A	Handwritten 07.8.21
17 <sup>th</sup>	09.08.2021	03	DOUBT CLEARING	Over all doubt clearing	Nil	N.A	N.A	Handwritten 09.8.21
	10.08.2021		TEST	Test	Nil	N.A	N.A	Handwritten 10.8.21
	12.08.2021		DOUBT CLEARING	Over all doubt clearing	Nil	N.A	N.A	Handwritten 12.8.21