

# CBCS SCHEME

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16/17MCA52

## Fifth Semester MCA Degree Examination, Aug./Sept. 2020 Programming using C++ and .NET

Time: 3 hrs.

Max. Marks: 80

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

### Module-1

- 1 a. Explain the architecture and components of .NET framework. (08 Marks)  
b. Explain the following with an example :  
i) Value types and reference types  
ii) Boxing and Unboxing. (08 Marks)

OR

- 2 a. Write a note on : i) CLR ii) Windows Workflow Foundation. (08 Marks)  
b. What is namespace? Explain the creation of user defined namespace with an example. (08 Marks)

### Module-2

- 3 a. Explain partial classes and methods with code example. (08 Marks)  
b. Distinguish between compile time polymorphism and runtime polymorphism with suitable code example. (08 Marks)

OR

- 4 a. Explain with example the method of implementing encapsulation using the general method and using class properties. (08 Marks)  
b. Explain the following :  
i) Indexers  
ii) Implementation of inheritance using interface. (08 Marks)

### Module-3

- 5 a. What are delegates? Explain with example the concept of multicasting with delegates. (08 Marks)  
b. What is exception handling? Explain it with a sample program. (04 Marks)  
c. Write a note on custom exception. (04 Marks)

OR

- 6 a. Explain architecture of ADO .NET with a neat diagram. (08 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) Delete records from a table. (08 Marks)

### Module-4

- 7 a. Illustrate the working of checkbox, RadioButton and GroupBox controls with a window form application example. (08 Marks)  
b. Explain WPF Architecture and give the procedure to implement XAML elements in WPF architecture. (08 Marks)

OR

- 8 a. Write a note on :  
i) MDI window (08 Marks)  
ii) Event driven GUI. (08 Marks)  
b. Explain Data grid, calendar, date picker controls used in WPF (Windows Presentation Foundation). (08 Marks)

Module-5

- 9 a. Explain in detail multitier application architecture. (08 Marks)  
b. Illustrate the working of AJAX application. (08 Marks)

OR

- 10 a. What are cookies? Explain session management in ASP •NET using cookies. (08 Marks)  
b. Write a note n AJAX and other technologies. (08 Marks)

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