MODULE I

ELECTRICAL INSTALLATION TECHNOLOGY

ENG/OS/EI/CR/02/03/MB

INSTALL TRUNKING SYSTEM

SEPTEMBER-NOVEMBER 2025

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

PRACTICAL ASSESSMENT

INSTRUCTIONS TO THE ASSESSOR:

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 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.

CANDIDATE & ASSESSOR DETAILS

Candidate Name:	**CDACC Reg. No.:**
Assessor Name:	**Assessor ID Number:**

PRACTICAL BRIEF

In this practical, you will be required to demonstrate competence in installing Trunking Systems based on the provided drawings. The assessment will involve hands-on sessions and an oral assessment.

SESSION 1 (3 HOURS): INSTALLATION OF PVC MINI TRUNKING

Assessment Date:	
Assessment Venue:	

PRACTICAL CHECKLIST

No.	Items of Evaluation	Max Marks	Awarded
1.	Wore PPEs as per OSHA and EHS standards • Helmet (*Award 1 mark or zero*) • Safety boot (*Award 1 mark or zero*) • Apron/overall (*Award 1 mark or zero*)	 1 1 1	
2.	Identified types of trunking • PVC (*Award 1 mark or zero*) • Metal/steel (*Award 1 mark or zero*) • Galvanized iron (*Award 1 mark or zero*)	 1 1 1	
3.	Identified sizes of trunking • 16mm x 16mm (*Award 1 mark or zero*)	 1	

	• 25mm x 16mm (*Award 1 mark or zero*) • 25mm x 25mm (*Award 1 mark or zero*) • 40mm x 25mm (*Award 1 mark or zero*)	1 1 1	
4.	Correctly used tools and equipment • Cutting tools; *(Hacksaw)* (*Award 1 mark or zero*) • Cable stripping *(side cutter, combinational pliers)* (*Award 1 mark or zero*) • Fastening *(Screw Driver)* (*Award 1 mark or zero*) • Measuring tools *(Tape measure)* (*Award 1 mark or zero*) • Marking tools *(Marker)* (*Award 1 mark or zero*)	 1 1 1 1 1	
5.	Installed PVC mini trunking • Dimensions (*Award 1 mark for any 5*) • Firmness (*Award 1 mark for any 5*) • Level (*Award 1 mark for any 5*) • Neatness (*Award 2 marks or zero*)	 5 5 5 2	
6.	Performed housekeeping • Cleaned working area after work (*Award 2 marks or zero*) • Cleaned tools and stored/arranged them (*Award 2 marks or zero*)	 2 2	
	Total Session 1	**36**	
REMARKS:			

NB: Photos and videos should be taken as the candidate performs item 5

SESSION 2 (4 HOURS): INSTALLATION, TESTING AND INSPECTION

Assessment Date:	
Assessment Venue:	

