



UNIVERSITY OF COLOMBO, SRI LANKA

UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING

DEGREE OF BACHELOR OF INFORMATION TECHNOLOGY (EXTERNAL)
Academic Year 2006/2007 – 2nd Year Examination – Semester 4

IT4302: Rapid Application Development
PART I – Multiple Choice Question Paper

19th August, 2007
(TWO HOURS)

Important Instructions:

- The duration of the paper is **2(Two) hours**.
- The medium of instruction and questions is English.
- The paper has **50 questions** and **16 pages**.
- All questions are of the MCQ (Multiple Choice Questions) type.
- All questions should be answered.
- Each question will have 5 (five) choices with **one or more** correct answers.
- All questions will carry equal marks.
- There will be a penalty for incorrect responses to discourage guessing.
- The mark given for a question will vary from -1 (*All the incorrect choices are marked & no correct choices marked*) to +1 (*All the correct choices are marked & no incorrect choices are marked*).
- Answers should be marked on the special answer sheet provided.
- Note that questions appear on both sides of the paper.
If a page is not printed, please inform the supervisor immediately.
- Mark the correct choices on the question paper first and then transfer them to the given answer sheet which will be machine marked. **Please completely read and follow the instructions given on the other side of the answer sheet before you shade your correct choices.**

1) Select the correct statement(s) for declaring an identifier.

- (a) Dim x% is declared as an integer.
- (b) Dim y& is declared as long.
- (c) Dim y! is declared as decimal.
- (d) Dim y# is declared as double.
- (e) Dim x\$ is declared as string.

2) Select the correct statement(s) from the following about Variable declaration.

- (a) Dim x as string = "This is a test".
- (b) Dim y% = 5.8 .
- (c) Public Const J = 45L can be declared as Long with Option Strict On.
- (d) No Identifier Characters exist for Boolean, Byte, Char, Date, Object or Short.
- (e) No Identifier Characters exist for Integer, Long, Decimals, String, Single or double.

3) Select the correct statement (s) for an Option Strict statement.

- (a) Select incorrect statement(s) of Option Strict statement.
- (b) It should precede any other code.
- (c) "Option Strict" and "Option Explicit" statements are by default in the Application Property window.
- (d) "Option Strict On" allows late binding for object Data types.
- (e) "Option Strict Off" allows Public Const X = 56I .

4) Select the correct statement(s) about Arrays in VB.net.

- (a) Dim myArray(15) as String has 16 elements.
- (b) VB.net Arrays always begin with a zero element.
- (c) Arrays in VB.net can have 64 dimensions.
- (d) Arrays in VB.net can have 32 dimensions.
- (e) ReDim can be used without declaring Arrays in VB.net .

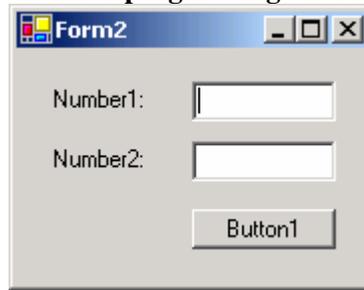
5) Jagged arrays in VB.net are

- (a) arrays of arrays.
- (b) similar to Multi Dimensional Arrays.
- (c) not compliant with Common Language Specification (CLS).
- (d) liner arrays with Multi dimensions.
- (e) three dimensional Arrays.

6) A member within a Enum ... End Enum declaration can be

- (a) of any data type.
- (b) a string.
- (c) an integer.
- (d) of type double but will be implicitly converted into integer.
- (e) a variable.

Refer to the following dialog box and the program segment to answer Questions 7 & 8.



```

Dim x() As Integer
(1) ReDim x(10)
(2) x(0) = 10
(3) x(1) = 2
If Number1.Text <> "" And Number2.Text <> "" Then
(4)   ReDim x(12)
(5)   x(0) = -----
(6)   x(1) = -----
  MessageBox.Show("the numbers which are shown" & Str(x(0)) & Str(x(1)))
Else
  MessageBox.Show("the numbers which are shown" & Str(x(0)) & Str(x(1)))

End If

```

The above code is run when Button1 is click.

7) In the above code,

- (a) ReDim statement is used to change the size of one or more dimensions of an array that has already been formally declared.
- (b) x is declared as a dynamic array and it is in the sixth line which resizes to 13 elements.
- (c) x is declared as a dynamic array and it is in the sixth line which resizes to 12 elements
- (d) As ReDim statement is run in line (4) and since it is an executable statement, it loses what had been already stored in the lines (2) and (3).
- (e) As ReDim statement is run in line (4) it does not lose what had been already stored but instead, they get reassigned.

