071305T4ELC

ELECTRONICS ENGINEERING LEVEL 5

ENG/OS/ET/CR/01/5/A

Perform Electrical Installation

March/April 2025

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

PRACTICAL ASSESSMENT

INSTRUCTIONS TO ASSESSOR

1. Assess the candidate as the practical progresses observing the critical areas

2. You are required to mark the practical as the candidate perform the tasks

3. You are required to take video clips at critical points

4. Ensure the candidate has a name tag and registration code at the back and front

OBSERVATION CHECKLIST

Candidate's Name & Registration Code			
Assessors Name & Registration Code			
Venue of Assessment			
Date of Assessment			
Items to be Evaluated: *Please award marks as appropriate. Give a brief comment on your observation.*	**Marks Available**	**Marks Obtained**	**Comments**
1. Wore Personal Protective Equipment			
• Safety boots *(Award 1 or 0)*	1		
• Dust coat*(Award 1 or 0)*	1		
2. Observed good housekeeping practices			
• Ensured clean working area before starting working *(Award 1 or 0)*	1		
• Maintained a tidy working area arrangement *(Award 1 or 0)*	1		
• Proper waste disposal *(Award 1 or 0)*	1		
Sub-total	**5**		
TASK 1: Wiring Diagram			
3. Drew the installation-wiring diagram as per the schematic diagram provided.			
i. The C.C.U *(Award 2 or 0)*	2		
ii. Main earth terminal*(Award 2 or 0)*	2		
iii. Lighting *(Award 1 or 0 for each bulb)*			
iv. Power socket outlets*(Award 3 or 0)*	3		
v. Earthing *(Award 3 or 0)*	3		
	3		
Sub-Total	**12**		

TASK 3: Circuit Installation			
4. Installed the final circuit. i) Proper utilization of the installation board. *(Award 3 or 0 for $3/4$ of the board)*	3		
ii) Used correct measurement as provided; *Dimensions clearance;* $\pm 2mm$ *(Award 1 or 0 mark for each measurement section)*	12		
iii) Fixed components *i.* Level *(Award 1 or 0 for each of the three bulb holders, socket and the joint box)*	4		
ii. Firmness *(Award 1 or 0 for each of the three bulb holders and the socket)*	4		
iv) Observed correct color codes *(Award 2 or 0)*	2		
v) Selected correct cable sizes corresponding to type of load as per IEE regulations. *(Award 2 or 0)*	2		

vi) Used correct tool for the correct purpose
      • Cable stripper *(Award 2 or 0)*
      • Multimeter *(Award 2 or 0)*
      • Spirit level *(Award 2 or 0)*
	2
	2
	2		

5. Fixed sheathed cable flat on the surface i. Horizontal *(Award 2or 0)*	2		

ii. *Vertical (Award 2 or 0)*	2		
6. Spaced cable clips uniformly *(Award 2 or 0)*	2		
7. Performed proper terminations for final sub-circuits(firm, folded) with correct cable color codes;			
i. C.C.U (*(Award 3 or 0)*	3		
ii. Lamps *(Award 2 or 0)*	2		
iii. Switches *(Award 2 or 0)*	2		
iv. Socket outlets *(Award 2 or 0)*	2		
Sub-total	**48**		
TASK 3: Testing			
8. Performed the following tests			
i. Continuity test *(Award 3 or 0)*	3		
ii. Insulation resistance test *(Award 4or 0)*	4		
iii. Polarity test on the lighting circuit. *(Award 3 or 0)*	3		
Sub-total	**10**		
TASK 4: Functionality Test			
9. Correct circuit operation			
i. Socket *(Award 5 marks)*	5		
ii. Switch 1*(Award 5 marks)*	5		
iii. Switch 2*(Award 5 marks)*	5		
Sub-total	**15**		
GRAND TOTAL	**90**		
$Percentage = \dfrac{X}{90} \times 100$			

ASSESSMENT OUTCOME

The candidate was found to be:

Competent ☐   Not yet Competent ☐

(Please tick as appropriate)

(The candidate is competent if the candidate obtains at least 50%)

Feedback from the Candidate:

Feedback to the Candidate:

Candidate Signature   **Date:**

_____   _____

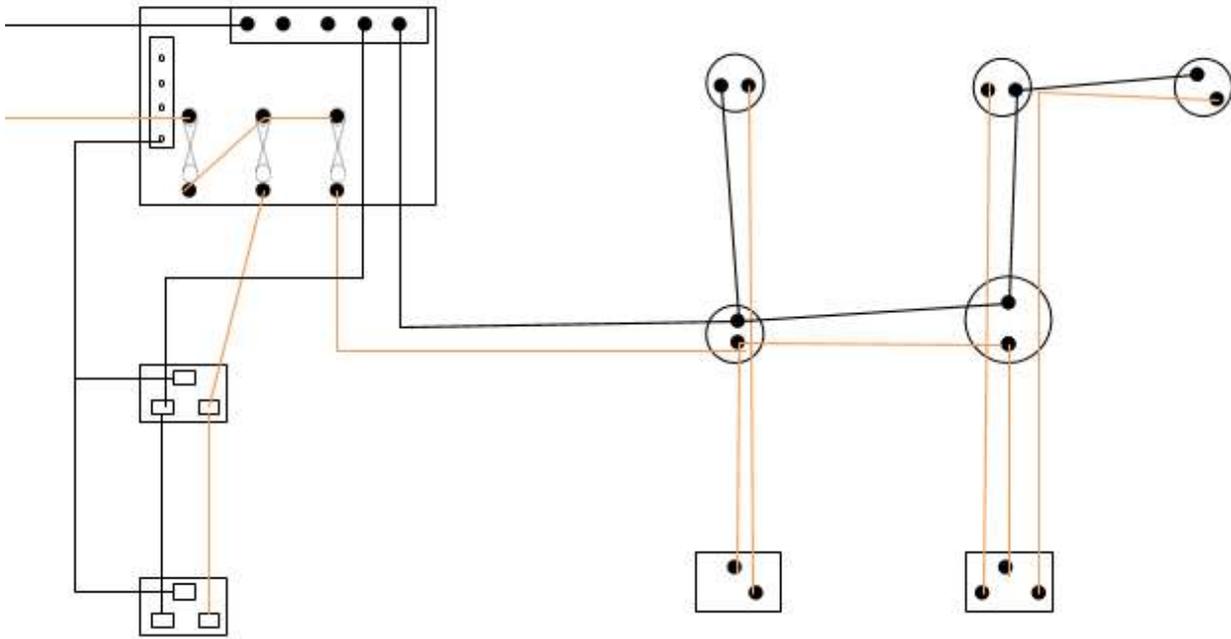**Assessor's Signature**   **Date**

_____   _____

Figure 1: Wiring Diagram

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