

78906 (68063)

Q. 1 Attempt All (Each of 5 Marks)

(a) Multiple Choice Questions

- 1) a. \s
- 2) c. Page\_Unload
- 3) c. Connection Status
- 4) d. <span>
- 5) c. QueryString

(15)

(5)

(b) Fill in the blanks with appropriate keywords by selecting the correct option from the given pool of options. (5)

- 1) App\_Code
- 2) decimal
- 3) Tick
- 4) skin
- 5) UpdateProgress

(c) Answer the following in 1-2 lines: (5)

- 1) MSIL is Microsoft Intermediate Language which is an intermediate code that is generated when a .NET program is compiled.
- 2) `int[] myArray = {1, 2, 3, 4, 5}`
- 3) The GridView Control is used to display data from a DataSet in a tabular format.
- 4) LINQ to Objects, LINQ to DataSet, LINQ to XML, LINQ to Entities
- 5) ViewState uses a hidden field that ASP.NET automatically inserts in the final, rendered HTML of a web page. ViewState property of the page provides the current view state information.

Q. 2 Attempt the following (Any THREE) (15)

(a) The .NET Framework is really a cluster of several technologies:

The .NET languages: These include Visual Basic, C#, F#, and C++, although third-party developers have created hundreds more.

The Common Language Runtime (CLR): This is the engine that executes all .NET programs and provides automatic services for these applications, such as security checking, memory management, and optimization.

The .NET Framework class library: The class library collects thousands of pieces of prebuilt functionality that you can "snap in" to your applications. These features are sometimes organized into technology sets, such as ADO.NET (the technology for creating database applications) and Windows Presentation Foundation (WPF, the technology for creating desktop user interfaces).

ASP.NET: This is the engine that hosts the web applications you create with .NET, and supports almost any feature from the .NET Framework class library. ASP.NET also includes a set of web-specific services, such as secure authentication and data storage.

(b) foreach (variable in array)

Syntax – 1 mark

Explanation – 1 mark

Example – 3 marks

(c) Definition: 1M Explanation: 2M Example: 2M

(d) Ends with .aspx, Ends with .ascx, web.config, global.asax, Ends with .cs

(e) Definition: 1M Explanation: 2M Example: 2M

- (f) Application\_Start(), Application\_End(), Application\_BeginRequest(), Application\_EndRequest(), Session\_Start(), Session\_End(), Application\_Error()

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**Q. 3 Attempt the following (Any THREE)**

(15)

- (a) 1. On the client side, the JavaScript `__doPostBack` function is invoked, and the page is resubmitted to the server.  
2. ASP.NET re-creates the Page object using the .aspx file.  
3. ASP.NET retrieves state information from the hidden view state field and updates the controls accordingly.  
4. The Page.Load event is fired.  
5. The appropriate change event is fired for the control. (If more than one control has been changed, the order of change events is undetermined.)  
6. The Page.Unload event fires, and the page is rendered (transformed from a set of objects to an HTML page).  
7. The new page is sent to the client.
- (b) AccessKey, BackColor, ForeColor, BorderColor, BorderWidth, BorderStyle, Controls, Enabled, EnableViewState, Font, Height and Width, ID, Page, Parent, TabIndex, ToolTip, Visible
- (c) Storing Syntax & Example – 2 ½ marks  
Retrieving Syntax & Example – 2 ½ marks
- (d) AdRotator – 1 mark  
Contents – 4 marks  
<Advertisements>  
<Ad>  
<ImageUrl>prosetech.jpg</ImageUrl>  
<NavigateUrl>http://www.prosetech.com</NavigateUrl>  
<AlternateText>ProseTech Site</AlternateText>  
<Impressions>1</Impressions>  
<Keyword>Computer</Keyword>  
</Ad>  
</Advertisements>
- (e) SiteMapPath: The SiteMapPath is the simplest navigation control—it displays the full path you need to take through the site map to get to the current page. For example, it might show Home > Products > RevoStock  
The SiteMapPath provides breadcrumb navigation, which means it shows the user's current location and allows the user to navigate up the hierarchy to a higher level by using links.  
<asp:SiteMapPath ID="SiteMapPath1" runat="server" />  
2-3 Properties of SiteMapPath Control
- (f) A Master page provides a framework in which the contents of each page on a website is presented. Master pages make it easy to create pages that have a consistent look. Master pages make it easy to include banners, navigation menus, header, footer and other elements on all the pages in an application. The pages that provide the content that's displayed in the master page are called content pages. The content of each content page is displayed in the master page's content placeholder.  
There are two ways of adding content pages to master page.  
i) Choose the website  Add New Item Command. Then, select the web Form template. Enter the name for the form, check the Select Master Page check box and then click Add. When select a Master Page dialog box appears, select the master page you want and click OK.

ii) Select the Master Page in the Solution Explorer, then choose the Website  Add Content page Command.

**Q. 4 Attempt the following (Any THREE)**

(15)

- (a) Data Provider Model – 2 marks  
ADO.NET namespaces – 3 marks
- (b) 2.5 Marks each with example.  
Single-valued and Multi-valued.  
Single-value: single-value data binding allows you to take a variable, a property, or an expression and insert it dynamically into a page. Single-value binding also helps you create templates for the rich data controls.  
These expressions have the following format: `<%# expression_here %>`  
Multi-value data binding allows you to display an entire table (or just a single field from a table).  
Used in CheckBoxList, ListBox and GridView
- (c) Program using XmlTextWriter
- (d) Caching is a technique that temporarily stores valuable information in server memory so it can be reused.  
Output caching:  
For example - `<%@ OutputCache Duration="20" VaryByParam="None" %>`  
  
Data caching:  
For example - `Cache("KeyName") = objectToCache`
- (e) 1M definition, 2M explanation, 2M example
- (f) Constructors – 1 mark  
Properties – 1 mark  
Methods – 1 marks  
Example – 2marks

**Q. 5 Attempt the following (Any THREE)**

(15)

- (a) Benefits – 2 marks  
Structure – 3 marks
- (b) Any five differences
- (c) i. XmlTextWriter - 2 ½ marks  
ii. XmlTextReader - 2 ½ marks
- (d) ControlToValidate, ErrorMessage and ForeColor, Display, IsValid, Enabled, EnableClientScript
- (e) Definition – 1 mark  
Syntax – 2 marks  
Example – 2 marks

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