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MODULE I

ELECTRICAL ENGINEERING LEVEL 5, 6

ENG/OS/EI/CR/01/3/MA

INSTALL PVC SHEATHED CABLE SYSTEM

May-July 2026

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

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PRACTICAL ASSESSMENT

INSTRUCTIONS TO THE ASSESSOR:

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1. This assessment is to take place in the prescribed order as arranged in the tool.
2. Capture clear **photographs** and/or **videos** of each candidate's work at critical points as they perform the tasks and label all media files with: Candidate Registration Number, Unit Code, Practical Session Number, and Date.
3. Record candidate scores and assessor remarks in the observation checklists for each session.
4. Store all completed checklists, media files, and candidate drawings in a secure digital/physical folder per candidate.

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CANDIDATE & ASSESSOR DETAILS

Candidate Name: Printed By: Management University Of Africa Technical Institute Date: 11.06.2026 02:17 PM	CDACC Reg. No.:
Assessor Name: Printed By: Management University Of Africa Technical Institute Date: 11.06.2026 02:17 PM	Assessor ID Number:

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SESSION 1 (2 HOURS)

Assessment Date:	
Assessment Venue:	

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PRACTICAL CHECKLIST

No.	Items of Evaluation	Max Marks	Awarded
1.	Wore PPEs to ensure safety before beginning tasks. • Helmet. • Safety boots/closed shoes. • Dust coat (Award 1 mark for each, or 0)	3	
2.	Applied good housekeeping practices. Ensured clean working area before and after installation. (Award 5 or 0) Tools used stored according to EH standards (Award 5 or 0)	6	

TASK 1 : Identifying electrical cables

1.	Identified types of PVC sheathed cables. i. Single core ii. Twin with earth iii. Twin flat iv. Flexible cables (correct type award 1 or 0) Identified correct cable sizes 1.0 mm² 1.5 mm² 2.5 mm² 4.0 mm² 6.0 mm² (correct size award 1 or 0)	1 1 1 1 1 1 1 1	
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TASK 2 : Match cable colours

2.	Matched cable colours to their uses - Brown/Red – Live/phase - Green/yellow – Earthing - Black – Neutral (Award each 2 or 0)	2 2 2	
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TASK 3 : Identifying accessories

3.	Identified accessories and their functions - Switches (1gang 1way, 1 gang 2 way, 2gang 2 way) - Sockets (single socket, double socket) - Joint box - Lamp holders (award accessory 1 or 0 ; function 1 or 0)	4 3 2 2	
Total Section		35	

REMARKS:

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NB: Photos and videos should be taken as the candidate performs tasks.

SESSION 1 ORAL ASSESSMENT (10 MARKS)

Assessor to award marks for each correct response by the candidate in the table below:

Q#	Question	Expected Key Points	Max Marks	Awarded
1.	Name two commonly used PPEs	Gloves, dust coat/overall, goggles, safety boots	2	
2.	Give the colour code used for the protective conductor.	Green and yellow.	2	
3.	Mention the outer covering of a cable and its function.	Sheath — provides mechanical protection.	2	
4.	Name the accessory used to join two cables together.	Connector or joint box	2	
5.	State the use of a lamp holder.	To hold and connect the lamp to the circuit	2	
Sub Total			10	

SESSION 2 (2 HOURS)

Assessment Date:	
Assessment Venue:	

PRACTICAL CHECKLIST

No.	Items of Evaluation	Max Marks	Awarded
	Wore PPEs to ensure safety before beginning tasks.		

