USN ☐☐☐☐☐☐☐☐☐☐

10MCA53

Fifth Semester MCA Degree Examination, December 2012
Topics in Enterprise Architecture – III

Time: 3 hrs.   Max. Marks:100

Note: *Answer any FIVE full questions.*

1   a. With a neat diagram, explain the basic building blocks of .NET platform.   **(08 Marks)**
    b. Explain the role of common intermediate language (CIL). What are its benefits?   **(06 Marks)**
    c. Discuss the role of response files and explain the basic output options of the C# compiler.
                                                                                          (06 Marks)

2   a. With an example, explain different method parameter modifiers.   **(08 Marks)**
    b. Explain any three C# preprocessor directives.   **(06 Marks)**
    c. Explain the concept of static methods and static data with suitable examples.   **(06 Marks)**

3   a. Explain the following terms with an example with reference to C# :
        i) foreach;   ii) verbatim;   iii) internal;   iv) enum.   **(08 Marks)**
    b. Explain the core methods of System·Object class.   **(06 Marks)**
    c. Differentiate between boxing and unboxing.   **(06 Marks)**

4   a. What are the different methods of accessing private data fields by other classes in C#?
        Explain with examples.   **(08 Marks)**
    b. Explain "is – a" and "has – a " relationship with respect to inheritance.   **(06 Marks)**
    c. How do you document your source code using XML? Explain XML format characters.
                                                                                          (06 Marks)

5   a. How can be build finalizable and disposable types in .NET Garbage Collector( )?
                                                                                          (08 Marks)
    b. Explain the garbage collection optimization process in C#.   **(06 Marks)**
    c. Write a C# application to illustrate handling multiple exceptions.   **(06 Marks)**

6   a. Explain the role of the following C# keywords with an example:
        i) Checked;   ii) unsafe;   iii) finally;   iv) fixed.   **(08 Marks)**
    b. Illustrate with example, the various methods for obtaining interface references.   **(06 Marks)**
    c. Distinguish between shallow copy and deep copy.   **(06 Marks)**

7   a. Explain single cast and multicast delegates in C# with examples.   **(10 Marks)**
    b. What are events in C#? Write a C# program to raise an event if the marks of a student is less
        than zero or greater than 100 while creating an instance of a student class comprising of
        fields USN, studname, marks.   **(10 Marks)**

8   a. Write the steps involved in building a shared assembly under .NET environment. How do
        you install/remove shared assemblies?   **(10 Marks)**
    b. Write short notes on:
        i)   Operator overloading.
        ii) Multifile assembly.   **(10 Marks)**

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