

DiplETE - CS

Time: 3 Hours

DECEMBER 2014

Max. Marks: 100

PLEASE WRITE YOUR ROLL NO. AT THE SPACE PROVIDED ON EACH PAGE IMMEDIATELY AFTER RECEIVING THE QUESTION PAPER.

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. What is the output of the code public class B:A{ }

- (A) Errors
- (B) It defines a class that inherits the public methods of A only
- (C) It defines a class that inherits all the methods of A but the private members cannot be accessed
- (D) (B) and (C)

b. Two methods with the same name but different parameters is know as

- (A) Method Overloading
- (B) Loading
- (C) Duplexing
- (D) Multiplexing

c. Convert vs parse methods:

- (A) Convert allows null values, Parse cannot
- (B) Convert converts the value, Parse is for parsing
- (C) Both are same
- (D) None of the above

d. Which of the following is not a .NET compatible language?

- (A) C#
- (B) VB.NET
- (C) Managed C++
- (D) JAVA

e. Common language specification (CLS)

- (A) Is an execution engine for all .NET applications
- (B) Is similar to JVM as in Java
- (C) Defines standard rules for defining .NET compliant languages
- (D) Is a compiler

- f. Contents of assembly file can be investigated using
- (A) ILDASM.exe (B) ILDASM.dll
(C) ILDASM.inc (D) ILDASM.aspx
- g. .NET Framework contains the components (Choose all that apply)
- (A) Windows applications (B) Windows services
(C) CLR (D) All of these
- h. Early binding can also be called as _____ .
- (A) Static linking (B) Static Binding
(B) Compile time Binding (D) All of these
- i. The job of JIT or jitter is to
- (A) Compile CIL into machine-specific-code
(B) Compile code into CIL
(C) All of the above
(D) None of the above
- j. An abstract class cannot be instantiated. True/False?
- (A) TRUE (B) FALSE

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

- Q.2** a. List and briefly explain the characteristics of C#. (8)
- b. Explain the different services provided by CLR of .NET framework. (8)
- Q.3** a. Explain while statement with the help of general syntax and example. How it is different from do statement? (8)
- b. Explain, what is conditional operator? Write a program to find the larger of three integers using conditional operator. (8)
- Q.4** a. How we access the length of the array? Explain with the help of an example. Write a program that uses array length method for sorting a list of numbers. (8)
- b. Differentiate between pass by value and pass by reference with examples. (8)
- Q.5** a. Explain any four string methods used in C# programming. (8)
- b. What is enumeration? How is it useful in C# programming? (8)

- Q.6** a. What is inheritance? Give its general syntax? With the help of example, explain the difference between multilevel and hierarchical inheritance. **(8)**
- b. Explain the different C# access modifiers used to control accessibility of members of a class. **(8)**
- Q.7** a. Define abstract class. How it is different from interfaces? **(4+4)**
- b. Explain operator overloading. Write some operators in C# that cannot be overloaded. **(6+2)**
- Q.8** a. Define delegates. What are the four steps involved in creating and using delegates? **(2+6)**
- b. What are events? How does C# handle events? Give example where events are used. **(2+4+2)**
- Q.9** a. What is an exception? With a neat block diagram explain exception handling code. **(8)**
- b. Explain the following methods of Thread class:- **(8)**
(i) Join (ii) Resume (iii) Sleep (iv) Spinwait