College of Engineering & Management CENTRAL LIBRARY Mangalore-7

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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.***

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

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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