

061306T4CSC

COMPUTER SCIENCE LEVEL 6

ICT/OS/CS/CR/06/6/A

Develop An Information System

March/April 2025



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

PRACTICAL ASSESSMENT

Time: 4 HOURS

INSTRUCTIONS TO CANDIDATE:

1. You are required to perform the following tasks
 - i. *Develop a School Examination Module*
 - ii. *Water Billing Module*
2. You have been provided with the following resources for the practical tasks:
 - *Functional Computer Installed with VB.NET IDE*
 - *Two plain papers*

Task 1: Develop a School Examination Module

The Management of a REB School would like to automate the examinations department. You have been employed to develop a system that will capture the student admission number, name, class, maths, English and science. The System is supposed to calculate the total, average marks, determine the grade based on the average and print student report form.

Average	Grade	Remarks
80-100	A	Excellent
70-79	B	Good
60-69	C	Fair
40-59	D	Below Average
0-39	E	Fail
Any other input	Invalid Marks	

You are required to implement the following activities.

1. Launch VB.NET IDE.
2. Create a form that contains the text "Welcome to REB School".
3. Input the label and text controls for capturing admission number, name, class, Math's, English and Science.
4. Validate the controls to ensure correct data is captured and print the appropriate message.
5. Calculate the total marks.
6. Calculate the average marks.
7. Determine the grade.
8. Determine the remarks.
9. Print the report form to contain admission number, name, class, Maths, English Science, total, average, and remarks.

Task 2: Develop a Water Billing Module

Maji Water Company is in the processing of automating the water department to enhance efficiency in the operations. You have been employed to develop a system in VB.NET that will capture the customer number, name, phone number, place of residence, previous water reading and current water reading. The system is supposed to calculate the units consumed and water bill. The units consumed is calculated by subtracting previous reading from current reading. Customers pays a standing charge of Ksh.200.

The cost of units of water consumed is calculated according to the criteria below

Units	cost per Unit
>10	10
1-9	15
4-6	20
0-4	10

Bill = (units X cost per unit) + standing charge

You are required to perform the following tasks:

1. Launch VB.NET IDE
2. Create a form that contains the text “Welcome Maji Water Management System”
3. Input the label and text controls for capturing number, name, place of residence, phone number.
4. Capture previous and current reading of units consumed
5. Validate the controls to ensure correct data is captured and print the appropriate message
6. Calculate the units consumed
7. Calculate the bill of water consumed
8. Print the water bill to contain number, name, place of residence, phone number. previous reading, current reading, units consumed and total cost.