

CBCS SCHEME

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20MCA42

Fourth Semester MCA Degree Examination, July/August 2022 Programming using C#

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 framework with the help of architecture diagram. (10 Marks)
- b. List and explain the different data types in C#. (10 Marks)

OR

- 2 a. Discuss between value types of reference types and write a program to explain boxing and unboxing. (10 Marks)
- b. Write short notes on :
 - i) Windows work flow foundation
 - ii) Windows cold space and LINQ. (10 Marks)

Module-2

- 3 a. Explain partial classes and partial methods, with the help of a C# program. (10 Marks)
- b. Write a C# program to explain accessor and mutator properties used in encapsulation. (10 Marks)

OR

- 4 a. Explain the significance of "is - a" and "has - a" relationship in inheritance with an example program. (10 Marks)
- b. Explain the following with example :
 - i) Static class and static members
 - ii) Abstract class and abstract methods. (10 Marks)

Module-3

- 5 a. Explain the four steps involved in creating and using delegate in the program. (10 Marks)
- b. Explain the architecture of ADO.NET with a neat diagram and list the ADO.NET provided. (10 Marks)

OR

- 6 a. Write a C# program using try, catch, finally to explain any predefined exceptions. (10 Marks)
- b. Explain the properties and methods of Data Reader and Data Adaptor class. (10 Marks)

Module-4

- 7 a. Explain various mouse events in C# windows application. (10 Marks)
- b. Explain the WPF architecture with a neat diagram. (10 Marks)

OR

- 8 a. Explain the following :
i) XAML elements
ii) Makeup extension classes in XAML. (10 Marks)
- b. Write short notes on :
i) MDI window forms
ii) Event –Driven GUI. (10 Marks)

Module-5

- 9 a. Explain different validation controls with suitable example supported by ASP.NET. (10 Marks)
- b. Explain the architecture of three tier web based application. (10 Marks)

OR

- 10 a. What are Cookies? Explain session management in ASP.NET using cookies. (10 Marks)
- b. Explain the controls from AJAX control toolkit. (10 Marks)

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