

Program/Sem: T.Y.B.Sc IT – Sem - V Course: Advanced Web Development

Program Code: 1S00255 Course Code: USIT503

Duration: 2 $\frac{1}{2}$ Hour

0 6 NUV 2025

Max. Marks: 75

Instructions:

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.

Q. 1 Attempt ANY THREE from the following:

[15]

- a) What is .NET Framework? Explain its architecture with help of diagram.
- b) Explain Common Language Runtime (CLR) in detail.
- c) Write syntax of for-each loop. Explain with suitable example.
- d) What is delegate? Explain the steps to implement delegate in C#.
- e) Explain Boxing with the help of an example.
- f) What is an assembly? Explain its types.

Q. 2 Attempt ANY THREE from the following:

[15]

- a) Explain CheckBox and RadioButton web server controls in ASP.NET.
- b) List and explain different files and folder in ASP.NET web application.
- c) List and explain different types of website navigation controls in ASP.NET.
- d) What is user control? How to create and apply user control in ASP.NET Page.
- e) Explain ASP.NET Life Cycle Page.
- f) What are validation controls? List various types of controls used in ASP.NET.

Q. 3 Attempt ANY THREE from the following:

[15]

- a) Explain Error Handling concepts in ASP.NET.
- b) What is Query String? Explain encoding and decoding of Query string
- c) Difference between Application state and Session state.
- d) What is the significance of ViewState in ASP.NET.
- e) How to create and use Cookies in ASP.NET?
- f) Explain relation between content page and master page.

Q. 4 Attempt ANY THREE from the following:

[15]

- a) What is data binding? Explain its types.
- b) Explain the difference between DataReader and DataAdapter in ADO.NET.
- c) What is ADO.Net? Explain its architecture.
- d) What is a GridView control? Explain how to enable paging and sorting features of GridView.
- e) What is a datasource? Explain various types of data sources in ASP.NET.
- f) Briefly explain FormView control. How is it different from DetailsView?

Q. 5 Attempt ANY THREE from the following

[15]

- a) Explain how to create a responsive form using Bootstrap classes.
- b) What do you mean by authentication? Explain its types.
- c) What is NuGet? Why it is important for .NET development?
- d) Explain ASP.NET AJAX Control Toolkit.
- e) What is AJAX? State the advantages and disadvantages.
- f) What is Footstrap? Why it is used in web development?

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