8) Fill in the blanks for the lines (5) and (6).

- | | |
|--|--------------------------------|
| (a) x(0) = number1.text | (b) x(0) = Num(number1.text) |
| x(1) = number1.text | x(1) =Num (number2.text) |
| (c) x(0) = Cint(number1.text) | (d) x(0) = CType(number1.text) |
| x(1) = Cint(number2.text) | x(1) = CType(number2.text) |
| (e) x(0) = CType(number1.text,Integer) | |
| x(1) = CType(number2.text,Integer) | |

Refer to the following scenario to answer questions 9, 10 and 11.

An application has been designed to connect to MS SQL server 2000. The sample database is known as 'pubs'. Pubs database has several tables one of which is *authors*. A form is designed to connect to the table 'authors' where a data from 'authors' is filled to a Datagrid with a button as in Figure 1.

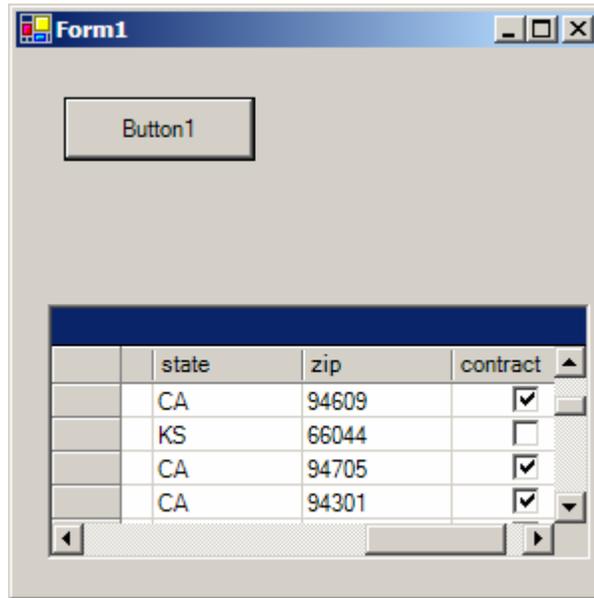


Figure 1

- (1) -----
 Dim myConnectionString As String
- (2) ----- ' DataSet object is declared
 Dim myDataAdapter As SqlDataAdapter
- myConnectionString = "Initial Catalog=pubs" _
 & ";Data Source=localhost;user ID =sa;" _
 & "password =;"
 'the following is initiation of myConnection boject
- (3) -----
 Try
- myDataAdapter = New SqlDataAdapter("Select * from" _
 & " Authors", myConnection)
- (4) -----
 (5) myDataAdapter.Fill -----
 myConnection.Open()
- (6) ----- 'Data grid is assigned
- The above code is written in button1_Click event of Form1 module.

- 9) In order to declare 'SqlClient' objects, proper Namespace has to be declared. Out of the following, select the correct statement about the above Namespace.

- (a) 'System.SqlClient' is the line of code for declaring Namespace which one should add in the General Declaration section of form module to invoke the name space.
- (b) 'Imports System.SqlClient' is the line of code for declaring Namespace which one should add in the General Declaration section of form module to invoke the Namespace.
- (c) 'Imports System.Data.SqlClient' is the line of code for declaring Namespace which one should add in the General Declaration section of form module to invoke the Namespace.
- (d) 'Imports System.SqlClient' is the line of code for declaring Namespace which one should add in the Form1 Declaration section of the form module.
- (e) 'Imports System.Data.SqlClient' is the line of code for declaring Namespace which one should add in the Form1 declaration section of the form module.

- 10) Select code for line (1), line (2) and line (3) respectively.

