

### Question 1.

Which of the following class definitions will correctly define a new control from an existing control?

- A) public class NewLabel: System.Windows.Forms.Label { private System.ComponentModel.Container components = null; private string varValue; public NewLabel() { InitializeComponent(); } protected override void Dispose (bool disposing) { if (disposing) { if (components != null) components.Dispose(); } base.Dispose(disposing); } private string LabelColor { get { return varValue; } set { varValue = value; } } }
- B) public class NewLabel: System.Windows.Forms.Label { private System.ComponentModel.Container components = null; private string varValue; public NewLabel() { InitializeComponent(); } protected override void Dispose (bool disposing) { if (disposing) { if (components != null) components.Dispose(); } base.Dispose(disposing); } public string LabelColor { get { return varValue; } set { varValue = value; } } }
- C) public class NewLabel: System.Windows.Forms.Label { private System.ComponentModel.Container components = null; private int varValue; public NewLabel() { InitializeComponent(); } protected override void Dispose (bool disposing) { if (disposing) { if (components != null) components.Dispose(); } base.Dispose(disposing); } private string LabelColor { get { return varValue; } set { varValue = value; } } }
- D) public class NewLabel: System.Windows.Forms.Control { private System.ComponentModel.Container components = null; private int varValue; public NewLabel() { InitializeComponent(); } protected override void Dispose (bool disposing) { if (disposing) { if (components != null) components.Dispose(); } base.Dispose(disposing); } private string LabelColor { get { return varValue; } set { varValue = value; } } }

ANS- (B)

### Question 2.

The Items property of a ListBox is a reference to what kind of object?

- A) Item
- B) ListItem
- C) String
- D) Index value

ANS- (B)

### Question 3.

Which template must be chosen from the Add New Project dialog box's Templates list in order to have an application downloaded from an IIS (Internet Information Server) server?

- A) Windows Setup Project.
- B) CAB Project
- C) IIS Project
- D) Web Setup Project

ANS- (D)

### Question 4.

What layout mode is the default when a new Web Form is created?

- A) GridBagLayout
- B) GridLayout
- C) FlowLayout
- D) FormLayout

ANS- (B)

### Question 5.

Select two techniques for viewing the GAC.

- A) .NET Configuration Viewer.
- B) .NET Configuration tool.
- C) gacutil.exe
- D) B ,C both

ANS- (D)

### Question 6.

What is the Web.config file used for?

- A) To store the global information and variable definitions for the application.
- B) Configures the time that the server-side codebehind module is called
- C) To configure the web server.
- D) To configure the web browser.

ANS- (A)

### Question 7.

Which of the following command-line entries would allow you to install an assembly into the GAC?

- A) gacutil /l myAssembly.exe
- B) gacutil /i myAssembly.exe
- C) gacutil /s myAssembly.exe
- D) gacutil /h myAssembly.exe

ANS- (B)

### Question 8.

What happens if an ASP.NET server control with event-handling routines is missing the runat = "server" attribute from its definition?

- A) The control will operate as usual; the default is runat="server".
- B) The control will revert to being a client-side control and function as such.
- C) The control will not function; the default is runat= "client".
- D) The compilation of the application will fail.

ANS- (D)

### Question 9.

What must be done before you can consume a web service?

- A) Build a proxy library by using the TblImp.exe utility.
- B) Build a proxy library by using the Disc.exe utility.
- C) Build a proxy library by using the csc.exe utility.
- D) Build a proxy library by using the wsdl.exe utility.

ANS- (D)

### Question 10.

What can you expect to find in an assembly? Choose all that apply.

- 1. Security hash.
- 2. Locale specifications.
- > 3. Registry GUID.
- > 4. Version numbers.
- 5. Program ID.

A) A,B,D

B) B,D,E

C) A,D,E

D) A

ANS- (A)

#### Question 11.

Where is the GAC located by default?

- A) Windows directory.
- B) Programs directory.
- C) Documents and Settings directory.
- D) Application directory.

ANS- (A)

#### Question 12.

Which tool can you use to precompile a Windows application?

- A) msccrcfg.msc
- B) ngen.exe
- C) caspol.exe
- D) caspol.msc

ANS- (B)

#### Question 13.

Which of the following XML segments will redirect the bindings of a component?

- A) < runtime > < assemblyBinding > < redirectBinding name= "MyComponent" oldVersion= "1.0.0.01" newVersion="1.0.0.02" /> < /assemblyBinding > < /runtime >
- B) < runtime > < assemblyBinding > < oldVersion="1.0.0.01" newVersion="1.0.0.02" / > < /assemblyBinding > < /runtime >
- C) < runtime > < assemblyBinding > < dependentAssembly > < assemblyIdentity name="MyComponent" / > < redirectBinding oldVersion="1.0.0.01" newVersion="1.0.0.02" / > < /dependentAssembly > < /assemblyBinding > < /runtime >
- D) < runtime > < assemblyBinding > < dependentAssembly > < assemblyIdentity name="MyComponent" / > < bindingRedirect oldVersion="1.0.0.01" newVersion="1.0.0.02" / > < /dependentAssembly > < /assemblyBinding > < /runtime >

ANS- (D)

#### Question 14.

Which code segment would test the validity of a role-based user?

- A) AppDomain.CurrentDomain.SetPrincipalPolicy (PrincipalPolicy.WindowsPrincipal); if (WindowsBuiltInRole == Administrator) { // do something here }
- B) AppDomain.CurrentDomain.SetPrincipalPolicy (PrincipalPolicy.WindowsPrincipal); WindowsPrincipal w = (WindowsPrincipal) Thread.CurrentPrincipal; if (w.WindowsBuiltInRole == Administrator) { // do something here }
- C) AppDomain.CurrentDomain.SetPrincipalPolicy (PrincipalPolicy.WindowsPrincipal); WindowsPrincipal w = (WindowsPrincipal) Thread.CurrentPrincipal; if (w.IsInRole(WindowsBuiltInRole == Administrator)) { // do something here }

D) AppDomain.CurrentDomain.SetPrincipalPolicy(PrincipalPolicy.WindowsPrincipal);  
WindowsPrincipal w = (WindowsPrincipal) Thread.CurrentPrincipal; if  
(w.IsInRole(WindowsBuiltInRole.Administrator)) { // do something here }

ANS- (D)

#### Question 15.

Which namespace must be added to the XML web service in order to write to an event log?

- A) System.EventLog
- B) System.Events
- C) System.Diagnostics
- D) System.Diagnostics.Event

ANS- (C)

#### Question 16.

Which of the following describes the elements that make up a SOAP message?

- A) Envelope, Header, Body, Fault.
- B) Envelope, Header, Body, Error.
- C) Envelope, Body, Fault.
- D) Envelope, Header, Fault.

ANS- (A)

#### Question 17.

Which of the following SOAP messages will result in a valid message transfer?

Choose all that apply.

A. < SOAP:Envelope xmlns="http://schemas.xmlsoap.org/soap/envelope/">  
< SOAP:Header>  
< t:Transaction xmlns:t="http://localhost" /t:Transaction>  
< /SOAP:Header>  
< SOAP:Body>  
< m:MyMethodCall xmlns:m="http://localhost" />  
< /SOAP:Body>  
< SOAP:Body>  
< m:MyMethodCall2 xmlns:m="http://localhost" />  
< /SOAP:Body>  
< /SOAP:Envelope>

B. < SOAP:Envelope xmlns="http://schemas.xmlsoap.org/soap/envelope/">  
< SOAP:Header>  
< t:Transaction xmlns:t="http://localhost" /t:Transaction>  
< /SOAP:Header>  
< SOAP:Body>  
< m:MyMethodCall xmlns:m="http://localhost" />  
< /SOAP:Body>  
< /SOAP:Envelope>

C. < SOAP:Envelope xmlns="http://schemas.xmlsoap.org/soap/envelope/">  
< SOAP:Header>  
< t:Transaction xmlns:t="http://localhost" /t:Transaction>  
< /SOAP:Header>

```
< m:MyMethodCall xmlns:m="http://localhost" />
</SOAP:Body>
<SOAP:Body>
< m:MyMethodCall2 xmlns:m="http://localhost" />
</SOAP:Body>
</SOAP:Envelope>
```

- A) A and C.
- B) A and D.
- C) A, B, and D.
- D) A and D

ANS- (C)

#### Question 18.

Envelope, Header, Fault.

- A) XMLS
- B) XSLT
- C) CORBA
- D) WSDL

ANS- (D)

#### Question 19.

Which project template will allow you to create a background service in Visual Studio .NET?

- A) Windows service.
- B) Web service.
- C) Windows application.
- D) Service.

ANS- (A)

#### Question 20.

A static discovery file will usually have a file extension of which of the following?

- A) .vsdisco
- B) .vdisco
- C) .sdisco
- D) .disco

ANS- (D)

#### Question 21.

Which of the following code modules will create a serviced component that will work with COM+ services?

- A) using System.EnterpriseServices; using System.Reflection; [assembly: ApplicationName("Price")]
 namespace Price { public class Price: ServicedComponent { public Price() {} public void SomeMethod() {} // perform the database operations here } }
- B) using System.EnterpriseServices; using System.Reflection; [assembly: ApplicationName("Price")]
 [assembly: AssemblyKeyFileAttribute("PriceKeys.snk")]
 namespace Price { public class Price { public Price() {} public void SomeMethod() {} // perform the database operations here } }
- C) using System.EnterpriseServices; using System.Reflection; [assembly: ApplicationName("Price")]
 [assembly: AssemblyKeyFileAttribute("PriceKeys.snk")]
 namespace Price { public class Price: ServicedComponent PART V { public Price() {} public void SomeMethod() {} // perform the database operations here } }

D) using System.Reflection; [assembly: ApplicationName("Price")] [assembly: AssemblyKeyFileAttribute("PriceKeys.snk")] namespace Price { public class Price { public Price() {} public void SomeMethod() { // perform the database operations here } }}

ANS- (C)

#### Question 22.

You have created a serviced component that will interface with COM+ services. You want to register the component automatically. Which utility will allow you to do this?

- A) gacutil.exe
- B) regsvc.exe
- C) xcopy.exe
- D) sc.exe

ANS- (C)

#### Question 23.

You have developed a remote object library class for deployment into a console application. The console application will remain running on the server computer and respond to client requests for the remote object. However, when you try to run the remote hosting application, you receive an application exception. The following is the code for the hosting application:

```
using System;
using System.Runtime.Remoting;
using System.Runtime.Remoting.Channels;
using System.Runtime.Remoting.Channels.Tcp;
namespace ChatServer
{
    public class ChatServerHost : MarshalByRefObject
    {
        [STAThread]
        public static void Main()
        {
            TcpServerChannel tc = new TcpServerChannel(4242);
            ChannelServices.RegisterChannel(tc);
            RemotingConfiguration.RegisterWellKnownServiceType(
                typeof(Chat), "ChatServer", WellKnownObjectMode.SingleCall);
            System.Console.WriteLine("To stop the application, press Enter.");
            System.Console.ReadLine();
        }
    }
}
```

Here is the code for the remote object:

```
using System;
using ChatServerHost;
namespace ChatServer
{
    public class Chat
    {
        public Chat()
        {
        }
        public string Talk(string message)
        {
            return message;
        }
    }
}
```

}

What is the most likely cause of the exception error?

- A) The remote object class is missing a using declaration.
- B) The format of the Talk() method is incorrect.
- C) The Talk() method is not called from the hosting application.
- D) The remote object class is not capable of receiving remote method calls.

ANS- (D)

#### Question 24.

Which line of code will register a channel?

- A) ChannelServices.Register (channel);
- B) ChannelServices.RegisterChannel(4242);
- C) ChannelServices.Register (4242);
- D) ChannelServices.RegisterChannel(channel);

ANS- (D)

#### Question 25.

You need to configure dynamic discovery for your XML web service. What two steps must be performed to enable dynamic discovery? Select two answers.

- A) Provide a .vsdisco file in the root folder of the application.
- B) Provide a .disco file in the root folder of the application.
- C) Uncomment the .vsdisco httpHandler entry in the machine.config file.
- D) A,C

ANS- (D)

#### Question 26.

You need to build a proxy class for an XML web service. What tool will you use? Select all that apply.

- A) cdc.exe
- B) wsdl.exe
- C) proxy.exe
- D) disco.exe

ANS- (B)

#### Question 27.

What is the output format of the file the C# compiler produces?

- A) Byte code
- B) IL
- C) Hex dump
- D) Intel Assembler

ANS- (B)

#### Question 28.

Where are stored procedures saved?

- A) The GAC.
- B) The web server.
- C) The database server.
- D) The central store.

ANS- (C)

#### Question 29.

Which of the following statements is true?

- A) A class is the implementation of an object.
- B) An object is the implementation of a class.
- C) A class is the instantiation of an object.
- D) An object is the instantiation of a class.

ANS- (D)

#### Question 30.

In order to compile a C# program from the command line, what command would you use?

- A) cmd
- B) comp
- C) csc
- D) daml

ANS- (D)

#### Question 31.

Given the following code segment, what will the value returned from the method be?

```
public int ViktorMove()
{
    int x = 42;
    int y = 12;
    int w;
    object o;
    o = x;
    w = y * (int)o;
    return w;
}
```

- A) 504
- B) 491
- C) 42
- D) Runtime error, Null Pointer exception!

ANS- (A)

#### Question 32.

When will the garbage collector run?

- A) Every 15 minutes.
- B) Once every day at 13:00.
- C) When the application is low on memory.
- D) Randomly based on the resource load on the system.

ANS- (D)

#### Question 33.

Which of the following is not a C# keyword?

- A) if
- B) delegate
- C) private
- D) implements

ANS- (D)

#### Question 34.

Given the following code, what will the compiler do?

```
class Test1
{
    sealed abstract void MyMethod1A()
    {
        System.Console.WriteLine ("This is MyMethod1");
    }
}
```

- A) The code will compile properly.
- B) The class visibility is incorrect.
- C) System.Console.WriteLine is specified incorrectly.
- D) MyMethod1() is not properly declared.

ANS- (D)

#### Question 35.

Which line causes a compile error in the following code?

```
interface Test2
{
    int Int2;
    void Method2A(int);
    string Method2B ();
    int Method2C(int, int);
    int Method2A(char);
}
```

- A) Line 3
- B) Line 4
- C) Line 5
- D) Line 7

ANS- (A)

#### Question 36.

You are the developer of a web application that is retrieving historical sports information from a database server and displays it to the users of your application. What cache strategy will give you the best performance?

- A) Use the output cache.
- B) Use the cache object.
- C) Use the ASP.NET central cache.
- D) Use the client cache.

ANS- (A)

#### Question 37.

What will happen on line 24?

```
1 class Test4
2 {
3     int test4a;
4     string test4b;
5     float test4c;
6     virtual public void Test4D ()
7     {
8         System.Console.WriteLine("Hello");
9     }
10}
11 class Test4a: Test4
```

```
12 {
13 override public void Test4D ()
14 {
15 System.Console.WriteLine ("Goodbye");
16 }
17 }
18 class Test4b
19 {
20 public static void Main()
21 {
22 Test4a t = new Test4a();
23 Test4 t1 = t;
24 t.Test4D();
25 }
26 }
```

- A) The compiler finds an error.
- B) A runtime error occurs.
- C) It prints "Goodbye."
- D) It prints "Hello."

ANS- (C)

#### Question 38.

What kind of delegate will be created for the following method?

```
public void Method12(object sender, System.EventArgs e)
{
...
}
```

- A) Single delegate
- B) Event delegate
- C) Multicast delegate
- D) Proxy delegate

ANS- (C)

#### Question 39.

You have been asked to describe what authentication and authorization are. What statements best describe the two terms? Select two answers.

- A) Authentication is the process of validating permissions for resources.
- B) Authentication is the process of validating security credentials.
- C) Authorization is the process of validating security credentials.
- D) None

ANS- (B)

#### Question 40.

You want to see all the methods of a particular class that you are using in your application. Which tool would you use?

- A) Class Viewer
- B) Object Browser
- C) Class Explorer
- D) Object Explorer

ANS- (B)

#### Question 41.

You want to change the color of the text in the code window. Which menu item would you select?

- A) View | Options
- B) Tools | Customize
- C) View | Customize
- D) Tools | Options

ANS- (D)

#### Question 42.

What tool is used to manage the GAC?

- A) GacMgr.exe
- B) GacSvr32.exe
- C) GacUtil.exe
- D) RegSvr.exe

ANS- (C)

#### Question 43.

Which key combination will allow you to compile your console application and leave the console window open?

- A) CTRL-F5
- B) ALT-F5
- C) F5
- D) SHIFT-F5

ANS- (A)

#### Question 44.

What is the effect of the following code snippet from the Web.config file?

```
...
<system.web>
<authorization>
<deny users="?" />
</authorization>
</system.web>
```

- A) Anonymous access is denied.
- B) Only anonymous access is allowed.
- C) Users in the default group are denied access.
- D) There will be a syntax error when the application is executed.

ANS- (A)

#### Question 45.

What is the name given to the type of assembly that contains localized resources?

- A) Spoke
- B) Hub
- C) Sputnik
- D) Satellite

ANS- (D)

#### Question 46.

You are configuring your web application to require digest-based authentication. What must you have in place before you can use digest-based authentication?

- A) A DNS server.
- B) Active Directory.

- C) Strong encryption keys.
- D) A strongly named Web.config file.

ANS- (B)

#### Question 47.

What tool is used to manage the assemblies in the Global Assembly Cache?

- A) gacmgr.exe
- B) gacutil.exe
- C) gassy.exe
- D) al.exe

ANS- (B)

#### Question 48.

Select the reasons why you would use Windows Forms over Web Forms.

- 1. You need the processing to occur on the server.
- 2. You need the processing to occur on the client.
- 3. You need access to local resources.
- 4. You need a consistent graphical interface.
- 5. You need platform independence.

- A) 2,3
- B) 3,5
- C) 3,4,5
- D) 4,5

ANS- (C)

#### Question 49.

You want to add a control to your form that allows you to set a particular option on or off. Which control would you choose?

- A) Button
- B) CheckedListBox
- C) ListBox
- D) RadioButton

ANS- (C)

#### Question 50.

When localizing a web application, you find that you need to encode Unicode characters that are sent to the client. What attribute would you set?

- A) ResponseEncoding="UTF-8"
- B) Encoding="UTF-8"
- C) ResponseCode="UTF-8"
- D) EncodedResponse="UTF-8"

ANS- (A)

#### Question 51.

In the following code segment, what is the significance of the "Strings" literal?

```
static ResourceManager rm = new ResourceManager("Strings", Assembly.GetExecutingAssembly());
```

- A) Arbitrary name for the assembly.
- B) The base name of the resource to be loaded.
- C) The base name of the assembly to be loaded.
- D) Alias for the Resource Manager.

ANS- (B)

### Question 52.

What does the attribute dir="rtf" stand for?

- A) The direction of RTF files.
- B) The encoding of RTF files.
- C) The direction for the display of characters.
- D) A directory listing of all RTF files.

ANS- (C)

### Question 53.

Your application is called AccountingOne.exe. What must the name of the satellite assemblies be?

- A) Accountingone.resources.dll
- B) Accounting.Resources.dll
- C) AccountingOne.resources.dll
- D) Accounting.resources.dll

ANS- (C)

### Question 54.

What is the outcome of the following code? Assume that this code has been produced by Visual Studio .NET with a few minor changes by the developer.

```
using System;
using System.Drawing;
using System.Collections;
using System.ComponentModel;
using System.Windows.Forms;
using System.Data;
namespace WindowsApplication4
{
    public class Form1 : System.Windows.Forms.Form
    {
        private System.Windows.Forms.Button button1;
        private System.ComponentModel.Container components = null;
        public Form1()
        {
            InitializeComponent();
        }
        protected override void Dispose( bool disposing )
        {
            if( disposing )
            {
                if (components != null)
                {
                    components.Dispose();
                }
            }
            base.Dispose( disposing );
        }
        private void InitializeComponent()
        {
            this.button1 = new System.Windows.Forms.Button();
            this.SuspendLayout();
            this.button1.Location = new System.Drawing.Point(96, 80);
            this.button1.Name = "button1";
            this.button1.Size = new System.Drawing.Size(104, 24);
        }
    }
}
```

```

this.button1.TabIndex = 0;
this.button1.Text = "Click Me";
this.button1.Click += new System.EventHandler(this.button1_Click);
this.AutoScaleBaseSize = new System.Drawing.Size(5, 13);
this.ClientSize = new System.Drawing.Size(292, 273);
this.Controls.AddRange(new System.Windows.Forms.Control[] { this.button1 });
this.Name = "Form1";
this.Text = "Form1";
this.ResumeLayout(false);
}
[STAThread]
static void Main()
{
Application.Run(new Form1());
}
private void button1_Click(object sender, System.EventArgs e)
{
MessageBox.Show ("Hello World!");
}
}

```

- A) Program compiles and displays “Hello World!” when button is clicked.
- B) Program compiles, but clicking the button does nothing.
- C) Program compiles but causes a runtime error.
- D) Program does not compile

ANS- (A)

#### Question 55.

What would the outcome of an application that contained this code be?

```

private void Form1_Load (object sender, System.EventArgs e)
{
this.Hide();
}

```

- A) The application would not compile.
- B) The program would run but no form would display.
- C) The program would run and display the form.
- D) A runtime error would occur.

ANS- (C)

#### Question 56.

Which line causes the following XML to be not well-formed?

```

< VideoList >
< tape >
< name >XML is cool!< /name >
< /VideoList >
< /tape >

```

- A) < tape >
- B) < /VideoList >
- C) < /tape >
- D) < name >XML is cool!< /name >

ANS- (B)

#### Question 57.

The following piece of code is intended to create a new TabPage in a TabControl. What will happen

when you try to run this code?

```
TabPage tpMyNewTabPage = new TabPage();
tpMyNewTabPage.Caption = "Add Students";
tpMyNewTabPage.Size = new System.Drawing.Size (536, 398);
Button b = new Button();
tpMyNewTabPage.Controls.Add (b);
```

- A) The program compiles and executes properly.
- B) The program compiles and causes a runtime error.
- C) The program does not compile because it is unable to add the button.
- D) The program does not compile because of a syntax error.

ANS- (D)

#### Question 58.

To dynamically add a context menu to your application, which section of code should be used?

- A) MenuItem m = new MenuItem(); contextMenu1.MenuItems.Add (m);
- B) MenuItem m = new MenuItem(); contextMenu1.MenuItem.Add (m);
- C) MainMenu m = new MainMenu(); contextMenu1.MenuItems.Add (m);
- D) MainMenu m = new MainMenu(); contextMenu1.MenuItem.Add (m);

ANS- (A)

#### Question 59.

To produce a dialog box similar to the Windows Print dialog box, which of the following controls would you use?

- A) PrintPreviewDialog
- B) PrintDialog
- C) PrintBox
- D) SetupPrintDialog

ANS- (B)

#### Question 60.

Which property of the CheckedListBox allows you to preset the maximum number of items that can be selected?

- A) MaxItems
- B) MaximumItems
- C) SelectionItems
- D)SelectionMode

ANS- (D)

#### Question 61.

Which line of code will set the Link data for a LinkLabel?

- A) this.linkLabel1.Text = "http:\\www.microsoft.com";
- B) this.linkLabel1.Link = "http://www.microsoft.com";
- C) this.linkLabel1.HyperLink = "http://www.microsoft.com";
- D) None of the above.

ANS- (D)

#### Question 62.

Which property will allow the user to enter more than one line in a text box?

- A) MaxLines
- B) MultipleLines
- C) MultiLines

D) MultiLine

ANS- (D)

#### Question 63.

Assess the following XML. Which answer correctly describes the code?

```
< addresses >
< listing >
< name >
< lastname >Dowdy< /lastname >
< firstname >Howdy< /firstname >
< /name >
< address >
< street >123 Anywhere St< /street >
< city >MyCity< /city >
< /address >
< /listing >
< /addresses >
```

- A) The name element is described incorrectly.
- B) The address element is described incorrectly.
- C) The addresses root element is described incorrectly.
- D) Nothing—this is well-formed XML.

ANS- (D)

#### Question 64.

Which code segment will populate a DataSet?

- A) sqlDataProvider1.Fill (dsUsers1);
- B) sqlDataProvider.Fill (dataAdapter1);
- C) sqlDataAdapter.Fill (dsUsers1);
- D) sqlDataAdapter.Fill (dataAdapter1);

ANS- (C)

#### Question 65.

You need to get access to a database that is stored on a server running Microsoft Access 2002.

Which data adapter would you use?

- A) SqlDataAdapter
- B) OleDbDataAdapter
- C) OleDbDataAdapter
- D) OdbcDataAdapter

ANS- (B)

#### Question 66.

To debug an ASP.NET application, you need to attach to which process?

- A) aspnet.exe
- B) asp.net.exe
- C) aspnet\_debug.exe
- D) aspnet\_wp.exe

ANS- (D)

#### Question 67.

You need to get access to a database that is stored on a server running Microsoft SQL Server 2000.

Which data adapter would you use?

- A) SqlDataAdapter

- B) OleDbDataAdapter
- C) OleDbDataAdapter
- D) ODBCDataAdapter

ANS- (A)

#### Question 68.

The Parse event is triggered after which of these occurrences?

- A) Data is sorted.
- B) Data is filtered.
- C) Data is bound to a control.
- D) Data is returned to the data source.

ANS- (D)

#### Question 69.

The Format event is triggered after which occurrences?

- A) Data is sorted.
- B) Data is filtered.
- C) Data is bound to a control.
- D) All of the above.

ANS- (D)

#### Question 70.

What is a transaction?

- A) A banking term.
- B) A concept used to describe a step in the business process.
- C) A combination of DML steps that must succeed or the data is returned to its initial state.
- D) A combination of DDL steps that must succeed or the data is returned to its initial state.

ANS- (C)

#### Question 71.

What is a DiffGram?

- A) An XML file containing both the original and current values for the data.
- B) An XML file containing the difference between original and current data.
- C) A DataSet loaded with two XML files, resulting in the difference being current.
- D) A DataSet loaded with an XML file and the original values from the data source.

ANS- (A)

#### Question 72.

When would you not use the OleDbConnection object?

- A) To connect to an SQL 7.0 database.
- B) To connect to a DB/2 database.
- C) To connect to an Access database.
- D) To connect to an SQL 6.5 database.

ANS- (A)

#### Question 73.

Which of the following statements is correct?

- A) The DataSource property refers to the dataset object, and the DisplayMember refers to the field.
- B) TheDataMember property refers to the dataset object, and the DataSource refers to the field.
- C) TheDataMember property refers to the field, and the DataSource refers to the dataset object.

D) The DisplayMember property refers to the dataset object, and the DataSource refers to the field.

ANS- (A)

#### Question 74.

Why does the data not display using the following code?

```
studentConnection.Open();
studentCommand = studentConnection.CreateCommand();
studentCommand.CommandType = CommandType.Text;
studentCommand.CommandText = "SELECT * FROM Student";
studentAdapter = new SqlDataAdapter (studentCommand);
studentSet = new DataSet();
this.txtFirstName.DataBindings.Add ("Text", studentSet, "FirstName");
```

- A) The command object is instantiated incorrectly.
- B) The dataset object is instantiated incorrectly.
- C) The data binding is done incorrectly.
- D) The dataset has not been populated.

ANS- (D)

#### Question 75.

The following SQL INSERT statement fails. What is the most probable reason for the failure?

```
INSERT INTO Employees VALUES (42,`Bob`,`Carol`, 12)
```

- A) Syntax error in the INSERT statement.
- B) The columns in the Employees table are not in the indicated order (int, char, char, int).
- C) The Employees database does not have a default table defined.
- D) The SELECT INTO permission is not set.

ANS- (B)

#### Question 76.

What is the result of the following SQL statement?

```
USE Northwind
DELETE Employees
```

- A) The Employees table is emptied.
- B) The current record is deleted.
- C) Syntax error, the USE command is wrong.
- D) The Employee database in the Northwind server is deleted.

ANS- (A)

#### Question 77.

Which code segment would correctly expose the Convert() method of a web service?

- A) public int Convert() { // write the method code here }
- B) private int Convert() { // write the method code here }
- C) protected int Convert() { // write the method code here }
- D) public Convert() { // write the method code here }

ANS- (A)

#### Question 78.

Which of the following will display the Web Services on a remote IIS server (named www.hmr.com) in an assembly called MyServices?

- A) http://hmr.com/MyServices/ServiceName
- B) http://www.hmr.com/MyServices/ServiceName
- C) url://hmr.com/MyServices/ServiceName

D) url://www.hmr.com/MyServices/ServiceName

ANS- (B)

**Question 79.**

How many rules are there regarding a well formed XML document?

- A) Nine
- B) Three
- C) Six
- D) Two

ANS- (C)

**Question 80.**

When you test a web service, what do you expect to see as output?

- A) The web service running.
- B) The web site.
- C) The XML of the web proxy.
- D) The XML of the web service.

ANS- (C)

**Question 81.**

Which attribute must be added to create an exposed web service method?

- A) [System.WebServices.WebMethod]
- B) [System.Web.Services]
- C) [System.Web.Services.Web.WebMethod]
- D) [System.Web.Services.WebMethod]

ANS- (D)

**Question 82.**

Which file must be included in the assembly in order to provide a list of licensed controls within the application?

- A) xxxx.LIC
- B) xxxx.LCX
- C) xxxx.LICX
- D) xxxx.Licenses

ANS- (C)

**Question 83.**

What ASP.NET object encapsulates the state of the client and the browser?

- A) The Session object.
- B) The Application object.
- C) The Response object.
- D) The Request object.

ANS- (A)

**Question 84.**

Which of the following techniques will expose a new procedure for a newly created control?

- A) public string newProperty;
- B) private string newValue; public string newProperty { get { return newValue; } set { newValue = Value; }}

C) public string newValue; public string newProperty { get { return newProperty; } set { newValue = newProperty; }}

D) public string newValue; public string newProperty { get { return newValue; } set { newValue = Value; }}

ANS- (B)

#### Question 85.

Which of the following advantages of .NET controls is most significant when compared to prior releases of ActiveX components?

