



End Term (Odd) Semester Examination December 2024

Roll no. 2292104

Name of the Course and semester: **BCA 5th Sem**

Name of the Paper: *Programming with .NET C#*

Paper Code: *TBC-502*

Time: 3 hour

Maximum Marks: 100

Note:

- (i) All the questions are compulsory.
- (ii) Answer any two sub questions from a, b and c in each main question.
- (iii) Total marks for each question is 20 (twenty).
- (iv) Each sub-question carries 10 marks.

Q1.

(2X10=20 Marks)

- a. Explain the various components of NET framework with diagram. Also list the different languages supported by .Net Framework and explain the various services provided by CLR. CO1
- b. Explain **assemblies** and different types of assemblies? Also explain .dll and an .exe file. CO1
- c. Discuss the features and compilation process of .net framework? CO1

Q2.

(2X10=20 Marks)

- a. Explain the various methods of array class with proper syntax and example? Write the C# program to demonstrate the use of five pre-defined methods of array class. CO2
- b. Write a menu driven program to show the use of five pre-defined methods of String class? CO2
- c. Explain different types of array in C# with example? Write a C# program for the multiplication of 2-D matrix? CO2

Q3.

(2X10=20 Marks)

- a. Discuss the concept of inheritance in detail, also explain the types of inheritance with proper syntax and example. CO3
- b. Describe the concept of function overloading and dynamic polymorphism?
Write a C# program to show the concept of virtual function and override keyword. CO3
- c. Explain constructors and different types of constructors in C#. Also write a program to demonstrate the same. CO3

Q4.

(2X10=20 Marks)

- a. Discuss the concept of ASP.NET and describe the components of ASP.NET MVC? Explain its advantages. CO4
- b. Explain ASP.NET with its features also explain Web forms and server controls. CO4
- c. Explain the purpose of master pages in ASP.NET and how do they help in maintaining consistency across the website. CO4

Q5.

(2X10=20 Marks)

- a. Discuss the steps to establish a connection to a SQL server database using ADO.NET? CO5



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- b. Describe RDMS? Explain the different keys used in DBMS with example. CO5
- c. Discuss the architecture of ADO.NET? Explain the difference between ADO and ADO.NET? CO5