

## B3.5-R4: VISUAL PROGRAMMING

### NOTE:

1. Answer question 1 and any FOUR from questions 2 to 7.
2. Parts of the same question should be answered together and in the same sequence.

Time: 3 Hours

Total Marks: 100

1.
  - a) What is ASP.NET? What are advanced features of ASP.NET?
  - b) Which method do you use to enforce garbage collection in .NET? State the differences between the dispose() and finalize().
  - c) What is difference between namespace and Assembly? Also explain Side-by-side execution.
  - d) What is session tracking? How session can be created and managed?
  - e) Differentiate between C# and VB.NET?
  - f) Write program code for VB.NET to display "Hello World" on the screen.
  - g) Describe the roles of CLR in .NET Framework.

**(7x4)**
  
2.
  - a) Explain Microsoft Intermediate Language (MSIL).
  - b) Explain Common Language Specification (CLS).
  - c) What is the difference between ADO and ADO.NET? Also discuss benefits of ADO.NET?
  - d) Explain the states of Thread in VB.NET.

**(4+4+4+6)**
  
3.
  - a) Explain Method Overloading in VB.NET with suitable example.
  - b) Discuss use of Repeater Control.
  - c) What are the benefits and drawbacks of web form and windows form at the layer of Data Access?

**(5+5+8)**
  
4.
  - a) What are web controls in ASP.NET? Which are the categories of Web Controls? Give some examples of web controls.
  - b) Is VB.NET object oriented? Give your justification? Does VB.NET support inheritance? Explain.
  - c) What is GDI+? Describe the Namespace of GDI+?
  - d) What is String manipulation? Discuss the atleast 3 string manipulation functions syntax with example.

**(4+4+5+5)**
  
5.
  - a) What are the different methods under Sql command? Mention different types of data providers available in .NET Framework?
  - b) What is the role of the Dataset object in ADO.NET? What are the various methods provided by the Dataset object to generate XML?
  - c) How to bind a Windows Presentation Foundation (WPF) List Box control to an ADO.NET Dataset in VB? What is a Strongly Typed Dataset?

**(6+6+6)**

**6.**

- a) How can you save the desired properties of Windows Forms Application? How do programmatically change the color of a control? What is Data Adapter and Data set? Write syntax to fill and update data in data set?
- b) What is Base Class Library (BCL)? Define some BCL with brief description. Also describe state management in ASP.NET.

**(9+9)**

**7.**

- a) What are files and stream I/O? Write commonly used file, directory classes and stream fundamental operations?
- b) Explain Console Application?
- c) Write a VB.NET program to read 3 fields namely Basic, House Allowance and Conveyance Allowance from database and write back the total salary to field name NetSalary in the same record. Process all the records of the database.

**(6+6+6)**