15CS564

Fifth Semester B.E. Degree Examination, June/July 2023 •Net Framework for Application Development

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

1 a. Define namespace. Explain Four namespaces in NET with example.

(04 Marks)

b. Discuss exception handling in C# using try, catch and finally.

(06 Marks)

c. Write a C# windows application to perform arithmetic operations Add, Subtraction, Multiplication and Division. (06 Marks)

OR

2 a. Discuss short circuit operators with example.

(04 Marks)

- b. Discuss optional parameters and named arguments. Explain how optional parameters are used to resolve ambiguities. (06 Marks)
- c. Write a C# program to illustrate the concept of function overloading for computing area of circle rectangle and triangle. (06 Marks)

Module-2

3 a. Discuss difference between structure and class with example.

(04 Marks)

- b. Define constructors and illustrate overloaded constructors in C# with programming example.
 (06 Marks)
- c. Write a C# program to compute the sum of the Jagged array elements.

(06 Marks)

OR

4 a. Explain with new diagram the process of boxing and unboxing.

(04 Marks)

- b. Describe Anonymous Class in C# illustrate how C# compiler create and initialize the object of Anonymous Class. (06 Marks)
- c. Write a C# program to swap tow integers using ref parameters and discuss the difference between ref and out parameters. (06 Marks)

Module-3

5 a. Discuss the advantage of parent objects with example.

(04 Marks)

- b. Write a C# program to illustrate the explicit interface implementation and discuss how it is different from implicit interface implementation. (06 Marks)
- c. Discuss the disposal methods in resource management and what strategy will use to overcome the problems of it. (06 Marks)

OR

6 a. Describe destructors with examples.

(04 Marks)

- b. Define inheritance. Explain the process of calling base class constructor with suitable example. (06 Marks)
- c. Write a C# program to illustrate the concept of polymorphism with help of abstract class and abstract methods. (06 Marks)

Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8=50, will be treated as malpractice. Important Note: 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.

Module-4

7 a. Discuss the restrictions of properties.

(04 Marks)

- b. Discuss the problems with object type in defining Queue class. How do you overcome those problems using generic Queue <T> class? (06 Marks)
- c. Develop a C# program to implement doubly linked list operations using the collection class LinkedList<T>. (06 Marks)

OR

8 a. Define indexer. Explain the use of indexer with appropriate programming example.

(06 Marks)

- b. Write a C# program to ADD two integers and two flow values by defining generic method ADD<T>. (04 Marks)
- c. Write a C# program to illustrate the concept of Read only, Write only and Read Write property. (06 Marks)

Module-5

9 a. Describe events with programming example.

(04 Marks)

b. Implement I Enumerable interface in your program and discuss on it.

(06 Marks)

c. Develop a C# program to create a class called Complex with two fields real and imaginary and write the operator overloading methods for Addition and Substation of two complex numbers.

(06 Marks)

OR

10 a. Describe the rules to implement operator overloading.

(04 Marks)

- b. Write a C# program to perform addition, subtraction and multiplication of two integers using integer programming technique. (06 Marks)
- c. Discuss how do you project specific fields and filter rows from an ienumerable collections.
 (06 Marks)