- A) .NET controls extend the Control class.
- B) .NET controls manage versioning better.
- C) .NET controls can be created one of three different ways.
- D) .NET controls replace ActiveX controls.

ANS- (B)

#### Question 86.

Which of the following can you use to add a Toolbox bitmap to your control?

- A) [ToolboxBitmap(typeof(NewControl), @"C:\MyIcons\NewControlIcon.ico")]
- B) [ToolboxBitmap(typeof(NewControl))]
- C) [ToolboxBitmap(@"C:\MyIcons\NewControlIcon.ico")]
- D) All of the above.

ANS- (D)

#### Question 87.

Which object can you use from the PaintEventArgs object in order to draw on your new control?

- A) Graphics object.
- B) Drawing object.
- C) GDI+ object.
- D) Control object.

ANS- (A)

#### Question 88.

When working with ASP.NET server controls, it is important to use the right event handlers to capture the event for the application to function properly. What event would you use to capture the selection of a new item in a DropDownList control?

- A) The Click event.
- B) The SelectionChanged event.
- C) The SelectedIndexChanged event.
- D) The ChangedSelection event.

ANS- (C)

#### Question 89.

What is wrong with the following code?

```
using System;
using System.Drawing;
using System.Windows.Forms;
public class MyCustomControl: System.Windows.Forms.Control
// override the OnPaint event of the Control class
// draw your own user interface using GDI+
protected override void OnPaint (System.Windows.Forms.PaintEventArgs e)
{
```

```
// using the PaintEventArgs object, call the methods of GDI+
}
```

- A) The OnPaint declaration is wrong.
- B) The OnPaint arguments are wrong.
- C) There is invalid inheritance.
- D) There is a missing declaration.

ANS- (D)

#### Question 90.

What code segment represents the event handler registration for the click event of the btnA Button control?

- A) this.btnA.Click.Register(new System.EventHandler (this.setList));
- B) this.btnA.Click.Add(new System.EventHandler (this.setList));
- C) this.btnA.ClickEvent += new System.EventHandler (this.setList);
- D) this.btnA.Click += new System.EventHandler(this.setList);

ANS- (D)

#### Question 91.

When an ASP.NET server control is added to a Web Form, Visual Studio .NET adds one item to the class for the form. What item is added?

- A) The event registration.
- B) A protected class member for the control.
- C) A default event handler for the click event.
- D) A default class that inherits from the control's base class.

ANS- (B)

#### Question 92.

What attribute must be set on a validator control for the validation to work?

- A) Validate
- B) ValidateControl
- C) ControlToBind
- D) ControlToValidate

ANS- (D)

#### Question 93.

By adding the [WebService(Namespace="http://xxx.yyy")] attribute in front of the class that defines the XML web service, you modify a namespace. What is that namespace?

- A) The namespace of the XML web service.
- B) The default namespace of the SOAP messages.
- C) The namespace of the ASP.NET server.
- D) The default URL that all redirections will go to.

ANS- (A)

#### Question 94.

The XML Web service broker stores information about the XML web services that have published their services to the broker. What structure does the service broker store the information in?

- A) Broker registry.
- B) Windows Registry.
- C) UDDI registry.
- D) XML document.

ANS- (C)

Question 95.

\_\_\_\_\_ and \_\_\_\_\_ keyword clause is used to create readable and writeable property.

- A) GET
- B) SET
- C) readOnly and writeOnly
- D) Both A and B

ANS- (D)

Question 96.

To create a member that derived classes only can access type the \_\_\_\_\_ keyword to its left.

- A) Public
- B) Internal
- C) Protected
- D) Protected internal

ANS- (C)

Question 97.

True or false. The GAC cannot store multiple versions of the same assembly.

- A) True
- B) False

ANS- (B)

Question 98.

MSIL is stand for Microsoft Intermediate Language

- A) True
- B) False

ANS- (A)

Question 99.

MSCIL converts your source code into platform specific code

- A) True
- B) False

ANS- (B)

Question 100.

C# supports multiple inheritance like C++

- A) True
- B) False

ANS- (B)

**.Net Framework (10)**

1. The common language specification

- 1. describes the way components authored for the common language**
2. provides a standardized way for events to be triggered
3. provides a standardized way for UI to be constructed

2. All Dot Net Compatible languages are Type safe. Which property makes it type safe?

1. CLS
2. Strong DataTyping
- 3. CTS**
4. .Net Framework

3. What is an attribute?

1. Attribute is a property of a class or method
2. Attribute is a collection of styles and properties
- 3. Attribute is an additional information about a class, structure, method etc.**
4. Attribute is a kind of meta data

4. Where are shared assemblies stored?

- 1. Global Assembly Cache**
2. c:\Windows
3. None of above

5. System.Char represents a

1. 8 bit Unicode character.
- 2. 16 bit Unicode character.**
3. 32 bit Unicode character.
4. 64 bit Unicode character.

6. What is Reflection?

1. It is used for obtaining runtime type information of the object
2. It is used for creating runtime types
3. It is used for obtaining metadata information during runtime
- 4. All of the above**

7. Which of the following depicts a Satellite Assembly?

- 1. Assembly used to localize the application.**
2. Strongly names Assembly
3. Assembly created by Microsoft for .NET base Class Library.
4. Assembly created to share through satellite.

8. What Solution does .NET provide for the DLL HELL problem?

1. Garbage Collection.
2. Cyclical Reference.
- 3. Assembly Versioning.**
4. None Above.

9. When do u say assembly is not compatible

- 1. when major and minor changed**
  2. when build number changed
  3. when revision changed
  4. 2 and 3
  5. none of the above
10. Which among the following is true about **System.Byte** ?
1. Signed 8-bit integer ( its range is from -128 to +127 ).
  2. Signed 8-bit integer ( its range is from -127 to +128 ).
  3. Unsigned 8-bit integer ( its range is from 1 to 256 ).
  - 4. Unsigned 8-bit integer ( its range is from 0 to 255 ).**
  5. None of the above.

## -----VB.Net (16) -----

1. Structure is of \_\_\_\_\_ type.
  1. Simple
  - 2. Value**
  3. Reference
  4. Object
2. Which can help to prevent logic errors and data loss that can occur when the work is done between variables of different types?
  - 1. Option Strict**
  2. Option Restrict
  3. Option Limit
  4. Option
3. In vb.net, for declaring an event signature , what keyword must use?
  1. Signature
  2. ERef
  - 3. Event**
  4. Declare
4. To have one procedure handle the events for multiple controls, what clause can you use on the procedure?
  1. Handles
  2. InstallHandler
  - 3. AddHandler**
  4. AddHandle
5. In Vb.net, abstract class is specified using the keyword
  - 1. MustInherit**
  2. Abstract
  3. Inherit
  4. MustOverride
6. Select the invalid parameter in vb.net
  - 1.ByVal
  2. Optional ByVal

3.ByRef

**4. Out**

7. What is the difference between Array and ArrayList Classes?

1. Array is a standard array whereas ArrayList is a collection of arrays
- 2. Array is a fixed array whereas ArrayList is a dynamic array**
3. Array can be resized whereas ArrayList can't be resized
4. Both are same

8. Current thread property of the Thread class returns -----

1. main thread
- 2. thread in which it is defined**
3. any active thread in the program
4. None of the above

9. AddressOf operator is used for referencing the delegates in VB.Net. True or False?

- 1. True**
2. False
3. No Address of operator in VB.Net

10. ParamArray arguments are passed by in a function?

1. Always by reference
- 2. Always by value**
3. both
4. none

11. What is the keyword to Increase the size of an Array with out losing its contents

1. Declare
2. Dim
3. Redim
- 4. Redim Preserve**

12. Under which of the following cases do we set the Option Strict to 'Off'?

1. Early Binding
2. Data Binding
- 3. Late Binding**
4. None Above

13. Which Of the following exceptions will you receive when an attempt is made to dynamically access a method that does not exist?

- 1. MissingMethodException**
2. MethodDenyException
3. MethodNotFoundException
4. None Above

14. The Size property represents a size structure that gives what aspects of a control?
1. width
  2. height
  3. thickness
- 4. A and B**
5. A, B and C

15. In vb.net, constructor is always

- 1. sub new()**
2. constructor()
3. base class()
4. the class name itself

16. Every Windows Forms control inherits its events from:

- 1. System.Windows.Forms.Control**
2. System.Windows.Form.Control
3. System.Windows.Forms.Controls
4. System.Window.Form.Control
5. System.Windows.Control.Forms

---

## C# (9)

---

1. Which one will not combine with override

1. static
  2. new
  3. virtual
  4. 1 and 2
- 5. 1 and 2 and 3**

2. It is possible for a derived class to define a member that has the same name as the member in its base class. Which of the following keywords would you use If your intent is to hide the base class member?

1. virtual
  2. sealed
  3. ref
- 4. new**

3. ' finally ' block in the try..catch statement will execute

1. when there is an exception in the try..catch block
  2. when there is exception in the catch block only
  3. when there is no exception
- 4. irrespective of whether an exception occurs or not**

4. What is the output of following C# code ?

```
class MainClass
{
    static int Main()
    {
        System.Console.WriteLine(1 + 2 + " Strings " + false + "!");
        return 0;
    }
}
```

1. Syntax Error
  2. 3 Strings False!
  - 3. 12 Strings False!**
  4. 3 Strings False
5. What is the output of following C# code ?
- ```
using System;
class MainClass
{
    static void Main()
    {
        string str = null ;
        if( str == "" )
            Console.WriteLine( "True" );
        else
            Console.WriteLine( "False" );
    }
}
```

1. True
- 2. False**
3. Syntax error
4. NullReferenceException

6. Look at the statement below. What is a type of names?

```
foreach (string name in names)
{
    strNames+=name;
}
```

1. An one-dimensional array of strings
2. ArrayList.
3. string.
- 4. Both a and b are true.**

7. Which of the following namespace should you use to access the registry from C# code?

1. System.MarshalByRefObject
- 2. System.Environment**
3. Microsoft.Win32
4. System.LocalDataStoreSlot

8. Which operator is used for connecting a event with a procedure in c#?

- 1. +=**
2. =
3. both
4. none

9. What is the output of following C# code ?

```
class MainClass
{
    static void Main()
    {
        System.Console.Write( (int)Vibgyor.Red );
    }
}
```

```

        }
    }
enum Vibgyor :byte
{
    Violet,
    Indigo,
    Blue,
    Green,
    Yellow,
    Orange=255,
    Red
}
1.1.0
2.256

```

- 3. Syntax Error [ enumerator value 'Vibgyor.Red' is too large to fit in its type ].**
4. Syntax Error [ cannot cast 'Vibgyor.Red' to 'int' ]
  5. 1

## ASP.Net(11)

1. Which of the following is the standard column type in the DataGrid
  1. TemplateColumn
  - 2. BoundColumn**
  3. ButtonColumn
  4. HyperLinkColumn
2. Which property of the AdRotator control points to the file with the information required to work?
  1. admETHODS
  2. adcontrol
  - 3.advertisementfile**
  - 4.adlist.xml
3. Which is a key element of a Web application?
  - 1. Web form**
  2. Web component manager
  3. Web front builder
  4. Web query engine
4. This class provides an empty control. You can create a new control by assembling existing controls on the surface of this control.
  1. ContainerControl
  2. The Component class
  - 3. The UserControl class**
  4. The Control class
5. A web service class should include only functions that returns some value
  - 1. True**
  2. False

3. None of the above
  4. Incorrect question
6. Which control provides no visible interface elements.
1. Datalist
  2. Dropdownlist
  - 3. Repeater**
  4. Datagrid
7. ASP.NET has several built-in objects that are used to provide the required functionality in an ASP.NET application. They are:
1. Request, Response
  2. Application, Session
  3. Server
  - 4. All of the Above**
8. What is the valid event handlers that occur when a user closes his browser
- 1. Session\_End**
  2. Application\_End
  3. Browser\_End
  4. Browser\_Close
9. Which of the following statements indicates ASP.NET's advantage over ASP?
1. The user will be able to view the results of the script but cannot see the source code.
  2. You can create a web page with dynamic content.
  - 3. It can support strongly typed languages like VB and C#.**
  4. None Above.
10. Which protocol is used by web services?
1. RMI
  - 2. SOAP**
  3. TCP/IP

11. Which one of the following is NOT a valid state management tool?
1. Application State
  2. Hidden Form Fields
  - 3. Query State**
  4. Session State
  5. Cookies

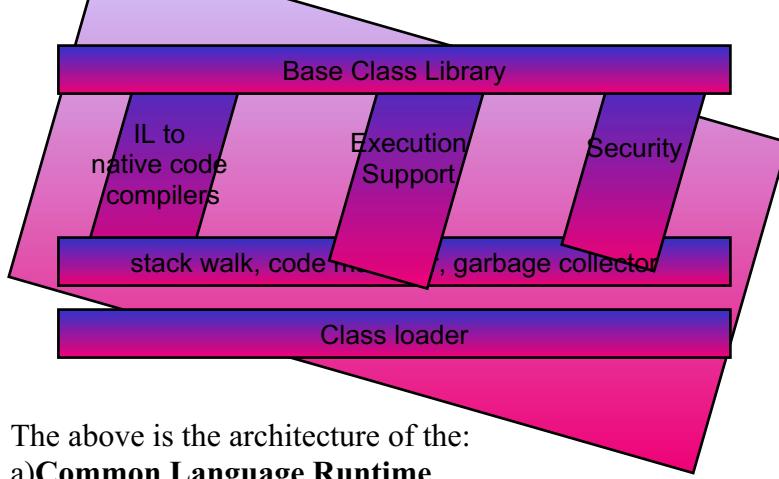
## ADO.Net(4)

1. Which class is used to execute the SQL statement or stored procedure against a data source.
  1. Data adapter class
  2. connection class
  3. Dataset class
  - 5.Command class**
2. "Dataset will be always disconnected".
  - 1. True**

2. False
3. What is used to fetch values from the data source to the DataSet and also update the data source with the values in the DataSet?
  - 1. DataReader**
  2. DataAdapter
  3. DataManager
  4. None of the above.
4. A relationship within a DataSet is represented by which one of the following?
  1. DataTable object
  2. DataColumn object
  3. Foreign-key relationship
  4. Primary-key relationship
  - 5. DataRelation object**

## I. Select the correct answer (15 marks)

- 1) ( i ) It is much more easier to create and use COM components, rather than .NET components  
( ii ).NET does not provide any utility to use components created using COM  
a)**both are false**
- 2) \_\_\_\_\_ that are focused on one aspect of development. These classes are extended from the Base Class Library, and are designed to make it easier and faster to develop a specific type of application  
a)**Extended class library**
- 3) The \_\_\_\_\_ supplies managed code with services such as cross-language integration, code access security, object lifetime management, and debugging  
a)**Common Language Runtime**
- 4) Code that you develop with a language compiler that targets the runtime is called \_\_\_\_\_  
a)**Managed code**
- 5) The idea behind \_\_\_\_\_ recognizes the fact that some code may never get called during execution; therefore, rather than using time and memory to convert all of the MSIL in a PE (portable executable) file to CPU specific code, it makes sense to convert the MSIL as it is needed during execution and store the resulting code so that it is accessible for subsequent calls  
a)**Just-In-Time compilation**
- 6) Code that uses pointers is called \_\_\_\_\_ code  
a)**Unsafe**
- 7) The \_\_\_\_\_ works with the CLR to determine which references are actively being used by a running application, and which may be released  
a)**Garbage Collector**
- 8) When we compile any application written in a CLS compliant language using a language compiler, the application is compiled into \_\_\_\_\_  
a)**Microsoft Intermediate Language**
- 9) \_\_\_\_\_ defines standard reference and value types that are supported in the .NET Framework  
a)**Common Type System**
- 10) Exchange Server 2000 and Commerce Server 2000 belong to the .NET \_\_\_\_\_ family  
a)**Server**
- 11).NET components are self describing, because the \_\_\_\_\_ is stored as part of the compiled component.  
a)**Metadata**
- 12) Before code can be executed, \_\_\_\_\_ must be converted to native code  
a)**Microsoft Intermediate Language**
- 13) For objects to be able to understand each other no matter what language compiler they are compiled with, they must expose to callers only those data types and features that are common to all the languages they need to interoperate with. For this reason, the runtime has identified a set of language features called the \_\_\_\_\_  
a)**Common Language Specification**
- 14)



The above is the architecture of the:

a) **Common Language Runtime**

15) Abstract and sealed modifiers are used for \_\_\_\_\_

a) **Classes**

## II. Answer the following (any 5) (15 marks)

1. Building blocks of .Net Framework

**The .NET Framework**

**.NET Enterprise Servers**

**.NET Building Block Services**

**Visual Studio.NET**

2. Types of compilers in the .Net framework

**There are two classes of compilers**

**Just-In-Time (JIT) Compilers**

Before MSIL can be executed, it must be converted by a .NET Framework Just In Time (JIT) compiler to *native code*, which is CPU-specific code that runs on the same computer architecture that the JIT compiler is running on

The idea behind JIT compilation recognizes the fact that some code may never get called during execution; therefore, rather than using time and memory to convert all of the MSIL in a PE (portable executable) file to native code, it makes sense to convert the MSIL as it is needed during execution and store the resulting native code so that it is accessible for subsequent calls

**Traditional Compilers**

The assembly is entirely converted to native code and loaded as a single instruction set

Traditional Compilers are less optimized than JIT compilers, because they must compile an entire assembly at once, rather than parts that are needed at a given time

3. Describe the methods of Console.In and Console.Out with appropriate examples

**Console.In has two methods**

**Read()** - Returns a single character as an int

-1 if no more characters are remaining

**ReadLine()** - Returns a string containing the next line of input

NULL if no more lines are available

**For example:**

```
string str;
while((str=Console.In.ReadLine()) !=NULL)
{
    //processing
}
```

**Console.Out has two methods for writing output**

**Write()** - Displays a string without a new line character

**WriteLine()** - Displays a string with a new line character

for example

```
Console.WriteLine("this is an example")
```

4.What is Method Hiding? Explain with a help of an example

**A different way of redefining methods is to hide base class methods**

This feature is especially valuable when you derive from a class provided by someone else

With the modifier new, you can tell the compiler that your method should hide the newly added base class method, without you having to rewrite your derived class or code using your derived class

```
class BaseClass {  
    public void TestMethod()  
    {  
        Console.WriteLine("BaseClass::TestMethod");  
    }  
}  
class DerivedClass:BaseClass {  
    new public void TestMethod()  
    {  
        Console.WriteLine("DerivedClass::TestMethod");  
    } }
```

5.What are static members? Also give an example.

**Some methods and data members belong to the class as a whole rather than to any individual instance. Such methods and data members are called static members. Since data members belong to the class and not to any one member, it follows that they will exist regardless of whether any instances of the class exist. To use a static method, call it using the class name rather than an object reference**

```
public class Account  
{  
    private double balance;  
    private static double interestRate; //static data  
   //member  
    .....  
    //following is a static method  
    public static bool SetInterestRate(double amt)  
    {  
        interestRate=amt;  
    }  
}
```

In C#, static members must be accessed through a class name

6.Explain Exception Handling with appropriate examples

**The C# language provides built-in support for handling anomalous situations, known as “exceptions,” which may occur during the execution of your program. When an exception is thrown, normal execution stops and the runtime goes off looking for a handler**

**The C# exception handling statements include**

```
try – catch  
try – finally  
try – catch – finally
```

### Using the try – catch statements

All you need to do is to enclose the exception-prone code in a try statement, and then catch the exception, which, in the following case, is of type OverflowException

Whenever an exception is thrown, the code in the catch block takes care of proper processing

The catch block is only executed if an exception occurs during execution of code within the try block; if nothing occurs the handler is skipped.

```
using System;  
class Factorial  
{    public static void Main(string[] args)  
    {        long nFactorial = 1, nCurDig=1;
```

```

long nComputeTo = Int64.Parse(args[0]);
try
{
    for(;nCurDig<=nComputeTo;nCurDig++)
        nFactorial *= nCurDig;
}
catch (OverflowException oe)
{
    Console.WriteLine("Computing{0} caused an           overflow
Exception",nComputeTo);
    return;
}
Console.WriteLine("{0}! is {1}",nComputeTo,
nFactorial);

```

### Using the try – finally statements

```

class Factorial
{
    public static void Main(string[] args)
    { long nFact = 1,nCtr=1;
        long nNum=Int64.Parse(args[0]);bool Fine=false;
        try
        { checked
            {
                for (;nCtr <= nNum; nCtr++)
                    nFact *= nCtr;
            }Fine = true;
        }
        finally{
            if (!Fine)
                Console.WriteLine("Computing {0} caused an
                                overflow exception", nNum);
            else
                Console.WriteLine("{0}! is {1}",nNum, nFact);
        }    }  }

```

### III.Solve the following exercises: (10 Marks)

1. Write the code to create a type called student. It contains the following properties

Read- write property Studno

Read only property Marks

Also show the its implementation in the Main() method.

```

public class Student {
    private int m_Studno;
    private int m_Marks;
    public int Studno {
        get { return m_Studno; }
        set { m_Studno = value; }
    }
    public int Marks {
        get { return m_Marks; }
    }
}
class Test {
    public static void Main() {
        Student stud = new Student();
        stud.Studno = 25;
        Console.WriteLine(stud.Studno);
    }
}

```

2. Create a class and display it's the namespace it belongs to along with the class name that it is derived from  
**namespace Reflect {**

```
using System;
public class Test {
    private int n;
    public int Method1(int m) { return m*m; }
}
public static void Main()
{
    Type type1=typeof(Test);
    Type type2=t1.GetType();
    Type type3=t1.Namespace();
    Console.WriteLine("Type of t1 is {0} and namespace is {1}",type2,type3);
}
```

#### IV.Fill in the Blanks (10 marks)

- 1.**Fixed** keyword is used to stop the GC from moving objects while it is being referenced by a pointer
- 2.**Read()** returns **-1** if no more characters are remaining
- 3.If the method doesn't return a value its return type is **void**
- 4.If an argument is passed by **value** any change made to the local copy inside the function doesn't affect the value of the original argument.
- 5.Checked and unchecked statements check the **overflow** exception.
- 6.An **interface** contains member and method signatures, all of which are **public**
- 7.C# supports **single** inheritance
- 8.A **delegate** is similar to the safe function pointer of C++
- 9.Variable argument lists are implemented using the **params** keyword together with reference to an array object

Question

1. ASP.NET web page is implemented in a file with \_\_\_\_\_ extension.

Answer Choices

- A: .ashx
- B: .asmx
- C: .aspx**
- D: .asp

Answers : C

2. ASP.NET separates the HTML output from program logic using a feature named as

Answer Choices

- A: Exception
- B: Code-behind
- C: Code-front
- D: None of the above

Answers : B

3. Which of the following denote the web control associated with Table control function of ASP.NET?

Answer Choices

- A: DataList
- B: ListBox
- C: TableRow
- D: All the Above

Answers : C

4. An alternate ways of displaying text on web page using

- A asp:label
- B asp:listitem
- C asp:button
- D asp:text

ANSWER: A

5. How do you get information from a form that is submitted using "post" method

- A Request.QueryString
- B Request.Form
- C Rspnse.write
- D Response.writeln

ANSWER: B

- 6) On which of the operating system below ASP.NET can run?
- a) Windows XP Professional
  - b) Windows 2000
  - c) Both A) and B) - (ANS)
  - d) None of the Above
- 7) An organization has developed a web service in which the values of the forms are validated using ASP.NET application. Suppose this web service is got and used by a customer then in such a scenario which of the following is TRUE
- a) Such a situation cannot happen at all
  - b) The customer must be having technology that run ASP.
  - c) The customer can run on any platform. (ANS)
  - d) None of the Above
- 8) Which of the following denote the web control associated with Table control function of ASP.NET?
- a) DataList
  - b) ListBox
  - c) TableRow (ANS)
  - d) All the Above
- 9) ASP.NET separates the HTML output from program logic using a feature named as
- a) Exception
  - b) Code-behind (ANS)
  - c) Code-front
  - d) None of the above
- 10) If a developer of ASP.NET defines style information in a common location. Then that location is called as
- a) Master Page
  - b) Theme (ANS)
  - c) Customization
  - d) None of the Above
- 11) In ASP.NET if you want to allows page developers a way to specify static connections in a content page then the class used is
- a) WebPartManager
  - b) ProxyWebPartManager (ANS)
  - c) System.Activator
  - d) None of the Above
- 12) The feature in ASP.NET 2.0 that is used to fire a normal postback to a different page in the application is called
- a) Theme
  - b) Cross Page Posting (ANS)
  - c) Code-front
  - d) None of the above

13) In ASP.NET if one uses Windows authentication the current request attaches an object called as

- a) Serialization
- b) WindowsPrincipal (ANS)
- c) WindowDataset
- d) None of the Above

14) The GridView control in ASP.NET has which of the following features

- a) Automatic data binding
- b) Automatic paging
- c) Both A) and B) (ANS)
- d) None of the above

15) If one uses ASP.NET configuration system to restrict access which of the following is TRUE?

- a) The access is restricted only to ASP.NET files (ANS)
- b) The access is restricted only to static files and non-ASP.NET resources.
- c) Both A) and B)
- d) None of the Above

16) Which of the following denote page code model in ASP.NET?

- a) single-file
- b) code-behind
- c) Both A) and B) (ANS)
- d) None of the above

17) Which of the following denote New Data-bound Controls used with ASP.NET

- a) GridView
- b) FormView
- c) SqlDataSource
- d) Both A) and B)
- e) All the Above (ANS)

18) A developer wanted to achieve graphics in his display using ASP.NET. Which of the following web controls are available in ASP.NET to achieve the above?

- a) Both A) and B)
- b) LinkButton
- c) AdRotator (ANS)
- d) None of the Above

19) Forms based authentication is otherwise called in ASP.NET as Cookie Authentication because Forms authentication uses cookies to allow applications to track users throughout their visit.

- a) Windows Authentication
- b) Passport Authentication
- c) Cookie Authentication (ANS)
- d) None of the Above

20) Which of the following object is used along with application object in order to ensure that only process accessess a variable at a time

- A Synchronize
- B Synchronize()
- C ThreadLock
- D Lock()

ANSWER: B

21) Which of the following is the way to moniter the web application ?

- A MMC Event viewers
- B Performance logs
- C Alerts Snap-ins
- D ALL

ANSWER: D

22)

If a developer of ASP.NET defines style information in a common location.

Then that location is called as

Answer Choices

- A: Master Page
- B: Theme
- C: Customization
- D: None of the Above

answers : D

23)

In ASP.NET, Session.\_\_\_\_\_ method cancels the current session.

Answer Choices

- A: Refused
- B: Stop
- C: EndSession
- D: Abandon

Answers : D

24) In ASP.NET if one uses Windows authentication the current request attaches an

object called as \_\_\_\_\_

Answer Choices

- A: Serialization
- B: WindowsPrincipal
- C: WindowDataset

D: None of the Above.

Answer : D

Q. NO. 25)

Question

Which of the following authentication is best suited for a corporate network ?

A Windows

B Form

C User

D All

Difficulty Level Easy

ANSWER: A

26) Which of the following is true about session in ASP.NET?

- a) Programmers has to take care of delete sessions after configurable timeout interval
- b) ASP.NET automatically delete sessions after configurable timeout interval (ANS)
- c) The default time interval is 5 minutes
- d) None of the Above

27) In ASP.NET what does the following return

```
< %  
Response.Write(System.Environment.WorkingSet.ToString())  
% >
```

- a) None of the Above
- b) Gives Error
- c) Return Null value
- d) Gives the memory working set (ANS)

28) In ASP.NET if one wants to maintain session then which of the following is used?

- a) In-process storage
- b) Microsoft SQL Server
- c) Session State Service
- d) All the Above (ANS)

29) I have an ASP.NET application. I have a page loaded from server memory. At this instance which of the following methods gets fired

- a) Unload( )
- b) Load() (ANS)
- c) PreRender( )
- d) None of the Above

30) Give one word: What model does ASP.NET request processing is based on

- a) Bottom-up
- b) Top-down

- c) Waterfall
  - d) Pipeline
- 31) If in an ASP.NET application one want to create http handlers which of the interface is used
- a) None of the above
  - b) pipeline
  - c) Handler
  - d) IHttpHandlerFactory (ANS)
- 32) To set page title dynamically in ASP.NET which of the following is used?
- a) None of the above
  - b) < sheet > section
  - c) < tail > section
  - d) < head > section (ANS)
- 33) In ASP.NET application the Global.asax file lie in which directory
- a) Application
  - b) System
  - c) ROOT (ANS)
  - d) None of the Above
- 34) Which of the following can be used to debug .NET application?
- a) Systems.Diagnostics classes
  - b) Runtime Debugger
  - c) Visual Studio .NET
  - d) All the Above (ANS)
- 35) Which of the following is used to write error message in event Log File?
- a) System.Data
  - b) System.EnterpriseServices
  - c) System.Diagnostics (ANS)
  - d) None of the Above
- 36) Setting the following properties for object in ASP.NET results in  
Response.Buffer = True Response.ExpiresAbsolute = Now().Subtract(New  
TimeSpan(1, 0,  
0, 0)) Response.Expires = 0 Response.CacheControl = "no-cache"
- a) Avoid page to be cached (ANS)
  - b) Clears the buffer area
  - c) The session expires

- d) None of the Above
- 37) Which of the following denote value that can be taken by Cache-Control of ASP.NET?
- a) Public
  - b) Private
  - c) no-cache
  - d) All the Above (ANS)
- 38) In ASP.NET if one wants to set the focus on a particular control
- a) Call SETFOCUS
  - b) Call SETCONTROL
  - c) Call FOCUS method (ANS)
  - d) None of the above
- 39) The control used in ASP.NET to display information from data set but with better formatting and editing behavior is
- a) Panel
  - b) Button
  - c) DataList (ANS)
  - d) None of the Above
- 40) Which of the following languages can be used to write server side scripting in ASP.NET?
- a) C# (ANS)
  - b) C
  - c) Visual Basic
- 41  
The \_\_\_\_\_ command-line tool generates code and map the LINQ to SQL component.
- Answer Choices
- A: SqlMetal.exe  
B: Sql.exe  
C: MetalSql.exe  
D: None of the above
- Answer: A

Which assembly represents the core LINQ API?

