

061006T4ICT

ICT TECHNICIAN LEVEL 6

IT/OS/ICT/CR/10/6/A

IT/OS/ICT/CR/10/6/B

Develop Computer Program

July/August 2025



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

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

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: Develop a Java program for Global Trade Company to manage employee payroll.			
1. Set up the development environment <ul style="list-style-type: none"> Identified appropriate programming language. <i>(Award 1 mark or 0)</i> Opened correct compiler or IDE. <i>(Award 2 marks or zero)</i> 	 1 2		
2. Developed the program correctly declaring the variables. <ul style="list-style-type: none"> Used appropriate <i>data types</i> for each of the six variables. <i>(Award 1 marks for the appropriate data type (1*6)=6 marks)</i> Accepted input for <i>EmployeeID</i>. <i>(Award 2 marks or zero)</i> Accepted input for <i>Employee Name</i>. <i>(Award 2 marks or zero)</i> Accepted input for <i>Basic Salary</i>. <i>(Award 2 marks or zero)</i> Accepted input for allowances. <i>(Award 2 marks or zero)</i> Accepted input for deductions. <i>(Award 2 marks or zero)</i> Defined constants for <i>tax rate</i>. <i>(Award 1 marks or 0).</i> 	 6 2 2 2 2 1		
3. Accurately calculated the following			

<ul style="list-style-type: none"> Correctly calculated gross salary (Gross Salary = Basic Salary + Allowances) <i>(Award 2 marks or zero)</i> Correctly calculated tax based on gross salary. (Tax Amount = (Gross Salary × Tax Rate) <i>(Award 3 marks or zero)</i> Computed net salary using formula; (Net Salary = Gross Salary – Tax Amount – Deductions) <i>(Award 3 marks or zero)</i> 	2		
<ul style="list-style-type: none"> Correctly calculated tax based on gross salary. (Tax Amount = (Gross Salary × Tax Rate) <i>(Award 3 marks or zero)</i> Computed net salary using formula; (Net Salary = Gross Salary – Tax Amount – Deductions) <i>(Award 3 marks or zero)</i> 	3		
<ul style="list-style-type: none"> Computed net salary using formula; (Net Salary = Gross Salary – Tax Amount – Deductions) <i>(Award 3 marks or zero)</i> 	3		
<p>4. Compiling and executing the program.</p> <ul style="list-style-type: none"> Successfully compiled and executed the program <i>(Award 1 mark for compiling and 1 mark for executing = 1*2 = 2 marks)</i> Debugged the program. <i>(Award 4 marks or 0)</i> Used test data for the program. <i>(Award 3 marks or zero)</i> Code is neatly formatted and properly commented. <i>(Award 3 marks or zero)</i> 	2		
	4		
	3		
	3		
<p>5. Program executed correctly (Displays a formatted pay slip, with the following information.</p> <ul style="list-style-type: none"> Employee ID, Employee Name, Basic Salary, Allowances, Deductions, Tax Amount, Gross Salary, Net Salary<i>(Award 1 for each, 1x8=8 marks or zero)</i> 	8		

6. Save the program as PAYROLL in folder named "FirstName_Registration number". (Award 1 mark or zero)	1		
7. The candidate observed the PPE's (Award 1 mark or 0)	1		
Sub-Total 1	50		
TASK 2: Develop an interactive C program to help a farmer calculate the total cost of milk production.			
8. Set up the development environment; <ul style="list-style-type: none"> Identified appropriate programming language. (Award 1 mark or 0) Opened correct compiler or IDE (Award 2 marks or 0) 	3		
9. Developed the program correctly; <ul style="list-style-type: none"> Program included the correct header (s) (Award 1 marks or 0) Used appropriate data types to declare five variables (Award 1*5 = 5 marks) Prompted the user to input number of cows. (Award 2 marks or 0) Prompted the user to input average amount of milk per cow. (Award 2 marks or 0) Prompted the user to input cost of 	1 5 2 2 2		

<p>production per liter of milk (Award 2 marks or 0)</p> <ul style="list-style-type: none"> Calculated the total amount of milk produced per day correctly. (Award 2 marks or 0) Calculated the total cost of milk production per day correctly. (Award 2 marks or 0) 	2		
<p>10. Compiling and executing the program.</p> <ul style="list-style-type: none"> Successfully compiled and executed the program (Award 1 mark for compiling and 1 mark for executing = $1*2 = 2$ marks) Debugged the program. (Award 3 marks or 0) Used test data for the program. (Award 3 marks or 0) Used comments to explain code sections. (Award 3 marks or zero) 	2 3 3 3		
<p>11. Program executed correctly displaying the total amount of milk produced per day and the total cost of milk production per day. (Award 3 marks or 0)</p>	4		
<p>12. Save the program as FARMERS in the "FirstName_Registration number" folder. (Award 1 marks for each or 0)</p>	2		
Sub-Total 2	36		
TASK 3: Write a C program that allows a user to perform basic arithmetic operations.			

<ul style="list-style-type: none"> Defined correct data types (Award 1 mark for every correct defined data type, 1x4=4 marks) Displayed the menu correctly (Award 1 mark for every correct defined menu operation 1x5=5marks) Prompted the user to choose an operation (Award 1mark for every correct choose operation, 1x5=5 marks) Correctly used the if statement (Award 2 marks or 0) Prompted for correct output (Award 2 marks or 0) Prompted for correct input (two numbers) (Award 2 marks or 0) Debugged the program (4 marks or 0) Tested the program with test data (award 2 marks or 0) Program generated correct output. (award 2 marks or 0) Saved the program as ARITHMETIC in the "FirstName_Registration number" folder (award 1 mark or 0) 	4		
	5		
	5		
	2		
	2		
	2		
	4		
	2		
	2		
	1		
Sub-Total 3	29		
GRAND-TOTAL	115		
ASSESSMENT OUTCOME			

<p>The candidate was found to be:</p> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 20px;"> Competent <input style="width: 50px; height: 30px; border: 1px solid black;" type="checkbox"/> Not yet Competent <input style="width: 50px; height: 30px; border: 1px solid black;" type="checkbox"/> </div> <p><i>(Please tick as appropriate)</i></p> <p><i>(The candidate is competent if the candidate obtains at least 50%)</i></p>	
<p>Feedback from the Candidate:</p>	
<p>Feedback to the Candidate:</p>	
<p>Candidate Signature</p> <hr style="border: 0; border-top: 1px solid black; margin-top: 20px;"/>	<p>Date:</p> <hr style="border: 0; border-top: 1px solid black; margin-top: 20px;"/>
<p>Assessor's Signature</p> <hr style="border: 0; border-top: 1px solid black; margin-top: 20px;"/>	<p>Date</p> <hr style="border: 0; border-top: 1px solid black; margin-top: 20px;"/>