ELECTRICIAN

THEORY – I

Basic of Electricity – Importance of Safety and General precautions – How we get shock – Causes to the accident – Precautions to avoid – Modern Electric theory – Definition of Current – Potential emf and resistance factors on which resistance factors on which resistance depends – Definition of ohms law – series Parallel Electric circuit – Kirchoff's law with examples – Fundamental terms and units of work power, energy conductors and insulators – Quality of good conductor.

Description and General care of hand tools – Instruments used in electricity – Switch – Holder etc. Magnetism – what is magnet – Dia, para, Ferro magnetic material – Permanent and Electro magnet – Faraday's law of electro magnetic induction – Fleming's right hand rule – Lenz's law – self and mutual inductance – Basic Electric symbols and Drawings.

Ammeter and Voltmeter – moving iron and moving coil types. Wattmeters – induction and dynamometer types – Energy meters – Electronic voltmeter – Calibration of Voltmeters – ammeters and energy meters.

Charges – Coloumb's laws – Electric field intensity – flux – Gauss's law – Electric potential – Dielectrics – capacitance.

Current density – magnetic fields – magnetic flux – Ampere's law – force – Torque – Electric and magnetic fields – magnetic – comparison of static magnetic circuits.

Electrical Machine types – Magnetic circuits – Induced EMF and force – iron losses.