Answer Choices

- A: System.Data.dll
- B: System.DataReader.dll
- C: System.Query.dll
- D: System.Linq.dll

Answers : C

43

0.0.0.0 IP Address is referred using?

Answer Choices

- A: IPAddress.Any
- B: IPAddress.First
- C: IPAddress.All
- D: IPAddress.Default

Answers: A

44

System.Net.Sockets.\_\_\_\_\_ is used to connect to a TCP server.

Answer Choices

- A: TcpListener
- B: UdpClient
- C: TcpClient
- D: UdpListener

Answers : C

45

Which of the following is true about WPF application settings:

- A. The Application Settings are read-only, they can only be written at design time.
- B. The Application Settings are static, they can be written at runtime time.
- C. The Application Settings are dynamic, they can only be written at design time.
- D. The Application Settings are read-only, they can only be written at runtime.

Answer : A

46) The Following are the minimum requirement to run Asp.net pages

- a) Java Virtual Machine

- b) Common Language Runtime (ANS)
  - c) Windows explorer
- 47) When a .aspx page is requested from the web server, the output will be rendered to browser in following format.
- a) HTML (ANS)
  - b) XML
  - c) WML
- 48) What executable unit gets created when we build an ASP.Net application?
- a) . DLL (ANS)
  - b) . EXE
  - c) . COM
- 49) The best way to delimit ASP.Net code from HTML code in your pages is by using ----- tags.
- a) < Body >
  - b) < Head >
  - c) < Script > (ANS)
- 50) The Asp.net server control, which provides an alternative way of displaying text on web page, is
- a) < asp:label > (ANS)
  - b) < asp:listitem >
  - c) < asp:button >
- 51) `<asp:dropdownlist>` tag replaces which of the HTML tags
- a) < Option >
  - b) < Select > (ANS)
  - c) < List >
- 52) `<asp : listitem>` tag replaces which of the following HTML tags
- a) < Option > (ANS)
  - b) < UL >
  - c) < List >
- 53) The first event to be triggered in an aspx page is
- a) Page\_Load()

- b) Page\_Init() (ANS)
  - c) Page\_Click()
- 54) Postback occurs in which of the following forms
- a) Winforms
  - b) HTMLForms
  - c) Webforms (ANS)
- 55) what namespace does the Web page belong in the .NET Framework class hierarchy?
- a) System.web.UI.Page (ANS)
  - b) System.Windows.Page
  - c) System.Web.page
- 56) Which method do you invoke on the Data Adapter control to load your generated dataset
- a) Fill () (ANS)
  - b) ExecuteQuery ()
  - c) Read ()
- 57) How many configuration files can an ASP.NET projects have?
- a) More Than One
  - b) One (ANS)
  - c) None
- 58) Can a dll run as stand alone application ?
- a) No (ANS)
  - b) Yes
  - c) Sometimes we can make it by introducing some code
- 59) To add a custom control to a Web form we have to register with
- a) TagPrefix
  - b) Name space of the dll that is referenced
  - c) Assemblyname
  - d) All of the above (ANS)
- 60) Custom Controls are derived from which of the classes

- a) System.Web.UI.Customcontrols.Webcontrol
- b) System.Web.UI.Customcontrol
- c) System.Web.UI.Webcontrol (ANS)

61) What is the transport protocol used to call a webservice

- a) HTTP
- b) SOAP (ANS)
- c) TCP
- d) SMTP

62) How ASP.Net Different from ASP

- a) Scripting is separated from the HTML, Code is interpreted seperately
- b) Scripting is separated from the HTML, Code is compiled as a DLL,  
the DLLs can be executed on server (ANS)
- c) Code is separated from the HTML and interpreted Code is interpreted  
separately

63) Whatâ€™s the difference between Response.Write()  
andResponse.Output.Write() ?

- a) Response.Output.Write() allows you to flush output
- b) Response.Output.Write() allows you to buffer output
- c) Response.Output.Write() allows you to write formatted output  
(ANS)
- d) Response.Output.Write() allows you to stream output

64) Why is Global.asax is used

- a) Implement application and session level events (ANS)
- b) Declare Global variables
- c) No use

65) What is the extension of a web user control file ?

- a) .Asmx
- b) . Ascx (ANS)
- c) .Aspx

66) What is the default session out time

- a) 20 Sec
- b) 20 Min (ANS)
- c) 1 hr

67) Which of the following is true ?

- a) IsPostBack is a method of System.UI.Web.Page class
- b) IsPostBack is a method of System.Web.UI.Page class
- c) IsPostBack is a readonly property of System.Web.UI.Page class

(ANS)

68) How do you manage states in asp.net application

- a) Session Objects
- b) application Objects
- c) Viewstate
- d) Cookies
- e) All of the above (ANS)

69) Select the caching type supported by ASP.Net

- a) Output Caching
- b) DataCaching
- c) Both a & b (ANS)
- d) None of the above

70) Where is the default Session data is stored in ASP.Net

- a) InProcess (ANS)
- b) StateServer
- c) SQL Server
- d) All of the above

71) How do you disable client side validation ?

- a) Set the language property to C#
- b) Set the Runat property to server
- c) Set the ClientTarget property to Downlevel (ANS)
- d) Set the inherits property to codeb

72) Select the validation control used for "PatternMatching".

- a) FieldValidator
- b) RegularExpressionValidator (ANS)
- c) RangeValidator
- d) PatternValidator

73) Which DLL translate XML to SQL in IIS

- a) SQLISAPI.dll (ANS)
- b) SQLXML.dll
- c) LISXML.dll
- d) SQLIIS.dll

74) What is the default authentication mode for IIS

- a) Windows
- b) Anonymous (ANS)
- c) Basic Authentication
- d) None

75) Which of the following is not a valid state management tool?

- a) Querystate (ANS)
- b) Hidden Form Field
- c) Application State
- d) Cookies

76) Select the control which does not have any visible interface

- a) Datalist
- b) DropDownList
- c) Repeater (ANS)
- d) Datagrid

77) How do you explicitly kill a users session ?

- a) Session.Close ( )
- b) Session.Discard ( )
- c) Session.Abandon (ANS)
- d) Session.End

78) Why do we use XMLSerializer class

- a) Remoting
- b) WebServices (ANS)
- c) Xml documentary Files

79) What does Response.End will do?

- a) It will stop the server process (ANS)
- b) It will stop the client process
- c) None of the above

80) Which control supports paging

- a) Repeater
- b) Datagrid (ANS)
- c) Both
- d) None

81) Where do you store the information about the user locale

- a) System.user
- b) System.web
- c) System.Drawing
- d) System.Web.UI.Page.Culture (ANS)

82) What is the purpose of code behind ?

- a) To separate different sections of a page in to different files
- b) To merge HTML layout and code in to One file
- c) To separate HTML Layout and code to different file (ANS)
- d) To ignore HTML usage

83) What is a satallite assembly ?

- a) Any DLL file used by an EXE file.
- b) An Assembly containing localized resources for another assembly (ANS)
- c) None of the above

84) Which of the following is not a member of Response Object?

- a) Clear
- b) Write
- c) Execute (ANS)
- d) Flush

85) Which of the following is not a member of ADODBCCommand object

- a) ExecuteReader
- b) ExecuteScalar
- c) ExecuteStream
- d) Open (ANS)
- e) CommandText

86) Which method do you invoke on the DataAdapter control to load your generated dataset with data?

- a) Load
- b) Fill (ANS)
- c) GetAll
- d) None

87) How to open more than one datareader at a time

- a) Use different datareader variable
- b) Use different datareader and connection variable (ANS)
- c) Can not be done

88) What is the advantage of Disconnected mode of ADO.Net in ASP.Net

- a) Automatically dump data at client PC
- b) Not necessary to connect with server
- c) user data can update and retrieve in dataset and when connection connected, update values with server (ANS)
- d) All of the above

89) Which objects is used to create foreign key between tables?

- a) DataRelation (ANS)
- b) DataRelationship
- c) DataConstraint
- d) Datakey

90) Which one of the following namespaces contains the definition for IdbConnection

- a) System.Data.Interfaces
- b) System.Data.Common
- c) System.Data (ANS)
- d) System.Data.Connection

91) Select the Interface which provides Fast, connected forward-only access to data

- a) IdataRecord
- b) Idatabase
- c) IdataReader (ANS)
- d) Irecorder

92) How do we Delete, Update, Select data in a Dataset

- a) Using SQLDataAdapter (ANS)
- b) Using SQLDataReader
- c) Using SqlCommand
- d) None

93) Which of the following is not a member of ConnectionObject

- a) Execute (ANS)
- b) EndTransaction
- c) BeginTransaction
- d) Open

94) Is it Possible to Serialize HashTable with XMLSerializer

- a) Yes (ANS)
- b) No

95) What is the Full Form of WSDL

- a) Web System Description Language
- b) Web Services Detail Language
- c) Web Service Description Language (ANS)
- d) None

96) What is the difference between Server.Transfer & Response.Redirect

- a) No Difference
- b) Server.Transfer needs a roundtrip, Response.Redirect does not (ANS)
- c) Response.Redirect needs roundtrip, Server.Transfer does not
- d) Server.Transfer can transfer user between 2 applicaions

97) Which Language can Support SOAP

- a) VB

- b) JAVA
- c) COBOL
- d) All of the above (ANS)

98) What is the size of the session ID

- a) 32 bit long string
- b) 32 bit long double
- c) 32 bit long character
- d) 32 bit long integer (ANS)

99) Which of the following extension does a webservice file will have

- a) .Asmx (ANS)
- b) .Aspx
- c) .Ascx
- d) .Resx

100) What is a strong name?

- a) Public Key
- b) Private Key
- c) Combination Of both Public, Private key and digital signature (ANS)

101 type of templates are available in WPF..?

- A. Data Templates
- B. Control Templates
- C. Item Panel Templates
- D. All of the above

Answer : D

102

Question

For building workflow-based applications on Windows quickly, the WF consists of:

- A. Programming model
- B. Workflow designer
- C. Rules engine
- D. All of the above

Answer : D

103

How many types of transport schemas are there in WCF?

- A .HTTP, TCP
- B. Peer network, IPC (Inter-Process Communication over named pipes)

- C. MSMQ
- D. All of the above

answer : D

104

- Types of Contracts in WCF
- A. Service Contracts
- B. Fault Contracts
- C. Only 1
- D. Only 1 and 2

answer: D

105

- Where we can host WCF services?
- A. IIS
- B. Self Hosting
- C. WAS (Windows Activation Service)
- D. All of the above.

answer: D

Q106

- \_\_\_\_\_ describes the data and operations exposed by a WCF service.
- A. Contract
- B. Channel
- C. Binding
- D. All of the above

answer : A

107

\_\_\_\_\_ interfaces WPF to DirectX.

- A . mscorlib.dll
- B. milcore.dll
- C. mscoree.dll
- D. All of the above

answer : B

108

System.Data.\_\_\_\_\_ provider is used for accessing MS Access database in .NET.

- A. SqlClient
- B. OleDb
- C. Odbc
- D. All of the above

answer : B

109

TransactionScopeOption.\_\_\_\_\_ always starts a transaction for a given scope.

- A. Suppress
- B. Required
- C. RequiresNew
- D. All of the above

answer : C

110) What is the purpose of Reflection?

- a) For Reading metadata at runtime (ANS)
- b) For knowing version of assembly
- c) For finding path of an assembly

111) Why is Global.asax is used for ?

- a) To implement application & Session level events (ANS)
- b) To store configuration information
- c) To store styling information
- d) None of the above

112) What is the lifespan for items stored in viewstate

- a) Exists for the Life of the current page (ANS)
- b) 20 mins
- c) 2 mins
- d) 2 sec

113) What data types do a Rangevalidator supports

- a) Integer
- b) String
- c) Date
- d) All of the above (ANS)

114) Select the output of the statement < form method=post action="test.aspx">

- a) Transfers all the form data to test.aspx with HTTP headers (ANS)
- b) Transfers all the form data to test.aspx with out HTTP headers
- c) Calls post method on test.aspx
- d) None of the above

115) Whats the significance of Request.MapPath( )

- a) Maps the specified virtual path to a physical path (ANS)

- b) Maps the specified absolute path to virtual path
- c) None

116) What is the significance of Server .MapPath

- a) Returns the physical file path that corresponds to virtual specified path (ANS)
- b) Returns the Virtual Path of the web folder
- c) Maps the specified virtual path to Physical path
- d) None

117) Which namespace allows us to formaauthentication ?

- a) System.Web.Ui.Forms.Security
  - b) System.Web.Security
  - c) System.Web.Configuration
- c) System.Web.Services

118) Which method displays the custom control

- a) The Prerender
- b) Render (ANS)
- c) Page\_Load
- d) Display

119) When is the user controls code is executed

- a) After the webform loads (ANS)
- b) After the page\_init event of webform
- c) Before Page\_init event of web form

120) Client Sertificate is a collection of

- a) Server
- b) Response
- c) Collection
- d) Request (ANS)

121) What section of the config.Web file is used for storing a list of authorized

users?

- a) authorization (ANS)
- b) authentication
- c) securityPolicy
- d) None

22) How do you add ASP.Net 3rd party component

- a) By add/Remove items in the project menu
- b) Add reference of dll file and place the code where ever required  
(ANS)
- c) Cannot add 3rd party component to asp.net

123) The .NET Framework provides a runtime environment called

- a) RMT
- b) CLR (ANS)
- c) RCT
- d) RC

124) In ASP.NET in form page the object which contains the user name is

- a) Page.User.Identity (ANS)
- b) Page.User.IsInRole
- c) Page.User.Name
- d) None of the Above

125) Find the term: The .NET framework which provides automatic memory management using a technique called

- a) Serialization
- b) Garbage Collection (ANS)
- c) Assemblies
- d) Overriding

126) Which of the following denote ways to manage state in an ASP.Net Application?

- a) Session objects
- b) Application objects
- c) ViewState

d) All the Above (ANS)

127) What is the base class from which all Web forms inherit?

- a) Master Page
- b) Page Class (ANS)
- c) Session Class
- d) None of the Above

128) WSDL stands for

- a) Web Server Description Language
- b) Web Server Descriptor Language
- c) Web Services Description Language (ANS)
- d) Web Services Descriptor Language

129) Which of the following must be done in order to connect data from some data resource to Repeater control?

- a) Set the DataSource property
- b) Call the DataBind method
- c) Both A) and B) (ANS)
- d) None of the Above

130) Which of the following is FALSE?

- a) ASP.NET applications run without a Web Server
- b) ASP+ and ASP.NET refer to the same thing
- c) ASP.NET is a major upgrade over ASP
- d) None of the Above (ANS)

131) Which of the following transfer execution directly to another page?

- a) Server.Transfer (ANS)
- b) Response.Redirect
- c) Both A) and B)
- d) None of the Above

132) If one has two different web form controls in a application and if one wanted to know whether the values in the above two different web form control match what control must be used?

- a) DataList

- b) GridView
- c) CompareValidator (ANS)
- d) Listview

133) Which of the following is used to send email message from my ASP.NET page?

- a) System.Web.Mail.MailMessage
- b) System.Web.Mail.SmtpMail
- c) Both A) and B) (ANS)
- d) None of the Above

134) In my .NET Framework I have threads. Which of the following denote the possible priority level for the threads?

- a) Normal
- b) AboveNormal
- c) Highest
- d) All the Above (ANS)

135) GIVE ONE WORD: In .NET the operation of reading metadata and using its contents is known as

- a) Reflection (ANS)
- b) Enumeration
- c) Binding
- d) Serialization

136) In ASP.NET the < authorization > section contain which of the following elements

- a) Both A) and B) (ANS)
- b) < deny >
- c) < allow >
- d) None of the Above

137) Suppose one wants to modify a SOAP message in a SOAP extension then how this can be achieved. Choose the correct option from below:

- a) One must override the method ReceiveMessage (ANS)
- b) One must override the method InitializeMethod
- c) Both A) and B)
- d) One must override the method ProcessMessage

138) Which of the following can be used to add alternating color scheme in a Repeater control?

- a) AlternatingItemTemplate (ANS)
- b) DataSource
- c) ColorValidator
- d) None of the Above

139) Suppose a .NET programmer wants to convert an object into a stream of bytes

then the process is called

- a) Serialization (ANS)
- b) Threading
- c) RCW
- d) AppDomain

140) The technique that allow code to make function calls to .NET applications on other processes and on other machines is

- a) .NET Threading
- b) .NET Remoting (ANS)
- c) .NET RMT
- d) None of the above

141) The namespace within the Microsoft .NET framework which provides the functionality to implement transaction processing is

- a) System.EnterpriseServices (ANS)
- b) System.Security
- c) System.Diagnostics
- d) System.Data

142) Which of the following method is used to obtain details about information types of assembly?

- a) GetTypes
- b) GetType
- c) Both A) and B) (ANS)
- d) None of the Above

143) In ASP.NET the sessions can be dumped by using

- a) Session.Dump
- b) Session.Abandon (ANS)
- c) Session.Exit
- d) None of the Above

144) Which of the following is TRUE about Windows Authentication in ASP.NET?

- a) Automatically determines role membership (ANS)
- b) Role membership determined only by user programming
- c) ASP.NET does not support Windows Authentication
- d) None of the Above

145) Which method do you invoke on the DataAdapter control to load your generated dataset with data?)

- a) Load ( )
- b) Fill( ) (ANS)
- c) DataList
- d) DataBind

146) What tags one need to add within the asp:datagrid tags to bind columns manually?

- a) Set AutoGenerateColumns Property to false on the datagrid tag (ANS)
- b) Set AutoGenerateColumns Property to true on the datagrid tag
- c) It is not possible to do the operation
- d) Set AutomaunalColumns Property to true on the datagrid tag

147) How many classes can a single .NET DLL contain?

- a) One
- b) Two
- c) None
- d) Many (ANS)

148) Which of the following denote the property in every validation control?

- a) ControlToValidate property
- b) Text property
- c) Both A) and B) (ANS)
- d) None of the Above

149) Which of the following allow writing formatted output?

- a) Response.Write()
- b) Response.Output.Write() (ANS)
- c) Both A) and B)
- d) None of the Above

150) The actual work process of ASP.NET is taken care by

- a) inetinfo.exe
- b) aspnet\_isapi.dll
- c) aspnet\_wp.exe (ANS)
- d) None of the Above

151) The type of code found in Code-Behind class is

- a) Server-side code (ANS)
- b) Client-side code
- c) Both A) and B)
- d) None of the above

152) Give One word: Common type system is built into which of the following:

- a) CLR (ANS)
- b) RCT
- c) RCW
- d) GAC

c) RCW

- d) AppDomain

140) The technique that allow code to make function calls to .NET applications on other processes and on other machines is

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152) Give One word: Common type system is built into which of the following:

- a) CLR (ANS)
- b) RCT
- c) RCW
- d) GAC

Q1. An Application variable can be accessed by all pages in the application

Correct Answer : T

Your Answer :

QuestionID : 15448      Subject Name ASP.NET

Q2. The Property of the radio button controls restricts the user to select one option from the given set of options

1. Group name
2. Group id
3. id
4. text

Correct Answer : 1

Your Answer :

QuestionID : 15450      Subject Name ASP.NET

Q3. Web service is platform dependent

Correct Answer : F

Your Answer :

QuestionID : 15453      Subject Name ASP.NET

Q4. \_\_\_\_\_ is an extension of ASP.net page file.

1. .WebForm1
2. .asp
3. .asax
4. .aspx

Correct Answer : 4

Your Answer :

QuestionID : 15461      Subject Name ASP.NET

Q5. The `HTMLEncode` method is used to apply HTML encoding to specify string.

Correct Answer : T

Your Answer :

QuestionID : 15469      Subject Name ASP.NET

Q6. The Customvalidator control cannot be used to call client side function

for the purpose of validation

Correct Answer : F

Your Answer :

QuestionID : 15471      Subject Name ASP.NET

Q7. To Enter secured text ,the \_\_\_\_\_ property of a text box can be set to password

1. TextBox1.type
2. TextBox1.style
3. TextBox1.TextMode
4. TextBox1.Mode

Correct Answer : 3

Your Answer :

QuestionID : 15472      Subject Name ASP.NET

Q8. If you want to retrieve particular key of cookie dictionary then you have to pass cookie name.

Correct Answer : T

Your Answer :

QuestionID : 15476      Subject Name ASP.NET

Q9. \_\_\_\_\_ is the configuration file for your web application

1. machine.config
2. web.config
3. assemblyinfo.cs

4. webapplication.vsdisco

Correct Answer : 2

Your Answer :

QuestionID : 15477     Subject Name ASP.NET

Q10. When display property of requiredFieldvalidator control is set to dynamic no space is reserved on the page for displaying the error message

Correct Answer : T

Your Answer :

QuestionID : 15481     Subject Name ASP.NET

Q11. In comparevalidator ,the operator are taken from the \_\_\_\_\_

1. validation datatype
2. validationcompareoperator
3. validationoperators
4. none

Correct Answer : 2

Your Answer :

QuestionID : 15484     Subject Name ASP.NET

Q12. The Global.asax File is stored in the \_\_\_\_\_ directory of the application

1. inetpub\wwwroot
2. root directory
3. sub directories
4. none

Correct Answer : 2

Your Answer :

QuestionID : 15486     Subject Name ASP.NET

Q13. You can include server side comments begin with \_\_\_\_\_ and end with\_\_\_\_\_

1. <--,-->
2. <#--,-->
3. <%--,--%>
4. In asp.net you cant include server side comments

Correct Answer : 3

Your Answer :

QuestionID : 15490      Subject Name ASP.NET

Q14. All web controls are derived from \_\_\_\_\_ class.

1. web control
2. page
3. controls
4. none of the above

Correct Answer : 1

Your Answer :

QuestionID : 15494      Subject Name ASP.NET

Q15. The \_\_\_\_\_ is not Asp.net object

1. application
2. request
3. session
4. cookies

Correct Answer : 1

Your Answer :

QuestionID : 15558      Subject Name ASP.NET

Q16. The Following are the minimum requirement to run Asp.net pages

1. Java Virtual Machine

2. Common Language Runtime

3. Windows explorer

4. None

Correct Answer : 3

Your Answer :

QuestionID : 15562      Subject Name ASP.NET

Q17. The code will be processed on web server when the runat attribute of the < Script > tag has the following value.

1. Desktop

2. Client

3. Server

4. ASP.NET

Correct Answer : 3

Your Answer :

QuestionID : 15563      Subject Name ASP.NET

Q18. The Asp.net server control, which provides an alternative way of displaying text on web page, is

1. < asp:label >

2. < asp:listitem >

3. < asp:button >

4. < span >

Correct Answer : 1

Your Answer :

QuestionID : 15566      Subject Name ASP.NET

Q19. Postback occurs in which of the following forms

1. Winforms

2. HTMLForms
3. DOTNETForms
4. Webforms

Correct Answer : 4

Your Answer :

QuestionID : 15567      Subject Name ASP.NET

Q20. What namespace does the Web page belong in the .NET Framework class hierarchy?

1. System.web.UI.Page
2. System.Windows.Page
3. System.Web.page
4. System.UI.Page

Correct Answer : 1

Your Answer :

QuestionID : 15568      Subject Name ASP.NET

Q21. Which method do you invoke on the Data Adapter control to load your generated dataset

1. Fill()
2. ExecuteQuery()
3. Read()
4. ExecuteReader()

Correct Answer : 1

Your Answer :

QuestionID : 15570      Subject Name ASP.NET

Q22. How do you register a user control?

1. Add Tag prefix, Tag name
2. Add Source, Tag prefix

3. Add Src, Tagprefix, Tagname

4. None

Correct Answer : 3

Your Answer :

QuestionID : 15577      Subject Name ASP.NET

Q23. Why is Global.asax is used

1. Implement application and session level events
2. Declare Global variables
3. No use
4. Dont know

Correct Answer : 1

Your Answer :

QuestionID : 15598      Subject Name ASP.NET

Q24. There can be more than one machine.config file in a system

Correct Answer : F

Your Answer :

QuestionID : 15605      Subject Name ASP.NET

Q25. What is the difference between user control and custom control

1. Both can use as drag and drop tool
2. Both are same
3. Both can use different application
4. One Custom Control can be use in different project but not the same with User control

Correct Answer : 4

Your Answer :

QuestionID : 15608      Subject Name ASP.NET

Q26. Where is the default Session data is stored in ASP.Net

1. InProcess
2. StateServer
3. SQL Server
4. All of the above

Correct Answer : 1

Your Answer :

QuestionID : 15613      Subject Name ASP.NET

Q27. Who can access Session state variables

1. All Users of an application
2. A Single session
3. All users within a single tunnel
4. None

Correct Answer : 2

Your Answer :

QuestionID : 15619      Subject Name ASP.NET

Q28. What does Response.End will do?

1. It will stop the server process
2. It will stop the client process
3. None of the above
4. None

Correct Answer : 1

Your Answer :

QuestionID : 15620      Subject Name ASP.NET

Q29. Which control supports paging

1. Repeater

2. Datagrid

3. Both

4. None

Correct Answer : 2

Your Answer :

QuestionID : 15623      Subject Name ASP.NET

Q30. Which of the following is not a member of Response Object?

1. Clear

2. Write

3. Execute

4. Flush

Correct Answer : 3

Your Answer :

QuestionID : 15625      Subject Name ASP.NET

Q31. Which of the following is not a member of ADODBCCommand object

1. ExecuteReader

2. ExecuteScalar

3. ExecuteStream

4. CommandText

Correct Answer : 3

Your Answer :

QuestionID : 15627      Subject Name ASP.NET

Q32. How to open more than one datareader at a time

1. Use different datareader variable
2. Use different datareader and connection variable
3. Use Different Connection
4. Can not be done

Correct Answer : 2

Your Answer :

QuestionID : 15628      Subject Name ASP.NET

Q33. Which objects is used to create foreign key between tables?

1. DataRelation
2. DataRelationship
3. DataConstraint
4. Datakey

Correct Answer : 1

Your Answer :

QuestionID : 15629      Subject Name ASP.NET

Q34. Which one of the following namespaces contains the definition for IDbConnection

1. System.Data.Interfaces
2. System.Data.Common
3. System.Data
4. System.Data.Connection

Correct Answer : 3

Your Answer :

QuestionID : 15637      Subject Name ASP.NET

Q35. What is a strong name?

1. Public Key

2. Private Key
3. Combination Of Public, Private key and digital signature
4. None

Correct Answer : 3

Your Answer :

QuestionID : 15638      Subject Name ASP.NET

Q36. What is the purpose of Reflection?

1. For Reading metadata at runtime
2. For knowing version of assembly
3. For finding path of an assembly
4. None

Correct Answer : 1

Your Answer :

QuestionID : 15643      Subject Name ASP.NET

Q37. Which of the following are not a member of Server Object

1. Execute
2. Transfer
3. Open
4. HTMLDecode

Correct Answer : 3

Your Answer :

QuestionID : 15644      Subject Name ASP.NET

Q38. What is the Server.MachineName does

1. Gets the Server's Machine Name
2. Gets the Referred Web site name on the server

3. Gets the Client Machine Name

4. None

Correct Answer : 1

Your Answer :

QuestionID : 15649      Subject Name ASP.NET

Q39. What section of the config.Web file is used for storing a list of authorized users?

1. 1

2. 3

3. 4

4. None

Correct Answer : 2

Your Answer :

QuestionID : 15650      Subject Name ASP.NET

Q40. How do you add ASP.Net 3rd party component

1. By add/Remove items in the project menu

2. Add reference of dll file and place the code where ever required

3. Cannot add third party component to asp.net

4. None

Correct Answer : 2

Your Answer :

QuestionID : 15755      Subject Name ASP.NET

Q41. UDDI stands for \_\_\_\_\_

1. Universal Description Discovery and Integration

2. Unique Description Discovery and Integration

3. Universal Data Discovery and Integration

4. Universal Discovery Data Information

Correct Answer : 1

Your Answer :

QuestionID : 15766      Subject Name ASP.NET

Q42. we can create a proxy file for the web service by using \_\_\_\_\_ tool

1. webservice.exe
2. webserviceutil.exe
3. WSDL.exe
4. ILDASM.exe

Correct Answer : 3

Your Answer :

QuestionID : 15778      Subject Name ASP.NET

Q43. The custom control page should contain\_\_\_\_\_ directives

1. @page
2. @Register
3. @Control
4. @WebService

Correct Answer : 3

Your Answer :

QuestionID : 15781      Subject Name ASP.NET

Q44. The class control is present in \_\_\_\_\_ namespace

1. System
2. System.Web
3. System.Web.UI
4. System.Web.UI.Controls

Correct Answer : 3

Your Answer :

QuestionID : 15784      Subject Name ASP.NET

Q45. If the configuration setting are changed they get automatically detected by the system

Correct Answer : T

Your Answer :

QuestionID : 15785      Subject Name ASP.NET

Q46. There can be only one machine.config file per application

Correct Answer : F

Your Answer :

QuestionID : 15790      Subject Name ASP.NET

Q47. The authentication type that uses cookies is known as \_\_\_\_\_ authentication

1. windows
2. forms
3. passport
4. none

Correct Answer : 2

Your Answer :

QuestionID : 15796      Subject Name ASP.NET

Q48. The process of location errors in code is known as \_\_\_\_\_.

1. Tracing
2. Compiling
3. Caching
4. Debuging

Correct Answer : 1

Your Answer :

QuestionID : 15800      Subject Name ASP.NET

Q49. @CachOutput directive is used to set the caching duration of the output page

Correct Answer : T

Your Answer :

QuestionID : 15802      Subject Name ASP.NET

Q50. \_\_\_\_\_ is technique used to increase performance by keeping frequently accessed data in memory.

1. Tracing
2. Caching
3. Debuging
4. All of the above

Correct Answer : 2

Your Answer :

Q1. More than one @page directive can be set per .aspx page.

