

Dicipline: <u>Mechanical</u>	Semester: <u>6th</u>	Name of the Teaching Faculty: <u>Ashish Kumar Saha</u>	
Subject: <u>Automobile Engineering</u>	No of Days/Week Class Allotted: <u>4</u>	Semester From date: <u>10.02.22</u> To date: <u>18.06.22</u>	No. of Weeks: <u>5</u>

WEEK	Class Day	Theory Topics
1st	1st	Introduction & Transmission system:— Automobile def ⁿ , need and classification
	2nd	Layout of automobile chassis with major components (line diagram).
	3rd	Clutch system need & types (Engg. & multiple).
	4th	Working principle of clutch system with diagram.
	5th	
2nd	1st	Gear box, purpose of gearbox.
	2nd	Construction and working of 4-speed gearbox
	3rd	Concept of automatic gear changing mechanism.
	4th	Continue concept of automatic gear.
	5th	
3rd	1st	Propeller shaft & constructional features.
	2nd	Continue Propeller shaft.
	3rd	Differential needs & types.
	4th	Working principle of differential
	5th	

WEEK	Class Day	Theory Topics
4th	1st	Braking System: - Braking system in automobiles need & types.
	2nd	Mechanical brake.
	3rd	Hydraulic brake
	4th	Air and air assisted hydraulic brake.
	5th	
5th	1st	Vacuum brake.
	2nd	Ignition and Suspension System: - Describe battery & magnet ignition system.
	3rd	Spark plugs purpose, construction & specifications.
	4th	Continue spark plugs.
	5th	
6th	1st	State common ignition troubles and its remedies.
	2nd	Continue common ignition troubles & its remedies.
	3rd	Conventional suspension system for rear axle.
	4th	Conventional suspension system for front axle.
	5th	

Dicipline: <u>Mechanical</u>	Semester: <u>8th</u>	Name of the Teaching Faculty: <u>Ashish Kumar Sachin</u>	
Subject: <u>Automobile Engineering</u>	No of Days/Week Class Allotted: <u>4</u>	Semester From date: <u>10.03.22</u> To date: <u>18.06.22</u>	No. of Weeks: <u>15</u>

WEEK	Class Day	Theory Topics
7th	1st	Describe independent suspension system.
	2nd	Independent suspension system coil spring and tension bar
	3rd	Constructional features & working of a telescopic shock absorber.
	4th	Cooling and lubrication:- Engine cooling need and classification.
	5th	
8th	1st	Continue Engine cooling.
	2nd	Describe defects of cooling.
	3rd	Remedial measures of cooling.
	4th	Describe the function of lubrication
	5th	
9th	1st	Describe the lubrication system of I.C engine.
	2nd	Quick revision of chapter & doubt clearing.
	3rd	Class test-1 (Question answer discussion)
	4th	Fuel System:- Describe the air fuel ratio.
	5th	

WEEK	Class Day	Theory Topics
10th	1st	Describe Combustion process for petrol engine.
	2nd	Describe Multipoint fuel injection system.
	3rd	Continue MFI for petrol engine.
	4th	Working principle of fuel injection system for multi cylinder engine.
	5th	
11th	1st	Continue working principle of fuel injection system.
	2nd	Filter for diesel engine.
	3rd	Describe working principle of fuel feed pump.
	4th	Fuel injector for diesel engine.
	5th	
12th	1st	Ques Summarize the above.
	2nd	Electric & Hybrid Vehicles:- Introduction.
	3rd	Social & Environmental importance.
	4th	Description of Electric Vehicles.
	5th	

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				No. of Weeks:	15

WEEK	Class Day	Theory Topics
12 th	1st	Operational advantages of Electric Vehicles.
	2nd	Performance & applications of Electric Vehicle.
	3rd	Battery for Electric vehicles.
	4th	Battery types and fuel cells.
	5th	
14 th	1st	Hybrid vehicles & its types.
	2nd	Parallel and Series.
	3rd	Parallel and series configuration.
	4th	Drive train.
	5th	
15 th	1st	Solar powered vehicles.
	2nd	Summarize the above.
	3rd	Doubt clearing class.
	4th	Class test - II & Question-answer discussion.
	5th	