

AUTO ELECTRICIAN

THEORY - 1

SAFETY : Safety Precautions.

TOOLS, EQUIPMENT, MEASURING INSTRUMENTS :

Use care and maintenance of hands tools – soldering materials its property and uses – methods of soldering – standard wire gauge micrometer – meters such as ohm meter – Ampere meter – Voltmeter – Megger – Multimeter and their uses – Growler – Armature Tester – Battery Charger.

ELECTRICAL THEORY :

Fundamental terms current – Potential difference – Resistance power – Energy their definitions and units specific resistance effects and use of electric current.

ELECTRICAL CIRCUIT AND POWER :

Series parallel compound open and short circuit – Ohm's law conductor and Insulators quantities of good conductor common insulating materials use an automobile simple problem on circuit and power.

MAGNETISM :

Terms used – Type and shape of magnets and properties – methods of magnetizing and magnet materials – Electric magnet and advantage and use.

Principle of magnetism cork screw and R.H Thump rule – magnetic field of current carrying conductor and loop Residual magnetism – solenoid and its polarity – palm rule etc.

BATTERIES :

Primary and secondary batteries and its polarity – palm rule etc – Lead acid and Nickel iron cell advantage and disadvantages – Battery construction and its operation – Testing and maintenance – methods of charging care of batteries – Trouble shooting chart – Use of hydrometer.

ALTERNATOR:

Principle – construction and function of each part stator and rotor winding poles – advantages transisterised voltage – regulator – Alternator charging system maintenance and trouble shooting.

AC AND DC MOTORS:

Principle of AC and DC motors testing of D.C Motors – series and shunt motors starting torque.
