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071305T4EOP

ELECTRICAL OPERATION LEVEL 5

ENG/OS/PO/CR/03/5/A

Install Electrical Machine

March/April 2025

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

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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.

This checklist consists of FIVE (5) printed pages.

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 allocated**	**Marks obtained**	**Comments**
OBSERVATION CHECKLIST			
1. Wore Personal Protective Equipment. • Dustcoat/Overall *(Award 2 or 0)* • Safety boots *(Award 1 or 0)*	 1 1		
2. Observed colour code *(Award 2 or 0)*	**2**		
Sub-Total	**4**		
a) Draw the wiring diagram of both the power and control circuit.			
3. Drew wiring diagram. • Isolator switch *(Award 1 or 0)* • At the contactors *(Award 1 or 0 each correct connection)* • Thermal Overload *(Award 1 or 0)* • Motor terminals *(Award 1 or 0)*	 1 3 1 1		
Sub-Total	**6**		
b) Wire the circuit for star-delta operation.			
4. Fixed components. • Level (*Award any 4 x ½)* • Firmness (*Award any 4 x ½)*	 2 2		
5. Terminated cables correctly (Twisted, Folded, Firm and not nicked) • Isolator switch *(Award 1 or 0)* • Contactors *(Award 3 or 0 for each contactor)*	 1 3		

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• Thermal Overload *(Award 1 or 0)* • Timer *(Award 1 or 0)*	1 1		
6. Correctly wired the connection at • Contactors- two phase interchange *(Award 3 or 0)* • Thermal overload and timer *(Award 2 or 0)* • Motor terminal box - *(Award 1 or 0)*	 3 2 1		
Sub- total	**16**		
c) Perform Continuity and Polarity test			
7. Performed the following tests as per the IEE regulations: • Continuity test correctly. *(Award 3 or 0)* • Polarity test correctly. *(Award 2 or 0)*	 3 2		
Sub – Total	**5**		
d) Connect Control Circuit to Power and Test the Operation			
8. Circuit operation. • Push button energized contactor KM1 *(Award 5 or 0)* • Push button energized contactor KM2 *(Award 5 or 0)* • Timer de-energized contactor KM2 *(Award 5or 0)* • Timer energized contactor KM3 *(Award 5or 0)* • Push button STOP de-energized the both contactors *(Award 5or 0)*	 5 5 5 5 5		
Sub – Total	**25**		
e) Disconnect the Power and Perform Insulation Resistance Test			
9. Tested for insulation resistance: • Demonstrated understanding on the use of Mega meter *(Award 2 or 0)* • Performed insulation resistance test. *(Award 5 or 0)* • Compared the value obtained with the standard value of 0.6 MΩ *(Award 2 or 0)*	 2 5 2		
Sub - Total	**9**		
GRAND TOTAL	**65**		

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$\frac{x}{65} \times 100$	**100**		

ASSESMENT OUTCOMES

The candidate was found to be: (Please tick (√) as appropriate)

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%)

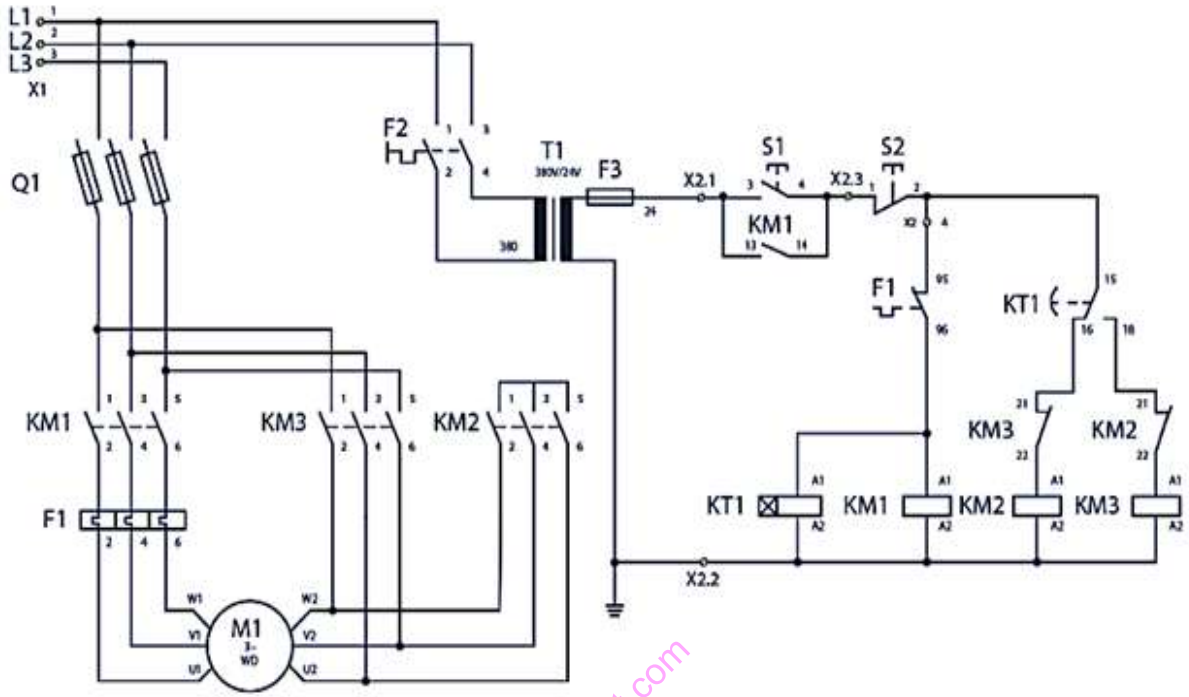
Feedback from the Candidate:

Feedback to the Candidate:

Candidate's signature:	**Date:**	
Assessor's signature:	**Date:**	

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Figure 1: Wiring diagram



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