

071306T4EEN

Electrical Engineering (Power Option) Level 6

ENG/OS/PO/CR/07/6

Maintain Electrical Equipment and Systems

July/August 2023



**TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION
COUNCIL (TVET CDACC)**

PRACTICAL ASSESSMENT

3 HOURS

INSTRUCTIONS TO CANDIDATE

Do not write on the question paper

DO NOT switch ON power without assessor's permission

A separate plain paper will be provided

Return the question paper to the assessor at the end of practical.

This paper consists of three (3) printed pages.

Candidate should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.

You are provided with the following resources to perform the tasks:

- 2.5 mm² PVC single core cable (Red, Black, Yellow/Green)
- 1.5 mm² PVC single core cable (Red, Black, Yellow/Green)
- Single phase energy meter
- Twin cut out
- 60/80A Switch fuse
- Consumer Control Unit
- 20A Single pole circuit breaker
- 6/10A Single pole Circuit breaker
- One gang two-way Switch
- Intermediate switch
- Straight Lamp holder
- Bulb
- 20 mm Heavy gauge conduit
- 20 mm Single switch box
- 20 mm end box
- 20mm four way round box
- 20 mm Male and female bushes
- 20 mm Spacer saddles
- 19 x 25 mm screw
- Multimeter
- Equipment label
- Installation board 1m x 1m x 3cm
- Appropriate tools

The Figure 1, shows a layout of equipment at intake position and lighting sub circuit.

TASK 1: Using PVC heavy conduit system, install and wire the final circuits on the installation board provided such that Lamps L₁ and L₂ are controlled from three different positions independently;

TASK 2: Carryout

- i. Continuity test
- ii. Polarity test
- iii. Test the circuit for functionality

TASK 3: Your assessor will introduce a fault to the circuit. You are required to;

- i. Determine the type of fault using appropriate method tools and equipment
- ii. Repair the fault
- iii. Test the circuit for functionality

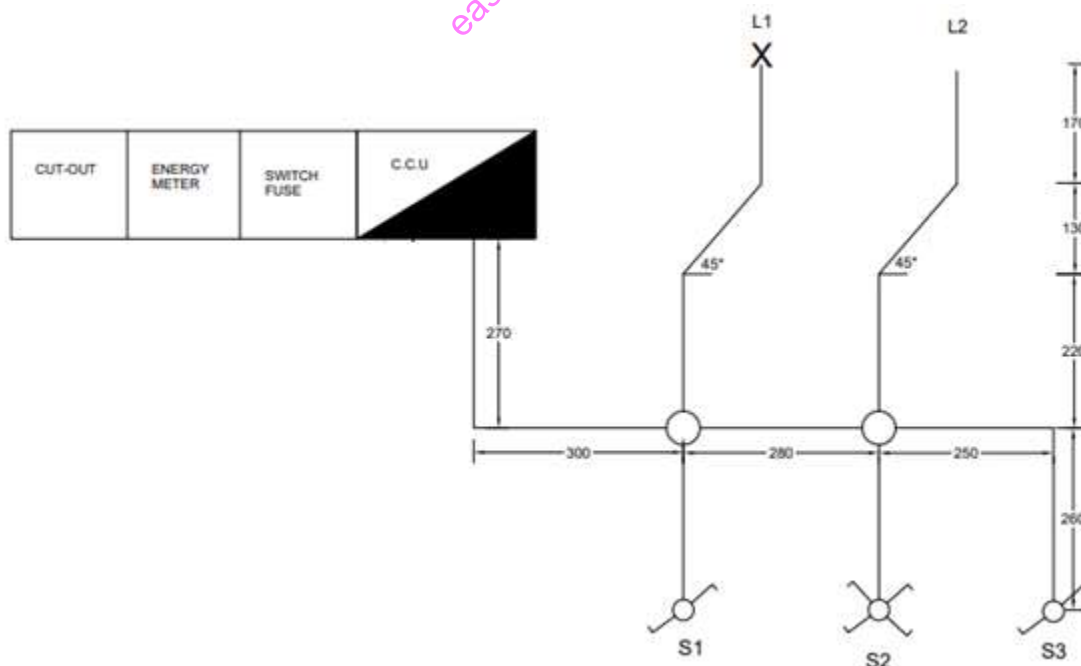


Figure 1

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