assessment instrument

**APPLY PRINCIPLES OF CREATING COMPUTER SOFTWARE BY DEVELOPING A COMPLETE PROGRAMME TO MEET GIVEN BUSINESS SPECIFICATIONS**

**US ID:** 115392

**NQF LEVEL:** 5

**CREDITS:** 12

**NOTIONAL HOURS: 1**20

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SECTION B: SUMMATIVE ASSESSMENT

Answer the following questions

**Question 1 (SO 2, AC 1, AC 2, AC 3, AC 4)**

You are required to assist a small business in your community to solve any of its business problems using a computer program.

1. Identify and describe the problem that the small business is facing. (4)
2. Interpret the problem facing the business and create a plan to develop a computer program solution. The plan must;
3. Propose a description of the problems to be solved by the development of the computer program.
4. Integrate the research of problems in terms of data and functions.
5. Include an evaluation of the viability of developing a computer program to solve the problem identified and compares the costs of developing the program with benefits to be obtained from the program.
6. Choose the best solution to the problem and must document the program features that will contain the capabilities and constraints to meet the defined problem. (15)

**Question 2 (SO 2, AC 1, AC 2, AC 3, AC 4)**

Using the plan that you developed in question 1 above, you are required to design a computer program. The computer program design must meet the following specifications;

* Incorporate development of appropriate documentation and is desk checked
* Include program structure components
* Include program logical flow components
* Include data structures and access method components

As evidence, you must save the program design on a disk and attach to your POE. (10)

The assessor/facilitator must complete the attached evaluation checklist.

**Question 3 (SO 3, AC 1, AC 2, AC 3, AC 4)**

You are now required to create a computer program that implements the design. Take note of the following;

* The creation must include coding from design documents.
* Names created in the program must describe the purpose of the items named.
* The creation includes conformance with design documentation.

As evidence, you must save the computer program on a disk and attach to your POE (15)

The assessor/facilitator must complete the attached evaluation checklist.

**Question 4 (SO 4, AC 1, AC 2, AC 3)**

1. Develop and attach a testing strategy. (6)
2. You are required to demonstrate how to test the computer program that you have developed in question 3 above. This must be done in the presence of the assessor/facilitator. (10)
3. Record the testing results. Attach the testing results in your POE. (6)

**Question 5 (SO 5, AC 1, AC 2, AC 3)**

You are required to implement the program in order to meet the needs of the small business. Follow the guidelines below;

1. Explain how you shall check that the implementation complies with user expectations. (6)
2. Develop a plan for the installation process of the program. (5)
3. Develop a training plan for the small business owner and the users of the system. (8)

**Question 6 (SO 6, AC 1, AC 2, AC 3, AC 4)**

Develop a documentation for the computer program. The documentation must;

1. Include annotation of the program with a description of the program purpose and design specifics
2. Include the layout of the program code including indentation and other acceptable industry standards
3. Include internal and external documentation with a level of detail that enables other programmers to analyse the program
4. Reflect the tested and implemented program, including changes made during testing of the program. (15)