

# CBCS SCHEME

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17CS564

## Fifth Semester B.E. Degree Examination, July/August 2021 Dot Net Framework for Application Development

Time: 3 hrs.

Max. Marks: 100

*Note: Answer any FIVE full questions.*

1. a. What is Namespace? How namespace is used to solve name-clashing problem. Explain with example. (06 Marks)  
b. Explain the following with examples:  
(i) Statements  
(ii) Identifiers  
(iii) Keywords (06 Marks)  
c. Write a C# program to find first 'N' Fibonacci Numbers. (08 Marks)
2. a. Define scope of a variable. Explain the following with example.  
(i) Local scope  
(ii) Class scope (10 Marks)  
b. Write a C# program for adding two numbers using try and catch for the following exceptions:  
(i) Format exception  
(ii) Overflow exception (10 Marks)
3. a. Differentiate between structure and class with an example. (04 Marks)  
b. Write a C# program for swapping two numbers using overloading concept. (08 Marks)  
c. Explain how arguments are passed as method parameters by using the following:  
(i) The REF keyword  
(ii) OUT keyword (08 Marks)
4. a. Define an array. Write a C# program to sort the given 'N' numbers in ascending orders using arrays. (10 Marks)  
b. Write a C# program for adding two matrices and store the sum in another matrix. (10 Marks)
5. a. Define a params arrays. List out the restrictions on params array with suitable example. (10 Marks)  
b. What is the need for virtual functions? Explain with example. (10 Marks)
6. a. Write a C# program to demonstrate multiple interfaces. (08 Marks)  
b. Write a C# program to demonstrate garbage collector. (08 Marks)  
c. Explain in detail dispose method and IDisposable interface. (04 Marks)
7. a. What are properties? Write a C# program to demonstrate properties considering Class Name: customer, fields as int custid, bool status, string Cname, double Balance. (10 Marks)  
b. Define Indexers. Write a C# program to demonstrate indexers considering Class Name: Employee and fields as int ENo, double salary, string Ename, Job, Dname, Location. (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.

- 8 a. Define generics. Write a C# program to compare two parameters using generics method. (10 Marks)
- b. List out differences between arrays and collections. (05 Marks)
- c. List out important design consequences of Dictionary <Tkey, Tvalue> class. (05 Marks)
- 9 a. What is an iterator? Write a C# program to implement an enumerator by using an iterator. (10 Marks)
- b. What is a delegate? Explain with example. (05 Marks)
- c. What is an event? Explain with example. (05 Marks)
- 10 a. What is LINQ? Write a C# program that illustrate selecting, filtering and ordering data using LINQ. (10 Marks)
- b. Write a C# program to overload '+' operator to add 2 instances of a class. (10 Marks)

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