- (a) Dim myConnection as New SqlConnection
Dim myDataSet as DataSet
myConnection = New SqlConnection
- (b) Dim myConnection as New SqlConnection
Dim myDataSet as DataSet
myConnection = SqlConnection (myConnectionSting)
- (c) Dim myConnection as SqlConnection
Dim myDataSet as New DataSet
myConnection = New SqlConnection (myConnectionSting)
- (d) Dim myConnection as SqlConnection
Dim myDataSet as DataSet
myConnection = New SqlConnection (myConnectionSting)
- (e) Dim myConnection as SqlConnection
Dim myDataSet as DataSet
myConnection = New SqlConnection (myDataAdapter)

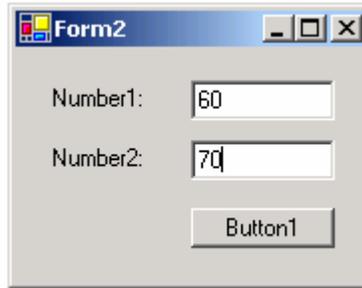
- 11) The following line of code is added for line (4) of the code.

```
Dim custdb As SqlCommandBuilder = New  
SqlCommandBuilder (myDataAdapter)
```

Select the correct statement(s) about SqlCommandBuilder .

- (a) SqlCommandBuilder class cannot be inherited.
- (b) SqlCommandBuilder class can be inherited.
- (c) SqlCommandBuilder automatically generates the Transact-SQL statements required to reconcile changes made to a DataSet with the associated instance of SQL Server.
- (d) SqlCommandBuilder works with other Database Management Systems such as MySQL.
- (e) SqlCommandBuilder only works with MS SQL server.

12) Consider the following dialog box and the program segment to answer this Question.



```
(1) Dim x() As Integer
(2)   ReDim x(10)
(3)   x(0) = 10
(4)   x(1) = 2
      If Number1.Text <> "" And Number2.Text <> "" Then
(5)     ReDim x(12)
(6)     x(3) = (assigning of Textbox1)
(7)     x(4) = (Assigning of Textbox2)
(8)     MessageBox.Show("the numbers which are shown" _
        & Str(x(0)) & Str(x(1)) & Str(x(3)) & Str(x(4)))
      Else
        MessageBox.Show("the numbers which are shown" & Str(x(0)) & Str(x(1)))
      End If
```

What will be the output with respect to Line (8) when you click Button1 with the preserve keyword added to Line (5)?

- (a) "the numbers which are shown 10 2 0 0"
- (b) "the numbers which are shown 10 2 10 2"
- (c) "the numbers which are shown 0 0 60 70"
- (d) "the numbers which are shown 10 2 60 70"
- (e) "the number which are shown 0 0 0 0"

13) VB.net is

- (a) a fully object Oriented Language with Multiple Inheritance.
- (b) a structured language without any sort of inheritance.
- (c) an object based language with Interface Inheritance.
- (d) a fully Object Oriented Language with Single Inheritance.
- (e) a fully Object Oriented Language with Interface Inheritance.

14) A variable declared with the *Dim* statement in a Module has the same scope as

- (a) a variable declared with the *Public* keyword.
- (b) a variable declared with the *Shared* keyword.
- (c) a variable declared with the *Private* keyword.
- (d) a variable declared with the *MustInherit* keyword.
- (e) a variable declared with the *Protected* keyword

15) From the following, select the correct statement(s) regarding SqlDataReader objects.

- (a) While the SqlDataReader is in use, the associated SqlConnection can be open other database operations
- (b) While the SqlDataReader is in use the associated SqlConnection is busy not allowing other operations to be performed on SqlConnection other than closing it.
- (c) For optimal performance, SqlDataReader avoids creating unnecessary objects or making unnecessary copies of data.
- (d) Provides a means of reading forward only streams.
- (e) SqlDataReader consumes a lot of memory when it reads forward only streams, since it makes many copies of the same data.

16) Select the correct statement(s) about “On Error GoTo”.

- (a) It is known as Unstructured Error Handling.
- (b) It is known as Structured Error Handling.
- (c) “On Error Resume Next” is a valid statement in this type of Error Handling
- (d) Try,Catch can also be used with “On Error GoTo”.
- (e) “On Error GoTo 0” Disable Error handling.

17) CLS and ADO in the .net Framework respectively stand for

- (a) Computer Language System and Application Data Objects.
- (b) Code Level System and Accessible Data Order.
- (c) Common Language System and Active Data Objects.
- (d) Common Language Specification and ActiveX Data Objects.
- (e) Common Language Specification and Active Directory Objects.

18) Select the correct statement(s) about “throw” statement.

- (a) It can be used only in Structured Error Handling.
- (b) It can be used only in unstructured Error Handling.
- (c) It can be used with both Structured and Unstructured Error Handling.
- (d) It throws an Exception within a procedure.
- (e) Namespace for throw statement is Microsoft.

19) Select the correct statement(s) about Exceptions.

