

ACADEMIC SESSION: 2022-23(SUMMER -2023)

DISCIPLINE:MECHANICAL ENGINEERING		Semester:6TH	Name of the teaching faculty: ASHISH MEHER	
Subject: AUTOMOBILE ENGINEERING AND HYBRID VEHICLES			Semester from date:14.02.2023 to 23.05.2023	
SL NO	DATE	CHAPTER	THEORY TOPIC NAME	NO OF PERIODS
1	16.02.2023	INTRODUCTION & TRANSMISSION SYSTEM:	Automobiles: Definition, need and classification: Layout of automobile chassis with major components (Line diagram)	1
2	17.02.2023		Single plate Clutch System: Need, Types Working principle with sketch	1
3	20.02.2023		Multiple plate Clutch System: Need, Types Working principle with sketch	1
4	23.02.2023		Gear Box: Purpose of gear box	1
5	24.02.2023		Construction and working of a 4 speed gear box(sliding mesh gear box)	1
6	25.02.2023		Constant Mesh Gear box	1
7	27.02.2023		Synchromesh Gear Box	1
8	02.03.2023		Concept of automatic gear changing mechanisms	1
9	03.03.2023		Propeller shaft: Constructional features	1
10	04.03.2023		Differential: Need, Types and Working principle	1
11	06.03.2023	BRAKING SYSTEM:	Braking systems in automobiles: Need and types	1
12	09.03.2023		Mechanical Brake, Hydraulic Brake	1
13	10.03.2023		Air Brake	1
14	11.03.2023		Air assisted Hydraulic Brake	1
15	13.03.2023		Vacuum Brake	1
16	16.03.2023	IGNITION & SUSPENSION SYSTEM	IGNITION & SUSPENSION SYSTEM	1
17	17.03.2023		Describe the Battery ignition system	1
18	18.03.2023		Describe the Magnet ignition system	1
19	20.03.2023		Spark plugs: Purpose, construction and specifications	1
20	21.03.2023		State the common ignition troubles and its remedies	1
21	23.03.2023		Description of the conventional suspension system	1
22	24.03.2023		Description of the conventional suspension system for Rear axle	1
23	25.03.2023		Description of the conventional suspension system for front axle	1
24	27.03.2023		Description of independent suspension system used in cars (coil spring and tension bars)	1
25	31.03.2023		Constructional features and working of a telescopic shock absorber	1
26	03.04.2023	COOLING AND LUBRICATION:	COOLING AND LUBRICATION	1
27	06.04.2023		Engine cooling: Need and classification	1
28	08.04.2023		Splash Lubrication System	1
29	10.04.2023		Semi pressure lubrication System	1
30	13.04.2023		Full Pressure lubrication System	1
31	15.04.2023		Engine cooling: Need and classification	1
32	17.04.2023		Describe the Function of lubrication	1
33	20.04.2023		Describe the Function of lubrication	1
34	21.04.2023	ELECTRIC AND HYBRID VEHICLES:	FUEL SYSTEM:	1
35	22.04.2023		Describe Air fuel ratio	1
36	24.04.2023		Describe Carburetion process for Petrol Engine	1
37	27.04.2023		Describe Multipoint fuel injection system for Petrol Engine	1
38	28.04.2023		Describe the working principle of fuel injection system for multi	1

			cylinder Engine	
39	29.04.2023		Filter for Diesel engine	1
40	01.05.2023		Describe the working principle of Fuel feed pump	1
41	04.05.2023		Fuel Injector for Diesel engine	1
42	06.05.2023	ELECTRIC AND HYBRID VEHICLES:	ELECTRIC AND HYBRID VEHICLES	1
43	08.05.2023		Introduction, Social and Environmental importance of Hybrid Vehicles	1
44	11.05.2023		Introduction, Social and Environmental importance of Electric Vehicles	1
45	12.05.2023		Description of Electric Vehicles	1
46	13.05.2023		operational advantages, present performance	1
47	15.05.2023		applications of Electric Vehicles	1
48	18.05.2023		Battery for Electric Vehicles, Battery types and fuel cells	1
49	19.05.2023		Hybrid vehicles, Types of Hybrid	1
50	20.05.2023		Electric Vehicles: Parallel configurations Series configuration, Drive train	1
51	22.05.2023		Solar powered vehicles	1

Prepared By
 Ashish Meher
 Lect (MECHANICAL)
 G P SONEPUR