Correct Answer : F

Your Answer :

QuestionID : 15446     Subject Name ASP.NET

Q2. The \_\_\_\_\_ method of the \_\_\_ object is used to retrieve the data in the form fields submitted by the user

1. form,server
2. form,response
3. form,request
4. form,application

Correct Answer : 3

Your Answer :

QuestionID : 15448     Subject Name ASP.NET

Q3. The Property of the radio button controls restricts the user to select one option from the given set of options

1. Group name
2. Group id
3. id
4. text

Correct Answer : 1

Your Answer :

QuestionID : 15449     Subject Name ASP.NET

Q4. Global.asax can be viewed in browser

Correct Answer : F

Your Answer :

QuestionID : 15450     Subject Name ASP.NET

Q5. Web service is platform dependent

Correct Answer : F

Your Answer :

QuestionID : 15451      Subject Name ASP.NET

Q6. Autopostback property of checkbox can be set to true if the changing of the checkbox status has to be informed to the server

Correct Answer : T

Your Answer :

QuestionID : 15454      Subject Name ASP.NET

Q7. The \_\_\_\_\_ validation control display list of all the validation errors occurring in all controls is created and displayed on the page

1. RequiredFieldValidator
2. RequiredExpressionValidator
3. RangeValidator
4. ValidationSummary

Correct Answer : 4

Your Answer :

QuestionID : 15463      Subject Name ASP.NET

Q8. An array list can be bound to dropdown list

Correct Answer : T

Your Answer :

QuestionID : 15465      Subject Name ASP.NET

Q9. The CompareValidator control is used to check if value of a control

lies within a range

Correct Answer : T

Your Answer :

QuestionID : 15467      Subject Name ASP.NET

Q10. Setting the text box to \_\_\_\_\_ allow the user to enter many lines of data

1. many lines
2. more lines
3. multi lines
4. password

Correct Answer : 3

Your Answer :

QuestionID : 15471      Subject Name ASP.NET

Q11. To Enter secured text ,the \_\_\_\_\_ property of a text box can be set to password

1. TextBox1.type
2. TextBox1.style
3. TextBox1.TextMode
4. TextBox1.Mode

Correct Answer : 3

Your Answer :

QuestionID : 15472      Subject Name ASP.NET

Q12. If you want to retrieve particular key of cookie dictionary then you have to pass cookie name.

Correct Answer : T

Your Answer :

QuestionID : 15479      Subject Name ASP.NET

Q13. \_\_\_\_\_ file contains set of attributes that contain general information the assembly

1. machine.config

2. assemblyinfo.cs
3. webapplication.vsdisco
4. web.config

Correct Answer : 2

Your Answer :

QuestionID : 15481      Subject Name ASP.NET

Q14. In comparevalidator ,the operator are taken from the \_\_\_\_\_

1. validation datatype
2. validationcompareoperator
3. validationoperators
4. none

Correct Answer : 2

Your Answer :

QuestionID : 15484      Subject Name ASP.NET

Q15. The Global.asax File is stored in the \_\_\_\_\_ directory of the application

1. inetpub\wwwroot
2. root directory
3. sub directories
4. none

Correct Answer : 2

Your Answer :

QuestionID : 15487      Subject Name ASP.NET

Q16. Application\_OnBeginrequest fires when

1. fired every time a page request begins (ideally when page is loaded)
2. fired when the first asp.net page in the current application directory is called

- 3. fired every time when new session begins
- 4. fired when session ends

Correct Answer : 1

Your Answer :

QuestionID : 15490      Subject Name ASP.NET

Q17. All web controls are derived from \_\_\_\_\_ class.

- 1. web control
- 2. page
- 3. controls
- 4. none of the above

Correct Answer : 1

Your Answer :

QuestionID : 15493      Subject Name ASP.NET

Q18. The ASP.NET HTML controls exists in the \_\_\_\_\_ namespace.

- 1. system.web
- 2. System.web.UI
- 3. System.web.UI.HTMLcontrols
- 4. System.web.UI.Webcontrols

Correct Answer : 3

Your Answer :

QuestionID : 15494      Subject Name ASP.NET

Q19. The \_\_\_\_\_ is not Asp.net object

- 1. application
- 2. request
- 3. session

4. cookies

Correct Answer : 1

Your Answer :

QuestionID : 15496     Subject Name ASP.NET

Q20. The \_\_\_\_\_ method of the server object is used by server and acts as an interface between the virtual/relatives directories on the web server & the physical directories on the server

1. Server.URLEncode()
2. Server.MapPath()
3. Server.HTMLEncode
4. Server.Transfer()

Correct Answer : 3

Your Answer :

QuestionID : 15560     Subject Name ASP.NET

Q21. Which is the executable unit, which gets created when we build an ASP.Net application?

1. .EXE
2. .DLL
3. .COM
4. .ASPX

Correct Answer : 2

Your Answer :

QuestionID : 15564     Subject Name ASP.NET

Q22. < asp:dropdownlist > tag replaces which of the HTML tags

1. < Option >
2. < Select >
3. < List >
4. < Combo >

Correct Answer : 2

Your Answer :

QuestionID : 15573      Subject Name ASP.NET

Q23. To add a custom control to a Web form we have to register with

1. TagPrefix
2. Name space of the dll that is referenced
3. Assemblyname
4. All of the above

Correct Answer : 1

Your Answer :

QuestionID : 15575      Subject Name ASP.NET

Q24. A web application running on multiple servers is called as

1. WebForm
2. Webfarm
3. Website
4. webgarden

Correct Answer : 2

Your Answer :

QuestionID : 15599      Subject Name ASP.NET

Q25. What is the extension of a web user control file?

1. .asmx
2. .ascx
3. .aspx
4. .ashx

Correct Answer : 2

Your Answer :

QuestionID : 15600      Subject Name ASP.NET

Q26. What is the default session out time

1. 20 Sec
2. 20 Min
3. 1 hr
4. Never

Correct Answer : 2

Your Answer :

QuestionID : 15601      Subject Name ASP.NET

Q27. Which of the following is true ?

1. IsPostBack is a method of System.UI.Web.Page class
2. IsPostBack is a method of System.Web.UI.Page class
3. IsPostBack is a readonly property of System.Web.UI.Page class
4. None.

Correct Answer : 3

Your Answer :

QuestionID : 15603      Subject Name ASP.NET

Q28. The number of forms that can be added to a aspx page is

1. 2
2. 3
3. 1
4. More than 3

Correct Answer : 3

Your Answer :

QuestionID : 15605      Subject Name ASP.NET

Q29. What is the difference between user control and custom control

1. Both can use as drag and drop tool
2. Both are same
3. Both can use different application
4. One Custom Control can be use in different project but not the same with User control

Correct Answer : 4

Your Answer :

QuestionID : 15608      Subject Name ASP.NET

Q30. Where is the default Session data is stored in ASP.Net

1. InProcess
2. StateServer
3. SQL Server
4. All of the above

Correct Answer : 1

Your Answer :

QuestionID : 15615      Subject Name ASP.NET

Q31. What is the default authentication mode for IIS

1. Windows
2. Anonymous
3. Basic Authentication
4. None

Correct Answer : 1

Your Answer :

QuestionID : 15616      Subject Name ASP.NET

Q32. Which of the following is not a valid state management tool?

1. Application State
2. Hidden Form Field
3. Querystate
4. Cookies

Correct Answer : 3

Your Answer :

QuestionID : 15617      Subject Name ASP.NET

Q33. Select the control, which does not have any visible interface

1. Datalist
2. DropDownList
3. Repeater
4. Datagrid

Correct Answer : 3

Your Answer :

QuestionID : 15618      Subject Name ASP.NET

Q34. How do you explicitly kill a user's session?

1. Session.Close
2. Session.Discard
3. Session.Abandon
4. Session.End

Correct Answer : 3

Your Answer :

QuestionID : 15621      Subject Name ASP.NET

Q35. What is the purpose of code behind?

1. To separate different sections of a page in to different files
2. To merge HTML layout and code in to One file
3. To separate HTML Layout and code to different file
4. To ignore HTML usage

Correct Answer : 3

Your Answer :

QuestionID : 15624      Subject Name ASP.NET

Q36. The object used by SQL connection to make Security Demands

1. SQLClientAttribute
2. SQLPermission
3. SQLPermissionClient
4. SQLClientPermission

Correct Answer : 4

Your Answer :

QuestionID : 15627      Subject Name ASP.NET

Q37. How to open more than one datareader at a time

1. Use different datareader variable
2. Use different datareader and connection variable
3. Use Different Connection
4. Can not be done

Correct Answer : 2

Your Answer :

QuestionID : 15632      Subject Name ASP.NET

Q38. What is the Full Form of WSDL

1. Web System Description Language
2. Web Services Detail Language
3. Web Service Description Language
4. None

Correct Answer : 3

Your Answer :

QuestionID : 15635      Subject Name ASP.NET

Q39. What is the size of the session ID

1. 32 bit long string
2. 32 bit long double
3. 32 bit long character
4. 32 bit long integer

Correct Answer : 1

Your Answer :

QuestionID : 15636      Subject Name ASP.NET

Q40. Which of the following extension does a webservice file will have

1. .asmx
2. .aspx
3. .ascx
4. .resx

Correct Answer : 1

Your Answer :

QuestionID : 15637      Subject Name ASP.NET

Q41. What is a strong name?

1. Public Key
2. Private Key
3. Combination Of Public, Private key and digital signature
4. None

Correct Answer : 3

Your Answer :

QuestionID : 15640      Subject Name ASP.NET

Q42. What is a diffgram?

1. The one which renders the dataset object contents to XML
2. Finds the difference in two objects
3. Finds the difference in two files
4. None of the above

Correct Answer : 1

Your Answer :

QuestionID : 15642      Subject Name ASP.NET

Q43. Select the output of the statement < form method=post action="test.aspx" >

1. Transfers all the form data to test.aspx with HTTP headers
2. Transfers all the form data to test.aspx with out HTTP headers
3. Calls post method on test.aspx
4. None of the above

Correct Answer : 3

Your Answer :

QuestionID : 15644      Subject Name ASP.NET

Q44. What is the Server.MachineName does

1. Gets the Server's Machine Name
2. Gets the Referred Web site name on the server
3. Gets the Client Machine Name
4. None

Correct Answer : 1

Your Answer :

QuestionID : 15761      Subject Name ASP.NET

Q45. UDDI can be used for locaing information about web services offered by a business patner.

Correct Answer : T

Your Answer :

QuestionID : 15782      Subject Name ASP.NET

Q46. By including \_\_\_\_\_ directive in a page allows you to layout custom server controls or user controls

1. @Control
2. @Register
3. @WebService
4. @Page

Correct Answer : 2

Your Answer :

QuestionID : 15784      Subject Name ASP.NET

Q47. If the configuration setting are changed they get automatically detected by the system

Correct Answer : T

Your Answer :

QuestionID : 15793      Subject Name ASP.NET

Q48. ASP.NET provide us the Flexibility to write custom error pages and redirect the client browser to these error pages when any specific error occurs

Correct Answer : T

Your Answer :

QuestionID : 15798      Subject Name ASP.NET

Q49. Trace output can be sort by specifying \_\_\_\_\_ attribute of page directive

1. Trace
2. TraceMode
3. OutputBy
4. Language

Correct Answer : 2

Your Answer :

QuestionID : 15802      Subject Name ASP.NET

Q50. \_\_\_\_\_ is technique used to increase performance by keeping frequently accessed data in memory.

1. Tracing
2. Caching
3. Debuging
4. All of the above

Correct Answer : 2

Your Answer :

Q1. The client browser and the web browser communicate using Tcp/Ip protocol

Correct Answer : F

Your Answer :

QuestionID : 15443      Subject Name ASP.NET

Q2. An Application variable can be accessed by all pages in the application

Correct Answer : T

Your Answer :

QuestionID : 15444      Subject Name ASP.NET

Q3. The base directory is called the virtual directory and the directory in which you store the applicationfile is called virtual root

Correct Answer : F

Your Answer :

QuestionID : 15450      Subject Name ASP.NET

Q4. Web service is platform dependent

Correct Answer : F

Your Answer :

QuestionID : 15451      Subject Name ASP.NET

Q5. Autopostback property of checkbox can be set to true if the changing of the checkbox status has to be informed to the server

Correct Answer : T

Your Answer :

QuestionID : 15455      Subject Name ASP.NET

Q6. we can use multiple language in a single user page.

Correct Answer : F

Your Answer :

QuestionID : 15456      Subject Name ASP.NET

Q7. Multiple directives can be used in a single .aspx page

Correct Answer : T

Your Answer :

QuestionID : 15461      Subject Name ASP.NET

Q8. The `HTMLEncode` method is used to apply HTML encoding to specify string.

Correct Answer : T

Your Answer :

QuestionID : 15462      Subject Name ASP.NET

Q9. \_\_\_\_\_ validation control can be used to provide validation in case the provided controls are not enough to validate the inputs.

1. custom validator control
2. rugularField validator control
3. range validator control
4. compare validator control.

Correct Answer : 1

Your Answer :

QuestionID : 15463      Subject Name ASP.NET

Q10. An array list can bound to dropdown list

Correct Answer : T

Your Answer :

QuestionID : 15464      Subject Name ASP.NET

Q11. Comparison of the values entered into a control with a specified pattern is made by the \_\_\_\_\_ control

1. CompareValidator
2. RegularExpressionValidator

3. CustomValidator

4. RangeValidator

Correct Answer : 2

Your Answer :

QuestionID : 15472      Subject Name ASP.NET

Q12. If you want to retrieve particular key of cookie dictionary then you have to pass cookie name.

Correct Answer : T

Your Answer :

QuestionID : 15475      Subject Name ASP.NET

Q13. The \_\_\_\_\_ Control is used when a field must not be left blank

1. RequiredFieldvalidator
2. rangeValidator
3. CompareValidator
4. CustomValidator

Correct Answer : 1

Your Answer :

QuestionID : 15476      Subject Name ASP.NET

Q14. \_\_\_\_\_ is the configuration file for your web application

1. machine.config
2. web.config
3. assemblyinfo.cs
4. webapplication.vsdisco

Correct Answer : 2

Your Answer :

QuestionID : 15482      Subject Name ASP.NET

Q15. In DownLevel Browsers validation is performed on server side only

Correct Answer : T

Your Answer :

QuestionID : 15483      Subject Name ASP.NET

Q16. The \_\_\_\_\_ property of the comparevalidator control specifies the ID of the servecontrol to use for comparing values

1. controlToValidate
2. comparewith
3. controltocompare
4. valuetocompare

Correct Answer : 3

Your Answer :

QuestionID : 15484      Subject Name ASP.NET

Q17. The Global.asax File is stored in the \_\_\_\_\_ directory of the application

1. inetpub\wwwroot
2. root directory
3. sub directories
4. none

Correct Answer : 2

Your Answer :

QuestionID : 15493      Subject Name ASP.NET

Q18. The ASP.NET HTML controls exists in the \_\_\_\_\_ namespace.

1. system.web
2. System.web.UI
3. System.web.UI.HTMLcontrols
4. System.web.UI.Webcontrols

Correct Answer : 3

Your Answer :

QuestionID : 15494     Subject Name ASP.NET

Q19. The \_\_\_\_\_ is not Asp.net object

1. application
2. request
3. session
4. cookies

Correct Answer : 1

Your Answer :

QuestionID : 15495     Subject Name ASP.NET

Q20. \_\_\_\_\_ event fired when the last session of application ends.

1. Application\_OnEndRequest
2. Session\_OnEnd
3. Application\_OnEnd
4. none of the above

Correct Answer : 3

Your Answer :

QuestionID : 15560     Subject Name ASP.NET

Q21. Which is the executable unit, which gets created when we build an ASP.Net application?

1. .EXE
2. .DLL
3. .COM
4. .ASPX

Correct Answer : 2

Your Answer :

QuestionID : 15564      Subject Name ASP.NET

Q22. < asp:dropdownlist > tag replaces which of the HTML tags

1. < Option >
2. < Select >
3. < List >
4. < Combo >

Correct Answer : 2

Your Answer :

QuestionID : 15566      Subject Name ASP.NET

Q23. Postback occurs in which of the following forms

1. Winforms
2. HTMLForms
3. DOTNETForms
4. Webforms

Correct Answer : 4

Your Answer :

QuestionID : 15570      Subject Name ASP.NET

Q24. How do you register a user control?

1. Add Tag prefix, Tag name
2. Add Source, Tag prefix
3. Add Src, Tagprefix, Tagname
4. None

Correct Answer : 3

Your Answer :

QuestionID : 15572      Subject Name ASP.NET

Q25. Can a dll run as stand alone application ?

1. No
2. Yes
3. Sometimes we can make it by introducing some code
4. null

Correct Answer : 1

Your Answer :

QuestionID : 15573      Subject Name ASP.NET

Q26. To add a custom control to a Web form we have to register with

1. TagPrefix
2. Name space of the dll that is referenced
3. Assemblyname
4. All of the above

Correct Answer : 1

Your Answer :

QuestionID : 15576      Subject Name ASP.NET

Q27. What is the transport protocol used to call a webservice

1. HTTP
2. SOAP
3. TCP
4. SMTP

Correct Answer : 1

Your Answer :

QuestionID : 15599      Subject Name ASP.NET

Q28. What is the extension of a web user control file?

1. .asmx
2. .ascx
3. .aspx
4. .ashx

Correct Answer : 2

Your Answer :

QuestionID : 15603      Subject Name ASP.NET

Q29. The number of forms that can be added to a aspx page is

1. 2
2. 3
3. 1
4. More than 3

Correct Answer : 3

Your Answer :

QuestionID : 15604      Subject Name ASP.NET

Q30. How do you manage states in asp.net application

1. Session Objects
2. Viewstate
3. Cookies
4. All of the above

Correct Answer : 4

Your Answer :

QuestionID : 15605      Subject Name ASP.NET

Q31. What is the difference between user control and custom control

1. Both can use as drag and drop tool
2. Both are same
3. Both can use different application
4. One Custom Control can be used in different project but not the same with User control

Correct Answer : 4

Your Answer :

QuestionID : 15606      Subject Name ASP.NET

Q32. Which property of the session object is used to set the local identifier?

1. SessionId
2. LCID
3. Item
4. Key

Correct Answer : 2

Your Answer :

QuestionID : 15610      Subject Name ASP.NET

Q33. Select the validation control used for “PatternMatching”

1. FieldValidator
2. RegularExpressionValidator
3. RangeValidator
4. PatternValidator

Correct Answer : 2

Your Answer :

QuestionID : 15611      Subject Name ASP.NET

Q34. How do you trace the application\_End event on runtime?

1. By Debugging
2. By Tracing
3. Can not be done
4. null

Correct Answer : 3

Your Answer :

QuestionID : 15613      Subject Name ASP.NET

Q35. Who can access Session state variables

1. All Users of an application
2. A Single session
3. All users within a single tunnel
4. None

Correct Answer : 2

Your Answer :

QuestionID : 15615      Subject Name ASP.NET

Q36. What is the default authentication mode for IIS

1. Windows
2. Anonymous
3. Basic Authentication
4. None

Correct Answer : 1

Your Answer :

QuestionID : 15616      Subject Name ASP.NET

Q37. Which of the following is not a valid state management tool?

1. Application State

2. Hidden Form Field

3. Querystate

4. Cookies

Correct Answer : 3

Your Answer :

QuestionID : 15619      Subject Name ASP.NET

Q38. What does Response.End will do?

1. It will stop the server process

2. It will stop the client process

3. None of the above

4. None

Correct Answer : 1

Your Answer :

QuestionID : 15627      Subject Name ASP.NET

Q39. How to open more than one datareader at a time

1. Use different datareader variable

2. Use different datareader and connection variable

3. Use Different Connection

4. Can not be done

Correct Answer : 2

Your Answer :

QuestionID : 15634      Subject Name ASP.NET

Q40. Which Language can Support SOAP

1. VB

- 2. JAVA
- 3. COBOL
- 4. All of the above

Correct Answer : 2

Your Answer :

QuestionID : 15636      Subject Name ASP.NET

Q41. Which of the following extension does a webservice file will have

- 1. .asmx
- 2. .aspx
- 3. .ascx
- 4. .resx

Correct Answer : 1

Your Answer :

QuestionID : 15637      Subject Name ASP.NET

Q42. What is a strong name?

- 1. Public Key
- 2. Private Key
- 3. Combination Of Public, Private key and digital signature
- 4. None

Correct Answer : 3

Your Answer :

QuestionID : 15645      Subject Name ASP.NET

Q43. Whats is the significance of Response.ClearHeaders()

- 1. Clears all Headers from the buffer stream

2. Clears all the section value from rendered HTML File
3. Clears the content of the Rendered page
4. None of the above

Correct Answer : 1

Your Answer :

QuestionID : 15646      Subject Name ASP.NET

Q44. What is the significance of Response.AddHeaders()

1. Adds HTTP Headers to output stream
2. Adds Tag to rendered Page
3. Add Headers to the web site
4. None of the above

Correct Answer : 1

Your Answer :

QuestionID : 15761      Subject Name ASP.NET

Q45. UDDI can be used for locaing information about web services offered by a business patner.

Correct Answer : T

Your Answer :

QuestionID : 15766      Subject Name ASP.NET

Q46. we can create a proxy file for the web service by using \_\_\_\_\_ tool

1. webservice.exe
2. webserviceutil.exe
3. WSDL.exe
4. ILDASM.exe

Correct Answer : 3

Your Answer :

QuestionID : 15767      Subject Name ASP.NET

Q47. A web service can call another web service

Correct Answer : T

Your Answer :

QuestionID : 15771      Subject Name ASP.NET

Q48. Acuston controls are also known as pagelets

Correct Answer : T

Your Answer :

QuestionID : 15774      Subject Name ASP.NET

Q49. Every custom control that is inherited from the \_\_\_\_\_ class

1. ctrl
2. control
3. controls
4. none of the above

Correct Answer : 2

Your Answer :

QuestionID : 15789      Subject Name ASP.NET

Q50. The ASP.NET configuration files are written in \_\_\_\_\_ format

1. HTML
2. DHTML
3. XHTML
4. XML

Correct Answer : 4

Your Answer :

Q1. UDDI is the global business registry commonly initiated by Amba , microsoft ,IBM

Correct Answer : T

Your Answer :

QuestionID : 15448      Subject Name ASP.NET

Q2. The Property of the radio button controls restricts the user to select one option from the given set of options

1. Group name
2. Group id
3. id
4. text

Correct Answer : 1

Your Answer :

QuestionID : 15449      Subject Name ASP.NET

Q3. Global.asax can be viewed in browser

Correct Answer : F

Your Answer :

QuestionID : 15450      Subject Name ASP.NET

Q4. Web service is platform dependent

Correct Answer : F

Your Answer :

QuestionID : 15451      Subject Name ASP.NET

Q5. Autopostback property of checkbox can be set to true if the changing of the checkbox status has to be informed to the server

Correct Answer : T

Your Answer :

QuestionID : 15452      Subject Name ASP.NET

Q6. The page object has property called \_\_\_\_\_ that returns true if all the validation tests are successful

1. Valid
2. IsvalidData
3. IsValid
4. IsPostBack

Correct Answer : 3

Your Answer :

QuestionID : 15454      Subject Name ASP.NET

Q7. The \_\_\_\_\_ validation control displays a list of all the validation errors occurring in all controls is created and displayed on the page

1. RequiredFieldValidator
2. RequiredExpressionValidator
3. RangeValidator
4. ValidationSummary

Correct Answer : 4

Your Answer :

QuestionID : 15456      Subject Name ASP.NET

Q8. Multiple directives can be used in a single .aspx page

Correct Answer : T

Your Answer :

QuestionID : 15458      Subject Name ASP.NET

Q9. The Compare Validator compares \_\_\_\_\_ type of data

1. String
2. currency
3. Datetime

4. All of the above

Correct Answer : 4

Your Answer :

QuestionID : 15459      Subject Name ASP.NET

Q10. The \_\_\_\_\_ method of server object is used to transfer execution from the current page to another page to another page and returns the execution to the current page

1. Server.Transfer()
2. Server.MapPath()
3. Server.Execute()
4. Server.UrlEncode()

Correct Answer : 3

Your Answer :

QuestionID : 15460      Subject Name ASP.NET

Q11. The calendra control responds to \_\_\_\_ event

1. click
2. text changed
3. month changes
4. navigate

Correct Answer : 3

Your Answer :

QuestionID : 15461      Subject Name ASP.NET

Q12. The HTMLEncode method is used to apply HTML encoding to specify string.

Correct Answer : T

Your Answer :

QuestionID : 15462      Subject Name ASP.NET

Q13. \_\_\_\_\_ validation control can be used to provide validation in case the provided controls are not enough to validate the inputs.

1. custom validator control
2. rugularField validator control
3. range validator control
4. compare validator control.

Correct Answer : 1

Your Answer :

QuestionID : 15463      Subject Name ASP.NET

Q14. An array list can bound to dropdown list

Correct Answer : T

Your Answer :

QuestionID : 15465      Subject Name ASP.NET

Q15. The CompareValidator control is used to check if value of a control

lies within a range

Correct Answer : T

Your Answer :

QuestionID : 15466      Subject Name ASP.NET

Q16. It is possible to check whether an .aspx page is posted back to hte server with the help of the

1. web.PostBack
2. page.PostBack
3. page.IsPostBack
4. web.IsPostBack

Correct Answer : 3

Your Answer :

QuestionID : 15467      Subject Name ASP.NET

Q17. Setting the text box to \_\_\_\_\_ allow the user to enter many lines of data

1. many lines
2. more lines
3. multi lines
4. password

Correct Answer : 3

Your Answer :

QuestionID : 15468      Subject Name ASP.NET

Q18. A \_\_\_\_\_ is a small packet information that is used to maintain on the users computer.

1. Application
2. Cookie
3. Session
4. All of the above

Correct Answer : 2

Your Answer :

QuestionID : 15470      Subject Name ASP.NET

Q19. link buttons are used to mainly when you need to navigate between pages

Correct Answer : T

Your Answer :

QuestionID : 15471      Subject Name ASP.NET

Q20. To Enter secured text ,the \_\_\_\_\_ property of a text box can be set to password

1. TextBox1.type
2. TextBox1.style
3. TextBox1.TextMode

4. TextBox1.Mode

Correct Answer : 3

Your Answer :

QuestionID : 15472      Subject Name ASP.NET

Q21. If you want to retrieve particular key of cookie dictionary then you have to pass cookie name.

Correct Answer : T

Your Answer :

QuestionID : 15473      Subject Name ASP.NET

Q22. The \_\_\_\_\_property of checkbox can slow down the application

1. cheked
2. text alligned
3. autopost back
4. text

Correct Answer : 3

Your Answer :

QuestionID : 15474      Subject Name ASP.NET

Q23. The event handlers of application and session objects are stored in a file called

1. global.asax
2. global.asa
3. global.aspx
4. none of the above

Correct Answer : 1

Your Answer :

QuestionID : 15475      Subject Name ASP.NET

Q24. The \_\_\_\_\_ Control is used when a field must not be left blank

1. RequiredFieldvalidator
2. rangeValidator
3. CompareValidator
4. CustomValidator

Correct Answer : 1

Your Answer :

QuestionID : 15477      Subject Name ASP.NET

Q25. When display property of requiredFieldvalidator control is set to dynamic no space is reserved on the page for displaying the error message

Correct Answer : T

Your Answer :

QuestionID : 15479      Subject Name ASP.NET

Q26. \_\_\_\_\_ file contains set of attributes that contain general information the assembly

1. machine.config
2. assemblyinfo.cs
3. webapplication.vsdisco
4. web.config

Correct Answer : 2

Your Answer :

QuestionID : 15480      Subject Name ASP.NET

Q27. .vsdisco is an xml file containing URLs that links to resources with information related to dynamic discovery of web services

Correct Answer : T

Your Answer :

QuestionID : 15481      Subject Name ASP.NET

Q28. In comparevalidator ,the operator are taken from the \_\_\_\_\_

1. validation datatype
2. validationcompareoperator
3. validationoperators
4. none

Correct Answer : 2

Your Answer :

QuestionID : 15482      Subject Name ASP.NET

Q29. In DownLevel Browsers validation is performed on server side only

Correct Answer : T

Your Answer :

QuestionID : 15483      Subject Name ASP.NET

Q30. The \_\_\_\_\_ property of the comparevalidator control specifies the ID of the servecontrol to use for comparing values

1. controlToValidate
2. comparewith
3. controltocompare
4. valuetocompare

Correct Answer : 3

Your Answer :

QuestionID : 15484      Subject Name ASP.NET

Q31. The Global.asax File is stored in the \_\_\_\_\_ directory of the application

1. inetpub\wwwroot
2. root directory
3. sub directories
4. none

Correct Answer : 2

Your Answer :

QuestionID : 15489      Subject Name ASP.NET

Q32. Web controls are created using \_\_\_\_\_ namespace tag prefix.

1. web
2. asp
3. aspx
4. webctrl

Correct Answer : 2

Your Answer :

QuestionID : 15492      Subject Name ASP.NET

Q33. Server object has \_\_\_\_\_ Property.

1. ScriptTimeout
2. Application
3. ExpiresAbsolute
4. Session

Correct Answer : 1

Your Answer :

QuestionID : 15493      Subject Name ASP.NET

Q34. The ASP.NET HTML controls exists in the \_\_\_\_\_ namespace.

1. system.web
2. System.web.UI
3. System.web.UI.HTMLcontrols
4. System.web.UI.Webcontrols

Correct Answer : 3

Your Answer :

QuestionID : 15494      Subject Name ASP.NET

Q35. The \_\_\_\_\_ is not Asp.net object

1. application
2. request
3. session
4. cookies

Correct Answer : 1

Your Answer :

QuestionID : 15496      Subject Name ASP.NET

Q36. The \_\_\_\_\_ method of the server object is used by server and acts as an interface between the virtual/relatives directories on the web server & the physical directories on the server

1. Server.URLEncode()
2. Server.MapPath()
3. Server.HTMLEncode
4. Server.Transfer()

Correct Answer : 3

Your Answer :

QuestionID : 15558      Subject Name ASP.NET

Q37. The Following are the minimum requirement to run Asp.net pages

1. Java Virtual Machine
2. Common Language Runtime
3. Windows explorer
4. None

Correct Answer : 3

Your Answer :

QuestionID : 15561      Subject Name ASP.NET

Q38. The best way to delimit ASP.Net code from HTML code in your pages is by using ----- tags.