- (a) Exceptions are included in Unstructured Error Handling.
- (b) Exception class is paramount for Structured Error Handling.
- (c) There are two types of categories under the Exception Base class: SystemException and user defined InnerException.
- (d) There are two types of categories under the Exception Base class: SystemException and user defined ApplicationException.
- (e) 100/0 is can be handled by both ArithmeticException and generic Exception but ArithmeticException gives DividebyZeroException.

Refer to the following for questions 20, 21 and 22.

A form1 as in the Figure1 has been designed with two text boxes: textbox1 and textbox2. When Button1 is clicked, the data which is in both text boxes, will be added into the data grid as in Figure 2.

Figure 1 shows a Windows form titled "Form1". It contains two text boxes: "FirstName" and "LastName". Below the text boxes is a button labeled "Button1". At the bottom of the form is a data grid with a blue header and a grey body. The grid is currently empty.

Figure 1

Figure 2 shows the same Windows form "Form1" after the button has been clicked. The "FirstName" text box now contains "Kalpa" and the "LastName" text box contains "Rathnayake". The button "Button1" is now disabled (greyed out). The data grid below now contains two rows of data:

	FirstName	LastName
▶	Nimal	Rathnayake
	Kalpa	Rathnayake
*		

Figure 2

- 20) A DataTable object has been created with two columns, FirstName and LastName for the above purpose. The following is the fragment of code, which has been added in the Button1_Click event procedure.

```
Dim MyRow As DataRow  
MyRow = myTable.NewRow
```

FirstName column is assigned to the TextBox1 and LastName Column is assigned to TextBox2.

Select the correct statement(s) regarding the above scenario.

- (a) MyRow("FirstName") = TextBox1.Text .
MyRow("LastName") = TextBox2.Text .
- (b) MyRow.FirstName = TextBox1.Text .
MyRow.LastName = TextBox2.Text .
- (c) DataRowCollection is part of DataSet of SqlConnection .
- (d) MyRow(0) = TextBox1.Text .
MyRow(1) = TextBox2.Text .
- (e) DataRowCollection contains the actual data for the data table where each row in DataRowCollection represents a single row.

21) Consider the following segment use for code declaring DataTable and DataColumn.

```
Dim myTable as DataTable
Dim myColumn1 As DataColumn = New DataColumn
Dim myColumn2 As DataColumn = New DataColumn
```

Which of the following is/are correct?

- (a) myTable = new DataTable()
- (b) myTable = new DataTable("Names")
- (c) myTable = new DataTable.Names
- (d) myColumn1.DataType = System.Type.GetType("System.String")
myColumn1.ColumnName = "FirstName"
myTable.Columns.Add
myColumn2.DataType = System.Type.GetType("System.String")
myColumn2.ColumnName = "LastName"
myTable.Columns.Add
- (e) myColumn1.DataType = System.Type.GetType("System.String")
myColumn1.ColumnName = "FirstName"
myTable.Columns.Add(myColumn1)
myColumn2.DataType = System.Type.GetType("System.String")
myColumn2.ColumnName = "LastName"
myTable.Columns.Add(myColumn2)

22) Which of the following statement(s) is/are correct about the scope of objects and variables of DataTable, DataRow and DataColumn?

- (a) DataTable, DataColumn and DataRow have a local scope for only Button1_Click event and there will be only a single row in the datagrid new input which will replace existing row of data.
- (b) DataTable, DataColumn and DataRow have public scope and there will be multiple rows in the DataGrid creating array of Data in the DataTable.
- (c) DataTable, DataColumn and DataRow objects have modular scope and there will be multiple rows for DataGrid.
- (d) Without Public or modular scope for DataTable, DataColumn objects, application will not run and error will be generated.
- (e) DataTable and DataColumn Objects have Modular or Public scope and DataRow object has local scope while Datagrid object will have multiple rows creating an array of data.

23) Select the correct Statement(s) about *Erase* statement.

- (a) It clears content in a variable.
- (b) It recreates an array.
- (c) It clears an array.
- (d) It can appear only in procedural level.
- (e) It can appear in class and modular level.

24) Select the correct statement(s) about Sub Finalize () method in Visual Basic.net .

- (a) Sub Finalize () method is the constructor of a class.
- (b) Sub Finalize () method is the destructor of a class.
- (c) When an object is no longer needed, the CLR calls the Sub Finalize () method for that object before freeing the memory.
- (d) Sub Finalize () method of base classes runs before the derived classes.
- (e) Sub Finalize () method of derived classes runs prior to the base classes.

