

**NOTE:**

**IMPORTANT INSTRUCTIONS:**

1. Question Paper in English and Hindi and Candidate can choose any one language.
2. **In case of discrepancies in language, English version will be treated as final.**
3. There are **TWO PARTS** in this Module/Paper. **PART ONE** contains **FOUR** questions and **PART TWO** contains **FIVE** questions.
4. **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.
5. 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 To create an object you must first create
    - A) Class
    - B) Constructor
    - C) Instance
    - D) Method
  - 1.2 Which of the following statements are TRUE about the .NET CLR?
    - i) It provides a language-neutral development & execution environment.
    - ii) It ensures that an application would not be able to access memory that it is not authorized to access.
    - iii) It provides services to run "managed" applications.
    - iv) The resources are garbage collected.
    - A) Only i) and ii)
    - B) Only i), ii) and iv)
    - C) i), ii), iii), iv)
    - D) Only ii) and iii)
  - 1.3 Which of the following statements is correct about Managed Code?
    - A) Managed code is the code that is compiled by the JIT compiler.
    - B) Managed code is the code where resources are Garbage Collected.
    - C) Managed code is the code that runs on top of Windows.
    - D) Managed code is the code that is written to target the services of the CLR.
  - 1.4 Which of the following constitutes the .NET Framework?
    - i) ASP.NET Applications
    - ii) CLR
    - iii) Framework Class Library
    - iv) WinForm Applications
    - A) i), ii), iii)
    - B) ii), iii), iv)
    - C) iii), iv), i)
    - D) i), ii), iii), iv)

- 1.5 In which of the following areas are delegates commonly used?
- i) Remoting
  - ii) Serialization
  - iii) File Input/Output
  - iv) Multithreading
  - v) Event handling
- A) i) and ii) only  
B) i) and v) only  
C) i), ii) and iii) only  
D) iv) and v) only
- 1.6 Which of the following is the necessary condition for implementing delegates?
- A) Class declaration  
B) Inheritance  
C) Run-time Polymorphism  
D) Exceptions
- 1.7 The method with the following modifier is not accessible outside the current VB.NET project.
- A) Public  
B) Friend  
C) Protected  
D) Private
- 1.8 Which of the following information is contained in assembly manifest?
- A) Files  
B) Identity  
C) Security Permission  
D) All of the above
- 1.9 How do you limit implicit type conversion in VB.net?
- A) Option Strict ON  
B) Option Strict =1  
C) Option Strict True  
D) Option Strict Off
- 1.10 Which of the following namespace is used to access "computer name" and its IP address in VB.NET?
- A) System.net.DNS  
B) System.componetmodel  
C) System.Reflection  
D) System.Data

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 File deleted with System.IO.File.Delete () are sent to the Recycle Bin.
- 2.2 XML tag forms are case sensitive.
- 2.3 Release builds are smaller and faster than debug builds.
- 2.4 The Open File Dialog box automatically opens a file.
- 2.5 You must always specify a catch in a try structure.
- 2.6 Each object is derived from a class has its own set of class level data.
- 2.7 If you evaluate the expression in a do...while on while statement is it possible that the code within the loop may never execute?
- 2.8 The text displayed in the form’s title bar is determined by the value in the titlebar text property?
- 2.9 A property of an object is another object.
- 2.10 C# does not allow multiple inheritances.

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 object provides update, delete and insert capabilities to a Data Adapter	A.	CommandBuilder
3.2	What (int) does in this line of code: x=int(y);	B.	Reference to a type library
3.3	One primary benefits of object-oriented programming is that objects contain both their data and their code. This is called:	C.	Dispose
3.4	To maximize, minimize or restore a form in a code you set what property	D.	Serializable
3.5	All generic collections implement this interface	E.	casting
3.6	This method is always called at the end of a using block	F.	WindowState
3.7	If you don’t use this attribute to indicate that a class can be written to a stream, BinarFormatter will generate an error.	G.	Wrapper
3.8	What argument of a connection string contains information about the type of data being connected to?	H.	Provider
3.9	To early bind objects in an automation server, you must create	I.	Ienumerable
3.10	For Visual C# .NET to use a COM library, it must create a	J.	Encapsulation
		K.	CLR (Common Language Runtime)
		L.	Delegate
		M.	Pointer

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)

<b>A.</b>	Ole.Db.net	<b>B.</b>	Web Forms	<b>C.</b>	Recursion
<b>D.</b>	XML	<b>E.</b>	Garbage	<b>F.</b>	Instantiate
<b>G.</b>	Concrete	<b>H.</b>	Directory	<b>I.</b>	node
<b>J.</b>	Object	<b>K.</b>	Inherit	<b>L.</b>	&&
<b>M.</b>	Dynamic				

- 4.1 \_\_\_\_\_ format engine is used to create forms that runs over Internet.
- 4.2 \_\_\_\_\_ and SqlClient.Net data providers are supplied as a part of .NET Framework.
- 4.3 The situation in which a method or set of methods continue to call each other in a looping fashion is called \_\_\_\_\_.
- 4.4 Each item in tree view is called \_\_\_\_\_.
- 4.5 When an object no longer has any reference pointing to it, it's removed from the heap using \_\_\_\_\_ collection.
- 4.6 You can't \_\_\_\_\_ abstract class.
- 4.7 An abstract class can include both abstract and \_\_\_\_\_ methods.
- 4.8 The is keyword return true if an \_\_\_\_\_ implements an interface.
- 4.9 The \_\_\_\_\_ class has many static methods that let you manipulate folders.
- 4.10 Vector are \_\_\_\_\_ array.

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

- 5.**  
a) Discuss .NET framework architecture and describe the features of it?  
b) What is an Assembly? Explain the types and use of assembly in detail?  
c) How does JIT work? Name and discuss three JIT Types?  
**(5+5+5)**
- 6.**  
a) Explain value type and reference type in C# with the help of example.  
b) What is an array? Discuss different array type in C#.  
c) What is managed and unmanaged code?  
**(5+5+5)**
- 7.**  
a) What is a namespace? Explain the use of any five namespaces?  
b) Draw and explain diagram for thread lifecycle in C#.  
c) Develop a C# Program which shows the use exception handling.  
**(5+5+5)**
- 8.**  
a) Discuss ASP.NET Page lifecycle.  
b) Write code to Insert a Record into a table. Also show the data into Grid using Data set.  
**(8+7)**
- 9.**  
a) Explain ADO.NET architecture.  
b) Create an array and then loop through it using for loop in VB.net.  
**(10+5)**