1. < Body >
2. < Head >
3. < Script >
4. < Code >

Correct Answer : 3

Your Answer :

QuestionID : 15565      Subject Name ASP.NET

Q39. The first event to be triggered in an aspx page is

1. Page\_Load()
2. Page\_Init()
3. Page\_Click()
4. Page\_Render()

Correct Answer : 2

Your Answer :

QuestionID : 15566      Subject Name ASP.NET

Q40. Postback occurs in which of the following forms

1. Winforms
2. HTMLForms
3. DOTNETForms
4. Webforms

Correct Answer : 4

Your Answer :

QuestionID : 15568      Subject Name ASP.NET

Q41. Which method do you invoke on the Data Adapter control to load your generated dataset

1. Fill()
2. ExecuteQuery()
3. Read()
4. ExecuteReader()

Correct Answer : 1

Your Answer :

QuestionID : 15569      Subject Name ASP.NET

Q42. How many configuration files can an ASP.NET projects have?

1. One
2. Two
3. More Than Two
4. None

Correct Answer : 1

Your Answer :

QuestionID : 15570      Subject Name ASP.NET

Q43. How do you register a user control?

1. Add Tag prefix, Tag name
2. Add Source, Tag prefix
3. Add Src, Tagprefix, Tagname
4. None

Correct Answer : 3

Your Answer :

QuestionID : 15571      Subject Name ASP.NET

Q44. Which of these namespaces used for FileAccess

1. System.IO
2. System.IO.IsolatedStorage
3. System.DirectoryServices
4. All of these

Correct Answer : 1

Your Answer :

QuestionID : 15574      Subject Name ASP.NET

Q45. Custom Controls are derived from which of the classes

1. System.Web.UI.WebControls
2. System.Web.UI.WebControls
3. System.Web.UI.WebControls.WebControls
4. None.

Correct Answer : 1

Your Answer :

QuestionID : 15577      Subject Name ASP.NET

Q46. Why is Global.asax is used

1. Implement application and session level events
2. Declare Global variables
3. No use
4. Dont know

Correct Answer : 1

Your Answer :

QuestionID : 15598      Subject Name ASP.NET

Q47. There can be more than one machine.config file in a system

Correct Answer : F

Your Answer :

QuestionID : 15599      Subject Name ASP.NET

Q48. What is the extension of a web user control file?

1. .asmx
2. .ascx
3. .aspx
4. .ashx

Correct Answer : 2

Your Answer :

QuestionID : 15600      Subject Name ASP.NET

Q49. What is the default session out time

1. 20 Sec
2. 20 Min
3. 1 hr
4. Never

Correct Answer : 2

Your Answer :

QuestionID : 15601      Subject Name ASP.NET

Q50. Which of the following is true ?

1. IsPostBack is a method of System.UI.Web.Page class
2. IsPostBack is a method of System.Web.UI.Page class
3. IsPostBack is a readonly property of System.Web.UI.Page class
4. None.

Correct Answer : 3

Your Answer :

QuestionID : 15602      Subject Name ASP.NET

Q51. It is possible to set Maximum length for a text box through code

Correct Answer : T

Your Answer :

QuestionID : 15605      Subject Name ASP.NET

Q52. What is the difference between user control and custom control

1. Both can use as drag and drop tool
2. Both are same
3. Both can use different application
4. One Custom Control can be use in different project but not the same with User control

Correct Answer : 4

Your Answer :

QuestionID : 15607      Subject Name ASP.NET

Q53. Select the caching type supported by ASP.Net

1. Output Caching
2. DataCaching
3. Both a & b
4. None of the above

Correct Answer : 3

Your Answer :

QuestionID : 15608      Subject Name ASP.NET

Q54. Where is the default Session data is stored in ASP.Net

1. InProcess

2. StateServer
3. SQL Server
4. All of the above

Correct Answer : 1

Your Answer :

QuestionID : 15610      Subject Name ASP.NET

Q55. Select the validation control used for “PatternMatching”

1. FieldValidator
2. RegularExpressionValidator
3. RangeValidator
4. PatternValidator

Correct Answer : 2

Your Answer :

QuestionID : 15612      Subject Name ASP.NET

Q56. How do you turn off the Session state for a webform?

1. In Web.config file set the sessionState to on
2. In Web.config file set the sessionState to off
3. Set the Session state to false in webform properties window
4. Set the EnableSession state to false in webform properties window

Correct Answer : 2

Your Answer :

QuestionID : 15615      Subject Name ASP.NET

Q57. What is the default authentication mode for IIS

1. Windows
2. Anonymous

- 3. Basic Authentication
- 4. None

Correct Answer : 1

Your Answer :

QuestionID : 15617     Subject Name ASP.NET

Q58. Select the control, which does not have any visible interface

- 1. Datalist
- 2. DropDownList
- 3. Repeater
- 4. Datagrid

Correct Answer : 3

Your Answer :

QuestionID : 15619     Subject Name ASP.NET

Q59. What does Response.End will do?

- 1. It will stop the server process
- 2. It will stop the client process
- 3. None of the above
- 4. None

Correct Answer : 1

Your Answer :

QuestionID : 15620     Subject Name ASP.NET

Q60. Which control supports paging

- 1. Repeater
- 2. Datagrid

- 3. Both
- 4. None

Correct Answer : 2

Your Answer :

QuestionID : 15621      Subject Name ASP.NET

Q61. What is the purpose of code behind?

- 1. To separate different sections of a page in to different files
- 2. To merge HTML layout and code in to One file
- 3. To separate HTML Layout and code to different file
- 4. To ignore HTML usage

Correct Answer : 3

Your Answer :

QuestionID : 15624      Subject Name ASP.NET

Q62. The object used by SQL connection to make Security Demands

- 1. SQLClientAttribute
- 2. SQLPermission
- 3. SQLPermissionClient
- 4. SQLClientPermission

Correct Answer : 4

Your Answer :

QuestionID : 15625      Subject Name ASP.NET

Q63. Which of the following is not a member of ADODBCCommand object

- 1. ExecuteReader
- 2. ExecuteScalar
- 3. ExecuteStream

4. CommandText

Correct Answer : 3

Your Answer :

QuestionID : 15627      Subject Name ASP.NET

Q64. How to open more than one datareader at a time

1. Use different datareader variable
2. Use different datareader and connection variable
3. Use Different Connection
4. Can not be done

Correct Answer : 2

Your Answer :

QuestionID : 15628      Subject Name ASP.NET

Q65. Which objects is used to create foreign key between tables?

1. DataRelation
2. DataRelationship
3. DataConstraint
4. Datakey

Correct Answer : 1

Your Answer :

QuestionID : 15631      Subject Name ASP.NET

Q66. How do we Delete, Update, Select data in a Dataset

1. Using xxxDataAdapter
2. Using xxxDataReader
3. Using xxxCommand
4. None

Correct Answer : 1

Your Answer :

QuestionID : 15634      Subject Name ASP.NET

Q67. Which Language can Support SOAP

1. VB
2. JAVA
3. COBOL
4. All of the above

Correct Answer : 2

Your Answer :

QuestionID : 15635      Subject Name ASP.NET

Q68. What is the size of the session ID

1. 32 bit long string
2. 32 bit long double
3. 32 bit long character
4. 32 bit long integer

Correct Answer : 1

Your Answer :

QuestionID : 15636      Subject Name ASP.NET

Q69. Which of the following extension does a webservice file will have

1. .asmx
2. .aspx
3. .ascx
4. .resx

Correct Answer : 1

Your Answer :

QuestionID : 15637      Subject Name ASP.NET

Q70. What is a strong name?

1. Public Key
2. Private Key
3. Combination Of Public, Private key and digital signature
4. None

Correct Answer : 3

Your Answer :

QuestionID : 15638      Subject Name ASP.NET

Q71. What is the purpose of Reflection?

1. For Reading metadata at runtime
2. For knowing version of assembly
3. For finding path of an assembly
4. None

Correct Answer : 1

Your Answer :

QuestionID : 15639      Subject Name ASP.NET

Q72. Why is Global.asax is used for?

1. To implement application & Session level events
2. To store configuration information
3. To store styling information
4. None of the above

Correct Answer : 1

Your Answer :

QuestionID : 15642      Subject Name ASP.NET

Q73. Select the output of the statement < form method=post action="test.aspx" >

1. Transfers all the form data to test.aspx with HTTP headers
2. Transfers all the form data to test.aspx with out HTTP headers
3. Calls post method on test.aspx
4. None of the above

Correct Answer : 3

Your Answer :

QuestionID : 15643      Subject Name ASP.NET

Q74. Which of the following are not a member of Server Object

1. Execute
2. Transfer
3. Open
4. HTMLDecode

Correct Answer : 3

Your Answer :

QuestionID : 15644      Subject Name ASP.NET

Q75. What is the Server.MachineName does

1. Gets the Server's Machine Name
2. Gets the Referred Web site name on the server
3. Gets the Client Machine Name
4. None

Correct Answer : 1

Your Answer :

QuestionID : 15646      Subject Name ASP.NET

Q76. What is the significance of Response.AddHeaders()

1. Adds HTTP Headers to output stream
2. Adds Tag to rendered Page
3. Add Headers to the web site
4. None of the above

Correct Answer : 1

Your Answer :

QuestionID : 15647      Subject Name ASP.NET

Q77. Which namespace allows us to formauthentication?

1. System.Web.Ui.Forms.Security
2. System.Web.Security
3. System.Web.Configuration
4. System.Web.Services

Correct Answer : 2

Your Answer :

QuestionID : 15648      Subject Name ASP.NET

Q78. When is the user controls code is executed

1. After the webform loads
2. After the page\_init event of webform
3. Before Page\_init event of web form
4. None

Correct Answer : 2

Your Answer :

QuestionID : 15649      Subject Name ASP.NET

Q79. What section of the config.Web file is used for storing a list of authorized users?

- 1. 1
- 2. 3
- 3. 4
- 4. None

Correct Answer : 2

Your Answer :

QuestionID : 15650      Subject Name ASP.NET

Q80. How do you add ASP.Net 3rd party component

- 1. By add/Remove items in the project menu
- 2. Add reference of dll file and place the code where ever required
- 3. Cannot add third party component to asp.net
- 4. None

Correct Answer : 2

Your Answer :

QuestionID : 15755      Subject Name ASP.NET

Q81. UDDI stands for \_\_\_\_\_

- 1. Universal Description Discovery and Integration
- 2. Unique Description Discovery and Integration
- 3. Universal Data Discovery and Integration
- 4. Universal Discovery Data Information

Correct Answer : 1

Your Answer :

QuestionID : 15761      Subject Name ASP.NET

Q82. UDDI can be used for locating information about web services offered by a business partner.

Correct Answer : T

Your Answer :

QuestionID : 15771      Subject Name ASP.NET

Q83. Acuston controls are also known as pagelets

Correct Answer : T

Your Answer :

QuestionID : 15772      Subject Name ASP.NET

Q84. The extension of the custom control is

1. asmx
2. aspx
3. asax
4. ascx

Correct Answer : 4

Your Answer :

QuestionID : 15774      Subject Name ASP.NET

Q85. Every custom control that is inherited from the \_\_\_\_\_ class

1. ctrl
2. control
3. controls
4. none of the above

Correct Answer : 2

Your Answer :

QuestionID : 15776      Subject Name ASP.NET

Q86. The \_\_\_\_\_ interface has no methods it used by ASP.NET to create unique IDS

1. InamingContainer

- 2. Inaming
- 3. IUniqueID
- 4. none of the above

Correct Answer : 1

Your Answer :

QuestionID : 15779      Subject Name ASP.NET

Q87. The custom controls that we create can be made to maintain state automatically

Correct Answer : T

Your Answer :

QuestionID : 15781      Subject Name ASP.NET

Q88. The class control is present in \_\_\_\_\_ namespace

- 1. System
- 2. System.Web
- 3. System.Web.UI
- 4. System.Web.UI.Controls

Correct Answer : 3

Your Answer :

QuestionID : 15784      Subject Name ASP.NET

Q89. If the configuration setting are changed they get automatically detected by the system

Correct Answer : T

Your Answer :

QuestionID : 15786      Subject Name ASP.NET

Q90. The \_\_\_\_\_ config file sets the configuration for a directory and sub directories below it

- 1. Machine.config
- 2. web.cinfig

3. assemblyinfo.cs

4. vsdisco.config

Correct Answer : 2

Your Answer :

QuestionID : 15787     Subject Name ASP.NET

Q91. The process of validating the username and password to check if it is valid or not is known as \_\_\_\_\_

- 1. validation
- 2. authorization
- 3. authentication
- 4. compilation

Correct Answer : 3

Your Answer :

QuestionID : 15790     Subject Name ASP.NET

Q92. The authentication type that uses cookies is known as \_\_\_\_\_ authentication

- 1. windows
- 2. forms
- 3. passport
- 4. none

Correct Answer : 2

Your Answer :

QuestionID : 15791     Subject Name ASP.NET

Q93. Window based authentication as the default authentication mode

Correct Answer : F

Your Answer :

QuestionID : 15792     Subject Name ASP.NET

Q94. The \_\_\_\_\_ tag adds an assembly reference to use during compilation of dynamic resource

1. <assemblies><add...></assemblies>
2. <compilers><add...></compilers>
3. <authentication></authentication>
4. <assembly><include..></assembly>

Correct Answer : 1

Your Answer :

QuestionID : 15793      Subject Name ASP.NET

Q95. ASP.NET provide us the Flexibility to write custom error pages and redirect the client browser to these error pages when any specific error occurs

Correct Answer : T

Your Answer :

QuestionID : 15796      Subject Name ASP.NET

Q96. The process of location errors in code is known as \_\_\_\_\_.

1. Tracing
2. Compiling
3. Caching
4. Debuging

Correct Answer : 1

Your Answer :

QuestionID : 15798      Subject Name ASP.NET

Q97. Trace output can be sort by specifying \_\_\_\_\_ attribute of page directive

1. Trace
2. TraceMode
3. OutputBy
4. Language

Correct Answer : 2

Your Answer :

QuestionID : 15799      Subject Name ASP.NET

Q98. Entire application trace information can also be viewed by pointing the browser to the

\_\_\_\_\_ file in the application root directory

1. Trace.axd
2. Trace.asd
3. Trace.axsd
4. Trace.aspx

Correct Answer : 1

Your Answer :

QuestionID : 15801      Subject Name ASP.NET

Q99. Enabled property of the Trace object can be used to check if trace is enabled or not.

Correct Answer : F

Your Answer :

QuestionID : 15802      Subject Name ASP.NET

Q100. \_\_\_\_\_ is technique used to increase performance by keeping frequently accessed data in memory.

1. Tracing
2. Caching
3. Debuging
4. All of the above

Correct Answer : 2

Your Answer :

Q1. The client browser and the web browser communicate using Tcp/Ip protocol

Correct Answer : F

Your Answer :

QuestionID : 15443      Subject Name ASP.NET

Q2. An Application variable can be accessed by all pages in the application

Correct Answer : T

Your Answer :

QuestionID : 15444      Subject Name ASP.NET

Q3. The base directory is called the virtual directory and the directory in which you store the applicationfile is called virtual root

Correct Answer : F

Your Answer :

QuestionID : 15445      Subject Name ASP.NET

Q4. More than one @page directive can be set per .aspx page.

Correct Answer : F

Your Answer :

QuestionID : 15447      Subject Name ASP.NET

Q5. UDDI is the global business registry commonly initiated by Amba , microsft ,IBM

Correct Answer : T

Your Answer :

QuestionID : 15449      Subject Name ASP.NET

Q6. Global.asax can be viewed in browser

Correct Answer : F

Your Answer :

QuestionID : 15450      Subject Name ASP.NET

Q7. Web service is platform dependent

Correct Answer : F

Your Answer :

QuestionID : 15452      Subject Name ASP.NET

Q8. The page object has property called \_\_\_\_\_ that returns true if all the validation tests are successful

1. Valid
2. IsvalidData
3. IsValid
4. IsPostBack

Correct Answer : 3

Your Answer :

QuestionID : 15453      Subject Name ASP.NET

Q9. \_\_\_\_\_ is an extension of ASP.net page file.

1. .WebForm1
2. .asp
3. .asax
4. .aspx

Correct Answer : 4

Your Answer :

QuestionID : 15454      Subject Name ASP.NET

Q10. The \_\_\_\_\_ validation control displays a list of all the validation errors occurring in all controls is created and displayed on the page

1. RequiredFieldValidator
2. RequiredExpressionValidator
3. RangeValidator
4. ValidationSummary

Correct Answer : 4

Your Answer :

QuestionID : 15456      Subject Name ASP.NET

Q11. Multiple directives can be used in a single .aspx page

Correct Answer : T

Your Answer :

QuestionID : 15458      Subject Name ASP.NET

Q12. The Compare Validator compare \_\_\_\_\_ type of data

1. String
2. currency
3. Datetime
4. All of the above

Correct Answer : 4

Your Answer :

QuestionID : 15459      Subject Name ASP.NET

Q13. The \_\_\_\_\_ method of server object is used to transfer execution from the current page to another page to another page and returns the execution to the current page

1. Server.Transfer()
2. Server.MapPath()
3. Server.Execute()
4. Server.UrlEncode()

Correct Answer : 3

Your Answer :

QuestionID : 15460      Subject Name ASP.NET

Q14. The calendra control responds to \_\_\_\_ event

1. click

2. text changed
3. month changes
4. navigate

Correct Answer : 3

Your Answer :

QuestionID : 15462      Subject Name ASP.NET

Q15. \_\_\_\_\_ validation control can be used to provide validation in case the provided controls are not enough to validate the inputs.

1. custom validator control
2. rugularField validator control
3. range validator control
4. compare validator control.

Correct Answer : 1

Your Answer :

QuestionID : 15463      Subject Name ASP.NET

Q16. An array list can bound to dropdown list

Correct Answer : T

Your Answer :

QuestionID : 15465      Subject Name ASP.NET

Q17. The CompareValidator control is used to check if value of a control

lies within a range

Correct Answer : T

Your Answer :

QuestionID : 15466      Subject Name ASP.NET

Q18. It is possible to check whether an .aspx page is posted back to hte server with the help of the

1. web.PostBack
2. page.PostBack
3. page.IsPostBack
4. web.IsPostBack

Correct Answer : 3

Your Answer :

QuestionID : 15468      Subject Name ASP.NET

Q19. A \_\_\_\_\_ is a small packet information that is used to maintain on the users computer.

1. Application
2. Cookie
3. Session
4. All of the above

Correct Answer : 2

Your Answer :

QuestionID : 15469      Subject Name ASP.NET

Q20. The Customvalidator control cannot be used to call client side function

for the purpose of validation

Correct Answer : F

Your Answer :

QuestionID : 15471      Subject Name ASP.NET

Q21. To Enter secured text ,the \_\_\_\_\_ property of a text box can be set to password

1. TextBox1.type
2. TextBox1.style
3. TextBox1.TextMode
4. TextBox1.Mode

Correct Answer : 3

Your Answer :

QuestionID : 15472      Subject Name ASP.NET

Q22. If you want to retrieve particular key of cookie dictionary then you have to pass cookie name.

Correct Answer : T

Your Answer :

QuestionID : 15473      Subject Name ASP.NET

Q23. The \_\_\_\_\_ property of checkbox can slow down the application

1. cheked
2. text alligned
3. autopost back
4. text

Correct Answer : 3

Your Answer :

QuestionID : 15474      Subject Name ASP.NET

Q24. The event handlers of application and session objects are stored in a file called

1. global.asax
2. global.asa
3. global.aspx
4. none of the above

Correct Answer : 1

Your Answer :

QuestionID : 15475      Subject Name ASP.NET

Q25. The \_\_\_\_\_ Control is used when a field must not be left blank

1. RequiredFieldvalidator
2. rangeValidator
3. CompareValidator
4. CustomValidator

Correct Answer : 1

Your Answer :

QuestionID : 15476      Subject Name ASP.NET

Q26. \_\_\_\_\_ is the configuration file for your web application

1. machine.config
2. web.config
3. assemblyinfo.cs
4. webapplication.vsdisco

Correct Answer : 2

Your Answer :

QuestionID : 15477      Subject Name ASP.NET

Q27. When display property of requiredFieldvalidator control is set to dynamic no space is reserved on the page for displaying the error message

Correct Answer : T

Your Answer :

QuestionID : 15478      Subject Name ASP.NET

Q28. Each web application can have more than global.asax file.

Correct Answer : F

Your Answer :

QuestionID : 15479      Subject Name ASP.NET

Q29. \_\_\_\_\_ file contains set of attributes that contain general information the assembly

1. machine.config

2. assemblyinfo.cs
3. webapplication.vsdisco
4. web.config

Correct Answer : 2

Your Answer :

QuestionID : 15480     Subject Name ASP.NET

Q30. .vsdisco is an xml file containing URLs that links to resources with information related to dynamic discovery of web services

Correct Answer : T

Your Answer :

QuestionID : 15482     Subject Name ASP.NET

Q31. In DownLevel Browsers validation is performed on server side only

Correct Answer : T

Your Answer :

QuestionID : 15483     Subject Name ASP.NET

Q32. The \_\_\_\_\_ property of the comparevalidator control specifies the ID of the servecontrol to use for comparing values

1. controlToValidate
2. comparewith
3. controltocompare
4. valuetocompare

Correct Answer : 3

Your Answer :

QuestionID : 15484     Subject Name ASP.NET

Q33. The Global.asax File is stored in the \_\_\_\_\_ directory of the application

1. inetpub\wwwroot

2. root directory
3. sub directories
4. none

Correct Answer : 2

Your Answer :

QuestionID : 15485      Subject Name ASP.NET

Q34. You can include any html tags or even response.write in the application\_onStart()

Correct Answer : F

Your Answer :

QuestionID : 15486      Subject Name ASP.NET

Q35. You can include server side comments begin with \_\_\_\_\_ and end with \_\_\_\_\_

1. <--,-->
2. <#--,-->
3. <%--,--%>
4. In asp.net you cant include server side comments

Correct Answer : 3

Your Answer :

QuestionID : 15488      Subject Name ASP.NET

Q36. \_\_\_\_\_ is an XML/HTTP based protocol

1. FTP
2. TCP/IP
3. SMTP
4. SOAP

Correct Answer : 4

Your Answer :

QuestionID : 15489      Subject Name ASP.NET

Q37. Web controls are created using \_\_\_\_\_ namespace tag prefix.

1. web
2. asp
3. aspx
4. webctrl

Correct Answer : 2

Your Answer :

QuestionID : 15490      Subject Name ASP.NET

Q38. All web controls are derived from \_\_\_\_\_ class.

1. web control
2. page
3. controls
4. none of the above

Correct Answer : 1

Your Answer :

QuestionID : 15491      Subject Name ASP.NET

Q39. The \_\_\_\_\_ control store the changes made to the controls on the form

1. \_ViewSTATE CONTROL
2. textbox control
3. state control
4. hidden control

Correct Answer : 1

Your Answer :

QuestionID : 15494      Subject Name ASP.NET

Q40. The \_\_\_\_\_ is not Asp.net object

1. application
2. request
3. session
4. cookies

Correct Answer : 1

Your Answer :

QuestionID : 15496      Subject Name ASP.NET

Q41. The \_\_\_\_\_ method of the server object is used by server and acts as an interface between the virtual/relatives directories on the web server & the physical directories on the server

1. Server.URLEncode()
2. Server.MapPath()
3. Server.HTMLEncode
4. Server.Transfer()

Correct Answer : 3

Your Answer :

QuestionID : 15558      Subject Name ASP.NET

Q42. The Following are the minimum requirement to run Asp.net pages

1. Java Virtual Machine
2. Common Language Runtime
3. Windows explorer
4. None

Correct Answer : 3

Your Answer :

QuestionID : 15559      Subject Name ASP.NET

Q43. When a .aspx page is requested from the web server, the output will be rendered to browser in following format.

1. HTML
2. C#
3. XML
4. WML

Correct Answer : 1

Your Answer :

QuestionID : 15561      Subject Name ASP.NET

Q44. The best way to delimit ASP.Net code from HTML code in your pages is by using ----- tags.

1. < Body >
2. < Head >
3. < Script >
4. < Code >

Correct Answer : 3

Your Answer :

QuestionID : 15563      Subject Name ASP.NET

Q45. The Asp.net server control, which provides an alternative way of displaying text on web page, is

1. < asp:label >
2. < asp:listitem >
3. < asp:button >
4. < span >

Correct Answer : 1

Your Answer :

QuestionID : 15567      Subject Name ASP.NET

Q46. What namespace does the Web page belong in the .NET Framework class hierarchy?

1. System.web.UI.Page
2. System.Windows.Page
3. System.Web.page
4. System.UI.Page

Correct Answer : 1

Your Answer :

QuestionID : 15568      Subject Name ASP.NET

Q47. Which method do you invoke on the Data Adapter control to load your generated dataset

1. Fill()
2. ExecuteQuery()
3. Read()
4. ExecuteReader()

Correct Answer : 1

Your Answer :

QuestionID : 15569      Subject Name ASP.NET

Q48. How many configuration files can an ASP.NET projects have?

1. One
2. Two
3. More Than Two
4. None

Correct Answer : 1

Your Answer :

QuestionID : 15572      Subject Name ASP.NET

Q49. Can a dll run as stand alone application ?

1. No
2. Yes
3. Sometimes we can make it by introducing some code
4. null

Correct Answer : 1

Your Answer :

QuestionID : 15575      Subject Name ASP.NET

Q50. A web application running on multiple servers is called as

1. WebForm
2. Webfarm
3. Website
4. webgarden

Correct Answer : 2

Your Answer :

QuestionID : 15576      Subject Name ASP.NET

Q51. What is the transport protocol used to call a webservice

1. HTTP
2. SOAP
3. TCP
4. SMTP

Correct Answer : 1

Your Answer :

QuestionID : 15598      Subject Name ASP.NET

Q52. There can be more than one machine.config file in a system

Correct Answer : F

Your Answer :

QuestionID : 15599      Subject Name ASP.NET

Q53. What is the extension of a web user control file?

1. .asmx
2. .ascx
3. .aspx
4. .ashx

Correct Answer : 2

Your Answer :

QuestionID : 15600      Subject Name ASP.NET

Q54. What is the default session out time

1. 20 Sec
2. 20 Min
3. 1 hr
4. Never

Correct Answer : 2

Your Answer :

QuestionID : 15603      Subject Name ASP.NET

Q55. The number of forms that can be added to a aspx page is

1. 2
2. 3
3. 1

4. More than 3

Correct Answer : 3

Your Answer :

QuestionID : 15605      Subject Name ASP.NET

Q56. What is the difference between user control and custom control

1. Both can use as drag and drop tool
2. Both are same
3. Both can use different application
4. One Custom Control can be use in different project but not the same with User control

Correct Answer : 4

Your Answer :

QuestionID : 15607      Subject Name ASP.NET

Q57. Select the caching type supported by ASP.Net

1. Output Caching
2. DataCaching
3. Both a & b
4. None of the above

Correct Answer : 3

Your Answer :

QuestionID : 15609      Subject Name ASP.NET

Q58. How do you disable client side validation?

1. Set the language property to C#
2. Set the Runat property to server
3. Set the ClientTarget property to Downlevel

4. Set the inherits property to code

Correct Answer : 3

Your Answer :

QuestionID : 15610      Subject Name ASP.NET

Q59. Select the validation control used for “PatternMatching”

1. FieldValidator
2. RegularExpressionValidator
3. RangeValidator
4. PatternValidator

Correct Answer : 2

Your Answer :

QuestionID : 15611      Subject Name ASP.NET

Q60. How do you trace the application\_End event on runtime?

1. By Debugging
2. By Tracing
3. Can not be done
4. null

Correct Answer : 3

Your Answer :

QuestionID : 15613      Subject Name ASP.NET

Q61. Who can access Session state variables

1. All Users of an application
2. A Single session
3. All users within a single tunnel
4. None

Correct Answer : 2

Your Answer :

QuestionID : 15614      Subject Name ASP.NET

Q62. Session Object classes are defined in which of the following namespace?

1. System.Web.UI
2. System.Web.SessionState
3. System.Web
4. None

Correct Answer : 2

Your Answer :

QuestionID : 15615      Subject Name ASP.NET

Q63. What is the default authentication mode for IIS

1. Windows
2. Anonymous
3. Basic Authentication
4. None

Correct Answer : 1

Your Answer :

QuestionID : 15616      Subject Name ASP.NET

Q64. Which of the following is not a valid state management tool?

1. Application State
2. Hidden Form Field
3. Querystate
4. Cookies

Correct Answer : 3

Your Answer :

QuestionID : 15617      Subject Name ASP.NET

Q65. Select the control, which does not have any visible interface

1. Datalist
2. DropDownList
3. Repeater
4. Datagrid

Correct Answer : 3

Your Answer :

QuestionID : 15618      Subject Name ASP.NET

Q66. How do you explicitly kill a user's session?

1. Session.Close
2. Session.Discard
3. Session.Abandon
4. Session.End

Correct Answer : 3

Your Answer :

QuestionID : 15622      Subject Name ASP.NET

Q67. What is a satellite assembly?

1. Any DLL file used by an EXE file.
2. An Assembly containing localized resources for another assembly
3. None of the above
4. null

Correct Answer : 2

Your Answer :

QuestionID : 15623      Subject Name ASP.NET

Q68. Which of the following is not a member of Response Object?

1. Clear
2. Write
3. Execute
4. Flush

Correct Answer : 3

Your Answer :

QuestionID : 15625      Subject Name ASP.NET

Q69. Which of the following is not a member of ADODBCCommand object

1. ExecuteReader
2. ExecuteScalar
3. ExecuteStream
4. CommandText

Correct Answer : 3

Your Answer :

QuestionID : 15626      Subject Name ASP.NET

Q70. Which method do you invoke on the DataAdapter control to load your generated dataset with data?