PRACTICAL CHECKLIST

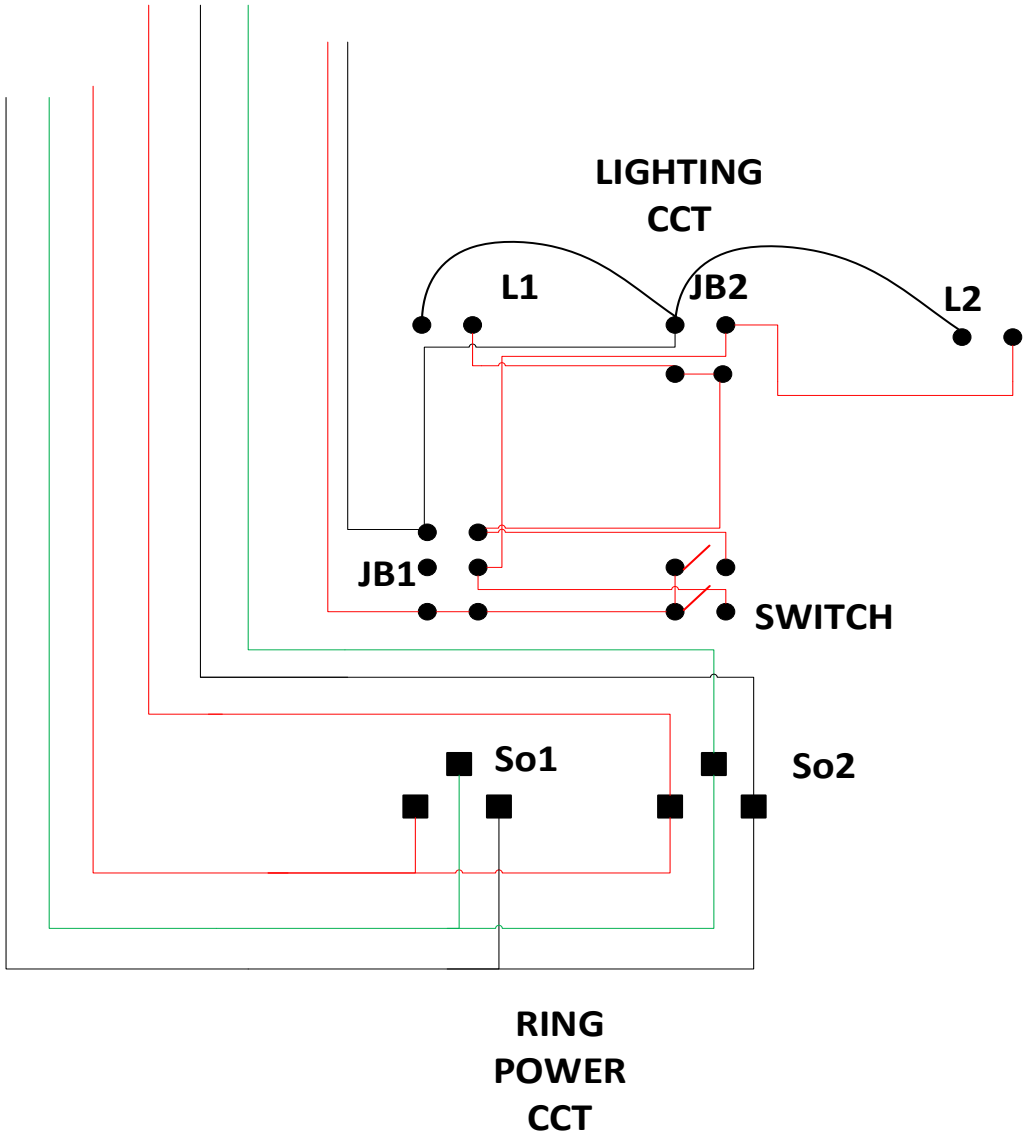
No.	Items of Evaluation	Max Marks	Awarded
1.	Wore PPEs as per OSHA and EHS standards • Helmet (*Award 1 mark or zero*) • Safety boot (*Award 1 mark or zero*) • Apron/overall (*Award 1 mark or zero*)	 1 1 1	
2.	Drew the wiring diagram • Socket (*Award 2 marks or zero*) • Lighting (*Award 4 marks or zero*)	 2 4	
3.	Selected tools, materials, and equipment for use as per work requirement: • Cutting tools; *(Hacksaw)* (*Award 1 mark or zero*) • Cable stripping *(side cutter, combinational pliers)* (*Award 1 mark or zero*) • Fastening *(Screw Driver)* (*Award 1 mark or zero*) • Measuring tools *(Tape measure)* (*Award 1 mark or zero*) • Marking tools *(Spirit level)* (*Award 1 mark or zero*)	 1 1 1 1 1	

