USN ☐☐☐☐☐☐☐☐☐☐ 10MCA53

Fifth Semester MCA Degree Examination, June/July 2017
Topics in Enterprise Architectures – II

Time: 3 hrs.   Max. Marks:100

Note: *Answer any FIVE full questions.*

1 a. What are namespaces? How to access namespaces? List and explain the purpose of atleast three name spaces?   (06 Marks)
   b. With a neat diagram, explain the basic building block of .NET platform.   (08 Marks)
   c. Explain Jitter, along with its benefits. Explain how CLR host an application on .NET platform. Give the block diagram.   (06 Marks)

2 a. Explain C# preprocessor directives with suitable example.   (07 Marks)
   b. Write a C# program to illustrate the usage of System.Environment class.   (05 Marks)
   c. Explain how to build an C# application using command line compiler (CSC.exe). Explain any five flags with appropriate example.   (08 Marks)

3 a. Explain value type and reference types. List the differences.   (06 Marks)
   b. With an example, explain different method parameter modifiers.   (08 Marks)
   c. Write a program in C# to read jagged array and display the sum of all the elements of three inner arrays.   (06 Marks)

4 a. What is encapsulation? Explain the technique used to manipulate private data field indirectly.   (08 Marks)
   b. Explain "is-a" and "has-a" relationship with respect to inheritance.   (06 Marks)
   c. Using method in system.string.class, design a C# method which replaces all the occurrences of the word "computer" with "COMPUTER".   (06 Marks)

5 a. Describe the terms bugs, error and exception. Explain targetsite, stacktrace, source and helplink properties of system exception.   (10 Marks)
   b. Write a program in C# to throw and handle the following exception in a car class application.
      ArgumentOutofRangeEexception : If speed of car is zero.
      CarIsDeadException : When speed is greater than 100.
      Display the details of each.   (10 Marks)

6 a. Explain the following interfaces with suitable example.
      IEnumerator, IConvertible and IComparable   (12 Marks)
   b. What is interface? Bring out the differences between interfaces and abstract base classes.
                                                                                   (08 Marks)

7 a. Write a program in C# to overloading equality and comparison operators.   (08 Marks)
   b. What are delegates? Explain with example.   (06 Marks)
   c. What are events in C#? Explain with a suitable example.   (06 Marks)

8 a. What are the core benefits of .NET assembly?   (10 Marks)
   b. Write short notes on:
      i) Multifile assembly
      ii) Strong name   (10 Marks)

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