

(i) Printed Pages : 3

Roll No. ....

(ii) Questions : 9

Sub. Code :

3	6	1	8
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Exam. Code :

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M.Sc. Information Technology 3<sup>rd</sup> Semester  
(2122)

.NET FRAMEWORK AND C#

Paper : MS-32

Time Allowed : Three Hours]

[Maximum Marks : 80

**Note** :— Attempt **FIVE** questions in all by selecting the compulsory question and **ONE** question from each unit.

- I. (a) What is MSIL in C# ? 2
- (b) What is the purpose of *default* case in switch statement ? 2
- (c) What are the modifiers that can be applied to a delegate ? 2
- (d) What do you understand by custom serialization ? 2
- (e) What do you understand by an event handler ? 2
- (f) What do you understand by a Web application ? Is it same as a Desktop application ? 2
- (g) Differentiate between static and dynamic web pages. 2
- (h) What is ODBC ? What is its use ? 2

## UNIT—I

- II. (a) Briefly discuss the architecture of .NET Framework with the help of a diagram. 8
- (b) Given a number, write a program using while loop to reverse the digits of the number. Appropriately assume any required information yourself. 8
- III. (a) Write a program to find the sum and average of all the elements of an array. Appropriately assume any required information yourself. 8
- (b) Highlight the differences between C# and Java. 8

## UNIT—II

- IV. (a) What is operator overloading ? Write a program to demonstrate the overloading of + operator. Appropriately assume any required information yourself. 8
- (b) Demonstrate the reading and writing of text files with the help of a suitable program. Appropriately assume any required information yourself. 8
- V. (a) Write a program to demonstrate hierarchical inheritance. Appropriately assume any required information yourself. 8
- (b) Demonstrate with suitable example as to how try and catch blocks can be used for exception handling. Appropriately assume any required information yourself. 8

## UNIT—III

- VI. (a) Discuss the purpose and usage of RequiredFieldValidator with the help of a suitable example. Appropriately assume any required information yourself. 8

- (b) Demonstrate with suitable steps and code snippets as to how SaveFileDialog can be added and used to save a file in a windows application. Appropriately assume any required information yourself. 8

VII. (a) What are the steps involved in creating an installation package for a Windows application ? Discuss in brief. 8

- (b) Discuss any one approach to manage state on the client in a ASP.NET web application. 8

#### UNIT—IV

VIII. (a) Briefly discuss ADO.NET architecture with the help of a suitable diagram. 8

- (b) Discuss with suitable example as to how GridView Control can be used to display data. Appropriately assume any required information yourself. 8

IX. Assume that a relational database contains customer table having the following information :

customer\_id, customer\_name, customer\_age, customer\_email, and customer\_contact.

Write suitable code snippets that extracts customer information from the database and display it on the screen along with maximum, minimum and average customer age. Appropriately assume any required information yourself. 16