Sl. No.

B3.5-R4 : VISUAL PROGRAMMING

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

Time : 3 Hours   **Total Marks : 100**

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1.   (a)   Explain assembly manifest and metadata.

(b)   Define Array. Write a code in Visual Basic to find sum of digits of numbers upto 100.

(c)   Explain the implicit and explicit declaration with the help of examples.

(d)   How a Text Box control is used as Password Box ? Explain MsgBox( ) and InputBox ( ).

(e)   Define constructor with the help of examples.

(f)   Explain the Data List and Repeater Controls in detail.

(g)   Explain the following terms :

   (i)   Globalization

   (ii)   Global Assembly Cache (GAC)   **(7x4)**

2.   (a)   What is (.NET) framework ? Draw the diagram of .NET framework and explain all its components in brief.

(b)   Explain the working of Just In Time (JIT) compiler in .NET.

(c)   Explain the execution process of Common Language Runtime (CLR).

(d)   What do you mean by assembly ? Differentiate between shared assembly and private assembly.   **(5+4+5+4)**

3.   (a)   Discuss different data types used in Visual Basic in details.

(b)   Discuss for-next statement. Write a code to find factorial of numbers upto 10.

(c)   Explain methods to access all types of data files in Visual Basic.

(d)   Design a class to represent bank A/c including

Data members - Name of the depositor, A/c no, A/c type and Balance Amount.

Methods :

   (i)   To assign initial values.

   (ii)   To deposit an amount.

   (iii)   To withdraw an amount after checking balance.

   (iv)   To display name & balance after giving the A/c number as input.   **(5+4+4+5)**

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4. (a) Discuss the event handling in details used in visual basic with proper illustrative example.

(b) Compare Window Forms to the Classic VB Ruby Forms mode.

(c) What are the various graphic controls available in VB ? Explain their use in animation creation.

(d) Write a code to prepare each of the following :
   (i) Check box   (ii) Button
   (iii) List Box   (iv) Combo Box   **(4+4+4+6)**

5. (a) Explain the following terms :
   (i) Class   (ii) Namespace
   (iii) Thread   (iv) Base Class Library

(b) What do you mean by object oriented programming ? Explain different features of visual basic in details.

(c) Define the inheritance. Apply various inheritance techniques to forms.

(d) Explain the following terms :
   (i) Overloading
   (ii) Dispose and Finalization
   (iii) Exception handling   **(4+4+4+6)**

6. (a) Illustrate the various key features of ADO.NET. Create a Student Registration Form as a DOT NET application which connects to SQL Database using ADO.NET classes.

(b) Explain the following components of ADO.NET :
   (i) Data set
   (ii) Data Reader
   (iii) Data Adaptor
   (iv) Command
   (v) Connection

(c) How crystal reports are created in VB ? Explain its steps.   **(6+6+6)**

7. (a) (i) Define MVC (Model View Controller Architecture).
      (ii) What is the difference between *Server.Transfer* and *Response.Redirect* ?

(b) What are the different Session state management options available in ASP.NET ? Explain the Session Cookie and Persistent Cookie.

(c) Explain the ASP.NET page life cycle in details. How the functions differ from stored procedures ?   **(6+6+6)**

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