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17CS564

Fifth Semester B.E. Degree Examination, Jan./Feb.2021
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. Explain the general structure of C# program with suitable example. **(06 Marks)**
    b. With programming example, explain expression bodied methods and string interpolation in C#. **(08 Marks)**
    c. Write a C# program to check whether the number read from the user is a strong number or not. (Hint : A number is called strong number if sum of the factorial of its digits is equal to number itself). **(06 Marks)**

OR

2   a. Explain the concept of named arguments and optional parameters with programming example. **(06 Marks)**
    b. Define exception. Explain how exception handling is achieved in C#. **(08 Marks)**
    c. Write a C# program to find the roots of a quadratic equation by reading the coefficients from the user. **(06 Marks)**

Module-2

3   a. Explain the concept of Boxing and Unboxing with an example. **(06 Marks)**
    b. Define class and structure. Give the difference between structure and class. **(08 Marks)**
    c. Illustrate the concept of static data, with C# program that counts the number of objects being created by a class. **(06 Marks)**

OR

4   a. Explain value type and reference type with an example. **(06 Marks)**
    b. Explain Anonymous classes, with an example. **(06 Marks)**
    c. Define Jagged Array. Explain with program hour jagged arrays are declared, populated and computer the sum of all elements. **(08 Marks)**

Module-3

5   a. Explain the concept of parameter arrays with programming example. **(06 Marks)**
    b. What is inheritance? What are the advantages and disadvantages of inheritance? Explain usage of base keyword in inheritance. **(08 Marks)**
    c. Explain how method overriding is achieved in C# with programming example. **(06 Marks)**

OR

6   a. Explain with example abstract and sealed keyword with respect to class and methods. **(10 Marks)**
    b. Explain the steps taken by the garbage collector to destroy objects. **(05 Marks)**
    c. Mention the difference between interface and class. **(05 Marks)**

Module-4

7 a. Define property with its syntax. List and explain with example different types of properties.
(10 Marks)

   b. List and explain different operators used to access and manipulate individual bits in 'int' type.
(05 Marks)

   c. Define generic. Write a C# program for swapping of 2 numbers using generic method.
(05 Marks)

OR

8 a. Explain the Stack<T> and LinkedList<T> collection class with programming example.
(12 Marks)

   b. Define indexer with its syntax. What are the uses of indexers? Demonstrate with an example.
(08 Marks)

Module-5

9 a. Define Delegate. Explain how to declare delegate with an example.   (10 Marks)

   b. Define event. Explain how to handle event by using a delegate with an example.   (10 Marks)

OR

10 a. What is LINQ? Explain LINQ for selecting and ordering of data with an programming example.
(10 Marks)

   b. Explain operator overloading and their constraints. Write the complete C# program that creates a class called 'COMPLEX' which simulates a complex number and overloads the operators '+', '−' and '*' for COMPLEX objects.
(10 Marks)

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