



NILASAILA INSTITUTE OF SCIENCE & TECHNOLOGY
SERGARH-756060, BALASORE (ODISHA)
(Approved by AICTE& affiliated to SCTE&VT, Odisha)



LESSON PLAN

SUBJECT: Th-3 (AUTOMOBILE ELECTRICITY)

CHAPTER WISE DISTRIBUTION OF PERIODS

Sl.No.	Name of the chapter as per the Syllabus	No. of Periods as per the Syllabus	No. of periods actually needed
1	Storage battery	6	6
2	Starting System	6	6
3	Generating System	10	10
4	Alternator	5	5
5	Ignition System	15	15
6	Light	6	6
7	Accessories &Control	6	6
8	Wiring System	6	7
	Total Period:	60	61

Discipline: AUTOMOBILE ENGINEERING	Semester: 5th	Name of the Teaching Faculty: Er. Nihar Ranjan Sahoo & Er. Bijaya Kumar Behera
Week	Class Day	Theory / Practical Topics
1 st	1 st	Introduction to Automobile Electricity.
	2 nd	1. Storage Battery 1.1 Purpose and types of battery.
	3 rd	1.1 Purpose and types of battery.
	4 th	1.2 Construction capacity and charging of battery.
2 nd	1 st	1.2 Construction capacity and charging of battery.
	2 nd	1.3 Testing servicing and maintenance of battery.
	3 rd	1.3 Testing servicing and maintenance of battery.
	4 th	2. Starting System 2.1 Principle and construction of starter motor.
3 rd	1 st	2.1 Principle and construction of starter motor.
	2 nd	2.2 Drive arrangement and control.
	3 rd	2.2 Drive arrangement and control.
	4 th	2.3 Servicing and maintenance of starter motor.
4 th	1 st	2.3 Servicing and maintenance of starter motor.
	2 nd	3. Generating system 3.1 Flemings right hand rule and Lenz's law.
	3 rd	3.1 Flemings right hand rule and Lenz's law.
	4 th	3.2 Principle and constructional details of generator.

5 th	1 st	3.2 Principle and constructional details of generator.
	2 nd	3.2 Principle and constructional details of generator.
	3 rd	3.2 Principle and constructional details of generator.
	4 th	3.3 Current and voltage regulator.
6 th	1 st	3.3 Current and voltage regulator.
	2 nd	3.4 Cut-out relay, routine maintenance of generator.
	3 rd	3.4 Cut-out relay, routine maintenance of generator.
	4 th	4. Alternator 4.1 Principle and construction of alternator.
7 th	1 st	4.1 Principle and construction of alternator.
	2 nd	4.2 Maximum R.M.S. and average value.
	3 rd	4.2 Maximum R.M.S. and average value.
	4 th	4.3 Maintenance of alternator.
8 th	1 st	INTERNAL ASSESMENT
	2 nd	INTERNAL ASSESMENT
	3 rd	5. Ignition System 5.1 Principle and components (induction coil, contact breaker, spark plug, distributor and condenser) of spark ignition system.
	4 th	5.1 Principle and components (induction coil, contact breaker, spark plug, distributor and condenser) of spark ignition system.
9 th	1 st	5.1 Principle and components (induction coil, contact breaker, spark plug, distributor and condenser) of spark ignition system.

9 th	2 nd	5.1 Principle and components (induction coil, contact breaker, spark plug, distributor and condenser) of spark ignition system.
	3 rd	5.1 Principle and components (induction coil, contact breaker, spark plug, distributor and condenser) of spark ignition system.
	4 th	5.2 Electronics spark timing computer controlled coil ignition system operation
10 th	1 st	5.2 Electronics spark timing computer controlled coil ignition system operation
	2 nd	5.3 Electronics ignition system with distributor/distributor less.
	3 rd	5.3 Electronics ignition system with distributor/distributor less.
	4 th	5.4 Types of ignition system such as:- Coil ignition system
11 th	1 st	Magnet ignition system
	2 nd	Electronics ignition system,
	3 rd	Transistorized ignition system.
	4 th	5.5 Ignition system servicing and fault diagnosis.
12 th	1 st	5.5 Ignition system servicing and fault diagnosis.
	2 nd	6. Light 6.1 Setting of headlights.
	3 rd	6.1 Setting of headlights.
	4 th	6.2 Tail and stoplights.
13 th	1 st	6.2 Tail and stoplights.
	2 nd	6.3 Indicator and dim deeper mechanism.
	3 rd	6.3 Indicator and dim deeper mechanism.

13 th	4 th	7. Accessories & Control 7.1 Electric horn and screen wiper.
14 th	1 st	7.1 Electric horn and screen wiper.
	2 nd	7.1 Electric horn and screen wiper.
	3 rd	7.2 Fuel gauge oil pressure gauge and water temperature gauge.
	4 th	7.2 Fuel gauge oil pressure gauge and water temperature gauge.
15 th	1 st	7.2 Fuel gauge oil pressure gauge and water temperature gauge.
	2 nd	8. Wiring system 8.1 Types of wiring such as:- Earth returns and insulated return system.
	3 rd	8.1 Types of wiring such as:- Earth returns and insulated return system.
	4 th	8.2 Wiring diagram of four wheelers and two wheelers.
16 th	1 st	8.2 Wiring diagram of four wheelers and two wheelers.
	2 nd	8.3 Elective wiring layout in a four wheeler.
	3 rd	8.3 Elective wiring layout in a four wheeler.
	4 th	8.4 Inspection and maintenance of electrical systems.

