

071306T4ELC

ELECTRONICS ENGINEERING LEVEL 6

ENG/OS/ET/CR/04/6/A

Apply Electrical Instrumentation

Nov/Dec 2024



**TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION
COUNCIL C)**

PRACTI ENT

OBSERVATION CHECKLIST

Candidate's Name & Registration Code			
Assessors Name & Registration Code			
Venue of Assessment			
Date of assessment			
Items to be evaluated: <i>(Award appropriate marks for each item evaluated)</i>	Marks Available	Marks Obtained	Comments
OBSERVATION CHECKLIST			
1. Wore PPE			
i. Safety boots (<i>Award 0 or 2</i>)	2		
ii. Apron (<i>Award 0 or 2</i>)	2		
2. Applied good housekeeping practice			
i. Proper handling of tools (A	2		
ii. Proper handling of equipment	2		
iii. Ensured clean working area	2		
iv. Properly disposed wastes. (<i>Award 2 or 0</i>)	2		
Sub total	12		
PRODUCT CHECKLIST			
TASK 1 - Mount the Circuit			
3. Correctly mount the circuit on the breadboard.			
i. Identified the components correctly (<i>Award 1 x 6 for each component</i>)	6		
ii. Mounted the component correctly considering polarity and pin configuration (<i>Award 2 x 3 for the 555 timer and two capacitors</i>)	6		
iii. Properly utilized the breadboard (<i>Award 3 marks or 0 for at least 3 / 4 of the board</i>)	3		
iv. Placed component neatly (<i>Award 1 mark for each of the six components or 0</i>)	6		

Sub total	21		
Task 2 – Testing and System Functionality			
4. Powered the circuit and carried out measurement at the testing points.			
i. Used the correct input voltage (Award 2 marks or 0 for 12V)	2		
ii. Connected circuit correctly (Award 5 marks or 0 if no fault in the circuit)	5		
iii. Correctly measure voltages at the test points			
$TP_1 = 12 \text{ Volt}$ (Award 3 marks or 0)	3		
$TP_2 = 8 \text{ Volt}$ (Award 3 marks or 0)	3		
$TP_4 = 0 \text{ Volt}$ (Award 3 marks or 0)	3		
iv. Circuit functionality was ac 3 marks or 0)	3		
Sub total	19		
Task 3 – play			
5. Used an oscilloscope to display the waveform at test point TP_3 . (Award 5 marks or 0 for correct use of the oscilloscope)	5		
6. Draw the output waveform at TP_3 (Award 5 marks or 0)	5		
Sub total	10		
Task 3 – Testing the circuit			
7. Carried out testing of the circuit			
i. Performed physical inspection of the circuit. (Award 0 or 3)	3		
ii. Performed the following test:			
• continuity (Award 0 or 2)	2		
• polarity (Award 0 or 2)	2		
iii. Compiled test report (Award 0 or 5)	5		
Sub total	12		

Total Marks		74		
$Percentage = \frac{x}{74} \times 100$				
The candidate was found to be: (Please tick (✓) as appropriate)				
Competent	☐	Not yet competent	☐	
<i>The candidate is competent if they scores 50% of total marks</i>				
Feedback from candidate:				
Feedback to candidate:				
Candidate's signature:		Date:		
Assessor's signature:		Date:		

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