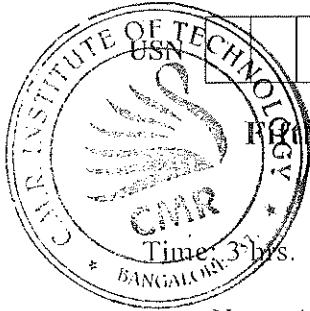


# CBCS SCHEME

16/17MCA52



## 3rd Semester MCA Degree Examination, Dec.2019/Jan.2020 Programming Using C# and .Net

Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

### Module-1

- 1 a. Explain the architecture of .NET framework 4.0 and describe its component. (08 Marks)  
b. What is namespace? Explain the steps involved in creating a namespace and illustrate few common namespaces. (08 Marks)

OR

- 2 a. What is Boxing and unboxing? Write a C# program to demonstrate boxing and unboxing. (06 Marks)  
b. Write short notes on:  
i) Windows work flow foundation  
ii) Windows Card Space. (10 Marks)

### Module-2

- 3 a. Define the following class and explain with program:  
i) Partial class  
ii) Sealed class. (08 Marks)  
b. Explain with example the method of implementing encapsulation using class properties and accessors and mutators. (08 Marks)

OR

- 4 a. Explain the characteristics of abstract classes and abstract methods. (05 Marks)  
b. List the difference between properties and indexers with example. (05 Marks)  
c. Write a program to add two complex number using operator overloading. (06 Marks)

### Module-3

- 5 a. What are delegates? Explain the steps involved in creating and using delegate in C# program. (06 Marks)  
b. What is connection object? Explain the procedure of getting connected to a database and running the following queries with relevant example:  
i) Insert record to a table.  
ii) Select records from a table and place in grid. (10 Marks)

OR

- 6 a. Describe the architecture of ADO .NET. (06 Marks)  
b. Explain try-catch finally statement with example. (04 Marks)  
c. What is data adapter? Write a C# code to create a data set from a data adapter. (06 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written e.g. 42+8 = 50, will be treated as malpractice.

**Module-4**

- 7 a. Illustrate working with following controls with a windows form application example:  
i) CheckBox  
ii) RadioButton  
iii) GroupBox. (09 Marks)
- b. Explain different types of keyboard events. Demonstrate with coding some of the keyboard handling. (07 Marks)

**OR**

- 8 a. Write a program for addition of two numbers from text boxes and display the result in the form using button click event. (04 Marks)
- b. Explain WPF architecture. (08 Marks)
- c. Write short notes on MDI windows. (04 Marks)

**Module-5**

- 9 a. Explain session tracking in detail. (08 Marks)
- b. Explain different AJAX server controls. (08 Marks)

**OR**

- 10 a. Explain web application development with ASP .NET by writing steps to explain validation controls. (08 Marks)
- b. Explain in detail multitier application architecture. (06 Marks)
- c. Write short note on UpdatePanel in ASP .NET AJAX. (02 Marks)

\*\*\*\*\*