25) RAD Model is preferred when the project

- (a) can be broken down into smaller chunks.
- (b) can have smaller development teams preferably 2 to 6 developers for each chunk.
- (c) can have larger development teams with more than 50.
- (d) does not provide proper user requirements.
- (e) is not very specific.

26) Identify the correct statement(s) related to Rapid Application Development

- (a) It is an incremental Software Development process model that emphasizes a very short development cycle.
- (b) It is expected usual Development life cycle is 60 to 90 days.
- (c) It assumes the use of the RAD fourth generation techniques and tools like VB, VC++, Delphi.
- (d) It is developed with C or Pascal.
- (e) RAD projects usually are adhoc.

27) RAD model emphasizes

- (a) use of reusable code, processes, templates and components.
- (b) that Prototypes are created early and evolved to include more detail over time.
- (c) the participation of a lesser number of users.
- (d) that the Prototype is built without functionality.
- (e) that the solution most likely would be assembled/built.

Use the following scenario to answer questions 28, 29 and 30.

A Database has been created to store a phone index with a name of PhoneIndex on MS SQL Server. The Database contains a table which has been named Names with two attributes: FirstName and LastName. The following variables are given

Connection: myConnection –SqlConnection
Command: myCommand –SqlCommand
DataAdapter: myDataAdapter –SqlDataAdapter
DataSet: myDataSet –DataSet

- 28) Select from the following the correct syntax(s) for the connection string. If required the following must be used for User name: 'bat' and password: 'ghost',

- (a) StrConnectionString= "Data Source=localhost;Initial Catalog=PhoneIndex;" _
& "User Name=bat;Password=ghost;"
- (b) StrConnectionString= "Data Source=localhost;Initial Catalog=PhoneIndex;" _
& "User ID=bat;pwd=ghost:"
- (c) StrConnectionString= "Data Source=localhost,Initial Catalog=PhoneIndex," _
& "User ID=bat,pwd=ghost"
- (d) StrConnectionString= "Initial Catalog=PhoneIndex;Data Source=" _
& "localhost;Integrated Security=SSPI;"
- (e) StrConnectionString= "Initial Catalog=Northwind;DataSource=" _
"localhost;Integrated Security=SSPI;"

- 29) Select the correct statement(s) about navigation through the myDataSet .

- (a) DataRow object is declared to access the rows of myDataSet
- (b) "Dim myRow as DataRow" Correct way of declaring DataRow object
- (c) DataRow object belongs to DataTable objects hence DataTable Object has to be declared
Dim myTable as DataTable = myDataSet("NamesTable")
- (d) DataRow object belongs to DataTable objects hence DataTable Object has to be declared
Dim myTable as DataTable = myDataSet.Tables("NamesTable")
- (e) For Each myrow In mytable.Rows
 FirstName = CType((myrow("FirstName")), String)
 LastName = CType((myrow("LastName")), String)
Next myrow

30) Select out of the following, the code which is required to run a Select query for “Names” and to fill myDataSet .

- (a) Dim myConnection As New SqlConnection(strConnectionString)
Dim myDataAdapter As New SqlDataAdapter
Dim myDataSet As New DataSet
Dim myCommand As SqlCommand = "Select * from " _
& "Names", myConnection)
myDataAdapter.SelectCommand = myCommand
myConnection.Open()
myDataAdapter.Fill(myDataSet, "NamesTable")
- (b) Dim myConnection As New SqlConnection(strConnectionString)
Dim myDataAdapter As New SqlDataAdapter
Dim myDataSet As New DataSet
Dim myCommand As SqlCommand = New SqlCommand("Select * from " _
& "Names", myConnection)
myConnection.Open()
myDataAdapter.Fill(myDataSet, "NamesTable")
- (c) Dim myConnection As New SqlConnection(strConnectionString)
Dim myDataAdapter As New SqlDataAdapter
Dim myDataSet As New DataSet
Dim myCommand As SqlCommand = New SqlCommand("Select * from " _
& "Names", myConnection)
myDataAdapter.SelectCommand = myCommand
myConnection.Open()
myDataAdapter.Fill(myDataSet, "NamesTable")
- (d) Dim myConnection As New SqlConnection(strConnectionString)
Dim myDataAdapter As New SqlDataAdapter
Dim myDataSet As New DataSet
Dim myCommand As Command = New SqlCommand("Select * from " _
& "Names", myConnection)
myDataAdapter.SelectCommand = myCommand
myDataAdapter.Fill(myDataSet, "NamesTable")
- (e) Dim myConnection As New SqlConnection(strConnectionString)
Dim myDataAdapter As New SqlDataAdapter
Dim myDataSet As New DataSet
Dim myCommand As SqlCommand = New SqlCommand("Select * from " _
& "Names", myConnection)
myDataAdapter.Select = myCommand
myConnection.Open()
myDataAdapter.Fill("Namestables")

31) Select the correct statement(s) which describe Unicode.