	Cable sizes • Lighting cables (1.5mm^2) (*Award 1 mark or zero*) • Sockets cables (2.5mm^2) (*Award 1 mark or zero*)	 1 1	
4.	Mounted PVC mini trunking • Dimensions (*Award 1 mark for any 5*) • Firmness (*Award 1 mark for any 5*) • Level (*Award 1 mark for any 5*) • Neatness (*Award 2 marks or zero*) • 45^0 offsets (*Award 2 marks or zero*)	 5 5 5 2 2	
5.	Terminated Cables (Twisted, Folded, Firm and not necked) • C.C.U (*Award 3 marks or zero*) • Sockets *(Award 1 mark or zero for each)* • Switch *(Award 1 mark or zero))* • Lamps *(Award 1 mark or zero for each)* • Junction box *(Award 2 mark or zero)*	 3 2 1 2 2	
6.	Performed correct wiring at; (with correct cable size) • Power Sockets *(Award 4 or 0)* • Lighting *(Award 3 or 0)*	 4 3	
7.	Performed inspection • Firmness of terminals (*Award 1 mark or zero*) • Physical damage (*Award 1 mark or zero*) • Colour coding (*Award 1 mark or zero*)	 1 1 1	
8.	Performed tests: • Continuity test (*Award 3 marks or zero*) • Polarity test (*Award 2 marks or zero*)	 3 2	
9.	Performed housekeeping • General cleanliness *(Award 2 marks or zero*)	 2	

	• Cleaned tools and stored/arranged them (*Award 2 marks or zero*)	2	
	Total Session 2	**64**	
REMARKS:			

NB: Photos and videos should be taken as the candidate performs items 4 and 6

WIRING DIAGRAM:



SESSION 3 (1 HOUR): ORAL ASSESSMENT (25 MARKS)

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

Q#	Question	Expected Key response	Max Marks	Awarded
1.	State one application of each of the following types of trunking. • PVC trunking. • Metal trunking	PVC trunking – used in domestic installations. Metal trunking – used in industrial or commercial installations. (*Award 1 mark for each or zero*)	2	
2.	Mention two importance of identifying trunking sizes according to IEC standards?	Ensures compatibility with cables, prevents overloading, and complies with international safety and installation standards (*Award 1 mark for each or zero*)	2	
3.	Name three trunking accessories	Accessories: Elbows, couplers, end caps. (*Award 1 mark for each or zero*)	3	
4.	State one safety precaution to observe when preparing trunking work pieces.	Wear appropriate PPE such as gloves and safety goggles to avoid injury. (*Award 1 mark or zero*)	1	
5.	Name the tool used for: • Measuring trunking • cutting trunking	Measuring tape – for accurate dimensions. Hacksaw – for cutting trunking cleanly. (*Award 1 mark for each or zero*)	2	
6.	Why is it important to observe safety measures when mounting trunking?	To avoid injuries, ensure safe use of tools, and prevent accidents during the installation process. (*Award 1 mark for any or zero*)	1	

7.	State two housekeeping activities to be performed after mounting trunking.	Clean the work area, collect and dispose of waste materials properly, store tools and equipment safely (*Award 1 mark for each or zero*)	2	
8.	Mention three importance of cable colour coding.	Prevents incorrect connections Ensures safety Simplifies maintenance and troubleshooting. (*Award 1 mark for each or zero*)	3	
9.	State three factors to consider when selecting proper cable size for installation in a trunking system.	Based on the current load, length of cable run, and voltage drop considerations as per IEC standards. (*Award 1 mark for each or zero*)	3	
10.	Explain the importance visual inspection in trunking installation.	Checking for physical defects, loose fittings, or damage to ensure quality and safety before energizing the system. (*Award 2 mark or zero*)	2	
11.	Describe the procedure of performing a continuity test in a trunking system.	Use a multimeter to check if electrical current can flow through the cable from end to end. A continuous tone or reading indicates a good connection. (*Award 1 mark for each or zero*)	2	
12.	Mention two risks of incorrect polarity	A test to ensure live and neutral wires are correctly connected. Incorrect polarity can cause electric shock; cause equipment damage.	2	

		(*Award 1 mark for each or zero*)		
	Total Oral		**25**	

SUMMARY OF ASSESSMENT

SECTION	**Total Marks**	**Marks Awarded**
Assessment 1	36	
Assessment 2	64	
TOTAL	**100**	
Percentage %		
ORAL ASSESSMENT		
Oral Assessment	**25**	
Percentage %		

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%