**2018**

(December)

**MCA**

**Course No: 305**

**(GUI Programming using VB.NET)**

**(Theory)**

Full Marks : 75

Time : 3 Hours

*The figures in the margin indicate full marks for the questions*

Attempt **one** question from each **UNIT**

**UNIT – I**

1. a) **Define the role of Solution Explorer in Visual Studio IDE. What is the advantage of Option Strict On? (2+2=4)**
2. Explain the following structure with example: (3+3=6)
3. For ... Next
4. Select ... End Select
5. a) **What are object variables? Write a code to find prime factors of a given number using console**

**application. (2+4=6)**

1. **Briefly explain how dynamic arrays are implemented in VB.Net. (4)**

**UNIT-II**

1. a) Write few lines of code to add three labels, three text boxes and a button at runtime. Allow user to enter

values and then display maximum and minimum values using message box after a click on a button. (5)

1. **Write short notes on: (3+3=6)**
2. **ScrollBar**
3. **TaskBar**
4. **List *any four* Dialog Boxes used in Windows Forms.** How can a function be created in VB.Net which

can accept varying number of arguments? (2+3=5)

1. Differentiate between *access key* and *shortcut key*. (4)

1. a) In how many ways can a function return a value in VB.Net? Explain with an example. (4)
2. What is an event? Explain *any two* types of Keyboard Events. (1+4=5)
3. Explain the following controls: (2+2=4)
4. Listbox ii) ComboBox
5. **Briefly explain how dynamic menus are implemented in VB.Net. Discuss the use of named arguments with an illustrative example. (4+3=7)**

**UNIT-III**

1. a) **Define inheritance.** Discuss the different types of inheritances supported by VB.Net with an example

of each. (1+8=9)

1. What is the role of *New* keyword? How is a destructor implemented in VB.Net? (2+2=4)
2. Describe *any two* ways of creating a custom control. (4)
3. **What is the significance of *breakpoints* in debugging? (3)**

1. a) **Distinguish between *overriding* and *overloading*.** (5)
2. Describe exception handling with a suitable example. (5)
3. What is a property procedure? Write a few lines of codes to define a property procedure with name

*Sside* to access a private integer member side and validate the value in the range of 0 to 50. (1+3=4)

1. **Discuss the use of a shared variable with an illustrative example.** How is constructor overloading of a

class achieved? (3+3=6)

**UNIT-IV**

1. a) **Write a short note on ADO.Net architecture. (4)**
2. **What is *data binding*? Explain the various types of data binding techniques available in ADO.Net.**

**(2+4=6)**

1. What are the differences between *ExecuteReader* and *ExecuteNonQuery* methods? (5)
2. a) **Explain the importance of each component of .Net *DataProvider* object in ADO.Net architecture. (6)**
3. Why is *DataReader* faster than *DataSet*? Explain. (4)
4. What is the use of *DataGridView* control? Discuss the importance of *OleDbCommandBuilder* object. (2+3=5)

**UNIT-V**

1. a) Explain the *RangeValidator* and *CompareValidator* controls along with their properties. (5)

b) Discuss *Session Object* and its importance. (5)

1. a) Define Web Service. What do you understand by maintaining state in Web application? (2+3=5)
2. What is the difference between an ASP.Net Application and Windows Form Application? Write a short note on *SOAP*. (2+3=5)

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