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## Seventh Semester B.E. Degree Examination, June/July 2011

### 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. Explain features and building blocks of .Net framework. (10 Marks)
  - b. Write a note on .Net name space. (04 Marks)
  - c. Explain the role of the common intermediate language. (06 Marks)
2.
  - a. Discuss the difference between value type and reference types. (06 Marks)
  - b. Explain how CSC .exe compiler is used to build C# application. Explain any five flags with appropriate examples. (06 Marks)
  - c. Write a C# program to demonstrate use of Static and Read- only variables. (08 Marks)
3.
  - a. Explain boxing and unboxing with examples. (06 Marks)
  - b. Explain the functions of system object class. Give overridden definition for ToString( ) and Equals( ). (08 Marks)
  - c. Explain the following terms, with an example, with reference to C #.  
i) foreach ii) params iii) verbatim. (06 Marks)
4.
  - a. What is inheritance? How is it implemented in C#? (06 Marks)
  - b. State and explain the characteristics of abstract classes. (08 Marks)
  - c. Write a program to describe sealed class and sealed method. (06 Marks)

#### PART – B

5.
  - a. Explain the different methods of file system. GC type. (05 Marks)
  - b. Explain with examples interface hierarchy. (07 Marks)
  - c. What is an interface in C# and how is it different from polymorphism in C++? (08 Marks)
6.
  - a. Define the following keywords with program example :  
i) try ii) throw iii) catch iv) finally. (10 Marks)
  - b. Why is proper ordering of catch blocks necessary in C#? (05 Marks)
  - c. Write C# application to illustrate handling multiple exceptions. (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. What are the differences between private assembly and shared assemblies? (05 Marks)
8. Write short notes on :
  - a. Indexers
  - b. Mutable and immutable strings
  - c. Enumeration in C#
  - d. Garbage collection in .Net. (20 Marks)

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06CS/IS761

**Seventh Semester B.E. Degree Examination, December 2011**

**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. Explain the limitations and complexities found within the technologies prior to .Net. Briefly explain how .Net attempts to simplify the same. (10 Marks)  
b. Explain the formal definitions of all possible CTS types. (10 Marks)
- 2 a. Explain the following, with respect to compilation of the C # program in command prompt.  
i) referencing external assemblies      ii) compiling multiple source files  
iii) response files      iv) generating bug reports. (10 Marks)  
b. Explain C # preprocessor directives :  
i) # region, # endregion      ii) conditional code compilation. (05 Marks)  
c. Write a C # program to generate Fibonacci series upto N. value of N is read from console. (05 Marks)
- 3 a. Write a C # program to arrange five names in the ascending order. Names are obtained from command line arguments. (06 Marks)  
b. List the methods in system, object master node. Explain the functionality of the methods Equals, ToString and GetType. (10 Marks)  
c. Explain the params modifier, with suitable code. (04 Marks)
- 4 a. Write a C # program to create a doubly linked list. Methods will be for inserting the node at front end, deleting the node from front end and displaying the contents of the list. (10 Marks)  
b. Explain the following, with suitable code.  
i) versioning class members      ii) properties. (10 Marks)

**PART – B**

- 5 a. Mention the methods present in system. Exception base class. Explain TargetSite, StackTrace properties. (10 Marks)  
b. Explain how to build a custom exception in C #, using suitable code. (10 Marks)
- 6 a. Define an interface. Explain how it is created in C #, with suitable example. (05 Marks)  
b. Explain how interfaces can be used as polymorphic agents, with suitable code. (08 Marks)  
c. Write an explanatory note on ICloneable interface, with examples. (07 Marks)
- 7 a. What are delegates in C #? Differentiate between the synchronous and asynchronous delegates, with an example. (10 Marks)  
b. Enumerate the concept of events in C #. Explain with suitable code and example. (10 Marks)
- 8 a. Explain the steps involved in building multifile assembly, with an example. (10 Marks)  
b. Explain shared assemblies and private assemblies, in detail, with necessary examples. (10 Marks)

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.