

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 The .NET technology platform is based on two core technologies
 - A) .NET product and .NET platform.
 - B) XML and the suite of Internet Protocols.
 - C) .NET Framework and the .NET Enterprise server.
 - D) C# and VB.NET languages.
 - 1.2 Custom Validator is used to
 - A) display all the validation error message grouped together.
 - B) validate a control to check whether it is empty.
 - C) perform validation on a control by using user defined functions.
 - D) validate the layout of controls.
 - 1.3 DataColumnCollection class “Item” property
 - A) determines whether the collection of “DataColumn” objects is read only.
 - B) add or remove DataColumn objects.
 - C) stores the name of the DataColumn objects.
 - D) retrieves a specified DataColumn object from the collection of columns.
 - 1.4 In Windows Form Application, the Application.Run() method
 - A) is responsible for starting the standard application message loop.
 - B) controls the application’s starting and stopping process.
 - C) allows messages in the queue to be processed.
 - D) displays the “splash screen”.
 - 1.5 DataRowView.CurrentRows lists all the rows
 - A) that have been newly created.
 - B) that have not changed in any way.
 - C) that have been retrieved.
 - D) except those that have been deleted.

- 1.6 In VB.NET, "StartPosition=WindowsDefaultLocation"
- A) shows the form at the windows default location.
 - B) shows the window in the maximized state.
 - C) shows the form centered in the owner.
 - D) show the window in its minimized state.
- 1.7 Menus can be adjusted at the run time
- A) yes
 - B) no
 - C) yes, but only if they have been declared as context sensitive / popup menus
 - D) yes, but only if it is created at run time through code and not otherwise
- 1.8 structs can be derived from
- A) System.Data
 - B) System.ValueType
 - C) any class
 - D) any struct
- 1.9 Which of the following is not a .NET compatible language?
- A) C++
 - B) J++
 - C) VB.NET
 - D) Java
- 1.10 The *virtual* modifier applies to
- A) function members
 - B) class methods and properties
 - C) class and function members only
 - D) static method only

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 DataAdapter.Update command returns or sets a T-SQL statement or stored procedure used to update records in a data source.
- 2.2 Untyped datasets are classes that inherit from the Dataset class but are created using the information in the XML schema.
- 2.3 In VB.Net, Int32 is limited to a maximum value of 2147483647.
- 2.4 System.Collections contains the classes to support Windows Applications Projects.
- 2.5 CLR supports both object-oriented as well as procedural languages.
- 2.6 Reference type variables store the reference of the actual data.
- 2.7 ‘==’ and ‘!=’ operators can be overloaded separately.
- 2.8 XmlTextReader class is a forward-only reader that has methods that return data on content and node types.
- 2.9 Pointers can not be used in C#.
- 2.10 Structure are reference types in .NET structure.

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	GC stands for	A.	ByVal
3.2	MSIL stands for	B.	BlackBox
3.3	System.Data	C.	The highest superclass from which all .Net objects inherit
3.4	Default mechanism for passing arguments	D.	Microsoft Intermediate language
3.5	System.Object	E.	Maximize, Minimize, Restore a form
3.6	>, <=, >=	F.	DataBinding, DataTable, DataSource
3.7	Form	G.	ByRef
3.8	Encapsulation	H.	WebService, WebServiceAttribute
3.9	WindowState Property	I.	Relational Operator
3.10	System.Web.Services	J.	Late Binding
		K.	The main window for any application
		L.	Garbage Collector
		M.	In or out

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)

A.	can	B.	Sealed	C.	Overflow
D.	IndexOutOfRangeException	E.	OutOfRange	F.	sorted
G.	Read only	H.	MachineName	I.	Global.asax
J.	cannot	K.	@Page	L.	@Server
M.	cookie				

- 4.1 Static constructs _____ have parameters in C#.
- 4.2 _____ methods cannot be overridden in C#.
- 4.3 If you use a wrong indexer value (in C#) where no element exists in an array, an exception of the type _____ is thrown.
- 4.4 If a block of code is marked as checked in C#, CLR will enforce _____ checking.
- 4.5 Passwords for ASP websites can be stored in _____ object.
- 4.6 A DataReader is a _____ view of query result.
- 4.7 A DataView can be _____.
- 4.8 _____ is a Server Object property.
- 4.9 _____ file contains the code required for web services events.
- 4.10 More than one _____ directive can be set per .aspx page.

PART TWO

(Answer any **FOUR** questions)

5.

- a) Discuss the concept of properties in C#. Explain with an example.
- b) In C# what are static constructors?
- c) What is ID Selector in ASP.Net?

(5+5+5)

6.

- a) What is Cookie? Where is it used in .NET?
- b) How are user defined casts implemented in C#. Explain with an example.
- c) Name any five operators in C# that cannot be overloaded.

(4+6+5)

7.

- a) What are server controls? Discuss in brief.
- b) Write the code snippet for creating three radio buttons in an ASP page labeled RB01, RB02 and RB03, respectively.
- c) Name and explain three events stored in the Global.asax file.

(5+5+5)

8.

- Explain the following in briefly.
- a) Execute and Transfer method
- b) HTMLEncode method
- c) ACID rule of thumb for transactions

(5+5+5)

9.

- a) Compare and contrast C# and VB.NET classes.
- b) Explain the role of XML in Data Access.
- c) Explain the working of DataReader object with special emphasis on its creation, manipulation and disposal.

(5+5+5)