

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 A variable declared inside a method is called a _____ variable.
 - A) In cache
 - B) In cookies
 - C) In a global variable
 - D) In URL strings or in a database
 - 1.2 In C# and VB.NET can you store multiple date types in System Array?
 - A) Yes
 - B) No
 - C) Cannot Say
 - D) None of the above
 - 1.3 If a Class is using an interface, it must
 - A) Inherit the properties of the Interface
 - B) Contain the same methods as the Interface
 - C) Create an Interface Object
 - D) All of the above
 - 1.4 Which of the following operations you CANNOT perform on an ADO.NET Data Set?
 - A) A Data Set can be converted to XML
 - B) A Data Set can be synchronized with a Datatype
 - C) A Data Set can be synchronized with a Record Set
 - D) You can infer the schema from a Data Set
 - 1.5 What is the difference between Convert.ToString() and ToString()
 - A) Convert.ToString() handle null values but ToString() don't
 - B) ToString() output as per format supplied
 - C) Convert.ToString() only handle null values
 - D) ToString() handle null values but Convert.ToString() don't
 - 1.6 BOXING in .NET allows the user to convert
 - A) a Integer type to Double
 - B) a Reference type to a Value type
 - C) a Value type to a Reference type
 - D) a Double type to Integer

- 1.7 How many Web.Config files that can be there in an ASP.NET application?
A) Only One
B) Only Two
C) Upto 10
D) More then One
- 1.8 Which of the following is not a .NET compatible language?
A) C#
B) J#
C) VB.NET
D) Java
- 1.9 What is delegate?
A) A delegate is an object that represents a method and a strongly typed function/pointer
B) A light weight thread or process that can call a single method
C) A reference to an object in a different process
D) An inter-process message channel
- 1.10 What are the advantages of properties in C#?
i) Properties can validate data before allowing a change.
ii) Properties can transparently expose data on a class where that data is actually retrieved from some other source such as database.
iii) Properties can take action when data is changed, such as raising an event or changing the value of other fields.
- A) ii)
B) i) and ii)
C) i) and iii)
D) i), ii) and iii)

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 In C# and .NET, the default size of Integer data type is 32 bits.
- 2.2 C# has a ternary operator.
- 2.3 A partial class is a class whose definition is present in two or more files.
- 2.4 An user can acquire multiple pages in a single ASP.NET page by using a Frame Set.
- 2.5 ViewState allows the state of objects to be stored in a hidden file on a page.
- 2.6 All .NET languages have the same primitive data types. For example an int in C# is the same as an int in VB.NET.
- 2.7 As XML is case sensitive, so <Employee> and <employee> are different elements.
- 2.8 Windows authentication technique works as a default authentication technique in .NET.
- 2.9 Cookies does not require any server resources since they are stored on the Client.
- 2.10 Global.ASAX is a file that resides in the root directory of your application.

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	Object used by the DataAdapter to retrieve the data from database	A.	Data Column
3.2	Supports selection, editing, sorting and paging	B.	ActiveX
3.3	Special type of COM component that supports a User Interface	C.	CallBack
3.4	Execution Engine for .NET Framework applications	D.	ADO.NET
3.5	Method to sent request to the web page from the client script	E.	CLR
3.6	Data Access model for .NET based applications	F.	Garbage Collector
3.7	The data of an object should never be made available to other objects	G.	Encapsulation
3.8	allocates memory for new objects within the application	H.	SOAP (Simple Object Access Protocol)
3.9	The transport protocol you use to call a Web service	I.	Serialization
3.10	Objects exclusively contains metadata about tables	J.	Grid View
		K.	NameSpace
		L.	Boxing
		M.	Object Space

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.	HttpHandler	B.	System.Data.dll	C.	++
D.	Overflow	E.	Page Class	F.	WSDL
G.	Response.Output.Write	H.	AWT	I.	Event Handling
J.	.NET Threading	K.	DISPOSE	L.	DataSet
M.	Catching				

- 4.1 .NET Framework Data provider for SQL Server is _____.
- 4.2 _____ is the low level Request and Response API to service incoming http requests.
- 4.3 When the sum of two integers exceeds the range of integers, it is known as a(n) _____.
- 4.4 _____ is the base class from which all Web forms inherit.
- 4.5 _____ stands for Web Services Description Language.
- 4.6 Automatic memory management in .NET _____.
- 4.7 The technique that allows code to make function calls to .NET applications on other processes and on other machines is called _____.
- 4.8 _____ stands for Abstract Windowing Toolkit.
- 4.9 _____ method is used in C# to clean objects.
- 4.10 _____ operator can be used as prefix and postfix selection.

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

- 5.
- a) What are the benefits of ADO.NET?
 - b) What is DataSet? How to fill Dataset with Data?
 - c) What are the components of .NET Data Provider?
- (5+5+5)**

- 6.
- a) What are the different types of error in C#? Explain in brief?
 - b) What is the difference between a Interface and Abstract Class?
 - c) Write functions to Open File, Read File, Load Text from file and Delete File using FileStream in C#.
- (4+4+7)**

- 7.
- a) What are the validation controls in ASP.NET?
 - b) How do you send email using ASP.NET? Explain with example.
 - c) How to find number of days for provided date range? Explain with example.
- (5+7+3)**

- 8.
- a) Consider the following two classes:

```
Public Class Example1
{
    Public Static int num;
    Static
    {
        num=5;
    }
}
Public Class Example2
{
    Public Static void main (String[ ] args)
    {
        System.out.Println (Example1);
    }
}
```

Select the correct option regarding the preceding classes and give reason:

- i) Example2 class will execute without any output.
 - ii) Example2 class will execute with the following output : 5.
 - iii) Example2 will not compile as it does calls the constructor of Example1.
 - iv) Example2 will not execute as it does not calls the constructor of Example1.
- b) Where Session is stored in ASP.NET?
 - c) Write a program in C# to generate and print prime numbers in a given range. Also print the number of prime numbers in the given range.

(4+4+7)

- 9.
- a) How to create a distributed web applications in .NET? Explain with an example.
 - b) Explain **any two** of the following in brief:

- i) Where do you add an event handler in C#?
- ii) What is the difference between ADO and ADO.NET?
- iii) What is the difference between NameSpace and Assembly?

(7+4+4)