

LESSON PLAN

DEPARTMENT OF MECHATRONICS ENGINEERING, ITT, CHOUDWAR

SUBJECT: Vetronics

Periods: 4 per week

SEMESTER: 5th

NAME OF FACULTY: LEEZA MISHRA

ACADEMIC YEAR: 2021-2022

Semester From date: 15/09/2022 **To Date:**

22/12/2022

No. of weeks: 15

Week	Class Day	Theory / Practical Topics
1st	1 st	Discuss about automobile industry and advance Future Trends in Automobile Techniques.
	2 nd	Discuss about The engine and its components engine block, cylinder, crank shaft, piston ,cam shaft, valves , intake system, ignition, exhaust
	3 rd	Discuss about cooling system, Lubrication System- fuel feed system ignition system-spark plug-high voltage circuit and distribution
	4 th	Discuss about compression ignition system-steering system, Ackerman steering mechanism, suspension system, fuel injection and ignition system,
2 nd	1 st	Discuss about fuel injection types throttle body versus port injection
	2 nd	Discuss about fuel injector different types High pressure diesel fuel injection
	3 rd	Discuss about introduction to Electronic ignition system
	4 th	Discuss about Principle of lead acid cells, plates and their characteristics
3 rd	1 st	Discuss about lead acid cells construction, electrolyte, effect of temperature on electrolytes , specific gravity, capacity and efficiency
	2 nd	Discuss about methods of charging from D.C. mains, defects and remedies of batteries
	3 rd	Discuss about care of idle and new batteries, Recycling process recent developments
	4 th	Discuss about D.C. Generators, Alternators and their characteristics control, cutout
4 th	1 st	Discuss about Electrical, Electro-mechanical and electronics regulators, procedure for charging
	2 nd	Discuss about details of head light and side light, LED lighting system, head light dazzling and preventive methods ,
	3 rd	Discuss about static and Dynamic Bending lights
	4 th	Introduction to sensors ,transducers and its types
5 th	1 st	Discuss about Air flow rate sensor, Engine crankshaft angular position sensor
	2 nd	Discuss about engine speed sensor, Timing sensor, Throttle angle sensor,
	3 rd	Discuss about Pressure sensor, Temperature sensors, Pressure sensor-Flow sensor
	4 th	Discuss about Exhaust gas oxygen sensors, Knock sensor, Engine torque sensors,
6 th	1 st	Discuss about Automotive engine control actuators,
	2 nd	Discuss about Exhaust gas recirculation actuator
	3 rd	Discuss about Electronics engine management system
	4 th	Discuss about Brake actuation warning system, flash system
7 th	1 st	Discuss about Oil pressure warning system
	2 nd	Discuss about engine over heat warning system
	3 rd	Discuss about air pressure warning system speed warning system