	- Gloves. - Safety boots/shoes. - Dust coat (Award 1 mark for each, or 0)	3	
Task 1: Making cable joints			
4.	Made the following joints - Britannia joint - Straight twist joint - Married (straight & Tee) joint (award each 5 or 0)	5 5	
Task 2: Soldering and insulating the joints			
5.	a) Soldered the joints; - Britannia joint - Straight twist joint - Married (straight & Tee) joint (award each 2 or 0) for even smooth and shiny solder joint) b) Insulated the joints; - Britannia join - Straight twist joint - Married (straight & Tee) joint (award each 1 or 0) for well insulated joint)	2 2 2 1 1 1	
Task 3: Terminating cable lugs			
6.	2. Terminated cables; - Cable lug - Heat shrink sleeve (award each 3 or 0)	3 3	
	Total Section	28	
REMARKS:			

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SESSION 2 ORAL ASSESSMENT (10 MARKS)

Assessor to award marks for each correct response by the candidate in the table below:

Q#	Question	Expected Key Points	Max Marks	Awarded
1.	State one safety measure during soldering work.	Avoid touching the hot iron and work in a well-ventilated area.	2	
2.	Mention the purpose of making a cable joint	To extend cable length or repair damaged sections.	2	
3.	Name three types of cable joint	Britannia, Married joint, straight twist, scarf, telegraph	3	
4.	State the main purpose of soldering a joint.	To make a permanent and good electrical connection.	2	
5.	Give one reason for testing a completed joint.	To confirm electrical continuity and insulation integrity.	2	
Sub Total			10	

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SESSION 3 (3 HOURS)

Assessment Date:	
Assessment Venue:	

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PRACTICAL CHECKLIST

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No.	Items of Evaluation	Max Marks	Awarded
Task 1: Draw a wiring diagram			
7.	Drew the wiring diagram as shown in Figure 1		
	(i) Consumer unit (Award 2 or 0)	2	
	(ii) lamps (Award 2 for correct connection; input output)	2	
	(iii) socket outlets (Award 1 or 0)	2	

	(iv) cooker unit (<i>(Award 2 or 0)</i>)	2	
Task 2: Install the final circuits			
8.	Fixed electrical accessories		
	iv. Switches (<i>award each 2 or 0</i>)	2	
	v. Lamps (<i>award each 2 or 0</i>)	2	
	vi. Socket outlets (<i>award each 2 or 0</i>)	2	
	vii. Consumer control unit (<i>award each 2 or 0</i>)	2	
9.	Cable runs;		
	i. Vertical and flat on surface	2	
	ii. Horizontal and flat on surface	2	
	iii. 90° Cable bends, flat on surface	2	
	<i>(award each 2 or 0)</i>		
10.	Terminated cables at;		
	i. Switches	2	
	ii. Socket outlets	2	
	iii. Consumer control unit	2	
	<i>(award each 2 or 0)</i>		
Task 3: Performing electrical tests			
11.	Performed the following tests		
	iii. Polarity test	3	
	iv. Continuity test	3	
	<i>(award each 3 or 0)</i>		
Task 4: Connecting the circuit to power			
12.	Correct circuit operation		
	i. Lighting	4	
	ii. Power	4	
	<i>(award each 4 or 0)</i>		
Sub Total		40	

SESSION 3 ORAL ASSESSMENT (10 MARKS)

Assessor to award marks for each correct response by the candidate in the table below:

Q#	Question	Expected Key Points	Max Marks	Awarded
i.	State the main reason for using symbols in wiring diagrams.	They make interpretation easy and uniform.	2	
ii.	Give a reason for ensuring accessories are firmly mounted.	To prevent loose connections and ensure safety.	2	
iii.	State the purpose of testing an electrical installation.	To ensure it is safe and working correctly.	2	
iv.	State the reason for testing insulation resistance.	To ensure proper insulation and prevent leakage current.	2	
v.	State the importance of inspection before testing.	To confirm correct wiring and connection quality.	2	
Sub Total			10	

SUMMARY OF ASSESSMENT

SECTION	Total Marks	Marks Awarded
Practical Assessment 1	35	
Practical Assessment 2	28	
Practical Assessment 3	40	
TOTAL	103	

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Percentage % $\frac{x}{103} \times 100$	100	
ORAL ASSESMENT		
Oral assessment 1	10	
Oral assessment 2	10	
Oral assessment 3	10	
TOTAL	30	
Percentage % $\frac{x}{30} \times 100$	100	

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ASSESMENT OUTCOME

The candidate was found to be:

Competent

☐

Not yet Competent

☐*(Please tick as appropriate)*

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

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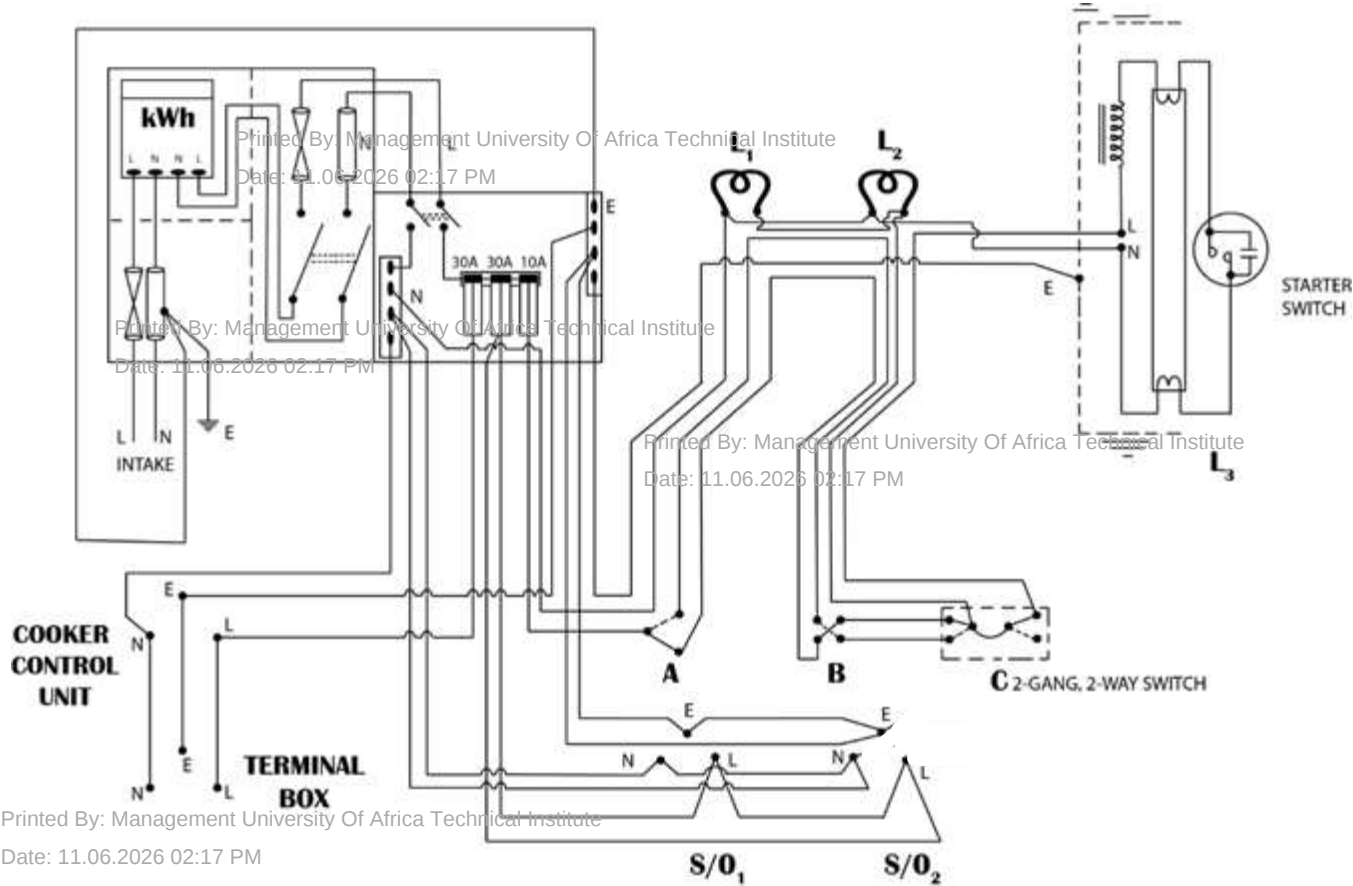


Figure 1

NB: A guide for assessing task 3.