



GANDHI SCHOOL OF ENGINEERING  
BHABANDHA, BERHAMPUR  
SESSION PLAN

6TH SEMESTER, BRANCH-MECHANICAL(GROUP 1)

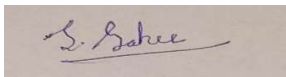
TH.2 AUTOMOBILE ENGINEERING AND HYBRID VEHICLES

Name of the Faculty – ER. SIBASISH SAHU						
Topics to be taken						
SL NO & CHAPTER	No. of Periods assigned by SCTE & VT	Details of the topics	PLANNED DATE	Details of the topics	ACTUAL DATE	Remarks
1. INTRODUCTION & TRANSMISSION SYSTEM	12	1.1 Automobiles: Definition, need and classification: Layout of automobile chassis with major components (Line diagram) 1.2 Clutch 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 1.4 Concept of automatic gear changing mechanisms 1.5 Propeller shaft: Constructional features 1.6 Differential: Need, Types and Working principle	13/02/2023 TO 28/02/2023	1.1 Automobiles: Definition, need and classification: Layout of automobile chassis with major components (Line diagram) 1.2 Clutch 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 1.4 Concept of automatic gear changing mechanisms 1.5 Propeller shaft: Constructional features 1.6 Differential: Need, Types and Working principle	13.02.2023 14.02.2023  16.02.2023 17.02.2023  20.02.2023 21.02.2023  23.02.2023  24.02.2023  27.02.2023 28.02.2023	

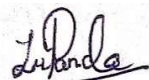
<p style="text-align: center;"><b>2. BRAKING SYSTEM</b></p>	<p style="text-align: center;"><b>5</b></p>	<p>2.1 Braking systems in automobiles: Need and types  2.2 Mechanical Brake  2.3 Hydraulic Brake  2.4 Air Brake  2.5 Air assisted Hydraulic Brake  2.6 Vacuum Brake</p>	<p style="text-align: center;"><b>2/03/2023 TO 10/03/2023</b></p>	<p>2.1 Braking systems in automobiles: Need and types  2.2 Mechanical Brake  2.3 Hydraulic Brake  2.4 Air Brake  2.5 Air assisted Hydraulic Brake  2.6 Vacuum Brake</p>	<p style="text-align: center;"><b>2.03.2023 3.03.2023 6.03.2023 9.03.2023 10.03.2023</b></p>	
<p style="text-align: center;"><b>3. IGNITION &amp; SUSPENSION SYSTEM</b></p>	<p style="text-align: center;"><b>10</b></p>	<p>3.1 Describe the Battery ignition and Magnet ignition system  3.2 Spark plugs: Purpose, construction and specifications  3.3 State the common ignition troubles and its remedies  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)  3.6 Constructional features and working of a telescopic shock absorber</p>	<p style="text-align: center;"><b>13/03/2023 TO 24/03/2023</b></p>	<p>3.1 Describe the Battery ignition and Magnet ignition system  3.2 Spark plugs: Purpose, construction and specifications  3.3 State the common ignition troubles and its remedies  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)  3.6 Constructional features and working of a telescopic shock absorber</p>	<p style="text-align: center;"><b>13.03.2023 14.03.2023 16.03.2023 17.03.2023 20.03.2023 21.03.2023 23.03.2023 24.03.2023</b></p>	

4. COOLING AND LUBRICATION	8	<p>4.1 Engine cooling: Need and classification</p> <p>4.2 Describe defects of cooling and their remedial measures</p> <p>4.3 Describe the Function of lubrication</p> <p>4.4 Describe the lubrication System of I.C. engine</p>	<p>27/03/2023 TO 6/04/2023</p>	<p>4.1 Engine cooling: Need and classification</p> <p>4.2 Describe defects of cooling and their remedial measures</p> <p>4.3 Describe the Function of lubrication</p> <p>4.4 Describe the lubrication System of I.C. engine</p>	<p>27.03.2023</p> <p>28.03.2023</p> <p>31.03.2023</p> <p>3.04.2023</p> <p>4.04.2023</p> <p>6.04.2023</p>	
5. FUEL SYSTEM	10	<p>5.1 Describe Air fuel ratio</p> <p>5.2 Describe Carburetion process for Petrol Engine</p> <p>5.3 Describe Multipoint fuel injection system for Petrol Engine</p> <p>5.4 Describe the working principle of fuel injection system for multi cylinder Engine</p> <p>5.5 Filter for Diesel engine</p> <p>5.6 Describe the working principle of Fuel feed pump and Fuel Injector for Diesel engine</p>	<p>10/04/2023 TO 24/04/2023</p>	<p>5.1 Describe Air fuel ratio</p> <p>5.2 Describe Carburetion process for Petrol Engine</p> <p>5.3 Describe Multipoint fuel injection system for Petrol Engine</p> <p>5.4 Describe the working principle of fuel injection system for multi cylinder Engine</p> <p>5.5 Filter for Diesel engine</p> <p>5.6 Describe the working principle of Fuel feed pump and Fuel Injector for Diesel engine</p>	<p>10.04.2023</p> <p>11.04.2023</p> <p>13.04.2023</p> <p>17.04.2023</p> <p>18.04.2023</p> <p>20.04.2023</p> <p>21.04.2023</p> <p>24.04.2023</p>	

6. ELECTRIC AND HYBRID VEHICLES	15	6.1 Introduction, Social and Environmental importance of Hybrid and Electric Vehicles 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 6.6 Solar powered vehicles	25/04/2023 TO 23/05/2023	6.1 Introduction, Social and Environmental importance of Hybrid and Electric Vehicles 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 6.6 Solar powered vehicles	25.04.2023 27.04.2023 28.04.2023  1.05.2023 2.05.2023 4.05.2023 8.05.2023  9.05.2023 11.05.2023  12.05.2023 15.05.2023 16.05.2023 18.05.2023  22.05.2023 23.05.2023	
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 Mechanical Engineering  
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<p align="center"><b>3. IGNITION &amp; SUSPENSION SYSTEM</b></p>	<p align="center"><b>10</b></p>	<p>3.1 Describe the Battery ignition and Magnet ignition system  3.2 Spark plugs: Purpose, construction and specifications  3.3 State the common ignition troubles and its remedies  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)  3.6 Constructional features and working of a telescopic shock absorber</p>	<p align="center"><b>14/03/2023 TO 27/03/2023</b></p>	<p>3.1 Describe the Battery ignition and Magnet ignition system  3.2 Spark plugs: Purpose, construction and specifications  3.3 State the common ignition troubles and its remedies  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)  3.6 Constructional features and working of a telescopic shock absorber</p>	<p align="center"><b>14.03.2023  15.03.2023  17.03.2023  20.03.2023  21.03.2023 22.03.2023  24.03.2023 27.03.2023</b></p>	

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*Sanjaya Sahu*

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