

061006T4ICT

ICT TECHNICIAN LEVEL 6

IT/OS/ICT/CR/10/6

DEVELOP COMPUTER PROGRAM

JULY/AUGUST 2023



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

PRACTICAL ASSESSMENT

TIME: 3 Hours

CANDIDATES INSTRUCTIONS

1. In this assessment, you will be required to perform the following tasks:
 - a) **Task 1:** Use C++ to Store payroll information in an array of structures
 - b) **Task 2:** Develop a Java Program to calculate simple Interest using a function

You will be provided with the following resources

Windows- based Personal Computer with:

- a) Software
 - ✓ Ms Office 2013 (Minimum)
 - ✓ Compilers for C++, Java

Task 1: C++ Program to store payroll information in an array of structures (25 Marks)

- a) Write a C++ program to store payroll information (Employee Name, Hours Worked and Hourly Rate) in an array of Employee structures and calculates the Total Pay (Hours Worked * Hourly Rate). The program should validate the Hours Worked and Hourly Rate to ensure that they are non-negative.
- b) Provide valid and non-valid inputs used for testing the program
- c) Capture screenshots from testing with valid and non-valid inputs.
- d) Create a folder named “programming” and save the screenshots inside the folder as C++

Task 2: Java Program to calculate simple Interest using a function (25 marks)

- a) Write a Java program that includes and calls a function to calculate simple interest (si) earned from a principal amount (p), at an interest rate (r) for a time (t); $si = (p * r * t) / 100$. The program should validate the principal amount, interest rate and time to ensure they are non-negative
- b) Provide valid and non-valid inputs used for testing the program
- c) Capture screenshots from testing with valid and non-valid inputs.
- d) Save the screenshots as Java inside the “program” folder