



LESSON PLAN

A)

PROGRAMME: DIPLOMA ENGINEERING	COURSE: AUTOMOBILE ENGINEERING
TEACHER NAME: ARJUN BEHURA	SEMESTER : 5TH
SUBJECT NAME: AUTO ELECTRICITY	THEORY NO: 03
COURSE AREA/ DOMAIN :	CONTACT HOURS:
CORRESPONDING LAB PRACTICAL NO(IF ANY):	LAB COURSE NAME: AE LAB-II

B) **Course Outcomes:**

At the end of the course, the students will be able to:

1. Types, construction, charging, testing and maintenance of battery.
2. Construction, drive arrangement, principle and operation of starter.
3. Principle, construction and maintenance of generator.
4. Principle construction and maintenance of alternator.
5. Types and components of ignition system.
6. Setting and mechanism of light.
7. Mechanism of several electrical accessories.
8. Types of wiring and wiring diagram.

C) **Text Books:**

Sl.No.	Prescribed Books	Author
01	Electrical equipment of automobiles	Parker Singh
02	Basic automobile electricity	C.P.Nakra.

D) **Course Plan:**

<i>Planning</i>



Week No.	Lecture No.	Chapter No.	Article(s) from the Syllabus	Topics to be taught (Brief Description of the title from the Prescribed Book)
01	1 2 3 4	01	1.1 1.2 1.3	Purpose and types of battery, Construction capacity and charging of batter, Testing servicing and maintenance of battery.
02	5 6 7 8	02	2.1 2.2 2.3	Principle and construction of starter motor, Drive arrangement and control, Servicing and maintenance of starter motor.
03	9 10 11 12	03	3.1 3.2 3.3 3.4	Flemings right hand rule and Lenz's law, Principle and constructional details of generator, Current and voltage regulator, Cut-out relay, routine maintenance of generator.
04	13 14 15 16	04	4.1 4.2 4.3	Principle and construction of alternator, Maximum R.M.S. and average value, Maintenance of alternator
05	17 18 19 20	05	5.1 5.2 5.3 5.4 5.5	Principle and components (induction coil, contact breaker, spark plug, distributor and condenser) of spark ignition system, Electronics spark timing computer controlled coil ignition system operation, Electronics ignition system with distributor/distributor less, Types of ignition system such as:- Coil ignition system magnet ignition system electronics ignition system, transistorized ignition system, Ignition system servicing and fault diagnosis.
06	21 22 23	06	6.1 6.2 6.3	Setting of headlights, Tail and stoplights, Indicator and dim deeper mechanism.
07	24 25 26 27	07	7.1 7.2	Electric horn and screen wiper, Fuel gauge oil pressure gauge and water temperature gauge.
08	28 29 30 31	08	8.1 8.2 8.3 8.4	Types of wiring such as:- Earth returns and insulated return system, Wiring diagram of four wheelers and two wheelers, Elective wiring layout in a four wheeler, Inspection and maintenance of electrical systems.



EINSTEIN SCHOOL OF ENGINEERING

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Faculty

HOD Academic Convener Principal