

PADMASHREE KRUTARTHA ACHARYA INSTITUTE OF ENGINEERING & TECHNOLOGY, BARGARH



LESSON PLAN Session-2023-2024

Discipline: Mechanical Engg. Semester: 6th


Subject: AE & HV

Name of the Teaching Faculty: Soumya Prakash Rath

Subject: AE & HV No. of Days/per week class allotted : 4

Semester From Date : 16-01-2024 To Date : 26-04-2024 No. of Weeks : 15

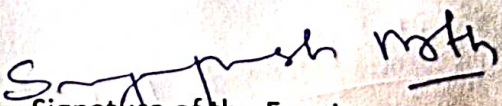
Week	Class Day	Theory /Practical Topics
01	1	Introduction of Automobile Engg.
	2	Definition of Automobile Engg.
	3	Need of Automobile Engg.
	4	Classification of Automobile.
02	1	Layout of Automobile chassis.
	2	Major Components of Automobiles
	3	Clutch, Need, Types of clutch.
	4	Working Principle of clutch
03	1	Gear box, Purpose, Construction and working.
	2	Concept of Automobile (Automatic) Gear changing mechanism
	3	Propeller Shaft, Constructional features.
	4	Differential, Need, types and working principle.


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Week	Class Day	Theory /Practical Topics
04	1	Braking System in Automobile
	2	mechanical brake
	3	Hydraulic brake.
	4	Air brake ; Air assisted Hydraulic brake
05	1	Vacuum Brake
	2	Introduction to ignition and Suspension System.
	3	Describe Battery Ignition System.
	4	magneto - ignition system.
06	1	spark plug . (purpose)
	2	Construction and specification of spark plug.
	3	Common ignition trouble and its remedies.
	4	Suspension system for rear and front axle.


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Week	Class Day	Theory / Practical Topics
07	1	Independent Suspension System.
	2	Coil Spring and Tension bar
	3	Telescopic shock Absorber.
	4	Introduction to Cooling and Lubrication.
08	1	Need of engine cooling.
	2	Classification of engine cooling.
	3	Defects of cooling.
	4	Remedial measures for defect of cooling.
09	1	Function of Lubrication.
	2	Lubrication System of I.C engine.
	3	Discussion of m.c.r.
	4	Introduction to fuel System.

S. S. Singh
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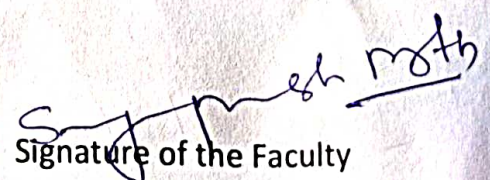
Week	Class Day	Theory /Practical Topics
10	1	Describe Air fuel ratio.
	2	Describe Carburetor.
	3	Carburation process for petrol engine.
	4	Multi-point fuel injection system for petrol engine.
11	1	Working principle of fuel injection system for multi-cylinder engine.
	2	Filter for diesel engine.
	3	Working principle of fuel feed pump.
	4	fuel injector for diesel engine.
12	1	Discussion of mecs.
	2	Introduction to Electric and Hybrid vehicle.
	3	Social and environmental importance of Hybrid vehicle.
	4	Description of electric vehicle, operational advantage.


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Week	Class Day	Theory /Practical Topics
13	1	Present performance and application of electric vehicle.
	2	Battery for electric vehicle.
	3	Fuel cells and Battery types.
	4	Hybrid vehicles
14	1	Types of Hybrid vehicle and Electric vehicles
	2	Parallel and series Configuration.
	3	Drive Train.
	4	Discussion of MCQs
15	1	Solar powered vehicles.
	2	Doubt clearing class.
	3	overall Chapter discussion
	4	overall Subject discussion.


Signature of the Faculty