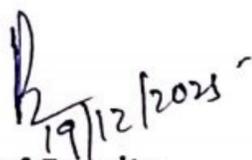


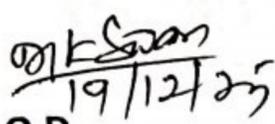
SYNERGY SCHOOL OF ENGINEERING, DHENKANAL
DEPARTMENT OF MECHANICAL ENGINEERING

LESSION PLAN

Discipline : Mechanical Engg	Semester: 6th Sem Mech	Name of faculty: Biswajit Mishra	
Sub: AE & HV	No of Days/ week class allotted :- 4	Total no of weeks:- 15 Session: 2025-26 (Summer)	Start Date: 22/12/2025 End date: 18/04/2026
No of Week	No Of Class Planned	Topic to be taught	
1st	1st	Automobiles: Definition, need and classification	
	2nd	Layout of automobile chassis with major components (Line diagram)	
	3rd	Clutch: single plate clutch	
	4th	Multiplate clutch	
2nd	1st	Gear Box: Purpose of gear box, Construction and working of a manual transmission system	
	2nd	Automatic transmission system	
	3rd	Concept of automatic gear changing mechanisms	
	4th	Propeller shaft: Constructional features	
3rd	1st	Differential mechanism	
	2nd	Rear axles: functions	
	3rd	Visualisation of transmission system through animated videos: E-learning	
	4th	Braking system: Introduction, classification	
4th	1st	Mechanical braking system	
	2nd	Hydraulic brakes	
	3rd	Air brakes	
	4th	Vacuum brakes: Bleeding of brakes	
5th	1st	Class Test-I	
	2nd	Ignition system : Introduction	
	3rd	Ignition coil, spark plug	
	4th	Battery ignition system	
6th	1st	Magneto ignition system	
	2nd	Difference between battery & magneto ignition system	
	3rd	Common ignition troubles & remedies	
	4th	Suspension system: Introduction	
7th	1st	Coil springs	
	2nd	Leaf springs	
	3rd	Telescopic shock absorber	
	4th	Engine cooling: Need & classification	
8th	1st	Description of cooling system: Air cooling, oil cooling system	
	2nd	Defects of cooling & their remedial measures	
	3rd	Functions of lubricating system, lubricant grades	
	4th	Lubricating system of automobile	

9 th	1 st	Different types of engine cooling system
	2 nd	Cooling & lubricating system animated videos: E-learning
	3 rd	Fuel system functions
	4 th	Carburettion
10 th	1 st	Air fuel ratio: Octane & cetane number
	2 nd	Solex carburettor
	3 rd	Ignition timing: firing order of 4- cyl inline engine
	4 th	Fuel injection system: multi point injection system
11 th	1 st	Working of fuel injector
	2 nd	Fuel feed pump
	3 rd	Introduction, Social and Environmental importance of Hybrid and Electric Vehicles
	4 th	Description of Electric Vehicles, operational advantages, present performance and applications of Electric Vehicles
12 th	1 st	Battery for Electric Vehicles,
	2 nd	Battery types and fuel cells
	3 rd	Types of Hybrid and Electric Vehicles
	4 th	
13 th	1 st	Parallel, Series, Parallel and Series configurations
	2 nd	Drive train
	3 rd	Solar powered vehicles
	4 th	Advantages of electric vehicles
14 th	1 st	Comparison of conventional versus EV
	2 nd	Challenge present performance and applications of Electric Vehicles to EV & Hybrid vehicles
	3 rd	Social and Environmental importance of Hybrid and Electric Vehicles
	4 th	Quiz test: previous year question answer
15 th	1 st	Previous year question answer
	2 nd	Previous year question answer
	3 rd	Previous year question answer
	4 th	Previous year question answer


 Sign of Faculty


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