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10CS/IS761

Seventh Semester B.E. Degree Examination, July/August 2022

C# Programming and .NET

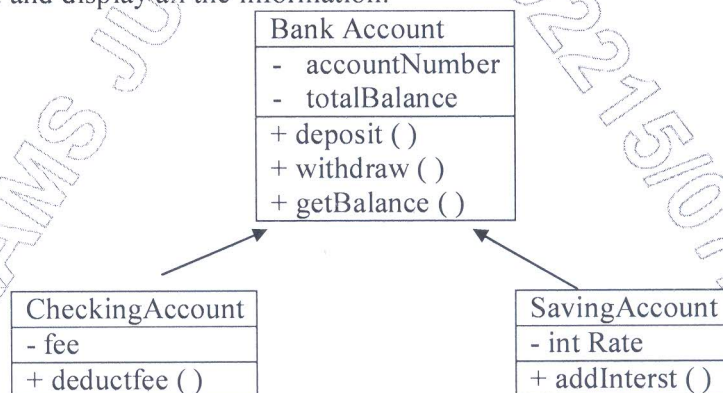
Time: 3 hrs.

Max. Marks:100

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

PART – A

- 1 a. What is CTS? Explain in detail CTS types with suitable example. (10 Marks)
- b. What is an Assembly Differentiate Single file Assembly and Multifile assembly? (05 Marks)
- c. What are the key features of C# language? (05 Marks)
- 2 a. Explain the working of mscorlib.dll (07 Marks)
- b. List and explain the various output options available with C# compiler. Also illustrate how to compile multiple source files. (08 Marks)
- c. What is response file? Explain the working of csc.exe response files? (05 Marks)
- 3 a. Explain the following terms :
 - (i) Static class
 - (ii) Static constructor.
 - (iii) Params keyword
 - (iv) Unboxing. (10 Marks)
- b. Differentiate Value types and Reference types with suitable code for assignment operation. (10 Marks)
- 4 a. What is property in C#? Explain in detail read-only, write-only and static property with example. (10 Marks)
- b. Write a program for the following inheritance hierarchy :
 - (i) Declare objects of checking account and savings account.
 - (ii) Initialize the members using suitable constructor.
 - (iii) Read and display all the information.



(10 Marks)

PART – B

- 5 a. List and explain the members of System.GC type. (05 Marks)
- b. Explain how garbage collection is optimized in .NET platform. (05 Marks)
- c. What is exception in C#? Illustrate the use of System.Exception base class in throwing generic exception. (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.

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- 6 a. Explain different ways of invoking interface members at object level. (10 Marks)
b. Distinguish between shallow and deep copy as applied to cloning. Write suitable program to demonstrate a custom class using ICloneable interface. (10 Marks)
- 7 a. What do you understand by Delegates and events in C#. Explain with suitable examples. (10 Marks)
b. Write a C# program to overload binary '+' and '-' operators and perform addition and subtraction program on objects. (10 Marks)
- 8 Explain the following terms: (20 Marks)
a. Generic Classes.
b. Strong Names.
c. Building Multifile assembly.
d. System.Collections.Generic Namespace.

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