

## **ELECTRICAL HOUSE WIRING & MOTOR WINDING [ EHMW ]**

### **General Information :**

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|-------------------------|--|
| 1. Name of the Trade    | : Electrical House Wiring & Motor Winding.       |
| 2. Entry Qualification  | : Passed Class VIII                              |
| 3. Duration of Training | : 06 Months [Under Vocational Short Term Course] |

### **Objective Of The Course :**

The objective of the course is to impart necessary competencies focusing on technical competencies like skill and knowledge so that they become employable in private sectors as well as in public sectors.

At the end of the training the trainees will be able to :

- Identify different components in electrical wiring and armatures function state of an armature.
- Identify and make lists of tools, equipment required for specific job. Identify faults in Electrical Wiring and Motor Winding including adoption of remedial measures.
- To assess value of job undertaken.

The course content is to be covered in less than 26 weeks since some weeks will be used for enrolment procedures, leave of the instructor, holidays, examination and tests, industrial visits etc.

### **Course Break-up :**

- |                                 |             |
|---------------------------------|-------------|
| (a) Practical instruction       | : 288 Hours |
| (b) Theoretical instruction     | : 67 Hours  |
| (c) Entrepreneurial Institution | : 05 Hours  |

### **Marks Alloted :**

- |               |       |
|---------------|-------|
| (a) Practical | : 400 |
| (b) Theory    | : 100 |

### **Industrial Visit :**

Industrial cum study tour to at least two different types of electrical industries having modern machineries.

## **COURSE CURRICULUM :**

### **1. Introduction :**

Acquaintance electrical terminologies, units, demonstration of wiring materials. Discussion on fan, dynamo, motor, armature and their functions.

### **2. Different types of fuses:**

specifications and fields of application. Discussion/demonstration on battens, switch board, round block, corner conduit pipes, energy meter, meger, tester etc. Tools & implements for wiring and winding their uses and maintenance.

### **3. Shop Practice :**

- Practice in cutting & fixing, battens, corners, threading of conduit pipes, etc.
- Soldering practice, idea on varnishings, heat chamber. Type of winding, lap & wave, difference & suitability, making sketch of lap & wave winding.

### **4. Precaution to be taken in electrical wiring installations :**

Precautionary measures use of fuses, Earthing (pipe & plate) etc. Precaution to be taken in electrical wiring systems for human safety, first aid methods - aids by transparencies, video films, posters etc.

Simple wiring diagrams with drawing and simple wiring jobs.

### **5. Different wiring exercises :**

- Connection for one lamp through two or three switches.
- Connection for tube lights, 2 pin & 3 pin plug prints, for with regulator etc.
- Complete wiring practice for a small house including main switch and distribution-board with indicator lamp.

### **Different winding exercises :**

- Armature winding of fan motor, varnishing and heat treatment and making external connection, assembling in body, testing.
- Armature winding of dynamo (12v) used in automobile, varnishing, heat treatment, assembling in body, testing.
- Armature winding of motor (upto 1 H.P.) varnishing, heat treatment, making external connection, polarity test, fitting in body, testing.

**Entrepreneurship Programme :**

- Preparation of estimate from different wiring diagrams and suggestion for related remedial measures,
  - Idea of cost of different parts, tools etc. availability of the same.
  - Calculation of materials and labour for domestic repairing jobs.
  - Idea on cost of different materials availability, calculation of materials required for winding jobs. Labour component, determining total cost.
  - Idea on establishing a small service shop, space required, listing tools, capital investment, working capital etc.
- Awareness / workshop for Bank loan, Trade license, S.S.I. units, role of D.I.C. etc.

**ENTREPRENEURIAL INSTRUCTION**

SL No.	Course Curriculum	Hours
1.	Brief idea on nature of small business management and Industrial Technical skill.	
2.	Preparation of schemes and vetting to Financial Institutions/ Lead Bank for obtaining loans.	
3.	Rules for setting up of business / production Unit.	
4.	Maintenance of Accounts; Labour Capital etc.	
5.	Man Management, Communication, Motivation.	
6.	Operational Management.	
7.	Market Survey.	
8.	Quality Control.	
9.	Visit to Industrial units for gathering idea to start the unit.	
10.	Choice of technology as per demand of local people of the District / State.	
11.	Knowledge of Sales Tax etc.	
12.	Brief idea for Registration of SSI, Trade License, Project Report, Proposal for loans etc.	
		<b>Total 05</b>