1. Load
2. Fill
3. GetAll
4. None

Correct Answer : 2

Your Answer :

QuestionID : 15627      Subject Name ASP.NET

Q71. How to open more than one datareader at a time

1. Use different datareader variable
2. Use different datareader and connection variable
3. Use Different Connection
4. Can not be done

Correct Answer : 2

Your Answer :

QuestionID : 15628      Subject Name ASP.NET

Q72. Which objects is used to create foreign key between tables?

1. DataRelation
2. DataRelationship
3. DataConstraint
4. Datakey

Correct Answer : 1

Your Answer :

QuestionID : 15629      Subject Name ASP.NET

Q73. Which one of the following namespaces contains the definition for IDbConnection

1. System.Data.Interfaces
2. System.Data.Common
3. System.Data
4. System.Data.Connection

Correct Answer : 3

Your Answer :

QuestionID : 15632      Subject Name ASP.NET

Q74. What is the Full Form of WSDL

1. Web System Description Language
2. Web Services Detail Language
3. Web Service Description Language
4. None

Correct Answer : 3

Your Answer :

QuestionID : 15633      Subject Name ASP.NET

Q75. What is the difference between Server.Transfer & Response.Redirect

1. No Difference
2. Server.Transfer needs a roundtrip, Response.Redirect does not
3. Response.Redirect needs roundtrip, Server.Transfer does not
4. Server.Transfer can transfer user between two applications

Correct Answer : 3

Your Answer :

QuestionID : 15634      Subject Name ASP.NET

Q76. Which Language can Support SOAP

1. VB
2. JAVA
3. COBOL
4. All of the above

Correct Answer : 2

Your Answer :

QuestionID : 15635      Subject Name ASP.NET

Q77. What is the size of the session ID

1. 32 bit long string
2. 32 bit long double
3. 32 bit long character
4. 32 bit long integer

Correct Answer : 1

Your Answer :

QuestionID : 15636      Subject Name ASP.NET

Q78. Which of the following extension does a webservice file will have

1. .asmx
2. .aspx
3. .ascx
4. .resx

Correct Answer : 1

Your Answer :

QuestionID : 15640      Subject Name ASP.NET

Q79. What is a diffgram?

1. The one which renders the dataset object contents to XML
2. Finds the difference in two objects
3. Finds the difference in two files
4. None of the above

Correct Answer : 1

Your Answer :

QuestionID : 15641      Subject Name ASP.NET

Q80. What data types do a Rangevalidator supports

1. Integer
2. String
3. Date
4. All of the above

Correct Answer : 4

Your Answer :

QuestionID : 15642      Subject Name ASP.NET

Q81. Select the output of the statement < form method=post action="test.aspx" >

1. Transfers all the form data to test.aspx with HTTP headers
2. Transfers all the form data to test.aspx with out HTTP headers
3. Calls post method on test.aspx
4. None of the above

Correct Answer : 3

Your Answer :

QuestionID : 15645      Subject Name ASP.NET

Q82. Whats is the significance of Response.ClearHeaders()

1. Clears all Headers from the buffer stream
2. Clears all the section value from rendered HTML File
3. Clears the content of the Rendered page
4. None of the above

Correct Answer : 1

Your Answer :

QuestionID : 15647      Subject Name ASP.NET

Q83. Which namespace allows us to formauthentication?

1. System.Web.Ui.Forms.Security
2. System.Web.Security
3. System.Web.Configuration
4. System.Web.Services

Correct Answer : 2

Your Answer :

QuestionID : 15648      Subject Name ASP.NET

Q84. When is the user controls code is executed

1. After the webform loads
2. After the page\_init event of webform
3. Before Page\_init event of web form
4. None

Correct Answer : 2

Your Answer :

QuestionID : 15649      Subject Name ASP.NET

Q85. What section of the config.Web file is used for storing a list of authorized users?

- 1.
- 2.
- 3.
4. None

Correct Answer : 2

Your Answer :

QuestionID : 15761      Subject Name ASP.NET

Q86. UDDI can be used for locating information about web services offered by a business partner.

Correct Answer : T

Your Answer :

QuestionID : 15771      Subject Name ASP.NET

Q87. Acuston controls are also known as pagelets

Correct Answer : T

Your Answer :

QuestionID : 15772      Subject Name ASP.NET

Q88. The extension of the custom control is

1. asmx
2. aspx
3. asax
4. ascx

Correct Answer : 4

Your Answer :

QuestionID : 15776      Subject Name ASP.NET

Q89. The \_\_\_\_\_ interface has no methods it used by ASP.NET to create unique IDS

1. InamingContainer
2. Inaming
3. IUniqueId
4. none of the above

Correct Answer : 1

Your Answer :

QuestionID : 15779      Subject Name ASP.NET

Q90. The custom controls that we create can be made to maintain state automatically

Correct Answer : T

Your Answer :

QuestionID : 15781      Subject Name ASP.NET

Q91. The class control is present in \_\_\_\_\_ namespace

1. System
2. System.Web
3. System.Web.UI
4. System.Web.UI.Controls

Correct Answer : 3

Your Answer :

QuestionID : 15782      Subject Name ASP.NET

Q92. By including \_\_\_\_\_ directive in a page allows you to layout custom server controls or user controls

1. @Control
2. @Register
3. @WebService
4. @Page

Correct Answer : 2

Your Answer :

QuestionID : 15784      Subject Name ASP.NET

Q93. If the configuration setting are changed they get automatically detected by the system

Correct Answer : T

Your Answer :

QuestionID : 15786      Subject Name ASP.NET

Q94. The \_\_\_\_\_ config file sets the configuration for a directory and sub directories below it

1. Machine.config
2. web.cinfig
3. assemblyinfo.cs

4. vsdisco.config

Correct Answer : 2

Your Answer :

QuestionID : 15789      Subject Name ASP.NET

Q95. The ASP.NET configuration files are written in \_\_\_\_\_ format

1. HTML
2. DHTML
3. XHTML
4. XML

Correct Answer : 4

Your Answer :

QuestionID : 15791      Subject Name ASP.NET

Q96. Window based authentication as the default authentication mode

Correct Answer : F

Your Answer :

QuestionID : 15793      Subject Name ASP.NET

Q97. ASP.NET provide us the Flexibility to write custom error pages and redirect the client browser to these error pages when any specific error occurs

Correct Answer : T

Your Answer :

QuestionID : 15796      Subject Name ASP.NET

Q98. The process of location errors in code is known as \_\_\_\_\_.

1. Tracing
2. Compiling
3. Caching
4. Debuging

Correct Answer : 1

Your Answer :

QuestionID : 15797      Subject Name ASP.NET

Q99. At the \_\_\_\_\_ level tracing you can use the intrinsic controls like trace to write custom debugging statements and its appear at the end of client output.

1. Application level tracing
2. System level tracing
3. Page level tracing
4. None of the above

Correct Answer : 3

Your Answer :

QuestionID : 15798      Subject Name ASP.NET

Q100. Trace output can be sort by specifying \_\_\_\_\_ attribute of page directive

1. Trace
2. TraceMode
3. OutputBy
4. Language

Correct Answer : 2

Your Answer :

1. CLR is the .NET equivalent of \_\_\_\_\_.

- A. Java Virtual Machine
- B. Common Language Runtime
- C. Common Type System
- D. Common Language Specification

Ans: A

2. The CLR is physically represented by an assembly named \_\_\_\_\_

- A. mscoree.dll
- B. mcoree.dll
- C. msoree.dll
- D. mscor.dll

Ans: A

3. SOAP stands for \_\_\_\_\_.

- A. Simple Object Access Program
- B. Simple Object Access Protocol
- C. Simple Object Application Protocol
- D. Simple Object Account Protocol

Ans: B

4. The \_\_\_\_\_ language allows more than one method in a single class

- A. C#
- B. J#
- C. C++
- D. C

Ans: A

5. In C#, a subroutine is called a \_\_\_\_\_.

- A. Function
- B. Metadata
- C. Method
- D. Managed code

Ans: C

6. All C# applications begin execution by calling the \_\_\_\_\_ method.

- A. Class()
- B. Main()
- C. Submain()
- D. Namespace

Ans: B

7. A \_\_\_\_\_ is an identifier that denotes a storage location

- A. Constant
- B. Reference type
- C. Variable
- D. Object

Ans: C

8. \_\_\_\_\_ are reserved, and cannot be used as identifiers.

- A. Keywords
- B. literal
- C. variables
- D. Identifiers

Ans: A

9. Boxing converts a value type on the stack to an \_\_\_\_\_ on the heap.

- A. Bool type
- B. Instance type
- C. Class type
- D. Object type

Ans: D

10. The character pair ?: is a\_\_\_\_\_ available in C#.

- A. Unary operator
- B. Ternary operator
- C. Decision operator
- D. Functional operator

Ans: B

11. In C#, all binary operators are \_\_\_\_\_.

- A. Center-associative
- B. Right-associative
- C. Left-associative
- D. Top-associative

Ans: C

12. An \_\_\_\_\_ is a symbol that tells the computer to perform certain mathematical or logical manipulations.

- A. Operator
- B. Expression
- C. Condition
- D. Logic

Ans: A

13. A \_\_\_\_\_ is any valid C# variable ending with a colon.

- A. goto
- B. Label
- C. Logical
- D. Bitwise

Ans: B

14. C# has \_\_\_\_\_ operator, useful for making two way decisions.

- A. Looping
- B. Functional
- C. Exponential
- D. Conditional

Ans: D

15. \_\_\_\_\_ causes the loop to continue with the next iteration after skipping any statements in between.

- A. Loop
- B. Exit
- C. Break
- D. Continue

Ans: D

16. An \_\_\_\_\_ is a group of contiguous or related data items that share a common name.

- A. Operator
- B. Integer
- C. Exponential
- D. Array

Ans: D

17. Arrays in C# are \_\_\_\_\_ objects

- A. Reference
- B. Logical
- C. Value
- D. Arithmetic

Ans: A

18. Multidimensional arrays are sometimes called \_\_\_\_\_ Arrays.

- A. Square
- B. Triangular
- C. Rectangular
- D. Cube

Ans: C

19. \_\_\_\_\_ parameters are used to pass results back to the calling method.

- A. Input
- B. Reference
- C. Value
- D. Output

Ans: D

20. The formal-parameter-list is always enclosed in \_\_\_\_\_.

- A. Square
- B. Semicolon
- C. Parenthesis
- D. Colon

Ans: C

21. \_\_\_\_\_ variables are visible only in the block they are declared.

- A. System
- B. Global
- C. Local
- D. Console

Ans: C

22. C# does not support \_\_\_\_\_ constructors.

- A. parameterized
- B. parameter-less
- C. Class
- D. Method

Ans: B

23. A structure in C# provides a unique way of packing together data of \_\_\_\_\_ types.

- A. Different
- B. Same
- C. Invoking
- D. Calling

Ans: A

24. Struct's data members are \_\_\_\_\_ by default.

- A. Protected
- B. Public
- C. Private
- D. Default

Ans: C

25. A \_\_\_\_\_ creates an object by copying variables from another object.

- A. Copy constructor
- B. Default constructor
- C. Invoking constructor
- D. Calling constructor

Ans: A

26. The methods that have the same name, but different parameter lists and different definitions is called\_\_\_\_\_.

- A. Method Overloading
- B. Method Overriding
- C. Method Overwriting
- D. Method Overreading

Ans: A

27. The C# provides special methods known as \_\_\_\_\_ methods to provide access to data members.

- A. Loop
- B. Functions
- C. Methods
- D. Accessor

Ans: D

28. When an instance method declaration includes the abstract modifier, the method is said to be an \_\_\_\_\_.

- A. Abstract method
- B. Instance method
- C. Sealed method
- D. Expression method

Ans: A

29. The theory of \_\_\_\_\_ implies that user can control the access to a class, method, or variable.

- A. Data hiding
- B. Encapsulation
- C. Information Hiding
- D. Polymorphism

Ans: B

30. Inheritance is \_\_\_\_\_ in nature.

- A. Commutative
- B. Associative
- C. Transitive
- D. Iterative

Ans: C

31. The point at which an exception is thrown is called the \_\_\_\_\_.

- A. Default point
- B. Invoking point
- C. Calling point
- D. Throw point

Ans: D

32. In C#, having unreachable code is always an \_\_\_\_\_.

- A. Method
- B. Function
- C. Error
- D. Iterative

Ans: C

33. C# treats the multiple catch statements like cases in a \_\_\_\_\_ statement.

- A. If
- B. Switch
- C. For
- D. While

Ans: B

34. C# supports a technique known as\_\_\_\_\_, which allows a method to specify explicitly the name of the interface it is implementing.

- A. Method Implementaion
- B. Implicit Interface Implementation
- C. Explicit Interface Implementation
- D. Iterative Interface Implementation

Ans: C

35. The reason that C# does not support multiple inheritances is because of \_\_\_\_\_.

- A. Method collision
- B. Name collision
- C. Function collision
- D. Interface collision

Ans: B

36. \_\_\_\_\_ is a set of devices through which a user communicates with a system using interactive set of commands.

- A. Console
- B. System
- C. Keyboard
- D. Monitor

Ans: A

37. Exponential formatting character ('E' or 'e') converts a given value to string in the form of \_\_\_\_\_.

- A. m.dddd E+xxx
- B. m.dddd
- C. E+xxx
- D. None of the above

Ans: A

38. The \_\_\_\_\_ are the Graphical User Interface (GUI) components created for web based interactions..

- A. Web forms
- B. Window Forms
- C. Application Forms
- D. None of the above

Ans: B

39. In Microsoft Visual Studio, \_\_\_\_\_ technology and a programming language such as C# is used to create a Web based application.

- A. JAVA
- B. J#
- C. VB.NET
- D. ASP.NET

Ans: D

40. The controls available in the tool box of the \_\_\_\_\_ are used to create the user interface of a web based application.

- A. Microsoft visual studio IDE
- B. Application window
- C. Web forms
- D. None of the above

Ans: A

41.The infrastructure that supports these dynamic operations at run time is called the\_\_\_\_\_.

- A.CLR
- B.CTS
- C.CLS
- D.DLR

Ans: D

42.The \_\_\_\_\_ keyword is new to C# 4.0, and is used to tell the compiler that a variable's type can change or that it is not known until runtime.

- A.Covariance
- B.dynamic
- C.Contravariance
- D.Object

Ans: B

43.\_\_\_\_\_ methods are not supported for dynamic types.

- A.Anonymous
- B.Static
- C.Abstract
- D.Extension

Ans: D

44.myMobile.Accept(55, inReject: false); Above statement is an example of which new concept of C# 4.0?

- A.Named Parameters
- B.Optional Parameters
- C.dynamic
- D.Variance

Ans: A

45.COM Interop is simplified in C#4.0 e.g.var doc =

Application.GetDocument("MyFile.txt"); In above statement \_\_\_\_\_ keyword was essential in parameters of GetDocument() in previous versions of C#.

- A.out
- B.named
- C.base
- D.ref

Ans: D

46.Covariance and Contravariance are new features introduced in C# 4.0.True/False?

- A.False
- B.True

Ans: B

47. \_\_\_\_\_ parameters allows you to give a method parameter a default value so that you do not have to specify it every time you call the method.

- A.optional
- B.named
- C.out
- D.ref

Ans: A

48. Duck typing is implemented by using \_\_\_\_\_ keyword.

- A.dynamic
- B.object
- C.ref
- D.base

Ans: A

49. Web Forms consists of a \_\_\_\_\_ and a \_\_\_\_\_ .

- A. Template, Component
- B. CLR, CTS
- C. HTML Forms, Web services
- D. Windows, desktop

Ans: A

50. The \_\_\_\_\_ parentheses that follow \_\_\_\_\_ indicate that no information is passed to Main ().

- A. Empty, class
- B. Empty, submain
- C. Empty, Main
- D. Empty, Namespace

Ans: C

51. Is it possible to store multiple data types in System.Array?

- A. Yes

- B. No

Ans: B

52. What is the wild card character in the SQL “like” statement?

- A. \* (Asterisk)
- B. # (Pound)
- C. % (Percent)
- D. \$ (Dollar)

Ans: C

53. Which of the following is the root of the .NET type hierarchy?

- A. System.Object
- B. System.Base
- C. System.Root
- D. System.Parent

Ans: A

54. C# does not support:

- A. abstraction
- B. polymorphism
- C. multiple inheritance
- D. inheritance

Ans: C

55. Your company uses Visual Studio.NET 2005 as its application development platform. You are developing an application using the .NET Framework 2.0. You are required to use a datatype that will store only numbers ranging from -32,768 to 32,767. Which of the following datatypes will you use to accomplish the task?

- A. short
- B. System.Int16
- C. string
- D. a and b

Ans: D

56. Which of the following jobs are NOT performed by Garbage Collector?

- 1. Freeing memory on the stack.
  - 2. Avoiding memory leaks.
  - 3. Freeing memory occupied by unreferenced objects.
  - 4. Closing unclosed database collections.
  - 5. Closing unclosed files.
- (A) 1, 2, 3  
(B) 1, 4, 5  
(C) 3, 5  
(D) 3, 4

Ans: B

57. Which of the following statements is correct about Managed Code?

- A. Managed code is the code that runs on top of Windows.
- B. Managed code is the code that is written to target the services of the CLR.
- C. Managed code is the code where resources are Garbage Collected.
- D. Managed code is the code that is compiled by the JIT compilers.

Ans: B

58. How does assembly versioning in .NET prevent DLL Hell?

- A. The runtime checks to see that only one version of an assembly is on the machine at any one time.
- B. The compiler offers compile time checking for backward compatibility.
- C. .NET allows assemblies to specify the name AND the version of any assemblies they need to run.
- D. It doesn't.

Ans: C

59. Which of the following is/are not types of arrays in C#?

- A. Single-Dimensional
- B. Multidimensional
- C. Jazzed arrays
- D. Jagged arrays

Ans: C

60. A variable which is declared inside a method is called a\_\_\_\_\_ variable

- A. Local
- B. Private
- C. Static
- D. Serial

Ans: A

61. Two methods with the same name but with different parameters.

- A. Overloading
- B. Multiplexing
- C. Duplexing
- D. Loading

Ans: A

62. Which file contains configuration data for each unique URI resource used in project?

- A. web.config
- B. global.asax
- C. webapplication.vsdisco
- D. assemblyinfo.cs

Ans: A

63. Features of Read only variables

- A. Declaration and initialization is separated
- B. It is allocated at compile time
- C. It is allocated at runtime
- D. all of the above

Ans: D

64. Different ways a method can be overloaded in C#.NET

- A. Different parameter data types
- B. Different order of parameters
- C. Different number of parameters
- D. All of above

Ans: D

65. Is it possible to change the value of a variable while debugging a C# application?

- A. Yes

- B. No

Ans: A

66. Which of the following constitutes the .NET Framework?

- 1. ASP.NET Applications
  - 2. CLR
  - 3. Framework Class Library
  - 4. WinForm Applications
  - 5. Windows Services
- (A) 2, 5  
(B) 2, 1  
(C) 2, 3  
(D) 3, 4

Ans: C

67. Which of the following statements is correct about the C#.NET program given below?

```
namespace PskillsConsoleApplication
{
    class Baseclass
    {
        int i;
        public Baseclass(int ii)
        {
            i = ii;
            Console.Write("Base ");
        }
    }
    class Derived : Baseclass
    {
        public Derived(int ii) : base(ii)
        {
            Console.Write("Derived ");
        }
    }
}
```

```
class MyProgram
{
    static void Main(string[ ] args)
    {
        Derived d = new Derived(10);
    }
}
```

- A. The program will report an error in the statement base(ii).
- B. The program will work correctly if we replace base(ii) with base.Baseclass(ii).
- C. The program will output: Base Derived
- D. The program will work correctly only if we implement zero-argument constructors in Baseclass as well as Derived class.

Ans: C

68. Managed methods will be marked as \_\_\_\_\_ in MSIL code

- A. mscojit
- B. cil
- C. dgclr
- D. None

Ans: B

69. Identify which is true

- A. DataView ia subset of row and not columns
- B. find can be done only on sorted columns
- C. Sorting can be done on multiple columns
- D. None of these

Ans: A

70. Which of the following .NET components can be used to remove unused references from the managed heap?

- A. Class Loader
- B. Garbage Collector
- C. CTS
- D. CLR

Ans: B

71. A local variable

- A. Can be used anywhere in the program
- B. Is declared within a method
- C. Must accept a class
- D. Represent a class object

Ans: b

72. An instance variable

- A. is an object of a class
- B. represents an attribute of an object
- C. is a method of a class
- D. a and c

Ans: b

73. Private Button print = new button();

- A. creates a button control
- B. initializes a button control
- C. instantiates button control
- D. a and b
- E. a and c

Ans: e

74. An instance method

- A. Represents the behavior of an object
- B. Represents the attribute of an object
- C. Represents another class
- D. a and b

Ans: a

75. A Constructor

- A. is used to create objects
- B. must have the same name as the class it is declared within
- C. is a method of a class
- D. maybe overloaded
- E. b and c
- F. all of the above

Ans: e

76. class Test: Form { }

- A. Creates the class Test : Form
- B. Creates the class Test that inherits the class Form
- C. Creates the class form that inherits the class Test
- D. a and b

Ans: b

77. A variable declared inside a method is called a\_\_\_\_\_ variable

- A. Static
- B. Private
- C. Local
- D. Serial
- E. b and d

Ans: c

78. Defining two methods with the same name but with different parameters is called.

- A. Loading
- B. Overloading
- C. Multiplexing
- D. Duplexing

Ans: b

79. Find any errors in the following BankAccount constructor: Public int BankAccount() {  
balance = 0; }

- A. Name
- B. Formal parameters
- C. Return type
- D. No errors

Ans: c

80. In the body of a method, C# uses the variable named \_\_\_\_\_ to refer to the current object whose method is being invoked

- A. call
- B. this
- C. do
- D. that

Ans: b

81. String mystring; Creates a(n)

- A. class
- B. Constructor
- C. Object
- D. a and b

Ans: c

82. An Event is

- A. The result of a users action
- B. result of a party
- C. code to force users action

Ans: a

83. A delegate defines

- A. a Wahsington representative
- B. a class that encapsulates methods
- C. a means of passing arrays into methods
- D. a substitue for an inherited method

Ans: b

84. Is it possible to pass methods as arguments for other methods without modification.

- A. True
- B. False

Ans: a

85. All interfaces must contain IDrivable

- A. True
- B. False

Ans: b

86. What is the proper header for a class that intends to use an interface.

- A. class MyClass IFace
- B. class MyClass ; IFace
- C. class MyClass : IFace
- D. class MyCalss {IFace}
- E. class MyCalss(IFace)

Ans: c

87. In order for a class to use an interface, it must

- A. inherit the properties of the interface
- B. contain the same methods as the interface
- C. create an interface objects
- D. a and b
- E. all of the above

Ans: e

88. Every class directly or indirectly extends the\_\_\_\_\_ class.

- A. System
- B. Object
- C. Drawing
- D. Console

Ans: b

89. The concept of composition specifies that you can.

- A. Compose good code with C#
- B. Compose C# projects with different objects
- C. Reduce errors by remaining composed during programming
- D. all of the above

Ans: b

90. Polymorphism occurs when the methods of the child class.

- A. Override the parent class methods but maintain the implementation
- B. Maintain the same return type and arguments as the parent class, but implement it differently
- C. Have different return types and arguments than the parent class
- D. Are Virtual

Ans: b

91. To output the value of multidimensional array, Console.WriteLine(\_\_\_\_)

- A. myArray[1][3];
- B. myArray[1..3];
- C. myArray{1}{3};
- D. myArray(1),(3);

Ans: a

92. All methods in an abstract base class must be declared abstract.

- A. True
- B. False

Ans: b

93. Methods that are declared abstract in the base class must show implementation at the time of declaration.

- A. True
- B. False

Ans: b

94. The code public class B : A { }

- A. Defines a class that inherits all the methods of A
- B. Defines a class that inherits the public and protected methods of A only
- C. Errors
- D. a and b

Ans: b

95. Assuming that public class B : A { public B(int i) :base(i) { } } compiles and runs correctly, what can we conclude about the constructors in the class A?

- A. One constructor takes an argument of type i
- B. There is only a default constructor
- C. One constructor takes an arguments of the type int
- D. False

Ans: b

96. Classes declared with the sealed keyword cannot be base class.

- A. True
- B. False

Ans: a

97. A method \_\_\_\_\_ an exception when that method detects that a problem has occurred.

- A. Trys
- B. Catches
- C. Throws
- D. a and b

Ans: c

98. Exception objects are derived from the class.

- A. Try
- B. Catch
- C. Exception
- D. Event
- E. System

Ans: c

99. An abstract class

- A. may contain instance variables
- B. may contain constructors
- C. may extend another class
- D. a and b
- E. all of the above

Ans: e

100. A \_\_\_\_\_ block encloses the code that could throw an exception.

- A. Try
- B. Catch
- C. Exception
- D. Error
- E. a and b

Ans: a

## C#.NET

Q1. Which tool allows you to install an assembly into the GAC?

- 1. Ngen.exe**
2. Mscorcfg.msc
3. Setup.exe
4. sn.exe

Q2. What can be configured using the .NET Configuration tool?

1. GAC cache.
2. Assemblies.
3. Security.
- 4. All of the above.**

Q3. What kind of project can you create from the Setup and Deployment Projects list?

- A. Web Setup project.
  - B. GAC project.
  - C. Setup project.
  - D. CAB project.
1. B,C,D
  - 2. A,C,D**
  3. A,B
  4. B,D

Q4. What happens if an ASP.NET server control with event-handling routines is missing the runat="server" attribute from its definition?

1. The control will operate as usual; the default is runat="server".
2. The control will revert to being a client-side control and function as such.
3. The control will not function; the default is runat="client".
- 4. The compilation of the application will fail.**

## C#.NET

Q5. Why is the Setup project name important?

1. Setup looks for files under that name.
- 2. It is the name in the Add/Remove Programs dialog box.**
3. There cannot be any spaces in the name.
4. The name goes in the Registry.

Q6. Where is the GAC located by default?

- 1. Windows directory.**
2. Programs directory.
3. Documents and Settings directory.
4. Application directory.

Q7. Where would you find the machine.config file on a Windows 2000 machine?

1. < system drive >\Program Files\Microsoft .NET\FrameworkCONFIG\
- 2. < system drive >\Winnt\Microsoft.NET\Framework\< version >CONFIG\**
3. < system drive >\Winnt\CONFIG
4. < system drive >\Documents and Settings\Framework\CONFIG

Q8. Which of the following XML segments will redirect the bindings of a component?

```
1. < runtime >  
< assemblyBinding >  
< redirectBinding name="MyComponent"  
oldVersion="1.0.0.01" newVersion="1.0.0.02" />  
< /assemblyBinding >  
< /runtime >
```

```
2. < runtime >  
< assemblyBinding >
```

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```
< oldVersion="1.0.0.01" newVersion="1.0.0.02" />
</assemblyBinding>
</runtime>

3. < runtime >

< assemblyBinding >
< dependentAssembly >
< assemblyIdentity name="MyComponent" />
< redirectBinding oldVersion="1.0.0.01"
newVersion="1.0.0.02" />
</dependentAssembly >
</assemblyBinding >
</runtime >

4. < runtime >

< assemblyBinding >
< dependentAssembly >
< assemblyIdentity name="MyComponent" />
< bindingRedirect oldVersion="1.0.0.01"
newVersion="1.0.0.02" />
</dependentAssembly >
</assemblyBinding >
</runtime >
```

Q9. Which code segment represents the most efficient way to manipulate a string?

```
1. string s = new string("Hello");

for (int j = 0; j < 10; j++)
{
    s = s + NameCollection(j);
}
```

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```
2. String s = new String ("Hello");

for (int j = 0; j < 10; j++)

{

s = s + NameCollection(j);

}

3. StringBuilder s = new StringBuilder ("Hello");

for (int j = 0; j < 10; j++)

{

s.append(NameCollection(j));

}

4. StringBuffer s = new StringBuffer ("Hello");

for (int j = 0; j < 10; j++)

{

s.append(NameCollection(j));

}
```

Q10. Which of the following represents a union of permissions?

- 1. A collection of code groups.**
2. A collection of permissions.
3. A collection of intersections.
4. A collection of evidence.

Q11. Envelope, Header, Fault.

1. XMLS
2. XSLT
3. CORBA
- 4. WSDL**

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Q12. What is the default namespace for a new web service?

1. http://localhost
2. http://www.w3.org
- 3. http://tempuri.org/**
4. http://www.microsoft.com

Q13. A WSDL document is a file that contains definitions for which of the following?

1. Types, Messages, Bindings.
- 2. Types, Messages, portTypes, bindings, services.**
3. Types, portTypes, bindings, services.
4. Messages, portTypes, bindings, services.

Q14. Which segment of code will cause the web service method to be invoked?

- 1. localhost.Service1 MyWebService = new localhost.Service1();**  
**MyWebService.Method();**
2. proxy.Service1 MyWebService = new proxy.Service1();  
MyWebService.Method();
3. Service1 MyWebService = new Service1();  
MyWebService.Method();
4. WebService MyWebService = new WebService();  
MyWebService.Method();

Q15. You have created a serviced component that will interface with COM+ services.

You want to register the component automatically. Which utility will allow you to do this?

1. gacutil.exe
2. regsvsc.exe
- 3. xcopy.exe**

4. sc.exe

Q16. Which Registry key would lead you to find the installed Windows service?

