



ZIMBABWE

**MINISTRY OF HIGHER AND TERTIARY EDUCATION,
INNOVATION, SCIENCE AND TECHNOLOGY DEVELOPMENT**

**HIGHER EDUCATION EXAMINATIONS COUNCIL
(HEXCO)**

NATIONAL DIPLOMA

IN

INFORMATION TECHNOLOGY

**SUBJECT: Programming in Visual Basic.Net
[Theory]**

PAPER NO: 553/18/S04A

DURATION: 3 hours

NOVEMBER/DECEMBER 2025 EXAMINATION

REQUIREMENTS

Answer booklet

INSTRUCTIONS TO CANDIDATE

Answer all questions.

QUESTION 1

- a) Describe any two (2) components of a typical Visual Basic.Net IDE. (4 marks)
- b) i) Explain any two (2) data types provided for in VB.NET. (4 marks)
- ii) Outline the following types of procedures in VB.NET:
- Sub procedure (2 marks)
 - Function procedure (2 marks)
- iii) Illustrate how the iteration control structure works. (3 marks)
- c) Explain CLR and CTS as they relate to the .NET framework. (5 marks)

QUESTION 2

- a) VB.NET can be used to develop Windows Forms and Console applications. Explain these two (2) types of applications. (4 marks)
- b) Event driven programming is a key element of application development using VB.NET. Explain this concept. (3 marks)
- c) i) A form is the main control in VB.NET Windows Forms applications. Describe the two (2) main types of forms in VB.NET. (4 marks)
- ii) Describe any other two (2) controls that can be used in VB.NET Windows Forms application development. (4 marks)
- d) Explain the following in relation to the .NET framework:
- i) Memory management (3 marks)
 - ii) Namespaces (2 marks)

QUESTION 3

- a) Outline the following OOP concepts:
- i) Polymorphism (2 marks)
 - ii) Inheritance (2 marks)
 - iii) Class (2 marks)
- b) Declare the following data structures:
- i) A 3×3 , two (2) dimensional array to store integers. (2 marks)
 - ii) A structure to store book details consisting of book number, author and price. (3 marks)

- c) Write a statement to create an instance of StreamReader to read from a file "names.txt" located in C drive. (4 marks)
- d) Describe how VB.NET handles exceptions in applications. (5 marks)

QUESTION 4

- a) The data provider in ADO.Net consists of four (4) components. Outline these four (4) components. (8 marks)
- b) Explain the disconnected architecture as it applies to connecting to databases in VB.NET. (8 marks)
- c) Binding source is usually the go to option for applications that perform CRUD operations on databases. Describe a BindingSource as used in VB.NET to access databases. (4 marks)

QUESTION 5

- a) VB.NET is an event-driven language and has two (2) main types of events. Outline these two (2) types. (6 marks)
- b) There are many built-in dialogue boxes that can be used in Windows Forms for various tasks in applications. Describe any four (4) commonly used dialogue box controls. (8 marks)
- c) Every VB.NET control consists of three (3) important elements. Explain these elements. (6 marks)

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