# GOVT. POLYTECHNIC MAYURBHANJ LESSON PLAN

| Discipline : MECHANICAL ENGG. | | Semester: 6th | | Name of the Teaching Faculty :Thakura Hansdah |
|---|---|---|---|---|
| Subject : Automobile Engg. | | No. of Days / per week class allotted : 04 | CHAPTER | Semester From date : 16.01.2024 To Date : 26.04.2024 |
| MONTH | Week | Day | CHAPTER | Topics |
| JANUARY | 3rd | 2nd | CHAPTER-1 | 1.0 INTRODUCTION & TRANSMISSION SYSTEM: |
| | | 3rd | | Automobiles: Definition, need |
| | | 4th | | Classification: Layout of automobile chassis with major components (Line diagram) |
| | 4th | 1st | | Classification: Layout of automobile chassis with major components (Line diagram) |
| | | 2ND | | Clutch System: Need, Types |
| | | 3RD | | Working principle with sketch of single clutch |
| | | 4TH | | Working principle with sketch of Multiple clutch |
| | 5TH | 1st | | Gear Box: Purpose of gear box, Construction and working of a 4 speed gear box |
| | | 2ND | | Working of sliding mesh gear box |
| | | 3RD | | Working of constant mesh gear box |
| | | 4TH | | Working of syncromesh mesh gear box |
| | 1ST | 1st | | Propeller shaft: Constructional features |
| | | 2nd | | X |
| | | 3rd | | X |
| | | 4TH | | X |
| | 2ND | 1st | | **Differential: Need, Types and Working principle** |
| | | 2nd | | QUESTION DISCUSSION |
| | | 3rd | CHAPTER-2 | **2.0 BRAKING SYSTEM:** Braking systems in automobiles: Need and types |
| | | 4th | | Mechanical Brake |
| | 3rd | 1st | | Hydraulic Brake |
| | | 2ND | | Hydraulic Brake |

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| FEBRUARY | 3rd | 3RD | CHA | Air Brake |
| | | 4TH | | **CLASS TEST-1** |
| | 4th | 1st | | Air assisted Hydraulic Brake |
| | | 2ND | | Vacuum Brake |
| | | 3RD | | **3.0 IGNITION & SUSPENSION SYSTEM:** Describe the Battery ignition and Magnet ignition system |
| | | 4TH | | Spark plugs: Purpose, and Spark plugs: construction |
| | 5TH | 1st | | Spark plugs: specification |
| | | 2ND | | State the common ignition troubles and its remedies |
| | | 3RD | | State the common ignition troubles and its remedies |
| | | 4TH | | Description of the conventional suspension system for Rear and Front axle |
| MARCH | 2ND | 1st | CHAPTER-3 | Description of the conventional suspension system for Rear and Front axle |
| | | 2ND | | Description of independent suspension system used in cars (coil spring and tension bars) |
| | | 3RD | | Description of independent suspension system used in cars (coil spring and tension bars) |
| | | 4TH | | Constructional features and working of a telescopic shock absorber |
| | 3RD | 1st | | QUESTION DISCUSSION |
| | | 2ND | | **4.0 COOLING AND LUBRICATION:** Engine cooling: Need and classification |
| | | 3RD | | Describe defects of cooling and their remedial measures |
| | | 4TH | CHAPTER-4 | Describe the Function of lubrication |
| | 4th | 1st | | Describe the lubrication System of I.C. engine |
| | | 2nd | | Describe the lubrication System of I.C. engine |
| | | 4th | | QUESTION DISCUSSION |
| | 5TH | 1st | | **5.0FUEL SYSTEM:** Describe Air fuel ratio |
| | | 2ND | | Describe Carburetion process for Petrol Engine |
| | | 3RD | | Describe Multipoint fuel injection system for Petrol Engine |
| | | 4TH | APTER-5 | Describe the working principle of fuel injection system for multi cylinder Engine |

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| APRIL | 1ST | 1st | CHA | Filter for Diesel engine |
| | | 2ND | | Describe the working principle of Fuelfeed pump for Diesel engine |
| | | 3RD | | Describe the working principle of Fuel Injector for Diesel engine |
| | | 4TH | | Describe the working principle of Fuel Injector for Diesel engine |
| | | | | **INTERNAL EXAMINATION.** |
| | 2ND | 4th | | **6.0ELECTRIC AND HYBRID VEHICLES:** Introduction |
| | | 4th | | Social and Environmental importance of Hybrid and Electric Vehicles |
| | | | | Description of Electric Vehicles, operational advantages, |
| | | | | present performance of Electric Vehicles |
| | 3rd | 1st | CHAPTER-6 | applications of Electric Vehicles&Battery for Electric Vehicles, Battery types andfuel cells |
| | | 2nd | | Hybrid vehicles, Types of Hybrid and Electric Vehicles: |
| | | 3rd | | Series configurations |
| | | 4th | | Parallel configurations |
| | 4th | 1st | | Parallel and Series configurations |
| | | 2nd | | Solar powered vehicles. |
| | | 3rd | | **CLASS TEST-2** |
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HOD
MECHANICAL ENGG.

SUBJECT
EXPERT

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