10CS/IS761

Seventh Semester B.E. Degree Examination, June/July 2017
C# Programming and .NET

Time: 3 hrs.   Max. Marks:100

Note: *Answer FIVE full questions, selecting*
at least TWO questions from each part.

PART – A

1   a. What is an assembly? Explain each component of an assembly. Differentiate between single and multifile assembly.   (08 Marks)
    b. Write a note on .NET namespace.   (04 Marks)
    c. Explain the working of CLR with an neat diagram.   (08 Marks)

2   a. Define C# preprocessor directive. Explain any three directive.   (08 Marks)
    b. Explain how csc.exe command is used to built C# application on .NET. Explain any five flags with appropriate examples.   (06 Marks)
    c. Explain the following with respect to C# program in command prompt.
       i) Generating Bug report   ii) Compiling multiple source file.   (06 Marks)

3   a. Explain the following types with an example with reference to C#. i) foreach   ii) ref iii) params iv) verbatim v) enum.   (10 Marks)
    b. Explain the Anatomy of simple C# program and variations in main method. (06 Marks)
    c. Explain boxing and unboxing with an example.   (04 Marks)

4   a. Explain how encapsulation is enforced in C# with a small program for each method.
                                                                              (08 Marks)
    b. Explain the two different roles of 'this' keyword with an example.   (06 Marks)
    c. Explain virtual and override keywords.   (06 Marks)

PART – B

5   a. List and explain with code, core members of System.Exception type.   (10 Marks)
    b. With an example, explain forcing a Garbage collection and the need for forcing Garbage collection.   (05 Marks)
    c. Write a C# application to illustrate handling multiple exceptions.   (05 Marks)

6   a. Explain the three different way of obtaining interface reference.   (09 Marks)
    b. Explain the following interfaces and its Role i) I convertible   ii) I comparable.   (06 Marks)
    c. Explain how to achieve shallow and deep copy in C#.   (05 Marks)

7   a. What are the main advantages of C# events?   (05 Marks)
    b. What are delegates? Explain the members of System.Multicast delegates. Give a small program to implement multicasting.   (10 Marks)
    c. Write a program in C# to sort and reverse an array of 5 elements using sort () and reverse () methods.   (05 Marks)

8   Write short notes on :
    a. Cross language inheritance
    b. Object Generations
    c. Physical and logical view and assembly
    d. Building a multifile assembly.   (20 Marks)

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