

Q. P. Code: 21096

(3 Hours)

[Total Marks: 100]

- 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

- Differentiate between structures and classes.
- Explain variable sized arrays with suitable example.
- Write a short note on .NET Framework.
- Are multiple Main() methods allowed in C#? Justify with an example.

2. **Attempt any three of the following:**

- Explain the concept of private and shared assembly.
- What is exception handling? Explain the syntax of exception handling code. What is the use of finally block?
- Explain the different keywords used for interrupting the loops.
- Explain the concept of boxing and unboxing.
- Define inheritance and polymorphism. Explain how multiple inheritance is supported by classes in C#.
- Explain Write() and WriteLine() Methods with examples..

3. **Attempt any three of the following:**

15

- What is the use of menus and toolbars in Windows application? Explain,
- What is Common DialogBox? Explain FontDialog with suitable example.
- What is ArrayList? State its methods and properties.
- Differentiate between ListBox and ComboBox controls.
- Write a windows application to change the color of form into Red, Green and Blue upon clicking the respective buttons. [Hint: Drag three buttons and Label them. Write the necessary events.]
- State the conventions that are used with events.

4. **Attempt any three of the following:**

15

- What is post-back event? Explain with suitable example.
- Explain .NET Framework architecture in detail.
- Explain the work of session state in ASP.NET.
- What is CSS? Explain inline and embedded CSS.
- Explain ViewState with suitable example.
- What is the difference between themes and skins in ASP.NET?

[Turn Over]

5. **Attempt any three of the following:** 15
- a How do we create a User control in ASP.NET?
  - b When do we have to use TreeView control in ASP.NET?
  - c Explain the following validation controls with example  
(i) CompareValidator (ii) CustomValidator (iii) RangeValidator  
(iv) RegularExpressionValidator (v) RequiredFieldValidator
  - d Explain Request and Response objects of ASP.NET.
  - e What are the benefits of using a custom enumeration like Direction over built-in types like System.Byte or String.
  - f What are the different ways to redirect a user to another page programmatically? What's the difference between them?

6. **Attempt any three of the following:** 15
- a. Explain ADO.NET object model with help of suitable diagram.
  - b. Write the necessary steps for connecting to the SQL server database.
  - c. What is the difference between DataReader and DataAdapter? Explain.
  - d. State the ways of deployment of website in ASP .NET.
  - e. Write a note on Authorization and Impersonation.
  - f. Explain any four Standard Query operators in LINQ.

7. **Attempt any three of the following:** 15
- a. Brief the concept of JQuery.
  - b. Write short note on ScriptManager and UpdatePanel Controls.
  - c. Explain DOM manipulation methods in jQuery.
  - d. Write a jQuery application to give Fade In and Fade Out effects. [Make necessary assumptions for the program.]
  - e. Explain the difference between AJAX Page Processing and Traditional Page Processing.
  - f. What is web service? Explain the basic steps to create a web service using ASP.NET with C#.