USN ☐☐☐☐☐☐☐☐☐☐

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 APO•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)**