HB®
ORISSA
TRADE MARK

LION™

Teacher's Lesson Note

2023-24 (SUMMER)

SUB:- AUTOMOBILE Engg. & H.V
BRANCH:- MECH ENGG (I & II)
SEM :- 6TH

Lion

TEACHERS LESSON NOTE

Date	Week	Class	Subject	Topic (Concept)	Sub-Topic (Sub-Concept)	Learning Activities to be taken up	TLM to be used	Evaluative Questions	Expected learning outcome	Project work to be assigned	Signature of the Teacher	Signature of the Headmaster	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
02/02/24	1st Week	1st	Introduction & Transmission System	Automobile	Definition of Automobiles.	Need & Classification		• What is Automobile • Classification of Automobile • Classification of Engine	Need & Classification & Introduction		2/2/24	2/2/24	
5/2/24		2nd				Layout of automobile chassis			• Layout of automobile chasis • Types of chasis		5/2/24	5/2/24	
8/2/24		3rd				Clutch System. Need, Types.		• Function of clutch? • Need? • Single Plate clutch working Principle Explain with diagram.	• Clutch System • Need, function • Types • Single Plate clutch working.		8/2/24	8/2/24	
12/2/24		4th				Working Principle with Sketch.			• Working Principle of Clutch (Single & Multiple)		12/2/24	12/2/24	

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
21/2/24	2nd	1st		Gear Box	Purpose of gearbox	• Purpose of gear Box Construction		• Need of gear Box • Definition of gear Box	• Gear Box Parts & Mechanism		21/2/24	21/2/24	
22/2/24		2nd				• Working principle of a 4 speed gear box			• Working of constant mesh gear box & sliding mesh gearbox.		22/2/24	22/2/24	
12/2/24		3rd				• Concept of gear change			• Concept of gear change		12/2/24	12/2/24	
13/2/24		4th				• Concept of Automatic gear changing Mechanism.			• Concept of Automatic gear changing Mechanism		13/2/24	13/2/24	

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
14/3/24	3rd	1st		Transmission System	Propeller Shaft	Constructional features			Constructional features of Propeller shaft		14/3/24	14/3/24	
18/3/24		2nd			Differential	Need Types Explain			Differential → Need & Types		18/3/24	18/3/24	
20/3/24		3rd				Working Principle of a Differential		What is differential How it's work Explain with diagram	Working Principle of a differential		20/3/24	20/3/24	
Q1/3/24		4th				Class-test on Introduction & Transmission system of a automobile & Discussion			Class test		21/3/24	21/3/24	

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
20/2/24	4th	1st		Braking System	Braking System in automobile	Need of Types Discuss		• Mechanical Brake • Disc " • Hydraulic "	Need of Types of Braking		21/2/24	21/2/24	
21/2/24		2nd			Mechanical Brake	Mechanical Brake • Types • Construction • Working • Application			Mechanical brake • Type • Construction • working • Application		21/2/24	21/2/24	
22/2/24		3rd			Hydraulic Brake	Hydraulic Brake • Construction feature • Application			• Hydraulic Braking System • working & Applications		22/2/24	22/2/24	
23/2/24		4th				• Hydraulic Brake • Working & Adv & Disadv • Application			• Hydraulic Brake • working & Adv & Disadv • Application		5/4/24	5/4/24	

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1	10	11	4	5	6	7	8	9	10	11	12	13	14
9/10/24	Week 5	3rd			Air Brake	• Types • Construction • Working • Application		• Describe air braking system with diagram.	• Types • Construction • Working • Application				
10/10/24		2nd			Air Assisted Hydraulic Brake	• Construction • Working • Application		• Describe Air Assisted Hydraulic Brake	• Construction • Working • Application				
10/11/24		5th			Vacuum Brake	• Construction • Working • Advantage • Dis-advantage • Application			-Construction -Working -Adv -Dis-adv -Application				
12/4/24		4th				Discuss about Brake & Classtest.			Discuss about Brake & Classtest				

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
	6th	1st		Ignition & Suspension System		Describe Battery igonition System			Describe Battery igonition System	Extra class			
		2nd				Describe Magnetigonition System			Describe Magnetigonition System	Extra class			
		3rd			Spark plugs	• Purpose • Construction			Purpose Construction	"			
		4th				• Specification • Types & working • Application			Specification Types & Working Application	"			

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
	7th	1st				State the Common ignition troubles & its remedies			State the Common ignition troubles & its remedies	Extraction			
		2nd				Description of the Conventional Suspension System for rear axle.			Description of the Conventional Suspension system for rear axle.	〃			
		3rd				Description of the Conventional Suspension System for front axle.			Description of the Conventional suspension system for front axle.	〃			
		4th				Dicuss about ignition System.			Discuss about ignition about ignition System.	〃			

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
	8th	1st				Description of Independent Suspension System Used in Cars.			Description of Independent Suspension system used in cars.	Extra class			
		2nd				Coilspring			Coilspring	"			
		3rd				Tension bars			Tension bars	"			
		4th				Constructional features & working of a telescopic shock absorber.			Construction and feature & working of a telescopic shock absorber	"			

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
	9th	1st		Cooling & Lubrication	Engine Cooling	• Need • Classification			Need Classification of Cooling & Lubrication	Exercise			
		2nd				• Engine Cooling steps Explain			Engine Cooling steps Explain	"			
		3rd				• Describe defects of Cooling			Describe defects of cooling	"			
		4th				• Describe Engine Cooling remedial Measures			Describe Engine Cooling remedial Measures	"			

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
	10th	1st				Describe the Function of Lubrication			Describe the Function of Lubrication	Extra class			
		2nd				Describe the Lubrication System of I.C engine			Describe the Lubrication System of I.C Engine	"			
		3rd				• Working • Application			Working Arm	"			
		4th				• Chaulest of above class.			Class	"			

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
	11th	1st			Fuel System.	Describe air fuel ratio							
		2nd				Describe Carburation Process for Petrol Engine							
		3rd				Describe Multipoint fuel injection System for Petrol Engine							
		4th				Describe all type of fuel injection system							

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
	12th	1st				Describe the working Principle of fuel injection System for multi Cylinder Engine.							
		2nd				filters use in Diesel Engine							
		3rd				Describe the working Principle of fuel feed Pump							
		4th				Describe the working of fuel Injector for diesel engine.							

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
	13th	1st			Electric & Hybrid Vehicles	Introduction on HV & EV							
		2nd				Social & Environment importance of Hybrid & Electric Vehicles.							
		3rd				Description of Electric Vehicles operationals adv.							
		4th				Present Performance & application of Electric Vehicles.							

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
	14th	1st				Battery fore EV							
		2nd				Battery types & Fuel Cells							
		3rd				Hybrid Vehicles							
		4th				Types of Hybrid & Electric Vehicles							

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
	15th	1st				Parallel Series Configurations							
		2nd				Parallel & Series Configurations							
		3rd				Driver train							
		4th				Solar Powered Vehicles.							