1. HKEY\_LOCAL\_MACHINE\Services
- 2. HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Services**
3. HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Services
4. HKEY\_LOCAL\_MACHINE\CurrentControlSet\Services

Q17. Which of the following code segments will send an event message to the Application log when the Windows service is stopped?

```
1. public MyService()  
{  
    InitializeComponent();  
    if (!System.Diagnostics.EventLog.SourceExists("Application"))  
    {  
        System.Diagnostics.EventLog.CreateEventSource ("Application", "Application");  
    }  
    eventLog1.Source="Application";  
    eventLog1.Log = "Application";  
}  
  
protected override void OnStart (string[] args)  
{  
    eventLog1.WriteEntry ("Here we are!");  
}  
  
2. public MyService()  
{  
    InitializeComponent();  
    if (!System.Diagnostics.EventLog.SourceExists("Application"))
```

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```
{  
System.Diagnostics.EventLog.CreateEventSource ("Application", "Application");  
}  
  
eventLog1.Source="Application";  
  
eventLog1.Log = "Application";  
}  
  
protected override void OnStop (string[] args)  
{  
  
eventLog1.WriteEntry ("Here we are!");  
}  
  
3. public MyService()  
{  
  
InitializeComponent();  
  
if (!System.Diagnostics.EventLog.SourceExists("System")  
{  
  
System.Diagnostics.EventLog.CreateEventSource ("System", "System");  
}  
  
eventLog1.Source="Application";  
  
eventLog1.Log = "Application";  
}  
  
protected override void OnStart (string[] args)  
{  
  
eventLog1.WriteEntry ("Here we are!");  
}  
  
4. public MyService()  
{  
  
InitializeComponent();  
  
if (!System.Diagnostics.EventLog.SourceExists("Application")
```

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```
{  
    System.Diagnostics.EventLog.CreateEventSource ("Application", "Application");  
}  
  
eventLog1.Source="System";  
  
eventLog1.Log = "Application";  
  
}  
  
protected override void OnStop (string[] args)  
{  
  
    eventLog1.WriteEntry ("Here we are!");  
  
}
```

Q18. You want to configure your new Windows service. Which of the following tools will allow you to set configuration properties for the service? Choose all that apply.

1. regedt32.exe
2. sc.exe
3. regsvr32.exe
- 4. A,B**

Q19. You have created a remote object, ChatServer.dll, that is to be deployed to an IIS server. You need to create a configuration file that will provide location and type information. Which file would you create?

- 1. web.config**
2. machine.config
3. application.config
4. ChatServer.exe.config

Q20. In which directory does the < application\_name >.exe.config file belong?

1. In the bin directory of the application.
- 2. In the root directory of the application.**

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3. In the \Winnt\System32 directory.
4. In the \Program Files\Microsoft.NET directory.

Q21. When discussing the XML Web Services architecture, which sentence best describes the service broker node?

1. Broadcasts the available services.
2. Advertises the available services in Active Directory.
3. Advertises the services that are registered in the Registry.
- 4. Assists the consumer to find the provider that supplies a particular web service.**

Q22. You have developed an XML web service that calculates an index to describe the current state of the air in your city. You have coded the following web methods, but when you compile the class, you receive error messages. What code will you change to successfully compile your project?

[WebMethod]

```
public double GetIndex(int x, double y, char a)  
{ ... }
```

[WebMethod]

```
public double GetIndex(int x, int y, char a)  
{ ... }
```

1. Add the System.Web.Service.Overload namespace to the project.
- 2. Add unique MessageName properties to the two WebMethod attributes.**
3. Change the return data type of the two overloaded methods to make them different.
4. Change the name of the two web methods to be unique.

Q23. What is the output format of the file the C# compiler produces?

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1. Byte code
- 2. IL**
3. Hex dump
4. Intel Assembler

Q24. What best describes the `xxxDataReader`?

1. A disconnected collection of tables.
2. A manager that manages the connection to a data source, using four SQL statements.
- 3. A connected, read-only, forward-only representation of the data source.**
4. The component that encapsulates the database driver.

Q25. 1. Given the following code segment, what will the value returned from the method be?

```
public int ViktorMove()  
{  
    int x = 42;  
    int y = 12;  
    int w;  
    object o;  
    o = x;  
    w = y * (int)o;  
    return w;  
}
```

- 1. 504**
2. 491
3. 42
4. Runtime error, Null Pointer exception!

Q26. You have just installed IIS on your desktop computer that is running Windows 2000 Professional. Directly after the installation, you try to create a web application and you are given error messages indicating that the Internet server is incompatible with the .NET Framework. You need to create a web application, so what is the fastest way to be able to do so?

1. Configure the FrontPage Server Extensions.
- 2. Repair the .NET Framework installation from the Visual Studio .NET Windows Component update CD.**

3. There is no solution. Windows 2000 does not support .NET Framework web application development.

4. Re-boot the computer.

Q27. The following code segment creates an event handler. What text must be inserted in place of <> replace text here >> for the event to work?

```
// declare the delegate for the event  
public delegate void SendFaxEventHandler();  
  
public class Fax  
{  
    // declare the SendFax event  
    public <> replace text here >> event SendFaxHandler SendFax;  
    // ...  
}
```

1. void
2. delegate
3. Combine
- 4. static**

Q28. You want to see all the methods of a particular class that you are using in your

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application. Which tool would you use?

1. Class Viewer
- 2. Object Browser**
3. Class Explorer
4. Object Explorer

Q29. To create a class file that can be added to a library, you would select which project type?

1. ASP.NET Web Application
- 2. Class Library**
3. Console Application
4. Web Control Library

Q30. You are deploying the web application you have been developing to a production server. Your application uses a number of resource assemblies and also one utility assembly that has been developed for the web application. You deploy the application by using a file-archiving utility to package all the .aspx and Web.config files into the archive, and the application is installed on the production server by un-packing the archive in the target directory. The deployment did not generate any error messages; but when you are testing the application, you find that it does not work. None of the localized resources display anything, and there are a large number of errors displayed. You need to make the application function normally—what is the most efficient way to achieve that goal?

1. Enable tracing for the application, trace to an XML file, analyze the output, and correct the source of the problems.
- 2. Copy the /bin directory from the development system to the production server.**

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3. Install Visual Studio .NET on the production server; enable debugging; and single-step through the application, correcting all problems as they appear.

4. Abort the deployment, and inform the customer that you will be back as soon as you have found the problem.

Q31. What is the minimum number of assemblies a .NET application can have?

1. 0

**2. 1**

3. 2

4. 3

Q32. Which of the following methods are ways to create a Windows Form?

1. Visual inheritance.

2. Building a derived class from System.Windows.Forms.Form.

3. Extending a prebuilt form.

**4. All of the above.**

Q33. Select the reasons why you would use Windows Forms over Web Forms.

A. You need the processing to occur on the server.

B. You need the processing to occur on the client.

C. You need access to local resources.

D. You need a consistent graphical interface.

E. You need platform independence.

1. B,C

2. C,E

**3. B,C,D**

4. C,D

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Q34. You want to add a control to your form that allows you to set a particular option on or off. Which control would you choose?

1. Button
2. CheckedListBox
- 3. ListBox**
4. RadioButton

Q35. What does the following command do?

```
csc /res:string.resources HelloGlobalWorld.cs
```

1. Builds only the HelloGlobalWorld program.
2. Builds the HelloGlobalWorld and links the fallback resource.
3. Creates an assembly for the HelloGlobalWorld program.
- 4. Creates a name resolution report for the HelloGlobalWorld program.**

Q36. Do you have to produce all the locale-specific assemblies before deploying the application?

1. Yes, the assemblies must be present for the final compile of the application.
2. Yes, the fallback manifest must be built from all the satellite assemblies.
3. Yes, the .NET Framework must update the registry with all the information at deployment.
- 4. No, the satellite assemblies can be deployed at will after initial deployment.**

Q37. Your application is called AccountingOne.exe. What must the name of the French string resource be?

1. AccountingOne.resources.dll
2. strings.resources
3. strings.fr.resources.dll
- 4. strings.fr.resources**

Q38. By setting the Text property on the form, you will cause the value of the Text property to display on which part of the form?

1. Bottom-right corner
2. Top-right corner
- 3. Title bar**
4. Status bar

Q39. Which command will cause an XML file to be generated from documentation comments?

1. csc MyClass.cs /doc:MyClass.cs
2. cscd MyClass.cs /doc:MyClass.xml
3. cscd MyClass.cs /doc:MyClass.cs
- 4. csc MyClass.cs /doc:MyClass.xml**

Q40. What would the outcome of an application that contained this code be?

```
private void Form1_Load (object sender, System.EventArgs e)
{
    Form1.Hide();
}
```

- 1. The application would not compile.**
2. The program would run but no form would display.
3. The program would run and display the form.
4. A runtime error would occur.

Q41. In which namespace would you find the class Application?

1. System.Application
2. System

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3. System.Window.Forms

### **4. System.Windows.Forms**

Q42. To produce a dialog box similar to the Windows Print dialog box, which of the following controls would you use?

1. PrintPreviewDialog

### **2. PrintDialog**

3. PrintBox

4. SetupPrintDialog

Q43. Which of the following documentation comments is correct?

1. /// summary This is a summary comment summary

2. /// < summary > This is a summary comment < /summary >

3. /// < summary > This is a summary comment

4. /// summary This is a summary comment

Q44. When writing server-side code, what marks are used to indicate the code block?

1. < % % >

2. <!-- -->

3. < @ language="c#" @ >

4. < asp:script runat="server" / >

Q45. When you test a web service, what do you expect to see as output?

1. The web service running.

2. The web site.

### **3. The XML of the web proxy.**

4. The XML of the web service.

Q46. What object would you use if you need to support Netscape Navigator and Microsoft Internet Explorer?

1. ActiveX control
2. Intrinsic controls
- 3. XML**
4. Java applet

Q47. Which of the following advantages of .NET controls is most significant when compared to prior releases of ActiveX components?

1. .NET controls extend the Control class.
- 2. .NET controls manage versioning better.**
3. .NET controls can be created one of three different ways.
4. .NET controls replace ActiveX controls.

Q48. Which of the following can you use to add a Toolbox bitmap to your control?

1. [ToolboxBitmap(typeof(NewControl),  
@"C:\MyIcons\NewControlIcon.ico")]
2. [ToolboxBitmap(typeof(NewControl))]
3. [ToolboxBitmap(@"C:\MyIcons\NewControlIcon.ico")]
- 4. All of the above.**

Q49. What is wrong with the following code?

```
using System;  
using System.Drawing;  
using System.Windows.Forms;  
  
public class MyCustomControl: System.Windows.Forms.Control  
  
// override the OnPaint event of the Control class
```

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```
// draw your own user interface using GDI+
protected override void OnPaint (System.Windows.Forms.PaintEventArgs e)
{
// using the PaintEventArgs object, call the methods of GDI+
}
```

1. The OnPaint declaration is wrong.
2. The OnPaint arguments are wrong.
3. There is invalid inheritance.
- 4. There is a missing declaration.**

Q50. To create an abstract class, type the \_\_\_\_\_ keyword to the left of its name

1. Sealed
- 2. Abstract**
3. Public
4. None of the above

Q1. What can be configured using the .NET Configuration tool?

1. GAC cache.
2. Assemblies.
3. Security.
- 4. All of the above.**

Q2. What kind of project can you create from the Setup and Deployment Projects list?

A. Web Setup project.

B. GAC project.

C. Setup project.

D. CAB project.

1. B,C,D

- 2. A,C,D**

3. A,B

4. B,D

Q3. What happens if an ASP.NET server control with event-handling routines is

missing the runat="server" attribute from its definition?

1. The control will operate as usual; the default is runat="server".
2. The control will revert to being a client-side control and function as such.
3. The control will not function; the default is runat="client".
- 4. The compilation of the application will fail.**

Q4. Which code-access class can be used to represent permissions related to network access?

1. NetworkPermission
2. RemotePermission
3. URLPermission
- 4. SocketPermission**

Q5. What must be done to create a ToolTip on a new Windows control?

- 1. Add a ToolTip control and set the ToolTip property of the new control.**
2. Set the ToolTip property of the new control.
3. Set the Help property of the new control.
4. Create a MessageBox that displays when the user clicks the new control.

Q6. Which technology allows you to publish XML web services?

1. XMLPub
2. XSLT
3. XPath
- 4. UDDI**

Q7. Which Registry key would lead you to find the installed Windows service?

1. HKEY\_LOCAL\_MACHINE\Services
- 2. HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Services**
3. HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Services
4. HKEY\_LOCAL\_MACHINE\CurrentControlSet\Services

Q8. You want to configure your new Windows service. Which of the following tools will allow you to set configuration properties for the service? Choose all that apply.

1. regedt32.exe

2. sc.exe

3. regsvr32.exe

**4. A,B**

Q9. Which method of the ServiceController class will allow you to send a command to the service?

1. Stop()

2. Start()

3. Pause()

**4. ExecuteCommand()**

Q10. In order to have your server component accept method calls that pass the object by value, your remote server object must implement which interface?

1. IUnknown

2. IMarshalByValue

3. ISingleCall

**4. ISerializable**

Q11. Which of the following formatters can be used over an HTTP channel. Choose all that apply.

1. SOAP formatter.

2. RPC formatter.

3. Binary formatter.

**4. A,C**

Q12. You have developed a remote object library class for deployment to a web server. You have established that your configuration files are correct, and now you feel that your component classes may have an error. The following is the code for the remote object:

```
using System;
using System.Runtime.Remoting;
using System.Runtime.Remoting.Channels;
using System.Runtime.Remoting.Channels.Http;
namespace HelloServer
{
    public class Hello: MarshalByRefObject
    {
        public Hello()
        {
        }
        public string HelloWorld(string message)
        {
            return message;
        }
        public static void Main()
        {
            HttpChannel c = new HttpChannel (4242);
```

```
RemotingConfiguration.RegisterWellKnownServiceType {  
    Type.GetType("HelloServer"), "Hello",  
    WellKnownObjectMode.SingleCall);  
}  
}
```

What is the most likely cause of the exception error?

1. You are missing a using declaration.
2. You have used the wrong channel type.
3. You have used the wrong activation mode.
- 4. You have not registered the channel.**

Q13. Under which of the following environments does your program's execution code run?

1. MSIL
2. CLS
- 3. CLR**
4. VB .NET

Q14. Where are stored procedures saved?

1. The GAC.
2. The web server.
- 3. The database server.**
4. The central store.

Q15. What is the purpose of the last string ("{0}") in the following code segment?

```
DataBinder.Eval(dS1, "Tables[SP_SelUsers].DefaultView.[0].LastName",  
    "{0}");
```

- 1. It is the formatting string for the bound data.**
2. It is the default value that will be used when the data is NULL.
3. It is the parameter sent to the stored procedure SP\_SelUsers.
4. It is the placeholder for a DataBinding object.

Q16. Which line causes a compile error in the following code?

```
interface Test2  
{  
    int Int2;  
    void Method2A(int);  
    string Method2B ();  
    int Method2C(int, int);  
    int Method2A(char);  
}
```

- 1. Line 3**
2. Line 4
3. Line 5
4. Line 7

Q17. What is the outcome of compiling this program?

```
public class Test3
{
    void Method3A ()
    {
        System.Console.WriteLine ("In Method3A");
    }
}

class Test3a: Test3
{
    void Method3B ()
    {
        Method3A();
    }
}

class Test3b
{
    public static void Main()
    {
        Test3a a = new Test3a();
        a.Method3B();
    }
}
```

1. It compiles successfully.
- 2. Lines 12 and 20 are in error.**
3. Line 12 is an error.
4. Line 20 is the error.

Q18. In the following code, what will be printed by the Console.WriteLine()

method?

```
string[] str = {"Hello", "!", "World"};
Array.Reverse(str);
Console.WriteLine(str[0]);
```

1. “!”
2. “Hello”
3. “olleH”
- 4. “World”**

Q19. What is the outcome of the following code?

```
public void MethodB ()
{
    int [] MyInts = new int [2];
    try
    {
        for ( int i = 0; i < 3; i++)
        {
            MyInts[i] = i;
        }
    }
```

```
} catch (System.Exception e)  
{  
    System.Console.WriteLine ("Some error occurred");  
}  
}
```

1. The code will not compile because there is an incorrect catch block.
2. The code will not compile because of an error on line 6.
- 3. The code will compile and displays “Some error occurred”.**
4. The code will compile and will abort upon execution.

Q20. What kind of delegate will be created for the following method?

```
public void Method12(object sender, System.EventArgs e)  
{  
    ...  
}
```

1. Single delegate
2. Event delegate
- 3. Multicast delegate**
4. Proxy delegate

Q21. You have just installed IIS on your desktop computer that is running Windows 2000 Professional. Directly after the installation, you try to create a web application and you are given error messages indicating that the Internet server is incompatible with the .NET Framework. You need to create a web application, so what is the fastest way to be able to do so?

1. Configure the FrontPage Server Extensions.

**2. Repair the .NET Framework installation from the Visual Studio .NET Windows Component update CD.**

3. There is no solution. Windows 2000 does not support .NET Framework web application development.

4. Re-boot the computer.

Q22. You are building an event handler for the SendFax event from the sFax component, and you have written the following code. When you test the event handler, you find that it never runs. What code must you add to your application to make the event execute in response to the SendFax event?

```
private void Send_Fax()  
{  
    Console.WriteLine("Fax is sent!");  
}
```

1. public delegate SendFax(Send\_Fax);

**2. this.sFax.SendFax += new SendFaxHandler(this.Send\_Fax);**

3. public event SendFax(Send\_Fax);

4. this.sFax.SendFax =+ new SendFaxHandler(this.Send\_Fax);

Q23. You want to see all the methods of a particular class that you are using in your application. Which tool would you use?

1. Class Viewer

**2. Object Browser**

3. Class Explorer

4. Object Explorer

Q24. True or false. The Web.config file can be used to store configuration data for properties of some controls.

Correct Answer: T

Q25. What is the process called that converts a primitive to a class?

1. Primary
- 2. Boxing**
3. Conversion
4. Encoding

Q26. Which of the following code segments will correctly display the string resource?

txtHello? (All objects are correctly created.)

1. Console.WriteLine(rm.ToString("txtHello"));
2. Console.WriteLine(rm.Strings("txtHello"));
3. Console.Write(txtHello.ToString("s"));
- 4. Console.WriteLine(rm.GetString("txtHello"));**

Q27. Select the line of code that will create a new form.

```
1. Form.MyForm m = new MyForm();  
2. System.Window.Forms.Form MyForm m =  
new System.Window.Forms.Form();  
3. using System.Windows.Forms.Form;  
  
public class MyForm: Form  
{  
    Form MyForm m = new Form();
```

```
}
```

**4. using System.Windows.Forms;**

```
public class MyForm: Form  
{  
    MyForm m = new MyForm();  
}
```

Q28. When localizing a web application, you find that you need to encode Unicode characters that are sent to the client. What attribute would you set?

- 1. ResponseEncoding="UTF-8"**
2. Encoding="UTF-8"
3. ResponseCode="UTF-8"
4. EncodedResponse="UTF-8"

Q29. What is the output from the following code segment?

```
using System;  
using System.Windows.Forms;  
public class MyForm: Form  
{  
    private Button MyButton;  
    public MyForm()  
    {  
        InitializeComponent();  
    }  
    private void InitializeComponent()
```

```
{  
    this.MyButton = new Button();  
  
    this.MyButton.Text = "Hello World!";  
  
    this.MyButton.Click += new System.EventHandler(this.MyButton_Click);  
}  
  
public static void Main()  
{  
  
    MyForm m = new MyForm();  
  
    Application.Run(m);  
}  
}
```

1. Program compiles and displays “Hello World!” when button is clicked.
2. Program compiles, but clicking the button does nothing.
3. Program compiles but causes a runtime error.
- 4. Program does not compile.**

Q30. Do you have to produce all the locale-specific assemblies before deploying the application?

1. Yes, the assemblies must be present for the final compile of the application.
2. Yes, the fallback manifest must be built from all the satellite assemblies.
3. Yes, the .NET Framework must update the registry with all the information at deployment.
- 4. No, the satellite assemblies can be deployed at will after initial deployment.**

Q31. Your application is called AccountingOne.exe. What must the name of the French string resource be?

1. AccountingOne.resources.dll
2. strings.resources
3. strings.fr.resources.dll
- 4. strings.fr.resources**

Q32. By setting the Text property on the form, you will cause the value of the Text property to display on which part of the form?

1. Bottom-right corner
2. Top-right corner
- 3. Title bar**
4. Status bar

Q33. You want to validate the user input that is retrieved in a text box. Which control will assist you in displaying the error message without moving off the form?

1. RichTextBox
2. NotifyIcon
3. HelpProvider
- 4. ErrorProvider**

Q34. Which line of code must be added in order to show a StatusBar?

1. sbMyStatusBar.Show();
2. sbMyStatusBar.Display();
- 3. sbMyStatusBar.Show = true;**
4. sbMyStatusBar.Display = true;

Q35. You want to examine and change the value of a variable in your C# application.

You are developing using Visual Studio .NET. What window will allow you to change the value during execution?

1. Locals window
2. Call Stack window
- 3. Immediate window**
4. Watch window

Q36. You need to get access to a database that is stored on a server running

Microsoft Access 2002. Which data adapter would you use?

1. SqlDataAdapter
- 2. OleDbDataAdapter**
3. OleDbDataAdapter
4. OdbcDataAdapter

Q37. What property is used on the DataTable to indicate a conflict after an update?

1. HasConflict
- 2. HasError**
3. HasCollision
4. HasDataError

Q38. You are the consultant for HMR Inc. They have a large network that includes

a Microsoft SQL Server 2000 database. You have coded a connection and command object to retrieve data from the Student database, but you keep getting an exception. What is wrong with the following code?

```
try
{
    studentConnection.Open();
    studentCommand = studentConnection.CreateCommand();
    studentCommand.CommandType = CommandType.Text;
    studentCommand.CommandText = "SELECT * FROM Student";
    studentAdapter = new OleDbDataAdapter (studentCommand);
    studentSet = new DataSet();
    studentAdapter.Fill (studentSet, "FirstName");
    this.txtFirstName.DataBindings.Add ("Text", studentSet, "FirstName");
}

catch (OleDbException s)
{
    MessageBox.Show ("Oops, something bad happened");
}

finally
{
    studentConnection.Close();
    studentConnection = null;
}
```

- A. The connection cannot be closed in the finally block.
- B. You are using the wrong data adapter.
- C. You are using the wrong data field.
- D. You are using the wrong exception object.

1. Both A and C.

**2. Both B and D.**

3. B

4. D

Q39. What is a DiffGram?

**1. An XML file containing both the original and current values for the data.**

2. An XML file containing the difference between original and current data.

3. A DataSet loaded with two XML files, resulting in the difference

being current.

4. A DataSet loaded with an XML file and the original values from  
the data source.

Q40. When would you not use the OleDbConnection object?

**1. To connect to an SQL 7.0 database.**

2. To connect to a DB/2 database.

3. To connect to an Access database.

4. To connect to an SQL 6.5 database.

Q41. Which command-line tool will generate the proxy for a COM component?

1. isdlam.exe

2. ildasm.exe

3. tlbimp.exe

**4. wsdl.exe**

Q42. Which of the following statements is correct?

- 1. The DataSource property refers to the dataset object, and the DisplayMember refers to the field.**
2. The DataMember property refers to the dataset object, and the DataSource refers to the field.
3. The DataMember property refers to the field, and the DataSource refers to the dataset object.
4. The DisplayMember property refers to the dataset object, and the DataSource refers to the field.

Q43. Which of the following will display the Web Services on a remote IIS server (named www.hmr.com) in an assembly called MyServices?

1. <http://hmr.com/MyServices/ServiceName>
- 2. <http://www.hmr.com/MyServices/ServiceName>**
3. <url://hmr.com/MyServices/ServiceName>
4. <url://www.hmr.com/MyServices/ServiceName>

Q44. How many rules are there regarding a well formed XML document?

1. Nine
2. Three
- 3. Six**
4. Two

Q45. What ASP.NET object encapsulates the state of the client and the browser?

- 1. The Session object.**
2. The Application object.
3. The Response object.
4. The Request object.

Q46. What object would you use if you need to support Netscape Navigator and Microsoft Internet Explorer?

1. ActiveX control
2. Intrinsic controls
- 3. XML**
4. Java applet

Q47. What method(s) must be used with the Application object to ensure that only one process accesses a variable at a time?

1. Synchronize()
- 2. Lock() and UnLock()**
3. Lock() and Unlock()
4. SingleUse()

Q48. When an ASP.NET server control is added to a Web Form, Visual Studio .NET adds one item to the class for the form. What item is added?

1. The event registration.
- 2. A protected class member for the control.**
3. A default event handler for the click event.
4. A default class that inherits from the control's base class.

Q49. When a browser requests an .aspx file and the file is displayed, what is actually returned to the browser from the server?

**1. HTML**

2. XML

3. ASPX

4. ASP

Q50. The XML Web service broker stores information about the XML web services that have published their services to the broker. What structure does the service broker store the information in?

1. Broker registry.

2. Windows Registry.

**3. UDDI registry.**

4. XML document.

**Q1.** What happens if an ASP.NET server control with event-handling routines is missing the runat="server" attribute from its definition?

1. The control will operate as usual; the default is runat="server".
2. The control will revert to being a client-side control and function as such.
3. The control will not function; the default is runat="client".
4. The compilation of the application will fail.

Correct Answer : 4

Your Answer : 2

QuestionID : 12967      Subject Name C#.NET

**Q2.** Where is the GAC located by default?

1. Windows directory.
2. Programs directory.
3. Documents and Settings directory.
4. Application directory.

Correct Answer : 1

Your Answer : 2

QuestionID : 12968      Subject Name C#.NET

**Q3.** You are responsible for adding localization to an existing Windows Form.

What class will determine the locale of the runtime environment?

1. ResourceManager
2. Localization
3. Globalization
4. CurrentUICulture

Correct Answer : 4

Your Answer : 3

QuestionID : 12969      Subject Name C#.NET

Q4. Which tool can you use to configure the security settings for an application?

1. msconfig.msc
2. ngen.exe
3. caspol.exe
4. caspol.msc

Correct Answer : 1

Your Answer : 2

QuestionID : 12978      Subject Name C#.NET

Q5. Where would you find the machine.config file on a Windows 2000 machine?

1. < system drive >\Program Files\Microsoft .NET\FrameworkCONFIG\
2. < system drive >\Winnt\Microsoft.NET\Framework\< version >CONFIG\
3. < system drive >\Winnt\CONFIG
4. < system drive >\Documents and Settings\Framework\CONFIG

Correct Answer : 2

Your Answer :

QuestionID : 12988      Subject Name C#.NET

Q6. What are the three different policy-configuration files?

1. Enterprise, Machine, User.
2. Enterprise, Machine, Local.
3. Enterprise, Security, Local.
4. Enterprise, Security, User.

Correct Answer : 1

Your Answer :

QuestionID : 12994      Subject Name C#.NET

Q7. Which of the following represents a union of permissions?

1. A collection of code groups.
2. A collection of permissions.
3. A collection of intersections.
4. A collection of evidence.

Correct Answer : 1

Your Answer :

QuestionID : 13000      Subject Name C#.NET

Q8. Which namespace must be added to the XML web service in order to write to an event log?

1. System.EventLog
2. System.Events
3. System.Diagnostics
4. System.Diagnostics.Event

Correct Answer : 3

Your Answer :

QuestionID : 13002      Subject Name C#.NET

Q9. Which of the following describes the elements that make up a SOAP message?

1. Envelope, Header, Body, Fault.
2. Envelope, Header, Body, Error.
3. Envelope, Body, Fault.
4. Envelope, Header, Fault.

Correct Answer : 1

Your Answer :

QuestionID : 13009      Subject Name C#.NET

Q10. Envelope, Header, Fault.

1. XMLS
2. XSLT
3. CORBA
4. WSDL

Correct Answer : 4

Your Answer :

QuestionID : 13010      Subject Name C#.NET

Q11. What is the default namespace for a new web service?

1. http://localhost
2. http://www.w3.org
3. http://tempuri.org/
4. http://www.microsoft.com

Correct Answer : 3

Your Answer :

QuestionID : 13017      Subject Name C#.NET

Q12. Which project template will allow you to create a background service in Visual Studio .NET?

1. Windows service.
2. Web service.
3. Windows application.
4. Service.

Correct Answer : 1

Your Answer :

QuestionID : 13059      Subject Name C#.NET

Q13. Which of the following activation requests would you use in client code to have a client-activated remote object?

1. ServerObject s = new ServerObject();
2. ServerObject s = (ServerObject) Activator.GetObject ( ...);
3. ServerObject s = (ServerObject) new ServerObject();
4. ServerObject s = (ServerObject)

Activator.CreateInstance(...);

Correct Answer : 4

Your Answer :

QuestionID : 13066      Subject Name C#.NET

Q14. When discussing the XML Web Services architecture, which sentence best describes the service broker node?

1. Broadcasts the available services.
2. Advertises the available services in Active Directory.
3. Advertises the services that are registered in the Registry.
4. Assists the consumer to find the provider that supplies a particular web service.

Correct Answer : 4

Your Answer :

QuestionID : 13307      Subject Name C#.NET

Q15. What is the root exception for the ADO.NET objects?

1. DataException
2. ADOException
3. Exception
4. DBException

Correct Answer : 1

Your Answer :

QuestionID : 13310      Subject Name C#.NET

Q16. Which is a definition of a static method?

1. public static MethodA()
2. public void MethodA()
3. private static MethodA()
4. public static void MethodA()

Correct Answer : 4

Your Answer :

QuestionID : 13319      Subject Name C#.NET

Q17. What is the correct namespace for use with the SQL .NET Data Provider objects?

1. System.SQL
2. System.Data.SqlConnections
3. System.Data.SqlClient
4. System.SqlConections

Correct Answer : 3

Your Answer :

QuestionID : 13329      Subject Name C#.NET

Q18. Given the following code, what will the compiler do?

