

## M4.1-R4: APPLICATION OF .NET TECHNOLOGY

### NOTE:

1. There are **TWO PARTS** in this Module/Paper. **PART ONE** contains **FOUR** questions and **PART TWO** contains **FIVE** questions.
2. **PART ONE** is to be answered in the **TEAR-OFF ANSWER SHEET** only, attached to the question paper, as per the instructions contained therein. **PART ONE** is **NOT** to be answered in the answer book.
3. Maximum time allotted for **PART ONE** is **ONE HOUR**. Answer book for **PART TWO** will be supplied at the table when the answer sheet for **PART ONE** is returned. However, candidates, who complete **PART ONE** earlier than one hour, can collect the answer book for **PART TWO** immediately after handing over the answer sheet for **PART ONE**.

**TOTAL TIME: 3 HOURS**

**TOTAL MARKS: 100**  
**(PART ONE – 40; PART TWO – 60)**

### **PART ONE** **(Answer all the questions)**

**1. Each question below gives a multiple choice of answers. Choose the most appropriate one and enter in the “tear-off” answer sheet attached to the question paper, following instructions therein. (1x10)**

- 1.1 Which of the following statements is incorrect about delegate?
  - A) Delegates are reference types
  - B) Delegates are object oriented
  - C) Delegates serve the same purpose as function pointers in C and pointers to member function operators in C++
  - D) Only one method can be called using a delegate.
- 1.2 How does ASP.NET store SessionIDs by default?
  - A) In cache
  - B) In cookies
  - C) In a global variable
  - D) In URL strings or in a database
- 1.3 In your ASP.NET web application you want to display a list of clients on a Web page. The client list displays 10 clients at a time, and you require the ability to edit the clients. Which Web control is the best choice for this scenario?
  - A) The DetailsView control
  - B) The Table control
  - C) The GridView control
  - D) The FormView control
- 1.4 Web.config file is used to
  - A) Configure the time that the server-side code behind module is called
  - B) Store the global information and variable definitions for the application
  - C) Configure the web server
  - D) None of the above
- 1.5 When does Garbage collector run?
  - A) When application is running low of memory
  - B) It runs random
  - C) When application is running for more than 15 minutes
  - D) None of the above

- 1.6 Which of the following illustrates the benefit of ADO.NET?
- A) Component Object Model (COM)
  - B) Interoperability
  - C) Disconnected data access
  - D) All of the above
- 1.7 Which of the following is not a C# keyword?
- A) if
  - B) delegate
  - C) private
  - D) implements
- 1.8 You have been asked to debug a Web-based ASP.NET application. For some reason, the debugging information is not presented. What could be missing?
- A) `<%@ Page Debug="true" %>`
  - B) `<%@ Application Page="true" %>`
  - C) `<%@ Page Trace="true" %>`
  - D) `<%@ Application Trace="true" %>`
- 1.9 How do you get information from a form that is submitted using the 'POST' method?
- A) `Request.QueryString`
  - B) `Request.Form`
  - C) `Response.Write`
  - D) `Response.WriteLine`
- 1.10 How do you Create Constructors in VB.NET?
- A) Create a method and name it with the same name as class name
  - B) Create a method and which is named as New
  - C) Create a method and which is named as Initialize
  - D) None of the above

**2. Each statement below is either TRUE or FALSE. Choose the most appropriate one and ENTER in the “tear-off” sheet attached to the question paper, following instructions therein. (1x10)**

- 2.1 CLR is an execution engine of .NET.
- 2.2 Dialog Boxes are one means of requesting users for specific kind of inputs in VB.Net.
- 2.3 Any thing in VB.Net that has a property or method is a Class.
- 2.4 An Identifier must not be a C# keyword.
- 2.5 JIT compiler is a part of the runtime execution environment.
- 2.6 Structures are reference types in .Net.
- 2.7 One Constructor can call another Constructor in C# .net.
- 2.8 Multiple inheritance is different from Multiple Level of Inheritance.
- 2.9 Page\_Unload is the last stage of the web forms life cycle.
- 2.10 JAVA is a .NET compatible language.

