USN | | | | | | | | | | **15CS564**

Fifth Semester B.E. Degree Examination, Jan./Feb. 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. What is the significance of using name spaces? List the rules to name variables.   **(04 Marks)**
    b. Define method. Explain the syntax of declaring a method.   **(04 Marks)**
    c. What are the different decision making statement in C#? Explain any two with example.   **(08 Marks)**

OR

2   a. Write a C# program to find factorial of a number.   **(04 Marks)**
    b. Differentiate between while and do_while with example.   **(04 Marks)**
    c. What is an exception? Explain try, catch and finally with an example.   **(08 Marks)**

Module-2

3   a. What is constructor? Give an example for overloading constructor.   **(06 Marks)**
    b. What are static methods and static classes? Illustrate with example.   **(08 Marks)**
    c. What do you mean by boxing and unboxing?   **(02 Marks)**

OR

4   a. Explain creation of ref and out parameters.   **(06 Marks)**
    b. Differentiate between structures and classes in C#.   **(06 Marks)**
    c. How to declare one dimensional array? Write a C# code to copy content of one array to another array.   **(04 Marks)**

Module-3

5   a. Write a C# function or method to find the smallest element in a array.   **(08 Marks)**
    b. Illustrate with an example, calling base-class constructor.   **(04 Marks)**
    c. Define an interface? Give an example.   **(04 Marks)**

OR

6   a. List the interface restrictions.   **(06 Marks)**
    b. How does garbage collector works?   **(06 Marks)**
    c. Explain implementation of IDisposable interface.   **(04 Marks)**

Module-4

7   a. What is a property? Explain syntax for property decleration along with property restrictions.   **(08 Marks)**
    b. What is an indexer? Differentiate between indexer and array.   **(04 Marks)**
    c. What is the purpose of Generics? Differentiate between Generics and Generalized classes.   **(04 Marks)**

OR

8	a.	Write an algorithm to insert an item into ordered binary tree.	(06 Marks)
	b.	Explain linked list and dictionary collection classes.	(06 Marks)
	c.	Write a generic method for swapping values of parameters.	(04 Marks)

Module-5

9	a.	Explain IEnumerable interface methods and properties.	(04 Marks)
	b.	Explain implementation of enumerator by using an iterator.	(08 Marks)
	c.	What are delegates? Give an example.	(04 Marks)

OR

10	a.	Explain how event can be declared, subscribed and unsubscribed.	(04 Marks)
	b.	Write the LINQ query to select data, Filtering data and Joining data [assume your own database].	(06 Marks)
	c.	Write a C# program to overload + to add two complex numbers.	(06 Marks)

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