

CRASH COURSE



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10CS/IS761



5th Semester B.E. Degree Examination, May 2017 C# Programming and .Net

Max. Marks:100

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

PART - A

- 1 a. What are the building blocks of .Net? Illustrate and explain the workflow of .Net execution engine. (10 Marks)
- b. What are the limitations and complexities found within the technologies prior to .Net? How .Net provides a solution for it? (10 Marks)
- 2 a. Write a C# program to display the following information using system environment class:
(i) Current directory of application
(ii) Operating system version
(iii) Logical drives
(iv) Host name
(v) .Net version (10 Marks)
- b. What is the role of response files in C# program development using command line compiler. (04 Marks)
- c. What is command line debugger? List and explain any 5 command line flags recognized by command line debugger. (06 Marks)
- 3 a. Explain the method parameter modifiers. Demonstrate with a function definition and function call for each modifier. (10 Marks)
- b. Explain boxing and unboxing with examples. (06 Marks)
- c. Explain any four members of system.Object. (04 Marks)
- 4 a. How do you force encapsulation using traditional accessor and mutator methods? Explain class properties in detail. (10 Marks)
- b. What is inheritance? Differentiate between "is-a" and "has-a" relationship with examples. (10 Marks)

PART - B

- 5 a. Define a method that would sort an array of integers. Incorporate exception handling mechanism for "index out of bounds" situation. Develop a main program that employs this method to sort a given set of integers. (10 Marks)
- b. Explain the concepts of freeing the unmanaged resources by overriding the finalize method and implementing IDisposable interface. Write a code that implements both the options. (10 Marks)
- 6 a. How do you build cloneable and comparable objects in C#? Explain with examples. (12 Marks)
- b. List the member functions of queue and stack classes. Write separate programs to demonstrate both. (08 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.



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- 7 a. What are delegates? Explain the concept of multicast delegate with example. (10 Marks)
b. Write a C# program to do the following on 2-dimensional points P1 and P2 operator overriding $P1 + P2$, $P1 - P2$ and $P1 != P2$. (10 Marks)
- 8 a. Describe the two conceptual views of a .Net assembly, with neat diagrams. (10 Marks)
b. Explain the steps involved in building and consuming a multifile assembly. (10 Marks)

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