

(i) Printed Pages : 2

Roll No.

(ii) Questions : 9 Sub. Code :

2	6	0	4	3
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Exam. Code :

0	4	6	1
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**M.Sc. Information Technology 3rd Semester
(2124)**

.NET FRAMEWORK AND C#

Paper : MS-32

Time Allowed : Three Hours]

[Maximum Marks : 80

Note :— Attempt FIVE questions in all, including Q. No. 1 in Section-A, which is compulsory and taking ONE each from Section-B to Section-E. Marks are indicated on the right of various questions.

SECTION—A

(Compulsory Question)

1. (a) C#.NET uses a "Just-In-Time" compiler". What is that ?
- (b) What are delegates in C# ? Explain with the help of an example.
- (c) In ASP.NET, what is postback ? Explain with an example.
- (d) How do connected and disconnected models of ADO.NET differ from each other ? Explain. 4,4,4,4

SECTION—B

2. Draw a neat and clean diagram for .NET Framework architecture. Which component of .NET architecture produces metadata for portable executables ? Explain other features of this component. 16

3. Discuss the various components of Visual Studio IDE. What are classes, objects, methods and instance variables in C# ? How do you declare a class and use it to create an object ? Explain with examples. 16

SECTION—C

4. (a) How does inheritance promote software reusability ? Explain in the context of C#.
(b) What are exceptions and how are they handled ? When do you use exception handling in a program ? Explain the use of try, throw, catch and finally in C#. 8,8
5. Explain the following in C# :
(a) I/O streams
(b) SOAP. 8,8

SECTION—D

6. What is a Window Form ? What are various components and controls for Windows Forms ? Explain common Form properties, methods and events with examples. 16
7. Develop an ASP.NET web application that creates a database of students having the following attributes : Roll#, Name, E-Mail ID, and Age. Make sure to validate the data in database. 16

SECTION—E

8. What are data providers in the context of ADO.NET ? Identify data to a Data Grid/Grid View and briefly describe the four key classes of each provider with examples. 16
9. Explain different data access tools to access database in C#. Write a program to update database with the help of Windows form. The form contains the name of employee, his date of birth, total pay, total deduction and his home address. 16