### (2<sup>1</sup>/<sub>2</sub> Hours)

# [Total Marks: 75]

- N. B.: (1) <u>All</u> questions are <u>compulsory</u>.
  - (2) Make suitable assumptions wherever necessary and state the assumptions made.
  - (3) Answers to the <u>same question</u> must be <u>written together</u>.
  - (4) Numbers to the <u>**right**</u> indicate <u>**marks**</u>.
  - (5) Draw <u>neat labeled diagrams</u> wherever <u>necessary</u>.
  - (6) Use of **Non-programmable** calculators is **allowed**.

## 1. Attempt <u>any three</u> of the following:

- a. Explain foreach loop with suitable example.
- b. Distinguish between interface and abstract classes.
- c. What is namespace? Describe the System namespace.
- d. What is an assembly? Explain the difference between public and private assembly.
- e. Write a sample C# program to demonstrate class, object and method call. Use comments wherever require.
- f. Define the accessibility modifiers-public, private, protected, internal, and protected internal.

# 2. Attempt <u>any three</u> of the following:

- a. What is postback? Explain IsPostBack property with suitable example.
- b. List and describe the various file types used in an ASP.NET application.
- c. What is an event? How is an event handler added?
- d. Write a short note on List controls in ASP.NET.
- e. Explain the need of user control. How is it created and used?
- f. What is the purpose of validation controls? List and explain the use of validation controls available in ASP.NET.

3. Attempt *any three* of the following:

- a. Describe the use of multiple catch statements in exception handling using example.
- b. What is QueryString? How to send a name and marks of a student from one page to another using QueryString?
- c. Explain the events in global.asax file with respect to state management.
- d. \_\_\_\_ How the connection between the content page and the master page is established?
- e. What is the theme? Explain how to create and use a theme on a website.
- f. What is URL mapping? How is URL mapping and routing implemented in ASP.NET?

4. Attempt <u>any three</u> of the following:

- a Describe the SqlConnection class with an example.
- b Differentiate between DataSet and DataReader.
- c Write c# code to insert data in database table. Write comments wherever required.
- d What is use of data source control? Explain various types of data sources in ASP.NET.
- e Write a code to display data from a table named Students(RollNo, Name, Marks) and display on grid view control when page is loaded.
- f Describe (i) ExecuteNonQuery, (ii) ExecuteScalar, and (iii) ExecuteReader.

[Turn over...

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#### 5. Attempt *<u>any three</u>* of the following:

- a. Write a code to save employee data as empId, empName, empDept, and empDesignation data in an XML file.
- b. What is XML? List and explain the various XML classes.
- c. What do you mean by "authentication"? Describe its various types of authentication..
- d. Explain the use of UpdateProgress control in AJAX.
- e. What is use of timer control? Write the steps with appropriate code to create an application to display real-time timing (clock) on an asp.net web page
- f. What are the benefits using Ajax? Explain UpdatePanel and ScriptManager.



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