

Subject: C# AND .NET

Time: 3 Hours

Max. Marks: 100

JUNE 2011

NOTE: There are 9 Questions in all.

- Question 1 is compulsory and carries 20 marks. Answer to Q.1 must be written in the space provided for it in the answer book supplied and nowhere else.
- The answer sheet for the Q.1 will be collected by the invigilator after 45 Minutes of the commencement of the examination.
- Out of the remaining EIGHT Questions, answer any FIVE Questions. Each question carries 16 marks.
- Any required data not explicitly given, may be suitably assumed and stated.

Q.1 Choose the correct or the best alternative in the following: (2×10)

- a. Which of the following is not a access modifier in C#.Net?
- (A) protected (B) private
(C) protected internal (D) none of the above
- b. An abstract virtual method means that the definition of the method needs to be given in the
- (A) Base class (B) Derived class
(C) Sealed class (D) Virtual class
- c. There are a sequence of events fired in Page Life cycle, one of them is “Page Load”. When this event gets fired?
- (A) Form is first loaded in the application
(B) IIS receives the page request
(C) After rendering
(D) Before loading view state data in controls
- d. Which of the following is not a functionality of Common language Runtime?
- (A) Type safety (B) Thread management
(C) Convert MSIL into native code (D) None of the above
- e. Which of the following information is not stored in Assembly Manifest?
- (A) version
(B) scope
(C) security information (strong name)
(D) None of the above

f. _____ is used for signing a assembly with strong name.

- (A) sn.exe (B) csc.exe
(C) vbs.exe (D) asmsign.exe

g. Object.Finalize method in .NET is typically used to

- (A) Ending and compiling a group of code
(B) Reserve a set of resources
(C) Clean and release unmanaged resources
(D) Send a file to printer

h. Dataset is a collection of multiple _____.

- (A) Datatable (B) DataRow
(C) GridView (D) SQLCommands

i. A delegate is a

- (A) Pointer to a function (B) Pointer to a parameter
(C) Pointer to argument (D) Pointer to a class

j. Value types are inherited from which of the following

- (A) system.data (B) system.class
(C) system.Struts (D) system.valuetypes

**Answer any FIVE Questions out of EIGHT Questions.
Each question carries 16 marks.**

Q.2 a. Explain the concepts of CTS and CLS (Common Language Specification). (8)

b. What is an assembly? Explain private and shared assembly. (8)

Q.3 a. Write a program in C#.Net to print "Hello World" on the console. And also write steps to compile the file with the help of csc.exe and execute compiled executable file. (8)

b. How can you build a C# application by using csc.exe? (8)

Q.4 a. Write a note on similarities and differences between Class and structure in .NET (7)

b. What are the differences between value types and reference types? Explain. (9)

Q.5 a. What is class Properties? What is the Advantage of using Properties? (8)

- b. Explain with a suitable example the concept of the second Pillar: Inheritance support. (8)
- Q.6** a. Explain Exception handling in .NET Framework with an example. (10)
- b. Is “throw new Exception(…)” a good practice? Justify your answer. (6)
- Q.7** a. What do you mean by Namespace? Explain by giving a suitable example. Name few namespaces in .Net. (8)
- b. What is Interface in C#.Net? Why do we need interfaces? Differentiate between an abstract class and interface? (8)
- Q.8** a. What is meant by callback interface? Write a small code to illustrate the use of callback interface. (8)
- b. What is meant by delegates in C#.Net? How do we use it? Write a small code to show use of delegates. (8)
- Q.9** a. Write a program to read an XML file using XmlTextReader and call Read method to read its node one by one until end of file and display the contents to the console output. The basic structure of the XML file is as follows:
- ```
<book>
 <Name>...</Name>
 <BaseURI>...</BaseURI>
 <LocalName>...</LocalName>
</book>
```
- (8)
- b. What is GAC? How do we register an assembly in GAC? (8)