

SYLLABUS FOR SKILL DEVELOPMENT TRAINING ON

ELECTRICITY & SAFETY PRACTICES

THEORY, DEMONSTRATION/TUTORIAL

ELECTRICITY:

- INTRODUCTION: DEFINITION OF VOLTAGE, CURRENT, POWER, ENERGY, UNITS & SYMBOL
- FUSE, SWITCH & CIRCUIT BREAKERS
- OHM'S LAW & OTHER RELEVANT LAWS, HEATING EFFECT OF ELECTRICITY
- DC SERIES & PARALLEL CIRCUIT
- RESISTANCE, INDUCTANCE, CAPACITANCE
- AC SERIES & PARALLEL CIRCUIT
- 3 PHASE CIRCUIT – STAR, DELTA CONNECTION
- STORAGE DEVICE – BATTERY
- CONDUCTOR, INSULATOR, SWG WIRE GAGE, CABLE
- TESTING OF LINE
- HOUSE WIRING CONNECTION & DIAGRAM OF DISTRIBUTION & FUSE BOARD
- STAIRCASE LIGHTING, FLUORESCENT TUBE, ELECTRIC BELL, BED SWITCH CONNECTION ETC.
- ELECTRIC GENERATOR – DC & AC GENERATOR (INTRODUCTION)
- ELECTRIC MOTOR – DC & AC MOTOR (INTRODUCTION)
- TRANSFORMER – PRINCIPLE & CONSTRUCTION MATERIAL

SAFETY PRACTICES:

- FUEL, EXPLOSIVES
- SOURCES OF FIRE
- AUTOMATIC SMOKE DETECTION
- HEAT DETECTOR
- FIRE EXTINGUISHMENT MECHANISM
- EXTINGUISHING AGENT
- ELECTRICAL ACCIDENT, MECHANISM OF ELECTRICAL INJURY
- ELECTRICAL CIRCUIT THROUGH HUMAN BODY ETC.

LABORATORY

- STUDY OF FUSE
- STUDY OF CONNECTION OF DIFFERENT METERS (VOLT METER, AMMETER ETC)
- STUDY OF FILAMENT LAMP CHARACTERISTICS
- STUDIES ON RESISTANCE, INDUCTANCE AND CAPACITANCE
- STUDY OF AC SERIES AND PARALLEL CIRCUITS
- MEASUREMENT OF POWER AND ENERGY IN AC CIRCUITS
- STUDY OF CEILING FAN CHARACTERISTICS
- MEASUREMENT OF POWER IN 3-PHASE CIRCUIT WITH STAR / DELTA CONNECTION
- STUDY OF VOLTAGE DROP CHANGE IN SINGLE PHASE LINE
- STUDY OF DIFFERENT MACHINES
- STUDY OF FLUORESCENT LAMP CHARACTERISTICS
- OPEN & SHORT CIRCUIT TEST OF ARMoured CABLE
- STUDY OF MOTOR CONTROL ELEMENTS

VISITS

- TRANSFORMER INSTALLATION
- FIRE SAFETY INSTALLATION AT OFFICES
- FIRE TRAINING INSTITUTE
- DISASTER MANAGEMENT TRAINING INSTITUTE