061306T4CSC

COMPUTER SCIENCE LEVEL 6

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

ICT/OS/CS/CR/04/6/B

Understand Fundamentals of Programming

July/August 2025

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

OBSERVATION CHECKLIST

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. 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: *Please award marks as appropriate. Give a brief comment on your observation.*	**Marks Available**	**Marks Obtained**	**Comments**
Task1: Install of Java			
i. Downloaded Eclipse/Java NetBeans/IntelliJ	**5**		
ii. Installed Eclipse/Java NetBeans/Intellij	**4**		
iii. Launched the installation	**1**		
Task2: Operate in the Java Environment			
i. Created a class in the coding window	**2**		
ii. Created the main program	**2**		
iii. Applied System.out.println()	**2**		
iv. Saved the program	**1**		
Total	**17**		
Task3: Use data types in Java program			
i. Initialised the fields	**5**		
ii. Displayed the values	**5**		
iii. Changed the output format using escaper operators	**5**		
Task4: Input value from keyboard and apply if-else-structure			
i. Invoked Java,util library	**2**		
ii. Correctly captured value from keyboard	**2**		
iii. Implemented the IF structure	**3**		
iv. Correctly displayed output	**2**		
v. Saved file	**1**		
Total	**25**		
Task 5: Use case control structure			
i. Declared the variable	**1**		

ii. Captured the letter	**2**		
iii. Implemented the case structure	**2**		
iv. Correctly displayed output	**4**		
Task 6: Use f or loop control structure			
i. Used for loop	**5**		
ii. Correctly displayed odd numbers from 1 to 21	**5**		
Task 7: Use while loop and do..while control structure			
i. Use while do structure	**2**		
ii. Input name,Kiswahili,English	**3**		
iii. Calculated average mark	**2**		
iv. Displayed entered values	**3**		
v. Displayed average	**1**		
vi. Copied the program	**1**		
vii. Applied do while structure	**2**		
Total	**33**		
Task8: Classes and methods/Functions			
i. Defined data members	**2**		
ii. Created getVolume() function	**2**		
iii. Calculated volume through getVolume()	**2**		
iv. Displayed volume	**2**		
Task 9: Implement inheritance			
i. Created class rectangle	**2**		
ii. Created length and width data members	**2**		
iii. Created derived class area	**2**		
iv. Created method getArea()	**2**		
v. Calculated area	**2**		
vi. Displayed area on the screen	**1**		
Total	**19**		

TASK 10: Develop a sub-system using Java that calculates the Body Mass Index(BMI) of patients.			
1.Opened IDE	**2**		
2. Declared all the patient's details. - name - age - area of residence - gender - mobile - weight - height ***(Award 1 mark for each 0)***	**7**		
3.Calculated BMI ***(Award 3 marks or zero)***	**3**		
4. Determined patient status by using the criteria **(Award 1 marks or 0 for each correct selection)**	**4**		
5.Displayed all patient details **(*Award 1 marks or 0 for each field)***	**7**		
6. Displayed the patient BMI (***Award 1 mark or 0)***	**1**		
7.Displayed the patient status (***Award 1 mark or zero)***	**1**		
Sub-Total 1	**25**		
TASK 11: Develop a sub-system using Java that calculates the cost of an item in a shop.			
1. Launched the python IDE **(*Award 2 mark or 0)***	**2**		
2. Declared class goods	**2**		

Award 2 mark or 0)			
3. Declared variables(code,class,item,quantity) 4. ***Award 1 mark or 0 for each variable)***	**4**		
5. Declared getCost() function ***Award 2 mark or 0)***	**2**		
6. Calculated cost in getCost() ***Award 1 mark or 0)***	**1**		
7. Declared display() function ***Award 1 mark or 0)***	**1**		
7. Output(code, item, price, quantity,cost) in display() function ***Award 1 mark for each or 0)***	**5**		
8.Declared executeGoods in main function ***Award 1 mark or 0)***	**1**		
9.Created object ***Award 1 mark or 0)***	**1**		
10. Initialised data(code, item, price, quantity) ***Award 1 mark for each or 0)***	**4**		
11. Use created object to call the getCost() function. ***Award 1 mark or 0)***	**1**		
12,Use created object to call display () function. ***Award 1 mark or 0)***	**1**		
Sub-Total 2	**25**		
GRAND TOTAL	**144**		
PERCENTAGE SCORE %	**100%**		
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** _____ _____