

(2½ hours)

[Total Marks: 75]

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

1. Attempt any two of the following:

10

- a. Explain about static members of a class.
- b. Briefly explain .NET framework and two of its major components.
- c. Explain foreach loop with proper syntax. Also write a program to print those elements of an array whose last digit is either 3 or 5 using foreach loop.
- d. Explain method hiding with example.

2. Attempt any two of the following:

10

- a. What are the advantages of CSS? Explain external style sheet in asp.net web applications.
- b. Write a program that illustrates implementation of delegate and multicast delegate.
- c. Explain each of the following in two or three sentences:
 - i) System.Collection
 - ii) Assembly
 - iii) JIT Compiler
 - iv) Garbage Collector
 - v) ArrayList
- d. What is loading and rendering a page? List all page life cycle events.

3. Attempt any two of the following:

10

- a. Explain about SelectedIndexChanged event and its event handler. Differentiate between ListBox and DropDownList.
- b. What are web server controls? Discuss any six properties common to all web server controls.
- c. Explain following properties and write code to set values to each of them in code behind file.
 - i) CommandName
 - ii) Checked
 - iii) TextMode
 - iv) AccessKey
 - v) GroupName
- d. What are the common properties of button controls? Briefly explain the functioning of LinkButton and ImageButton.

4. Attempt any two of the following:

10

- a. What is RegularExpressionValidator control? Explain ValidationExpression, ErrorMessage, Text and Display properties of it.
- b. What is viewstate? How is page level or control level viewstate enabled?
- c. Briefly explain about cookie and its types. Also explain how to create and read persistent cookies using HttpCookieCollection.
- d. Explain about master pages and its advantages. What is the role of ContentPlaceHolder controls in master pages?

5. Attempt any two of the following:

10

- a. What is SqlDataSource control? Write code that shows data from the selected row of a GridView on a Label.
- b. Define Authentication. Explain the characteristics of windows and forms authentication.
- c. What is a Connection String? What are the attributes that help binding standard List controls to a data source?
- d. What is a FormView? Explain about ItemTemplate and EditItemTemplate of it.

6. Attempt any two of the following:

10

- a. What is UpdatePanel control? Explain about UpdatePanel control and how partial page rendering works when user clicks a button on an UpdatePanel.
- b. What is LINQ? Write short note on each of the following:
 - i) **LINQ to Object**
 - ii) **LINQ to XML**
 - iii) **LINQ to ADO.NET**
- c. What is \$("*"), \$("p") and \$(".classname") selectors in jQuery. Explain ready() method with example.
- d. Explain toggle effect in jQuery. Also write jQuery script that apply toggle effect to <p> tag on click event of a button.

7. Attempt any three of the following:

15

- a. Explain about constructor and destructor members of a class.
 - b. What is reference type? Explain boxing and unboxing with examples.
 - c. Discuss the importance of web.config and global.asax files.
 - d. What is site navigation? Briefly explain various site navigation controls.
 - e. Explain the following features of a GridView and how to enable them.
 - i) Edit button on each row of a GridView
 - ii) Sorting and Paging
 - f. Explain select, where and orderby clauses in LINQ with example.
-