Seventh Semester B.E. Degree Examination, Dec.2017/Jan.2018
C # Programming and .NET

Time: 3 hrs.   Max. Marks:100

Note: *Answer any FIVE full questions, selecting*
atleast TWO questions from each part.

PART – A

1 a. What is .NET framework? List and explain its features. **(08 Marks)**
   b. What is metadata? Describe its role in .NET framework. **(06 Marks)**
   c. Describe the building blocks of .NET framework. **(06 Marks)**

2 a. Explain how you build C# application using CSC.exe. **(06 Marks)**
   b. Write a c# program to display message box dialogue containing "Hello World" message using class. **(07 Marks)**
   c. Write a C# program to count the number of object instances create inside or outside of an assembler. **(07 Marks)**

3 a. How do you process command line arguments in C# programs? Give one example. **(06 Marks)**
   b. Describe any four members of system.console class. **(04 Marks)**
   c. What are method parameter modifiers? Name and explain all the available method parameters modifiers in C#. **(10 Marks)**

4 a. Briefly describe the support of C# language for the main pillars of object oriented programming. **(09 Marks)**
   b. What is "has – a" relation? how it is implemented in C#. **(05 Marks)**
   c. What are the advantages of using virtual and override key words in C# programs? Give one example. **(06 Marks)**

PART – B

5 a. What are bugs, errors and exceptions? List and explain the core members of system. exception type. How would you build custom exception? **(10 Marks)**
   b. What is object lifetime? Explain the garbage collection optimization process in C#. **(06 Marks)**
   c. Write C# application to illustrate handling multiple exceptions. **(04 Marks)**

6 a. What is an interface? Explain with an example implementation of interfaces in C#. **(06 Marks)**
   b. Explain in detail the IConvertable Interfaces along with its different supporting method types. **(08 Marks)**
   c. How do you build ICloneable interface types? Give one example. **(06 Marks)**

7 a. What are delegates in C#? Give one example. **(06 Marks)**
   b. Discuss the members of system•Multicast delegate base class. **(08 Marks)**
   c. With an example. discuss the advanced keywords of C# : checked, unchecked, unsafe, stackalloc, volatile and sizeof. **(06 Marks)**

8 Write short notes on :
   a. •NET framework assembly format
   b. Classic COM binaries versus •NET assemblies
   c. Cross language inheritance
   d Shared assembly. **(20 Marks)**

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