- (a) It has characters from almost all major languages which are spoken today in the world and are included in Basic Multilingual Plane of Unicode.
- (b) Each character is represented by 2 bytes.
- (c) Plane 1 of the Unicode contains the dead languages.
- (d) Although Tamil is included, Sinhala is not part of Unicode.
- (e) Each character is represented by a single Byte.

32) Select the correct statement (s) about property procedures in Visual Basic.net .

- (a) Property procedures are also known as Property Assessors.
- (b) Property procedures are series of Visual Basic statements which manipulate a custom property on module, class or structure.
- (c) There are two property procedures, Let and Get.
- (d) There are two property Procedure, Set and Get.
- (e) Set is read-only and get, write- only.

33) MSIL and CLR in the .net Framework respectively stand for

- (a) Managed Simple Information Language and Common Load Runtime.
- (b) Microsoft Interlink Language and Control Language Runtime.
- (c) Microsoft Interchange Language and Control Language Runtime.
- (d) Microsoft Intermediate Language and Common Language Runtime.
- (e) Microsoft Internet Language and Consistent Language Runtime.

34) Select the correct statement(s) related Shared keyword.

- (a) When declared with a Shared Keyword, the Shared elements are associated with a specific instance of class or a structure.
- (b) When declared with a Shared Keyword, the Shared elements are not associated with a specific instance of a class or structure.
- (c) The Shared keyword indicates that one or more declared programming elements are shared.
- (d) The Shared keyword is similar to Public keyword.
- (e) The Shared Keyword is similar to Private Keyword.

35) In Visual Basic.net, Deployment is

- (a) through using deployment project which creates installer (.msi files).
- (b) Entirely an external application.
- (c) less powerful than VB 6 deployment wizard since it created installation scripts.
- (d) a process where the installer uses Microsoft Windows Installer technology to manage the installation.
- (e) a cumbersome process requiring more user participation.

- 36) Consider the following code.
- ```

Dim str as String
Dim i As Integer
Dim N as integer
For i = 1 To N
(1) Str = str + i.ToString
Next

```

Which statement(s) is/are true regarding the above code?

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>(a) The expression <b>(1)</b> in the loop will become inefficient if N is very large (e.g. 100000).</p> <p>(b) <b>(1)</b> will run slow mainly because of i.ToString.</p> <p>(c) If we replace i.ToString with Cast(i, String) the final result will not change.</p> <p>(d) Every time <b>(1)</b> is executed, Str will point to a different location in memory.</p> <p>(e) The efficiency of <b>(1)</b> will not be affected greatly by the value of N.</p> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

- 37) Consider the following code.

```

Dim myStr() As String = {"This", "is", "my string"}
Console.WriteLine(String.Join(" ", myStr))

```

Which output can be expected from the above code?

- |                                                                                                      |                                                                         |
|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| <p>(a) " *This, is, my string"</p> <p>(c) "This, *is, *my string"</p> <p>(e) "This*is*my*string"</p> | <p>(b) " *This*is*my*string"</p> <p>(d) " <b>This*is*my string</b>"</p> |
|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|

- 38) What are the difference(s) between String objects and StringBuilder objects?

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>(a) String objects are mutable (value can be modified) whereas StringBuilder objects are not.</p> <p>(b) String objects are immutable (value can not be modified) whereas StringBuilder objects are.</p> <p>(c) String objects have a Read Only 'Length' Property whereas StringBuilder objects have a Read/Write 'Length' Property.</p> <p>(d) String objects have a 'Capacity' Property whereas StringBuilder objects do not.</p> <p>(e) String objects have a 'StartsWith' function whereas StringBuilder objects do not.</p> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

- 39) Consider the following two variables.

```

Dim Str2 as String = "SAMAN"
Dim Str3 as String = "saman"

```

Which of the following is the most efficient way of making a Case-Insensitive comparison of Str2 and Str3?

