

ELECTRICAL INSTALLATION MAINTENANCE

UNIT CODE: ENG/CU/EIT/CR/06/6/A

Relationship to Occupational Standards

This unit addresses the unit of competency and meets the requirements specified by the Occupational Standards: Maintain Electrical Installation

Duration of Unit: 140 hours

Unit Description

This unit specifies the competencies required to maintain an electrical installation, which includes servicing and scheduled maintenance activities using safe methods.

Summary of Learning Outcomes

1. Prepare maintenance schedule
2. Inspect electrical installation
3. Perform installation servicing
4. Conduct installation tests

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Methods
1. Prepare maintenance schedule	<ul style="list-style-type: none"><input type="checkbox"/> Meaning of terms<input type="checkbox"/> Maintenance<ul style="list-style-type: none">➤ Types and procedures➤ Periodic service➤ Preventive➤ Breakdown➤ Corrective<input type="checkbox"/> Scheduling maintenance based on service manuals<input type="checkbox"/> Safety precautions to be observed	<ul style="list-style-type: none"><input type="checkbox"/> Observation<input type="checkbox"/> Written tests<input type="checkbox"/> Oral questioning<input type="checkbox"/> Practical tests
2. Inspect electrical installation	<ul style="list-style-type: none"><input type="checkbox"/> Meaning of terms<input type="checkbox"/> Identification and documentation of maintenance tools, materials and equipment<input type="checkbox"/> Specifications of identified tools, materials and equipment against safety standards	<ul style="list-style-type: none"><input type="checkbox"/> Observation<input type="checkbox"/> Written tests<input type="checkbox"/> Oral questioning<input type="checkbox"/> Practical tests

Learning Outcome	Content	Suggested Assessment Methods
	<input type="checkbox"/> Inspection procedure <input type="checkbox"/> Recording of inspection findings	
3. Perform installation maintenance	<input type="checkbox"/> Meaning of terms <input type="checkbox"/> Fill in maintenance checklist <input type="checkbox"/> Performance of maintenance activities and updating of necessary records <input type="checkbox"/> Disposal of waste materials e.g. <ul style="list-style-type: none"> ➤ Old batteries ➤ Oils ➤ Lugs and screws ➤ Tapes ➤ Cable sheaths ➤ Off cuts 	<input type="checkbox"/> Observation <input type="checkbox"/> Written tests <input type="checkbox"/> Oral questioning <input type="checkbox"/> Practical tests
4. Conduct system tests	<input type="checkbox"/> Meaning of terms <input type="checkbox"/> Identification of test points and parameters <input type="checkbox"/> Safe test procedures <input type="checkbox"/> Test results documentation	<input type="checkbox"/> Observation <input type="checkbox"/> Written tests <input type="checkbox"/> Oral questioning <input type="checkbox"/> Practical tests

Suggested Methods of Instruction

- Demonstration by trainer
- Practice by the trainee
- Discussions
- Projects
- Demonstration by trainer
- Field trips
- On-job training

Recommended Resources

Tools

- Set of screw drivers
- Set of spanners and wrenches
- Power tools
- Cutting tools
- Pliers

- Lifting and tensioning tools
- Tool box
- Phase tester

Materials and supplies

- Stationery
- Cables
- Lubricants
- Service parts

Reference materials

- Service manuals
- IEE regulations
- Organization procedures manual

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