



Dezyne École College

Bachelor of Computer Application (B.C.A.) Second Year-4th Semester

Visual Programming

Part-A: Short Answer Questions (10 questions – ~20 words each)

1. List any three OOPS concepts.
2. Mention any three features of the .NET Framework.
3. State the purpose of the throw keyword in VB.NET.
4. Write any three differences between value types and reference types.
5. Define an interface in VB.NET.
6. List three properties of the Windows ListBox control.
7. What is the purpose of MsgBox in VB.NET?
8. What is a constructor? Why is it used?
9. Define overloading and overriding.
10. Mention the use of a Timer control in Windows Forms.
11. List any two collection classes used in VB.NET.
12. What is the use of Optional parameters in a function?
13. Mention the difference between a Subroutine and a Function.
14. Write any two uses of the Panel control.
15. What is inheritance? Give a simple definition.
16. Mention two differences between ComboBox and ListBox.

17. Define scope and lifetime of a variable.
18. What is the role of the Common Language Runtime?
19. What is a DataSet in ADO.NET?
20. What is the use of the ColorDialog control?

Part-B: Medium Answer Questions (5 questions – ~50 words each)

21. Explain the Common Type System (CTS) in the .NET Framework.
22. Describe explicit type conversion with a suitable example.
23. List steps involved in creating a basic Windows Form application.
24. Explain the role and features of Solution Explorer.
25. How do you declare and initialize a 2D array in VB.NET?
26. Explain the use of OpenFileDialog and SaveFileDialog with an example.
27. Describe MsgBox and InputBox with proper syntax.
28. Discuss the purpose and usage of the ScrollBar and ToolBar controls.
29. What is the purpose of Access keys and Shortcut keys in menu design?
30. Differentiate between static and dynamic arrays with examples.

Part-C: Long Answer Questions (Select any 3; ~400 words each, 6+7+7 marks)

Unit I: Framework, Language & OOPS

31. List the advantages of CLR in .NET.
32. Write a short note on the Visual Studio IDE help system.
33. Explain various data types supported in VB.NET.
34. What is a namespace? Explain with an example.
35. Explain the architecture of the .NET Framework with a neat diagram.
36. Describe the role of Assemblies and MSIL in .NET execution.

37. Discuss in detail the differences between function overloading and overriding with examples.

Unit II: Forms, Controls, and GUI Programming

38. Explain the creation of menus with shortcut keys at design time.
39. Design and code a simple form with Label, TextBox, and Button.
40. Discuss the use and features of advanced controls like TreeView and ListView.
41. Explain event handling mechanism in Windows Forms.
42. Describe the process of showing and hiding forms with an example.
43. How do you design and use ContextMenu in VB.NET?
44. Create a form using RadioButton, CheckBox, and ListBox and describe its functionality.

Unit III: Database Programming with ADO.NET

45. Explain DataSet, DataAdapter, and DataProvider with an example.
46. What is recursion? Write a VB.NET program to demonstrate it.
47. How do you connect a database using OLEDB in ADO.NET?
48. Explain the architecture and key components of ADO.NET.
49. Write a program to fetch and display data in a ListBox from a database.
50. Describe the steps to insert a record into an MS Access database.
51. Explain the difference between SQLDB and OLEDB connections.
52. Discuss disconnected data access using DataSet in ADO.NET.

Bonus/Extra Questions (any type)

53. What are Windows Forms? How do they differ from web forms?
54. Explain optional arguments in functions with examples.
55. List the steps to deploy a Windows application.
56. Describe how to use TreeView control with a basic example.
57. What is the difference between Me and MyBase in VB.NET?

58. Write a program to calculate factorial using recursion.
59. Discuss debugging tools available in Visual Studio IDE.
60. Write a VB.NET program that demonstrates inheritance with constructor.



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BCA (Part-III) Examination, 2024
Paper - BCA - 304
Programming in .NET with C#

Duration of Examination: 3 Hours

परीक्षा की अवधि: 3 घण्टा

Max. Marks: 50

पूर्णांक: 50

Instructions to the Candidates:

परीक्षार्थी के लिए निर्देश:-

Part-A (Compulsory)

Answer all ten questions (upto 20 words each). Each question carries equal marks.

(Marks-15)

Part-B (Compulsory)

Answer all five questions (upto 50 words each). Each question carries equal marks.

(Marks-15)

Part-C

Answer any three questions (upto 400 words each). Selecting one question from each unit.

Three questions of 7, 7 & 6 marks.

(Marks-20)

Part-A

- 1- List any three OOPS concepts.
- 2- List any three features for .NET framework.
- 3- State the purpose of throw keyword in C#.
- 4- Write any three differences between value type and reference type in C#.
- 5- Define an interface C#.
- 6- Write any three properties of Windows List Box Control.
- 7- What is deploying of windows application?
- 8- What is dataset in ADO.NET?
- 9- Mention the steps for creating a web application.
- 10- List various data validation controls.

Part-B

- 11- Explain the need of common type system.
- 12- Define and explain explicit type conversion with an example.
- 13- List the steps for creating a web application.
- 14- What is the purpose of solution explorer? Explain.
- 15- How to declare a 2D array in C#. Net with an example?



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Part-C

Unit-I

- 16- (a) List advantages of CLR in .NET.
(b) Write short note on Visual Studio IDE help System.

OR

- (a) Explain various data types in C#.
(b) What is name space explain.

Unit-II

- 17- Explain the creation of menus with short cut keys at design time.

OR

Explain about designing and coding simple form by suitable example.

Unit-III

- 18- Explain data set, data adapter, data provider with a simple example.

OR

What is recursion? Write a C# console programme to implement recursion concept.

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BCA (Part-III) Examination, 2025
PAPER- BCA-304
Programming in .NET with C#

Duration of Examination: 3 Hours

परीक्षा की अवधि: 3 घण्टा

Max. Marks: 50

पूर्णांक: 50

Instructions to the Candidates:

परीक्षार्थी के लिए निर्देश:-

Part-A (Compulsory)

Answer all ten questions (upto 20 words each). Each question carries equal marks.

(Marks-15)

Part-B (Compulsory)

Answer all five questions (upto 50 words each). Each question carries equal marks.

(Marks-15)

Part-C

Answer any three questions (upto 400 words each). Selecting one question from each unit.

Three questions of 7,7 & 6 marks.

(Marks-20)

Part-A

- 1- Why C# is related to .NET?
- 2- Why we use .NET remoting?
- 3- List any three features of .NET framework.
- 4- State the purpose of throw keyword in C#.
- 5- Write any three differences between value type and reference type in C#.
- 6- Write any three properties of windows list box control.
- 7- What is dataset in ADO.NET?
- 8- What is the relationship between events and delegates?
- 9- What is the Data Adapter Object in ADO.NET?
- 10- Point out the purpose of event listeners in C#.

Part-B

- 11- Relate boxing and unboxing. provide suitable examples for each.
- 12- How the exceptions are handled in .NET compact framework?
- 13- Explain common dialogue control.
- 14- Write a brief note on line and shape controls.
- 15- What is recursion? Write a C# console program to implement recursion concept.



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Part-C

- 16- Explain about designing and coding simple form. Give suitable example

OR

Explain data set, data adapter, data provider with a simple example.

- 17- Explain the procedure for data binding with text box control. Give suitable example.

OR

Explain exception handling mechanism in C# with an example.

- 18- Explain connection object, command object with an example in ADO .Net.

OR

Explain data validation in ADO .NET. Give suitable example.