**3. Match words and phrases in column X with the closest related meaning/ word(s)/phrase(s) in column Y. Enter your selection in the “tear-off” answer sheet attached to the question paper, following instructions therein. (1x10)**

X		Y	
3.1	Procedures that control initialization of new instances of a class.	A.	GLOBALIZATION
3.2	Process of creating an application that meets the needs of users from multiple cultures	B.	ABSTRACT CLASS
3.3	The DLL which translates XML to SQL in IIS	C.	SqlConnection Object
3.4	A Class that cannot be instantiated	D.	BOXING
3.5	It is a collection of names wherein each name is unique	E.	POLYMORPHISM
3.6	One of the primary ADO.net Objects	F.	MID
3.7	Provides for multiple implementations of the same method	G.	LOCK
3.8	Converting a value type to reference type	H.	NAMESPACE ASSEMBLY
3.9	FUNCTION that returns a string containing specified number of characters from a String	I.	SQLISAPI.dll
3.10	This Statement in C# ensures that one thread does not enter a critical section of code while another thread is in the critical section	J.	CONSTURCTORS
		K.	ENCAPSULATION
		L.	ASSEMBLY MANIFEST
		M.	UNBOXING

4. Each statement below has a blank space to fit one of the word(s) or phrase(s) in the list below. Enter your choice in the “tear-off” answer sheet attached to the question paper, following instructions therein. (1x10)

<b>A.</b>	FINALISE	<b>B.</b>	ADO.NET	<b>C.</b>	ILDASM.EXE
<b>D.</b>	DATASET	<b>E.</b>	OK and CANCEL	<b>F.</b>	DESTRUCTORS
<b>G.</b>	ENUM	<b>H.</b>	<i>InStr</i>	<b>I.</b>	DISPOSE
<b>J.</b>	System.Data.OleDb	<b>K.</b>	VERSIONING	<b>L.</b>	ngen.exe
<b>M.</b>	InStrRev				

- 4.1 \_\_\_\_\_ maintains compatibility between base and derived classes as they evolve.
- 4.2 In VB.Net, the input box has a default button of \_\_\_\_\_.
- 4.3 The method that free system resources when a class leaves scope or is set to nothing is called \_\_\_\_\_.
- 4.4 \_\_\_\_\_ is a local buffer of tables or a collection of disconnected record sets.
- 4.5 \_\_\_\_\_ is an object oriented framework that allows you to interact with database systems.
- 4.6 The contents of an assembly may be viewed using the \_\_\_\_\_ tool.
- 4.7 \_\_\_\_\_ namespace is one of the namespace required to enable the use of databases such as MS Access, Oracle or SQL in ASP.NET pages.
- 4.8 \_\_\_\_\_ is the normal method by which unmanaged resources are freed up.
- 4.9 \_\_\_\_\_ function in VB.net is used to find the starting position of a substring inside a string.
- 4.10 \_\_\_\_\_ are special sets of named values which all maps to a set of numbers, usually integers.

**PART TWO**  
(Answer any **FOUR** questions)

- 5.**
- a) Describe the complete life cycle of a web page.
  - b) What is the difference between Authentication and Authorization? Explain in detail the three types of authentication.
  - c) What is the difference between XML and HTML?
- (4+7+4)**
- 6.**
- a) Describe the role of CLR in .Net Framework.
  - b) What is the difference between ADO.Net Dataset and ADO.Net Recordset?
  - c) Explain the concepts and capabilities of Assembly in .Net.
- (5+5+5)**
- 7.**
- a) What is the difference between delegate and an event in c#?
  - b) What is the role of JIT compiler in .Net Framework?
  - c) Write a program to get the Maxvalue of an Array without sorting in .Net.
- (5+4+6)**
- 8.**
- a) What are the types of validation controls are provided by ASP.Net?
  - b) What is Multi-threading ? Can we have multiple threads in one AppDomain?
  - c) Differentiate between Textbox Control and RichTextBox Control
- (7+4+4)**
- 9.**
- a) Differentiate between DISPOSE and FINALIZE methods.
  - b) What is the difference between an Interface and an Abstract Class?
  - c) Write a program to check an email address for validity in .Net.
- (4+5+6)**