

071305T4ELC

ELECTRONICS CRAFTPERSON LEVEL 5

ENG/OS/ET/CR/04/5/A

Apply Electrical Instrumentation

Nov/Dec 2024



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

PRACTICE

OBSERVATION CHECKLIST

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 Available	Marks Obtained	Comments
TASK:			
1. Wore Personal Protective Equipment			
i. Dustcoat/Overall (<i>Award 1 or 0</i>)	1		
Safety gloves (<i>Award 1 or 0</i>)	1		
2. Applied good housekeeping practice			

i. Cleaned working area before beginning working. <i>(Award 1 or 0)</i>	1		
ii. Arranged working area before beginning <i>(Award 1 or 0)</i>	1		
3. Identified and correctly used the following of tools and equipment:			
i. Multimeter <i>(Award 1 or 0)</i>	1		
ii. Solder sucker <i>(Award 1 or 0)</i>	1		
iii. Soldering gun <i>(Award 1 or 0)</i>	1		
iv. Side cutters <i>(Award 1 or 0)</i>	1		
v. Wire Stripper <i>(Award 1 or 0)</i>	1		
vi. Soldering gun stand <i>(Award 1 or 0)</i>			
4. Mounted and soldered components <i>(Award 1 mark each for any 10)</i>	0		
5. Achieved quality of solder joints (shiny, smooth, clean, concave solder fillet) and carried out correct connection for the following components:			
i. RF Oscillator (50KHz – 50Mhz)	5		
ii. R shunt 0.02 Ohms			
iii. Inductor coil of unknown value			
iv. Variable capacitor (30-pF)			
v. AC Supply 240v 50Hz			
<i>(Award 1 mark each)</i>			
Spaced components uniformly <i>(Award 4 or 0)</i>	4		
Trimmed long terminals <i>(Award 1 or 0)</i>	1		

6. Powered the circuit and determined the value of the following: i. E=Measured by thermocouple voltmeter (Award 3 or 0) ii. E_C=Measured by the Electronic voltmeter VTVM (Voltage across variable capacitor C) (Award 3 or 0) iii. $Q = \frac{Ec}{E} = \frac{Xl}{R} = \frac{1}{R} \sqrt{\frac{L}{C}}$ (Award 3 or 0) iv. L and R under these conditions; either by setting the oscillator to a given frequency and varying c or by keeping value of c constant and adjusting the oscillator frequency. (Award 2 marks each or 0)	3		
7. Arranged working area after work (A or 0)			
8. Disposed waste material properly (A or 0)	1		
GRAND TOTAL	45		
ASSESSMENT OUTCOME			
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 Signature _____	Date: _____
Assessor's Signature _____	Date _____