

071606T4IMT

INDUSTRIAL MECHATRONICS TECHNOLOGY LEVEL 6

ENG/OS/IMT/CR/12/6/A

Maintain Supervisory Control and Data Acquisition (SCADA) Systems

Nov/Dec 2024



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

PRACTICAL ASSESSMENT

OBSER**CKLIST**

Candidate's Name & Registration Code			
Assessors Name & Registration Code			
Venue of Assessment			
Date of Assessment			
Items to be Evaluated: <i>Please award marks as appropriate. Give a brief comment on your observation.</i>	Marks Allocated	Marks Obtained	Comments
1. Donned personal protective equipment (i) Safety boots (ii) Overall / dust coat <i>Award 1 mark for each PPE worn as per workplace</i>	2		
2. Wired circuit correctly. (i) Physical lamps (ii) Physical start switch	10		

(iii) Physical stop switch (iv) Inductive sensor (v) Motor <i>(Award 2 mark each correctly connected)</i>			
3. Connected the PLC and computer with SCADA software. <i>(Award 2 marks for correctly connected)</i>	2		
4. Developed a PLC program for the task. <i>Award 4 marks for correct Virtual mode- using SCADA HMI</i> <i>Award 4 marks for correct remote mode- using push buttons on PLC program</i> <i>Award 1 marks for PLC program simulation</i>	9		
5. Powered the PLC correctly <i>(Award 1 mark for each)</i>			
6. Configured the PLC correctly and downloaded the program to the PLC successfully. <i>(Award 2 marks for correct PLC configuration and 2 marks for downloading)</i>	4		
7. Developed a SCADA HMI with the following icons. (i) Virtual PB1 (ii) Virtual PB2 (iii) Virtual PB3 (iv) Motor (v) Indicator lamp (L1,L2 and L3) as alarm	10		

<i>(Award 2 marks for each)</i>			
8. Run and Troubleshoot SCADA for any faults. <i>(Award 2 marks for correct fault diagnosis)</i> <i>(Award 2 marks for correct functionality)</i>	4		
9. Tested remote mode-using push buttons <i>(Award 2 marks for correctly working)</i>	2		
10. Switched off the system and power supply after the allocated tasks were done According to SOPs <i>(Award 1 marks for correct shutdown)</i>	1		
11. Utilized the tools and equipment correctly (i) Multimeter (ii) Screw drivers (iii) Wire stripper <i>Award 1 mark each</i>			
12. Organized neatly the workplace and demonstrated good housekeeping. (i) <i>Neat organization</i> <i>Award 1 mark</i> (ii) <i>Proper housekeeping.</i> <i>Award 1 mark</i>	2		
TOTAL	50		

The candidate was found to be: Competent

☐

Not yet competent

☐

(Please tick as appropriate)

(The candidate is competent if s/he gets 50% or higher)

Feedback from candidate:		
Feedback to candidate:		
Candidate's signature:	Date:	
Assessor's signature:	Date:	