061306T4CSC

**COMPUTER SCIENCE LEVEL 6** 

ICT/OS/CS/CR/04/6/A

UNDERSTAND FUNDAMENTALS OF PROGRAMMING

**NOV/DEC 2023** 



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

## PRACTICAL ASSESSMENT

**TIME: 2 Hours** 

## INSTRUCTIONS TO THE CANDIDATE

- 1. You are required to perform the following two tasks
  - a. TASK 1: Install and configure the JAVA environment
  - b. TASK 2: Java program for a simple calculator
- 2. These Practical carries 50 marks
- 3. You are given TEN minutes to go through the question paper

# You will be provided with the following resources

- i. Working Computer
- ii. JAVA Development Environment (IDE) setup

#### **Task 1**: Install and configure the JAVA environment

(10 Marks)

- a) Run the JAVA Installer
- b) Follow the Installation Wizard correctly
- c) Set Environment Variables
- d) Test the Compiler

# **Task 2:** Java program for a simple calculator

(40 Marks)

You are tasked with creating a Java program for a simple calculator. The program should have separate functions for addition, subtraction, multiplication, and division. Perform the following:

- a) Start by creating a Java program using the installed development environment
- b) Implement functions within your program as follows:
  - i. Create FOUR functions for addition, subtraction, multiplication, and division.
  - ii. Each function should take two numbers as input
  - iii. Each function should return the result of the corresponding operation.
- c) User input
  - i. The program should prompt the user to input two numbers and
  - ii. The program should prompt the user to choose an operation (addition, subtraction, multiplication, or division).
- d) Function calls: Depending on the user's choice, call the appropriate function to perform the calculation.
- e) Display the result: Display the result of the calculation to the user.

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