

Lesson Plan for			
AUTOMOBILE ENGINEERING AND HYBRID VEHICLES- 6th Mechanical			
Sl. No.	Topics to be Covered	Week No.	Dates to be Covered
<b>1.0 INTRODUCTION &amp; TRANSMISSION SYSTEM:</b>			
1.1	Automobiles: Definition, need and classification: Layout of automobile chassis with major components (Line diagram)	1st	14/02/23 to 18/02/23
1.2	AutClutch System: Need, Types (Single & Multiple) and Working principle with sketch		
1.3	Gear Box: Purpose of gear box, Construction and working of a 4 speed gear box	2nd	20/02/23 to 25/02/23
1.4	Concept of automatic gear changing mechanisms		
1.5	Propeller shaft: Constructional features	3rd	27/02/23 to 04/03/23
1.6	Differential: Need, Types and Working principle		
<b>2.0 BRAKING SYSTEM:</b>			
2.1	Braking systems in automobiles: Need and types	4th	06/03/23 to 11/03/23
2.2	Mechanical Brake		
2.3	Hydraulic Brake	5th	13/03/23 to 18/03/23
2.4	Air Brake		
2.5	Air assisted Hydraulic Brake	6th	20/03/23 to 25/03/23
2.6	Vacuum Brake		
<b>3.0 IGNITION &amp; SUSPENSION SYSTEM:</b>			
3.1	Describe the Battery ignition and Magnet ignition system	7th	27/03/23 to 01/04/23
3.2	Spark plugs: Purpose, construction and specifications		
3.3	State the common ignition troubles and its remedies	8th	03/04/23 to 08/04/23
3.4	Description of the conventional suspension system for Rear and Front axle		
3.5	Description of independent suspension system used in cars (coil spring and tension bars)	9th	10/04/23 to 15/04/23
3.6	Constructional features and working of a telescopic shock absorber		
<b>4.0 COOLING AND LUBRICATION:</b>			
4.1	Engine cooling: Need and classification	10th	17/04/23 to 22/04/23
4.2	Describe defects of cooling and their remedial measures		
4.3	Describe the Function of lubrication	11th	24/04/23 to 29/04/23
4.4	Describe the lubrication System of I.C. engine		

<b>5.0 FUEL SYSTEM:</b>			
5.1	Describe Air fuel ratio	12th	01/05/23 to 06/05/23
5.2	Describe Carburetion process for Petrol Engine		
5.3	Describe Multipoint fuel injection system for Petrol Engine	13th	08/05/23 to 13/05/23
5.4	Describe the working principle of fuel injection system for multi cylinder Engine		
5.5	Filter for Diesel engine Describe the working principle of Fuel feed pump and Fuel Injector for Diesel engine		
<b>6.0 ELECTRIC AND HYBRID VEHICLES:</b>			
6.1	Introduction, Social and Environmental importance of Hybrid and Electric Vehicles	14th	15/05/23 to 20/05/23
6.2	Description of Electric Vehicles, operational advantages, present performance and applications of Electric Vehicles		
6.3	Battery for Electric Vehicles, Battery types and fuel cells		
6.4	Hybrid vehicles, Types of Hybrid and Electric Vehicles: Parallel, Series, Parallel and Series configurations;6.5 Drive train	15th	22/05/23 to 23/05/23
6.5	Solar powered vehicles		

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