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 **OMR ANSWER SHEET** only, supplied with 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 "OMR" answer sheet supplied with the question paper, following instructions therein. (1x10)

1.1 The Java and Visual Basic .NET belong to this type of programming language.
A) assembly language
B) machine language
C) high level programming language
D) object oriented programming language

1.2 It is used for building Windows and Web applications.
A) .NET Framework
B) Object Oriented Programming
C) Visual Basic .NET
D) Windows Form Designer

1.3 The control which we can click and release to perform some action.
A) Button
B) CheckBox
C) Label
D) TextBox

1.4 It is the starting point of your Visual Basic .NET applications.
A) Button
B) Form
C) Label
D) Toolbox

1.5 The _____ is a systematic class framework used for the development of system tools and utilities.
A) .NET Framework Class Library (FCL)
B) .NET tools
C) Visual Basic 2005
D) Visual Basic 6

1.6 The _____ enable us to pass data between a program and a class.
A) Functions
B) Properties
C) Procedures
D) Variables

1.7 Which object can help you maintain data across users?
A) Session object
B) Response object
C) Server object
D) Application object

1.8 The Get procedure of a property acts like:
A) an event
B) a function
C) a variable
D) Both A) and B)

1.9 What is the suggested order for the definition of class elements from first to last?
A) Constructs, fields, methods, properties
B) Properties, constructs, fields, methods
C) Fields, properties, constructs, methods
D) Constructs, properties, fields, methods

1.10 What are the uses of Reflection?
A) Load assemblies dynamically
B) Invoke methods at runtime
C) Retrieving type information at runtime
D) All of the above

2. Each statement below is either TRUE or FALSE. Choose the most appropriate one and ENTER in the "OMR" answer sheet supplied with the question paper, following instructions therein. (1x10)

2.1 Is every piece of code always created in class in C#?

2.2 Are there any namespaces not allowed to be used?

2.3 Static method don't require instance.

2.4 Can you have a get without a set or a set without a get?

2.5 Can we inherit from the class that contains the entry point?

2.6 Everything in interface is automatically public.

2.7 Is Compareto the only method in IComparable interface?

2.8 Is debugger only used to troubleshoot exception?

2.9 Watch window in the IDE is used to check variable's value.

2.10 FromImage() retrieves the Graphics object for a Bitmap object.

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 "OMR" answer sheet supplied with the question paper, following instructions therein. (1x10)

X		Y	
3.1	What does \n thing do?	**A.**	New
3.2	Why do we need to include the word EventHandler while declaring an event	**B.**	Casting
3.3	An object method defines	**C.**	Behavior
3.4	The type that holds biggest number	**D.**	Virtual
3.5	If you want a subclass to override a method, mark the method with this keyword in the base class	**E.**	Is a line break
3.6	What are you doing when you add a colon to a class declaration	**F.**	Double
3.7	When you move methods from specific class to more general class that they all inherit from, you're using this OOP principle	**G.**	Abstraction
3.8	A class that implements this must include all of the methods, getters and setters that it defines.	**H.**	Define signature of the event
3.9	What (int) does in this line of code: x=int(y);	**I.**	Is null or empty
3.10	Statement used to create object	**J.**	Interface
		K.	Property
		L.	Generic
		M.	Void

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 "OMR" answer sheet supplied with the question paper, following instructions therein. (1x10)

A.	Partial class	**B.**	Property	**C.**	Installer
D.	Dispose	**E.**	Double	**F.**	Garbage
G.	Private	**H.**	Procedure	**I.**	Multiple
J.	Generic	**K.**	Void	**L.**	Parameters
M.	Virtual				

4.1 _____ is used to spread the code for one class between more than one file.

4.2 A stored _____ is a way for a SQL database to save queries and statements that can be reuse later.

4.3 _____ is used for bind, so that program can be deployed to another computer.

4.4 _____ can be changed to alter the appearance or behavior.

4.5 If method return type is _____, it doesn't return anything.

4.6 When an object no longer has any references pointing to it, it is removed from heap using _____ collection.

4.7 The constructor in a subclass doesn't need the same _____ as the constructor in its base class.

4.8 C# does not allow _____ inheritance.

4.9 An instance of a _____ collection only works with one specific type.

4.10 _____ method is always called at the end of a using block.

PART TWO

(Answer any **FOUR** questions)

5.

a) Discuss the importance of Common Language Runtime? Discuss Just-In-Time compilation in detail?

b) What is the difference between Authentication and Authorization? Explain in detail the three types of authentication.

c) What is the difference between ADO and ADO.NET?

(5+7+3)

6.

a) Draw diagram for thread lifecycle in C#. What is the difference between Thread.start( ) and Thread.run( )?

b) How does C# simplifies network programming? How to send email from C#?

([3+2]+[5+5])

7.

a) How to read the text from a text file using the StreamReader in VB.net?

b) Create an array and then loop through it using the for loop in VB.net.

c) Write code using the HttpWebRequest POST Method to send data to an online HTML form.

(5+5+5)

8.

a) Discuss ASP.net Page lifecycle.

b) Discuss error handling in ASP.net.

(8+7)

9.

a) Explain ADO.NET architecture.

b) What is XML and how it is different from HTML?

(10+5)