CRASH COURSE

USN | | | | | | | | | | |

10CS/IS761

Seventh Semester B.E. Degree Examination, May 2017
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 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)**

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)**

* * * * *