CBCS SCHEME

USN

17CS564

Fifth Semester B.E. Degree Examination, Dec.2023/Jan.2024

Dot Net Framework for Application Development

Time: 3 hrs.

Max. Marks: 100

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

Module-1

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)

OF

- 2 a. Define Scope of 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 exception
 - i) Format exception
- ii) Overflow exception.

(10 Marks)

Module-2

a. Define Constructors. Explain constructor overloading with programming example.

(06 Marks)

b. Describe the Static class, Static method and data with an example.

(06 Marks)

c. Explain value type and reference type and boxing and unboxing with programming example.
(08 Marks)

OR

4 a. Briefly explain "ref" and "out" keywords with examples.

(05 Marks)

- b. Define Enumerations with Syntax. Write C# program that display month name and its numeric value using enum. (07 Marks)
- c. Describe the structures and jagged arrays with examples.

(08 Marks)

Module-3

5 a. Define a Params arrays. List out the restrictions on params array with suitable example.

(10 Marks)

b. What is the need for a virtual functions? Explain with example.

(10 Marks)

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- 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)

Module-4

- 7 a. How would you enforce encapsulation using read and write properties in C#? Explain in detail. (10 Marks)
 - b. Define an Indexer. List and explain set of operators provided by C# which can be used to access and manipulate the individual bits in an integer value. (10 Marks)

OR

Build a C# program to implement stack <T> collection class. 8

(10 Marks) (10 Marks)

Develop a C# program to construct a binary tree using generics.

Module-5

Explain implementation of an enumerator by using iterator. 9

(06 Marks)

Define Delegate. Explain the use of delegate in C# with an programming example.

(06 Marks)

Explain Declaring, Subscribing, Unsubscribing and Raising with respect to an event.

(08 Marks)

OR

Define LINQ. Explain LINQ to selecting, filtering and ordering data with an example. 10

(10 Marks)

Explain Operator overloading constraints. Write a C# program for operator + overloading.

(10 Marks)