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| LESSON PLAN-6TH SEMESTER (2020-2021) |
| SUBJECT:-AUTOMOBILE ENGINEERING AND HYBRID VEHICLES (TH. 2) |
| NAME OF THE FACULTY:-SATYAJIT MOHANTA |
| MONTH | CHAPTER /UNIT | COURSE TO BE COVERED | CLASSES REQUIRED | REMARKS (IF ANY) |
|  | **Chapter-1** |  **INTRODUCTION & TRANSMISSION SYSTEM** | **12** |  |
|  | **1.1** | Automobiles: Definitions, need and classification: Layout of automobile chassis with major components (Line diagram) | 2 |  |
|  | **1.2** | Clutch System: Need, Types (Single & Multiple) and working principle with sketch | 2 |  |
|  | **1.3** | Gear Box: Purpose of gear box, Construction and working of a 4 speed gear box | 2 |  |
|  | **1.4** | Concept of automatic gear changing mechanics | 2 |  |
|  | **1.5** | Propeller shaft: Constructional features | 2 |  |
|  | **1.6** | Differential: Need, Types and Working principle | 2 |  |
|  | **Chapter-2** | **BRAKING SYSTEM** | **05** |  |
|  | **2.1** | Braking systems in automobiles: Need and types | 1 |  |
|  | **2.2** | Mechanical Brake | 1 |  |
|  | **2.3** | Hydraulic Brake |  |
|  | **2.4** | Air Brake | 1 |  |
|  | **2.5** | Air assisted Hydraulic Brake | 1 |  |
|  | **2.6** | Vacuum Brake | 1 |  |
|  | **Chapter-3** | **IGNITION & SUSPENSION SYSTEM** | **10** |  |
|  | **3.1** | Describe the Battery ignition and Magnet ignition system | 2 |  |
|  | **3.4** |  Description of the conventional suspension system for Rear and Front axle | 2 |  |
|  | **3.6** | Constructional features and working of a telescopic shock absorber | 2 |  |
|  | **Chapter-4** | **COOLING AND LUBRICATION** | **8** |  |
|  | **4.1** | Engine cooling: Need and classification | 2 |  |
|  | **4.2** | Describe defects of cooling and their remedial measures | 2 |  |
|  | **4.3** | Describe the Function of lubrication | 2 |  |
|  | **4.4** | Describe the lubrication System I.C. engine | 2 |  |
|  | **Chapter-5** | **FUEL SYSTEM** | **10** |  |
|  | **5.1** | Describe Air fuel ratio | 1 |  |
|  | **5.2** | Describe Carburetion process for Petrol Engine | 2 |  |
|  | **5.3** | Describe Multipoint fuel injection system for Petrol Engine | 2 |  |
|  | **5.4** | Describe the working principle of fuel injection system for multi cylinder Engine | 2 |  |
|  | **5.5** | Filter for Diesel engine | 1 |  |
|  |  **5.6** | Describe the working principle of fuel feed pump and Fuel Injector for Diesel Engine | 2 |  |