- |                                                                                                                                                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>(a) IF Str2 = Str3 THEN ....</p> <p>(b) IF Str2 = Str3.ToUpper THEN ....</p> <p>(c) IF Str2.Equals(Str3) THEN ....</p> <p>(d) IF String.Compare (Str2 , Str3 )=0 THEN ....</p> <p>(e) IF String.Compare (Str2 , Str3 ,True ) = 0 THEN ....</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

- 40) Consider the following code.  

```
Dim str As String = "MAHARAGAMA"
```

What are the outputs of  

```
str.Chars(2), str.EndsWith("MA"), str.IndexOf("HA")
```

 respectively?
- |                  |                  |               |
|------------------|------------------|---------------|
| (a) "MA", 9, 3   | (b) "A", True, 3 | (c) "H", 9, 3 |
| (d) "A", True, 2 | (e) "H", True, 2 |               |
- 41) Consider the following code.  

```
Dim str As String = "ABCDE"
```

What will be the value of str after the following Function call?  

```
str.SubString(2,3)
```
- |             |           |          |
|-------------|-----------|----------|
| (a) "CDE"   | (b) "BCD" | (c) "DE" |
| (d) "ABCDE" | (e) "CE"  |          |
- 42) Consider the following code.  

```
Dim str2 As New System.Text.StringBuilder("ABCDE")
```

What will be the value of str after the following Function call?  

```
str.Remove(2, 2)
```
- |           |             |          |
|-----------|-------------|----------|
| (a) "ADE" | (b) "BC"    | (c) "CD" |
| (d) "ABE" | (e) "ABCDE" |          |
- 43) Consider the following code.  

```
Dim str As String = "AB9CD"
```

What is the expected output of the following call?  

```
MsgBox(str.Format("AB{0}CD", 2,3))
```
- |                |                    |             |
|----------------|--------------------|-------------|
| (a) "AB3CD"    | (b) "AB{00 000}CD" | (c) "AB2CD" |
| (d) "AB{23}CD" | (e) "AB9CD"        |             |
- 44) Consider the following code.  

```
Dim str2 As String = "ABCDE"
```

Which of the following expressions will evaluate to "ABCD"?
- |                              |                              |
|------------------------------|------------------------------|
| (a) str2 -= "E"              | (b) str2.Remove(2, 3) & "CD" |
| (c) "AD".Insert(1, "BC")     | (d) B.PadLeft(1, "A") + "CD" |
| (e) B.PadLeft(2, "A") & "CD" |                              |

- 45) Consider the following code.  
Dim str As String = "ABC"  
Dim str2 As String = "DEF"

What will happen after the following code executes?  
str = str2.Copy(str)

- (a) The value of str will be "DEF".
- (b) The value of str2 will be "ABC".
- (c) str will point to a new instance of a string whose value is "ABC".
- (d) The value of str2 will be "DEFABC".
- (e) The value of str will be "ABCDEF".

- 46) What are the types of breakpoints you **cannot** set in VB.net?

- (a) Step-Out breakpoints
- (b) Function breakpoints
- (c) File breakpoints
- (d) Address breakpoints
- (e) Data breakpoints

- 47) One can see the number of times a particular breakpoint has been hit

- (a) in the Watch window.
- (b) in the Debug window.
- (c) in the Breakpoints window.
- (d) in the Immediate window.
- (e) in the Command window.

- 48) The Autos window in VB.net

- (a) can be opened at Design time by selecting Debug -> Windows-> Autos.
- (b) displays the variables used in the current statement ,3 statements before the current statement and 3 statements after (the current statement is that which will execute next).
- (c) Automatically identifies which variables to display depending on which statement is debugged.
- (d) displays all the variables which belong to the form being debugged .
- (e) displays the memory addresses of the statements being debugged.

- 49) Assume that you encounter a runtime error and execution breaks in the middle of a function. It is a common function declared in a Module. It is someone else's code. What is the easiest way to locate the statement where this function was called?

- (a) Using the Threads window
- (b) Using the Functions window
- (c) Using the Call Stack window
- (d) Using the Watch window
- (e) Using the Modules window

- 50) While debugging a program the variable values can be edited

- (a) in the Modules window.
- (b) in the Autos window.
- (c) in the Immediate window.
- (d) in the Watch window.
- (e) in the Locals window.

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