

2021
M.Sc. Information Technology
Third Semester
MS-32: .Net Framework and C++

Time allowed: 3 Hours

Max. Marks: 80

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting one question from each Unit.

x-x-x

I. Answer the following:-

- a) What is CLR? Discuss in brief.
- b) What is the purpose of ~ and << operators? Discuss in brief.
- c) Differentiate between static and dynamic polymorphism.
- d) What is SOAP? What is its use?
- e) How SDI Forms are different from MDI Forms? Discuss in brief.
- f) What is the difference between application state and session state?
- g) What is ODBC? Discuss in brief.
- h) What is LINQ? Discuss in brief. (8x2)

UNIT – I

- II. a) Diagrammatically explain the architecture and components of .NET Framework.
 - b) What is a structure in C#? How structures can be created in C#? Discuss their utility with the help of an example. (2x8)
- III. a) Write a program in C# to find the sum of all prime numbers between two numbers m and n. Appropriately assume any required information yourself.
- b) What are the major differences between C++ and C#? Discuss. (2x8)

UNIT – II

IV. a) Differentiate between:

- i) Objects and Classes
 - ii) Inheritance and Polymorphism (2x4)
- b) Write a program to append the content of a text file to another text file. Appropriately assume any required information yourself. (8)

P.T.O.

(2)

V. a) How user defined exceptions can be created in C#? Discuss with the help of an example.

b) Differentiate between:

i) Binary Serialization and XML Serialization

ii) Text Writer and Binary Writer

(2x8)

UNIT – III

VI. a) Discuss the purpose and syntax of following validation controls: RangeValidator, RegularExpression Validator

b) Discuss how the following controls can be added to a form and used: RadioButton, ListBox. (2x8)

VII. Write notes on the following:

a) Deploying ASP.NET Applications using Windows Installer

b) Using inheritance in Windows Forms

(2x8)

UNIT – IV

VIII. What is ADO.NET? Explain its architecture and components in detail. (16)

IX. Write a note on the purpose and use of following:

a) DataReader

b) DataAdapter

c) DataSet

d) DataGridView

(4x4)

x-x-x