

GOVT. POLYTECHNIC MAYURBHANJ LESSON PLAN

DISCIPLINE : 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 : 13.02.2023 To Date : 23.05.2023		
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		
	1st	3rd		3rd	CHAPTER-2	2.0BRAKING SYSTEM:
				4th		Braking systems in automobiles: Need and types
2nd		1st	Mechanical Brake			
		4th	Hydraulic Brake			
1st		1st	Air Brake			
		2nd	Air assisted Hydraulic Brake			
		2nd	Vacuum Brake			

MARCH	3rd	3rd	CHAPTER-3	3.0IGNITION & SUSPENSION SYSTEM:	
		4th		Describe the Battery ignition and Magnet ignition system	
	4th	1st		Spark plugs: Purpose, and Spark plugs: construction	
		2nd		Spark plugs: specification	
		3rd		State the common ignition troubles and its remedies	
		4th		CLASS TEST-1	
	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)	
		4th		Description of independent suspension system used in cars (coil spring and tension bars)	
APRIL	2nd	1st	CHAPTER-4	Constructional features and working of a telescopic shock absorber	
		2nd		4.0COOLING AND LUBRICATION:	
		3rd		Engine cooling: Need and classification	
		4th		Describe defects of cooling and their remedial measures	
	3rd	1st		Describe the Function of lubrication	
		2nd		Describe the lubrication System of I.C. engine	
		4th		Describe the lubrication System of I.C. engine	
	4th	1st		CHAPTER-5	FUEL SYSTEM:
		2nd			Describe Air fuel ratio
		3rd			Describe Carburetion process for Petrol Engine
		4th			Describe Multipoint fuel injection system for Petrol Engine
		1st			Describe the working principle of fuel injection system for multi cylinder Engine
		2nd			Filter for Diesel engine
		5TH			3rd
4th			Describe the working principle of Fuel feed pump for Diesel engine		
1st	Describe the working principle of Fuel Injector for Diesel engine				
2nd	5.0ELECTRIC AND HYBRID VEHICLES:				
	1st		Introduction		

MAY	1ST	2nd	CHAPTER-6	Social and Environmental importance of Hybrid and Electric Vehicles
		3rd		Description of Electric Vehicles,
		4th		operational advantages, present performance of Electric Vehicles
		1st		applications of Electric Vehicles
	2nd	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
		1st		Hybrid vehicles, Types of Hybrid and Electric Vehicles: Parallel, Series, Parallel and Series configurations
	3rd	2nd		Solar powered vehicles
		3rd		CLASS TEST-2
		4th		previous year question discussion
		1st		previous year question discussion
	4th	2nd		previous year question discussion

**HOD
MECHANICAL ENGINEERING**

**SUBJECT
EXPERT**

**ACADEMIC
COORDINATOR**