GOVT. POLYTECHNIC MAYURBHANJ LESSON PLAN

DSCIPLINE : MECHANICAL ENGG.		Semester: 6th		Name of the Teaching Faculty :Thakura Hansdah
Subject :Automobile Engg& Hybrid Vehicle(C311)		No. of Days / per week class allotted : 04	CHAPTER	Semester From date : 4.02.2025 To Date : 17.05.2025
MONTH	Week	Day		Topics
FEBRUARY	3rd	1st	CHAPTER-1	**1.0 INTRODUCTION & TRANSMISSION SYSTEM:**
		2nd		Automobiles: Definition, need
		3rd		Classification: Layout of automobile chassis with major components (Line diagram)
		4th		Clutch System: Need, Types
	4th	1st		Working principle with sketch of single clutch
		2nd		Working principle with sketch of Multiple clutch
		3rd		Gear Box: Purpose of gear box, Construction and working of a 4 speed gear box
		4th		Propeller shaft: Constructional features
	5TH	1st		Differential: Need, Types and Working principle
		2nd		Differential: Need, Types and Working principle
MARCH	1st	3rd	CHAPTER-2	**2.0BRAKING SYSTEM**: Braking systems in automobiles: Need and types
		4th		Mechanical Brake
	2nd	1st		Hydraulic Brake
		4th		Air Brake
	3rd	1st		Air assisted Hydraulic Brake
		2nd		Vacuum Brake
		3rd		CLASS TEST-1
		4TH		
	4th	1st	CHAPER-3	3.0IGNITION & SUSPENSION SYSTEM Describe the Battery ignition and Magnet ignition system
		2nd		Spark plugs: Purpose, and Spark plugs: construction
		3rd		**Spark plugs: specification**
		4th		State the common ignition troubles and its remedies
	5TH	1st		Description of the conventional suspension system for Rear and Front axle
		2nd		Description of the conventional suspension system for Rear and Front axle
		3rd		Description of independent suspension system used in cars (coil spring and tension bars)
	2nd	1st		Constructional features and working of a telescopic shock absorber
		2nd		**4.0COOLING AND LUBRICATION:** Engine cooling: Need and classification

APRIL		3rd	CHAPTER-4	Describe defects of cooling and their remedial measures
		4th		Describe the Function of lubrication
	3rd	1st		Describe the lubrication System of I.C. engine
		2nd		Describe the lubrication System of I.C. engine
		4th		QUESTION DISCUSSION
	4th	1st	CHAPTER-5	**FUEL SYSTEM:** Describe Air fuel ratio
		2nd		Describe Carburetion process for Petrol Engine
		3rd		INTERNAL EXAMINATION.
		4th		Describe Multipoint fuel injection system for Petrol Engine
	5TH	1st		Describe the working principle of fuel injection system for multi cylinder Engine
		2nd		Filter for Diesel engine
		3rd		Describe the working principle of Fuel feed pump for Diesel engine
		4th		Describe the working principle of Fuel Injector for Diesel engine
MAY	1ST	1st	CHAPTER-6	**5.0ELECTRIC AND HYBRID VEHICLES:** Introduction
		2nd		Social and Environmental importance of Hybrid and Electric Vehicles
		3rd		Description of Electric Vehicles,
		4th		operational advantages, present performance of Electric Vehicles
	2nd	1st		applications of Electric Vehicles
		2nd		Battery for Electric Vehicles, Battery types and fuel cells
		3rd		Hybrid vehicles, Types of Hybrid and Electric Vehicles: Parallel, Series, Parallel and Series configurations
		4th		Hybrid vehicles, Types of Hybrid and Electric Vehicles: Parallel, Series, Parallel and Series configurations
	3rd	1st		Solar powered vehicles
		2nd		Solar powered vehicles
		3rd		**CLASS TEST-2**
		4th		previous year question discussion

HOD
MECHANICAL ENGINEERING
G.P MAYURBHANJ

SUBJECT
EXPERT
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