

Professional Course (Odd) Examination, 2025

(5th Semester)

BACHELOR OF COMPUTER APPLICATIONS

(GUI Programming)

Full Marks : 75

Time : 3 hours

The figures in the margin indicate full marks for the questions

(PART : A—OBJECTIVE)

(Marks : 25)

SECTION—I

(Marks : 15)

I. Tick (✓) the correct answer in the brackets provided : 1×10=10

1. Which keyword is used in VB.NET to declare a variable?

- (a) var ()
- (b) let ()
- (c) dim ()
- (d) declare ()

2. Which of the following is not a VB.NET data type?

- (a) Integer ()
- (b) Boolean ()
- (c) String ()
- (d) Pointer ()

3. Which control is best suited to display a hierarchical structure (like folders)?
- (a) ListView ()
 - (b) TreeView ()
 - (c) ComboBox ()
 - (d) Panel ()
4. Which control allows users to pick a specific date?
- (a) DateTimePicker ()
 - (b) Timer ()
 - (c) LinkLabel ()
 - (d) Calendar ()
5. What will be the following code output?
- ```
Dim arr () As Integer = { 10, 20, 30 }
Console.WriteLine(arr (1))
```
- (a) 10 ( )
  - (b) 20 ( )
  - (c) 30 ( )
  - (d) Error ( )
6. Which function is used to find the length of a string?
- (a) Size() ( )
  - (b) Count() ( )
  - (c) StrLen() ( )
  - (d) Len() ( )
7. Which keyword is used to inherit a class in VB.NET?
- (a) Extends ( )
  - (b) Override ( )
  - (c) Inherits ( )
  - (d) Base ( )

8. Which access modifier makes a member accessible only within the same class?

- (a) Private ( )
- (b) Protected ( )
- (c) Public ( )
- (d) Friend ( )

9. Which object is used for connected data access?

- (a) DataAdapter ( )
- (b) DataReader ( )
- (c) DataSet ( )
- (d) DataTable ( )

10. Which namespace is commonly used for ADO.NET classes in VB.NET?

- (a) System.Data ( )
- (b) System.IO ( )
- (c) System.Web ( )
- (d) System.Text ( )

II. State whether the following statements are *True (T)* or *False (F)* by putting a Tick (✓) mark in the brackets provided : 1×5=5

1. The CLR in .NET is responsible for garbage collection.

( T / F )

2. Shortcut keys can only be assigned to Context MenuStrip, not MenuStrip.

( T / F )

3. Recursive functions in VB.NET must have a terminating condition.

( T / F )

4. The friend access modifier allows access only within the same namespace.

( T / F )

5. Report viewer is used to display tabular data only.

( T / F )

SECTION—II

( Marks : 10 )

2×5=10

III. Answer the following questions in short :

1. State any two features of the .NET Framework Class Library (FCL).
2. Write a VB.NET statement to change the background color of a form using ColorDialog.
3. Differentiate between Do...While and Do...Until loops in VB.NET.
4. What is the role of the destructor in VB.NET?
5. What is the role of the command object in ADO.NET?

( PART : B—DESCRIPTIVE )

( Marks : 50 )

IV. Answer the following questions :

10×5=50

1. Explain the architecture of the .NET Framework with a neat diagram. 10

OR

2. Write short notes with examples on the following : 5+5=10

(a) Variables and constants

(b) Enumerations and logical operators

3. Discuss event handling in VB.NET with an example of handling a Button click event and a ListBox event. 10

OR

4. Write short notes on the following dialog boxes with examples :

2½×4=10

(a) OpenFileDialog

(b) SaveFileDialog

(c) FontDialog

(d) ColorDialog

5. Explain different decision-making statements in VB.NET with examples. 10

**OR**

6. What are the three types of errors in VB.NET? Explain how exception handling is done in VB.NET with an example. 4+6=10
7. Differentiate between method overloading and method overriding in VB.NET with an example. 10

**OR**

8. Differentiate interface and class. Explain the use of interfaces in VB.NET with example. 4+6=10
9. Explain connected and disconnected architectures in ADO.NET. 10

**OR**

10. How do you connect to a database using ADO.NET? Explain with steps. 10

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