

Electricians

Occupational Safety and Health Basic safety introduction, Personal protection.

Fundamental of electricity. Electron theory-free electron, Fundamental terms, definitions, units and effects of electric current

Ohm's Law

Kirchoff's Laws and applications.

Introduction of National Electrical Code, Voltage grading of different types of Insulators

Common Electrical wiring Accessories, their specifications in line with NEC -Explanation of switches, lamp holders, plugs and sockets.

Faraday's Law of electrolysis. Basic principles of Electroplating and Electro chemical equivalents.

Concept of Frequency, Peak factor, form factor.

A.C. circuits, single phase and three-phase system etc.

Earthing - Principle of different methods of earthing. i.e. Pipe, Plate, etc

Basic electronics- Semiconductor energy level, atomic structure 'P' type and 'N' type.

Amplifiers. – Class A, B and C, Power amplifier

Introduction of basic concept of ICs, U.J.T.,F.E.T.

Digital Electronics -Binary numbers, logic gates and combinational circuits, Electric wirings & Voltage drop concept.

D.C. Machines - General concept of Electrical Machines.

Principle of D.C. generator.

DC Motors - Terms used in D.C. motor-Torque, Brake Torque, speed, Back-e.m.f. etc.

Working principle of **Transformer.**

Electrical Measuring Instruments -- types, indicating types.

Three phase Induction motor –Working principle

POWER GENERATION: Generation sources of energy, Comparison of energy resources.

TRANSMISSION OF ELECTRICAL POWER: Electrical Supply System: Comparison of AC and

DC transmission. Advantages of High