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20MCA42

Fourth Semester MCA Degree Examination, June/July 2024
Programming using C# •Net

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 components of .NET frame work with architectural diagram. **(10 Marks)**
   b. What is the difference between value types and reference types and explain the boxing and un boxing with one example program. **(10 Marks)**

OR

2 a. Write a short note on:
      i) Windows work flow foundation
      ii) Windows communication foundation. **(10 Marks)**
   b. Explain different data types in C#. **(10 Marks)**

Module-2

3 a. Write a C# program to read a jagged array and display the sum of all the elements of inner array. **(06 Marks)**
   b. Explain the partial classes in detail with one relevant program. **(10 Marks)**
   c. Discuss the differences between method over loading and overriding. **(04 Marks)**

OR

4 a. Write a C# program to explain accessors and mutator and properties used in encapsulation. **(10 Marks)**
   b. List the differences between properties and indexes. **(05 Marks)**
   c. Explain sealed classed and sealed methods. **(05 Marks)**

Module-3

5 a. Explain delegates. Write a C# program to calculate square and addition of a number using delegates. **(10 Marks)**
   b. Write a C# console application to demonstrate concept of multiple event handler for a single event. **(10 Marks)**

OR

6 a. Write a C# program using try, catch finally and discuss the properties or functionalities of each. **(10 Marks)**
   b. List and explain the common ADO.NET objects. **(10 Marks)**

Module-4

7 a. Explain WPE architecture with neat diagram. **(10 Marks)**
   b. Discuss the properties and events of checked text box control, write a C# program and illustrate checked box. **(10 Marks)**

OR

8 a. Explain the various mouse events in C# windows applications. **(06 Marks)**
   b. Explain steps involved in MDI form. **(06 Marks)**
   c. Explain mark up extension classes and XAML elements with example of each. **(08 Marks)**

Module-5

9 a. Explain the architecture of multitier applications with an example. **(10 Marks)**
   b. Explain different validation controls with suitable example supported by ASP.NET. **(10 Marks)**

OR

10 a. Explain session tracking controls with example supported by ASP.NET. **(10 Marks)**
    b. Explain AJAX server controls
    i)   Script Manager control
    ii) Update panel control. **(10 Marks)**

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