```
class Test1
{
    sealed abstract void MyMethod1A()
    {
        System.Console.WriteLine ("This is MyMethod1");
    }
}
```

}

}

1. The code will compile properly.
2. The class visibility is incorrect.
3. System.Console.WriteLine is specified incorrectly.
4. MyMethod1() is not properly declared.

Correct Answer : 4

Your Answer :

QuestionID : 13335      Subject Name C#.NET

Q19. You are the developer of a web application that is retrieving historical sports information from a database server and displays it to the users of your application.

What cache strategy will give you the best performance?

1. Use the output cache.
2. Use the cache object.
3. Use the ASP.NET central cache.
4. Use the client cache.

Correct Answer : 1

Your Answer :

QuestionID : 13339      Subject Name C#.NET

Q20. What will happen on line 24?

1 class Test4

2 {

3 int test4a;

4 string test4b;

5 float test4c;

```
6 virtual public void Test4D ()  
7 {  
8 System.Console.WriteLine("Hello");  
9 }  
10 }  
11 class Test4a: Test4  
12 {  
13 override public void Test4D ()  
14 {  
15 System.Console.WriteLine ("Goodbye");  
16 }  
17 }  
18 class Test4b  
19 {  
20 public static void Main()  
21 {  
22 Test4a t = new Test4a();  
23 Test4 t1 = t;  
24 t.Test4D();  
25 }  
26 }
```

1. The compiler finds an error.
2. A runtime error occurs.
3. It prints “Goodbye.”
4. It prints “Hello.”

Correct Answer : 3

Your Answer :

QuestionID : 13344      Subject Name C#.NET

Q21. Which of the following array declarations will produce a compiler error?

1. int[] Integers = new int[] {1,2,3,4,5,6,7,8,9,0};
2. int[] Integers = new int[42];
3. int[] Integers = {1,2,3,4,5,6,7,8,9,0};
4. int I = 4;

int[] Integers = new int[I] {1,2,3,4};

Correct Answer : 4

Your Answer :

QuestionID : 13351      Subject Name C#.NET

Q22. What is the outcome of the following code?

```
01 public void MethodB ()  
02 {  
03     int [] MyInts = new int [2];  
04     try  
05     {  
06         for ( int i = 0; i < 3; i++)  
07         {  
08             MyInts[i] = i;  
09         }  
10     } finally  
11     {  
12         System.Console.WriteLine ("This is executed");  
13     }  
14 }
```

13 }

14 }

1. The code will not compile because there is a missing catch block.
2. The code will compile and abort upon execution.
3. The code will compile and displays “This is executed”.
4. The code will compile and will abort upon execution and then display “This is executed”.

Correct Answer : 4

Your Answer :

QuestionID : 13356      Subject Name C#.NET

Q23. You have just installed IIS on your desktop computer that is running Windows 2000 Professional. Directly after the installation, you try to create a web application and you are given error messages indicating that the Internet server is incompatible with the .NET Framework. You need to create a web application, so what is the fastest way to be able to do so?

1. Configure the FrontPage Server Extensions.
2. Repair the .NET Framework installation from the Visual Studio .NET Windows Component update CD.
3. There is no solution. Windows 2000 does not support .NET Framework web application development.
4. Re-boot the computer.

Correct Answer : 2

Your Answer :

QuestionID : 13363      Subject Name C#.NET

Q24. You have been asked to describe what authentication and authorization are.

What statements best describe the two terms? Select two answers.

1. Authentication is the process of validating permissions for resources.
2. Authorization is the process of validating security credentials.
3. Authorization is the process of validating permissions for resources.
4. None

Correct Answer : 3

Your Answer :

QuestionID : 13369      Subject Name C#.NET

Q25. Which key combination will allow you to compile your console application and leave the console window open?

1. CTRL-F5
2. ALT-F5
3. F5
4. SHIFT-F5

Correct Answer : 1

Your Answer :

QuestionID : 13379      Subject Name C#.NET

Q26. What is the minimum number of assemblies a .NET application can have?

1. 0
2. 1
3. 2
4. 3

Correct Answer : 2

Your Answer :

QuestionID : 13393      Subject Name C#.NET

Q27. Select the line of code that will create a new form.

1. Form.MyForm m = new MyForm();
  2. System.Window.Forms.Form MyForm m =  
new System.Window.Forms.Form();
  3. using System.Windows.Forms.Form;
- ```
public class MyForm: Form
{
    Form MyForm m = new Form();
}
```
4. using System.Windows.Forms;
- ```
public class MyForm: Form
{
    MyForm m = new MyForm();
}
```

Correct Answer : 4

Your Answer :

QuestionID : 13399      Subject Name C#.NET

Q28. What namespace contains the CultureInfo class?

1. System.Localization
2. System.Resources
3. System.Globalization
4. System.Threading

Correct Answer : 3

Your Answer :

QuestionID : 13402      Subject Name C#.NET

Q29. What is the output from the following code segment?

```
using System;
using System.Windows.Forms;
public class MyForm: Form
{
    private Button MyButton;
    public MyForm()
    {
        InitializeComponent();
    }
    private void InitializeComponent()
    {
        this.MyButton = new Button();
        this.MyButton.Text = "Hello World!";
        this.MyButton.Click += new System.EventHandler(this.MyButton.Click);
    }
    public static void Main()
    {
        MyForm m = new MyForm();
        Application.Run(m);
    }
}
```

1. Program compiles and displays “Hello World!” when button is clicked.
2. Program compiles, but clicking the button does nothing.
3. Program compiles but causes a runtime error.

4. Program does not compile.

Correct Answer : 4

Your Answer :

QuestionID : 13406     Subject Name C#.NET

Q30. By setting the Text property on the form, you will cause the value of the Text property to display on which part of the form?

1. Bottom-right corner
2. Top-right corner
3. Title bar
4. Status bar

Correct Answer : 3

Your Answer :

QuestionID : 13417     Subject Name C#.NET

Q31. Which of the following are not methods of a System.Windows.Forms.Form object?

1. Activate()
2. Deactive()
3. Form()
4. OnCreate()

Correct Answer : 2

Your Answer :

QuestionID : 13421     Subject Name C#.NET

Q32. In which namespace would you find the class Application?

1. System.Application
2. System

3. System.Window.Forms

4. System.Windows.Forms

Correct Answer : 4

Your Answer :

QuestionID : 13423      Subject Name C#.NET

Q33. If you want to ask the user to select between two or more mutually exclusive options, you would employ which of the following controls?

1. TabControl

2. Button

3. RadioButton

4. CheckBox

Correct Answer : 3

Your Answer :

QuestionID : 13427      Subject Name C#.NET

Q34. Which XML rule does the following break?

< employees >

< Employee >

< name >Kenneth S. Lind< /name >

< /Employee >

< employee >

< name >Marj Rempel

< /employee >

< /employees >

1. There must be a single root element.

2. There must be matching opening and closing tags.

3. XML is case-sensitive.
4. All attributes must be in quotes.

Correct Answer : 2

Your Answer :

QuestionID : 13434      Subject Name C#.NET

Q35. Which of the following lines of code will produce a message box for the user?

1. MessageDialogBox.Show ("This is your message");
2. MessageDialogBox.Show ("Message", "This is your message");
3. MessageBox.Show ("This is your message");
4. MessageBox.Show ("Message", "This is your message");

Correct Answer : 3

Your Answer :

QuestionID : 13439      Subject Name C#.NET

Q36. Which property of the CheckedListBox allows you to preset the maximum number of items that can be selected?

1. MaxItems
2. MaximumItems
3. SelectionItems
4. SelectionMode

Correct Answer : 4

Your Answer :

QuestionID : 13459      Subject Name C#.NET

Q37. Which code segment will populate a DataSet?

1. sqlDataProvider1.Fill (dsUsers1);
2. sqlDataProvider.Fill (dataAdapter1);

3. sqlDataAdapter.Fill (dsUsers1);
4. sqlDataAdapter.Fill (dataAdapter1);

Correct Answer : 3

Your Answer :

QuestionID : 13462      Subject Name C#.NET

Q38. What type of commands can you create?

1. Text, stored procedures, and tables.
2. Text, stored procedures, and TableRows.
3. Text, stored procedures, and TableDirect.
4. Text, stored procedures, and TableColumns.

Correct Answer : 3

Your Answer :

QuestionID : 13480      Subject Name C#.NET

Q39. What object is used to encapsulate a data source?

1. XxxConnection
2. XxxCommand
3. XxxDataAdapter
4. DataSet

Correct Answer : 1

Your Answer :

QuestionID : 13488      Subject Name C#.NET

Q40. What connection is used in ADO.NET to connect to an SQL Server 6.0?

1. Use the OleDbConnection class.
2. Upgrade the server to SQL 7.0 and use the OleDbConnection class.
3. Upgrade the server to SQL 2000 and use the OdbcConnection class.

4. Upgrade the server to SQL 6.5 and use the SqlConnection class.

Correct Answer : 1

Your Answer :

QuestionID : 13492      Subject Name C#.NET

Q41. Which of the following object types allow you to view read-only, forward-only data?

1. DataAdapter
2. DataSet
3. DataReader
4. DataCommand

Correct Answer : 3

Your Answer :

QuestionID : 13494      Subject Name C#.NET

Q42. What definition correctly defines a label server control with the name set to lblHoop?

1. <asp:Label name="lblHoop" runat="server" />
2. <Label id="lblHoop" runat="server" />
3. <asp:label id="lblHoop" runat="server" />
4. <server label name="lblHoop" runat="asp" />

Correct Answer : 3

Your Answer :

QuestionID : 13504      Subject Name C#.NET

Q43. The following SQL INSERT statement fails. What is the most probable reason for the failure?

INSERT INTO Employees VALUES (42,'Bob','Carol',12)

1. Syntax error in the INSERT statement.
2. The columns in the Employees table are not in the indicated order (int, char, char, int).
3. The Employees database does not have a default table defined.
4. The SELECT INTO permission is not set.

Correct Answer : 2

Your Answer :

QuestionID : 13507      Subject Name C#.NET

Q44. Where should a web service proxy file be located?

1. In the \bin directory of My Documents.
2. In the \lib directory of the application.
3. In the \bin directory of the application.
4. In the \lib directory of My Documents.

Correct Answer : 3

Your Answer :

QuestionID : 13512      Subject Name C#.NET

Q45. Which command-line tool will create a web service proxy?

1. isdlam.exe
2. ildasm.exe
3. tlbimp.exe
4. wsdl.exe

Correct Answer : 4

Your Answer :

QuestionID : 13518      Subject Name C#.NET

Q46. What ASP.NET object is used to get information about the web servers

hostname?

1. The Session object.
2. The Application object.
3. The Response object.
4. The Server object.

Correct Answer : 4

Your Answer :

QuestionID : 13519      Subject Name C#.NET

Q47. What must be done to be ready to consume a web service?

1. Build a proxy library using wsdl.exe.
2. Build a proxy library using csc.exe.
3. Build a proxy library using TblImp.exe.
4. Build a proxy library using pl.exe.

Correct Answer : 1

Your Answer :

QuestionID : 13527      Subject Name C#.NET

Q48. You need to call the function, CallMe(), located in the user32.dll library.

The signature of the function is as follows:

```
string CallMe (string Name, string Address, string Phone)
```

Which code segment will make the function available to your application?

1. [DllImport("CallMe.dll")]  

```
public static extern string CallMe (string Name, string  
Address, string Phone);
```
2. [[DllImport("CallMe.dll", EntryPoint="CallMe")]]  

```
public static extern string CallMe (string Name, string
```

```
Address, string Phone)];  
3. [DllImport("user32.dll", EntryPoint="CallMe")]  
  
public static extern string CallMe (string Name, string  
Address, string Phone)];  
4. [DllImport("user32.dll")]  
  
public static extern string CallMe (string Name, string  
Address, string Phone)];
```

Correct Answer : 3

Your Answer :

QuestionID : 13528      Subject Name C#.NET

Q49. You have an assembly that includes a web service named ListCollege.

The ListAll() method is a public method that takes an integer value  
(studentID) and returns a Boolean value—True if the student was found,  
False if no student was found. Which code segment will correctly call this  
method?

1. ListCollege.ListAll la = new ListCollege.ListAll();  
  
bool response = la.ListAll(studentID);
2. ListCollege.ListAll la = new ListCollege.ListAll();  
  
la.ListAll();
3. ListCollege.ListAll la = new ListCollege.ListAll();  
  
bool response = la.ListAll();
4. ListCollege.ListAll la = new ListCollege.ListAll();  
  
la.ListAll(studentID);

Correct Answer : 1

Your Answer :

QuestionID : 15331      Subject Name C#.NET

Q50. MSIL is stand for Microsoft Intermediate Language

Correct Answer : T

Your Answer :

**Q1. What is the function of the CustomValidator?**

1. It allows for custom C# client-side code to validate entries in a control.
2. It allows for a custom mixture of validator controls to use one central control for the display of messages.
3. It uses scripted client-side code to validate the entry in a control.
4. It uses server-side code to validate the entry in a control.

**Correct Answer : 3**

**Your Answer :**

QuestionID : 12941      Subject Name C#.NET

**Q2. Which tool allows you to install an assembly into the GAC?**

1. Ngen.exe
2. Mscorcfg.msc
3. Setup.exe
4. sn.exe

**Correct Answer : 1**

**Your Answer :**

QuestionID : 12942      Subject Name C#.NET

**Q3. What is the use of the WebForm.aspx.cs file?**

1. Holds the HTML code for the form.
2. Holds the control configuration for the form.
3. Holds the C# code for the codebehind module.
4. Holds the C# code that will be translated into HTML on the client.

**Correct Answer : 3**

**Your Answer :**

QuestionID : 12943      Subject Name C#.NET

Q4. Which of the following accurately describes a strong named assembly?

1. A private assembly with a unique name within an application domain.
2. A private assembly with a unique name within a global domain.
3. A shared assembly with a unique name within an application domain.
4. A shared assembly with a unique name within a global domain.

Correct Answer : 2

Your Answer :

QuestionID : 12944      Subject Name C#.NET

Q5. Which template must be chosen from the Add New Project dialog box's

Templates list in order to have an application downloaded from an IIS

(Internet Information Server) server?

1. Windows Setup Project.
2. CAB Project.
3. IIS Project.
4. Web Setup Project.

Correct Answer : 4

Your Answer :

QuestionID : 12946      Subject Name C#.NET

Q6. You have followed the steps in creating a Windows Installer Setup project, and

after deployment you notice that it does not install properly on the client.

Which of the following could be the problem?

1. You forgot to run the sn.exe utility.
2. The shortcut was not configured properly.
3. The release type is set to Debug.
4. The Registry entry is incorrect.

Correct Answer : 3

Your Answer :

QuestionID : 12952      Subject Name C#.NET

Q7. What can be configured using the .NET Configuration tool?

1. GAC cache.
2. Assemblies.
3. Security.
4. All of the above.

Correct Answer : 4

Your Answer :

QuestionID : 12957      Subject Name C#.NET

Q8. What happens if an ASP.NET server control with event-handling routines is missing the runat="server" attribute from its definition?

1. The control will operate as usual; the default is runat="server".
2. The control will revert to being a client-side control and function as such.
3. The control will not function; the default is runat="client".
4. The compilation of the application will fail.

Correct Answer : 4

Your Answer :

QuestionID : 12960      Subject Name C#.NET

Q9. If the redistributable package is to be installed on a server, what must be in place?

1. .NET Framework
2. SQL Server
3. MDAC 2.6
4. CLR

Correct Answer : 3

Your Answer :

QuestionID : 12961      Subject Name C#.NET

Q10. What must be done before you can consume a web service?

1. Build a proxy library by using the TblImp.exe utility.
2. Build a proxy library by using the Disc.exe utility.
3. Build a proxy library by using the csc.exe utility.
4. Build a proxy library by using the wsdl.exe utility.

Correct Answer : 4

Your Answer :

QuestionID : 12968      Subject Name C#.NET

Q11. You are responsible for adding localization to an existing Windows Form.

What class will determine the locale of the runtime environment?

1. ResourceManager
2. Localization
3. Globalization
4. CurrentUICulture

Correct Answer : 4

Your Answer :

QuestionID : 12974      Subject Name C#.NET

Q12. Which of the following code segments will produce an ellipse on the form?

1. Graphics g = new Graphics();  
g.DrawEllipse(myPen, 10, 10, 10, 10);
2. Graphics g = new Graphics();  
g.DrawEllipse (10, 10, 10, 10);

```
3. Graphics g = this.CreateGraphics();  
g.DrawEllipse (myPen, 10, 10, 10, 10);  
  
4. Graphics g = this.CreateGraphics();  
g.DrawEllipse (10, 10, 10, 10);
```

Correct Answer : 4

Your Answer :

QuestionID : 12988      Subject Name C#.NET

Q13. What are the three different policy-configuration files?

1. Enterprise, Machine, User.
2. Enterprise, Machine, Local.
3. Enterprise, Security, Local.
4. Enterprise, Security, User.

Correct Answer : 1

Your Answer :

QuestionID : 12989      Subject Name C#.NET

Q14. Which code segment represents the most efficient way to manipulate a string?

```
1. string s = new string("Hello");  
  
for (int j = 0; j < 10; j++)  
{  
  
s = s + NameCollection(j);  
  
}
```

```
2. String s = new String ("Hello");  
  
for (int j = 0; j < 10; j++)  
{  
  
s = s + NameCollection(j);
```

```
}
```

3. StringBuilder s = new StringBuilder ("Hello");

```
for (int j = 0; j < 10; j++)
```

```
{
```

```
s.append(NameCollection(j));
```

```
}
```

4. StringBuffer s = new StringBuffer ("Hello");

```
for (int j = 0; j < 10; j++)
```

```
{
```

```
s.append(NameCollection(j));
```

```
}
```

Correct Answer : 3

Your Answer :

QuestionID : 12995      Subject Name C#.NET

Q15. Which code segment would test the validity of a role-based user?

1. AppDomain.CurrentDomain.SetPrincipalPolicy

```
(PrincipalPolicy.WindowsPrincipal);
```

```
if (WindowsBuiltInRole == Administrator)
```

```
{
```

```
// do something here
```

```
}
```

2. AppDomain.CurrentDomain.SetPrincipalPolicy

```
(PrincipalPolicy.WindowsPrincipal);
```

```
WindowsPrincipal w = (WindowsPrincipal)
```

```
Thread.CurrentPrincipal;
```

```

if (w.WindowsBuiltInRole == Administrator)
{
    // do something here
}

3. AppDomain.CurrentDomain.SetPrincipalPolicy
(PrincipalPolicy.WindowsPrincipal);

WindowsPrincipal w = (WindowsPrincipal)
Thread.CurrentPrincipal;
if (w.IsInRole(WindowsBuiltInRole == Administrator))
{
    // do something here
}

4. AppDomain.CurrentDomain.SetPrincipalPolicy
(PrincipalPolicy.WindowsPrincipal);

WindowsPrincipal w = (WindowsPrincipal)
Thread.CurrentPrincipal;
if (w.IsInRole(WindowsBuiltInRole.Administrator))
{
    // do something here
}

```

Correct Answer : 4

Your Answer :

QuestionID : 13000      Subject Name C#.NET

Q16. Which namespace must be added to the XML web service in order to write to an event log?

1. System.EventLog
2. System.Events
3. System.Diagnostics
4. System.Diagnostics.Event

Correct Answer : 3

Your Answer :

QuestionID : 13021      Subject Name C#.NET

Q17. A static discovery file will usually have a file extension of which of the following?

1. .vsdisco
2. .vdisco
3. .sdisco
4. .disco

Correct Answer : 4

Your Answer :

QuestionID : 13024      Subject Name C#.NET

Q18. You are creating an application that will employ the services of an application that resides on a remote server. Which of the following protocols should be used to encode the message to the remote server?

1. SOAP
2. XML
3. RPC
4. DCOM

Correct Answer : 1

Your Answer :

QuestionID : 13032      Subject Name C#.NET

Q19. You have created a serviced component that will interface with COM+ services.

You want to register the component manually. Which utility will allow you to do this?

1. gacutil.exe
2. regsvsc.exe
3. install.exe
4. sc.exe

Correct Answer : 2

Your Answer :

QuestionID : 13038      Subject Name C#.NET

Q20. Which Registry key would lead you to find the installed Windows service?

1. HKEY\_LOCAL\_MACHINE\Services
2. HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Services
3. HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Services
4. HKEY\_LOCAL\_MACHINE\CurrentControlSet\Services

Correct Answer : 2

Your Answer :

QuestionID : 13043      Subject Name C#.NET

Q21. A Windows service must inherit from which class?

1. System.Service.ServiceBase
2. System.ServiceProcess.Service
3. System.ServiceProcess.ServiceBase
4. System.Service.Service

Correct Answer : 3

Your Answer :

QuestionID : 13045      Subject Name C#.NET

Q22. You want to configure your new Windows service. Which of the following tools will allow you to set configuration properties for the service? Choose all that apply.

1. regedt32.exe
2. sc.exe
3. regsvr32.exe
4. A,B

Correct Answer : 4

Your Answer :

QuestionID : 13048      Subject Name C#.NET

Q23. Which of the following services represent the services that together provide an enterprise application?

1. Business, Logic, Application
2. Application, Business, Data
3. Presentation, Business, Data
4. Presentation, Logic, Data

Correct Answer : 3

Your Answer :

QuestionID : 13051      Subject Name C#.NET

Q24. You have developed a remote object library class for deployment into a console application. The console application will remain running on the server computer and respond to client requests for the remote object. However, when you try to run the remote hosting application, you receive an application exception. The following is the code for the hosting application:

```
using System;
using System.Runtime.Remoting;
using System.Runtime.Remoting.Channels;
using System.Runtime.Remoting.Channels.Tcp;
namespace ChatServer
{
    public class ChatServerHost: MarshalByRefObject
    {
        [STAThread]
        public static void Main ()
        {
            TcpServerChannel tc = new TcpServerChannel (4242);
            ChannelServices.RegisterChannel (tc);
            RemotingConfiguration.RegisterWellKnownServiceType (
                typeof(Chat), "ChatServer", WellKnownObjectMode.SingleCall);
            System.Console.WriteLine ("To stop the application, press Enter.");
            System.Console.ReadLine();
        }
    }
}
```

Here is the code for the remote object:

```
using System;
using ChatServerHost;
namespace ChatServer
{
```

```
public class Chat
{
    public Chat()
    {
    }

    public string Talk(string message)
    {
        return message;
    }
}
```

What is the most likely cause of the exception error?

1. The remote object class is missing a using declaration.
2. The format of the Talk() method is incorrect.
3. The Talk() method is not called from the hosting application.
4. The remote object class is not capable of receiving remote method calls.

Correct Answer : 4

Your Answer :

QuestionID : 13053      Subject Name C#.NET

Q25. You are in charge of creating a remote object that will return database records to the caller of the method. You want to ensure that the object keeps track of the number of requests, and writes the number out to the database. Which activation mode would you use?

1. SingleCall
2. Singleton

- 3. Client-activated
- 4. Server-activated

Correct Answer : 2

Your Answer :

QuestionID : 13065      Subject Name C#.NET

Q26. Your manager has asked you about interoperability between XML Web Services and an existing CORBA environment. What wire protocol will you tell your manager about that will interoperate with CORBA?

- 1. RPC
- 2. COM+
- 3. SOAP
- 4. DCOM

Correct Answer : 3

Your Answer :

QuestionID : 13296      Subject Name C#.NET

Q27. What is the compiler called that converts IL code into platform-specific code?

- 1. MSIL-converter
- 2. JIT
- 3. JTI
- 4. Metadata

Correct Answer : 2

Your Answer :

QuestionID : 13305      Subject Name C#.NET

Q28. Where are stored procedures saved?

- 1. The GAC.

2. The web server.

3. The database server.

4. The central store.

Correct Answer : 3

Your Answer :

QuestionID : 13306      Subject Name C#.NET

Q29. Which of the following statements is true?

1. A class is the implementation of an object.
2. An object is the implementation of a class.
3. A class is the instantiation of an object.
4. An object is the instantiation of a class.

Correct Answer : 4

Your Answer :

QuestionID : 13308      Subject Name C#.NET

Q30. Which of the following is the correct way to declare the method

GetPayCheck()?

1. public int GetPayCheck()
2. private int GetPayCheck()
3. private void GetPayCheck(int a)
4. public void GetPayCheck(int a)

Correct Answer : 1

Your Answer :

QuestionID : 13312      Subject Name C#.NET

Q31. Which of the following languages is not part of the current .NET languages?

1. Visual Basic

2. C#

3. C++

4. FoxPro

Correct Answer : 4

Your Answer :

QuestionID : 13314      Subject Name C#.NET

Q32. You are the developer of a Web Form, and you need to display data from a Microsoft SQL Server 6.5 in a DataGrid on your form. What DataAdapter is the most appropriate?

1. sqlDataAdapter
2. oleDbTypeAdapter
3. odbcDataAdapter
4. adoDataAdapter

Correct Answer : 2

Your Answer :

QuestionID : 13323      Subject Name C#.NET

Q33. How many SqlDataReader objects can be open on one Connection at one time?

1. 4
2. 3
3. 2
4. 1

Correct Answer : 4

Your Answer :

QuestionID : 13327      Subject Name C#.NET

Q34. You need to connect to a Microsoft SQL Server version 6.5. What Connection object is the best choice?

1. sqlConnection
2. oleDbConnection
3. ODBCConnection
4. You must upgrade; there is no connection object for this database.

Correct Answer : 2

Your Answer :

QuestionID : 13335      Subject Name C#.NET

Q35. You are the developer of a web application that is retrieving historical sports information from a database server and displays it to the users of your application.

What cache strategy will give you the best performance?

1. Use the output cache.
2. Use the cache object.
3. Use the ASP.NET central cache.
4. Use the client cache.

Correct Answer : 1

Your Answer :

QuestionID : 13337      Subject Name C#.NET

Q36. What should be added to basic authentication?

1. FTP
2. TCP
3. SSL
4. NHL

Correct Answer : 3

Your Answer :

QuestionID : 13338      Subject Name C#.NET

Q37. You need to define a delegate for the following method:

```
public class Class1  
{  
    public static int Method42(int i)  
    {  
        return i*42;  
    }  
}
```

How is the delegate for Method42() declared?

1. delegate Class1.Method42;
2. delegate int Met42(int i);
3. delegate void Method42(string s);
4. delegate int Class1.Method42(int i);

Correct Answer : 2

Your Answer :

QuestionID : 13340      Subject Name C#.NET

Q38. What is the result of the following code?

```
class Test5  
{  
    public Test5 ()  
    {  
        System.Console.WriteLine ("Test5 1");  
    }  
}
```

```
public Test5 (int num)
{
    System.Console.WriteLine ("Test5 2");
}

}

class Test5a
{
    public Test5a (): base(5)

    {

    }

    public Test5a(int numb): base()

    {
    }
}

class Test5b
{
    public static void Main()
    {
        Test5a t = new Test5a(12);
    }
}
```

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1. It prints “Test5 1.”
2. It prints “Test5 2.”

- 3. It does not compile.
- 4. It does not run.

Correct Answer : 1

Your Answer :

QuestionID : 13341      Subject Name C#.NET

Q39. You are the developer of a web application and have decided to use the output cache in ASP.NET. Which of the following statements correctly defines the Web Form if you want to use the output cache, cache all items for 14 minutes, and store different versions of the cached objects for each customer ID?

- 1. <%@ OutputCache Duration="840" VaryByCustom="true" %>
- 2. <%@ OutputCache Duration="14" VaryByCustom="true" %>
- 3. <%@ OutputCache Duration="840" VaryByParam="Customer ID" %>
- 4. <%@ OutputCache Duration="14" VaryByParam="Customer ID" %>

Correct Answer : 3

Your Answer :

QuestionID : 13343      Subject Name C#.NET

Q40. Given the following code segment, what is the content of the string s in line 4?

1 string s = "Hello";

2 string r;

3 r = s;

4 r += " World!";

- 1. “Hello World!”
- 2. “Hello”
- 3. Nothing, it is garbage collected
- 4. The code will not compile

Correct Answer : 2

Your Answer :

QuestionID : 13347      Subject Name C#.NET

Q41. In the following code, what will be printed by the Console.WriteLine()  
method?

```
string[] str = {"Hello", "!", "World"};
```

```
Array.Reverse(str);
```

```
Console.WriteLine(str[0]);
```

1. “!”
2. “Hello”
3. “olleH”
4. “World”

Correct Answer : 4

Your Answer :

QuestionID : 13358      Subject Name C#.NET

Q42. The following code segment creates an event handler. What text must be  
inserted in place of << replace text here >> for the event to work?

```
// declare the delegate for the event
public delegate void SendFaxEventHandler();

public class Fax
{
    // declare the SendFax event
    public << replace text here >> event SendFaxHandler SendFax;
    // ...
}
```

1. void
2. delegate
3. Combine
4. static

Correct Answer : 4

Your Answer :

QuestionID : 13360      Subject Name C#.NET

Q43. You are building an event handler for the SendFax event from the sFax component, and you have written the following code. When you test the event handler, you find that it never runs. What code must you add to your application to make the event execute in response to the SendFax event?

```
private void Send_Fax()
```

```
{
```

```
    Console.WriteLine("Fax is sent!");
```

```
}
```

1. public delegate SendFax(Send\_Fax);
2. this.sFax.SendFax += new SendFaxHandler(this.Send\_Fax);
3. public event SendFax(Send\_Fax);
4. this.sFax.SendFax =+ new SendFaxHandler(this.Send\_Fax);

Correct Answer : 2

Your Answer :

QuestionID : 13372      Subject Name C#.NET

Q44. To create a class file that can be added to a library, you would select which project type?

1. ASP.NET Web Application

2. Class Library
3. Console Application
4. Web Control Library

Correct Answer : 2

Your Answer :

QuestionID : 13373      Subject Name C#.NET

Q45. You are deploying the web application you have been developing to a production server. Your application uses a number of resource assemblies and also one utility assembly that has been developed for the web application. You deploy the application by using a file-archiving utility to package all the .aspx and Web.config files into the archive, and the application is installed on the production server by un-packing the archive in the target directory. The deployment did not generate any error messages; but when you are testing the application, you find that it does not work. None of the localized resources display anything, and there are a large number of errors displayed. You need to make the application function normally—what is the most efficient way to achieve that goal?

1. Enable tracing for the application, trace to an XML file, analyze the output, and correct the source of the problems.
2. Copy the /bin directory from the development system to the production server.
3. Install Visual Studio .NET on the production server; enable debugging; and single-step through the application, correcting all problems as they appear.
4. Abort the deployment, and inform the customer that you will be back as soon as you have found the problem.

Correct Answer : 2

Your Answer :

QuestionID : 13377      Subject Name C#.NET

Q46. You are configuring your web application to require digest-based authentication.

What must you have in place before you can use digest-based authentication?

1. A DNS server.
2. Active Directory.
3. Strong encryption keys.
4. A strongly named Web.config file.

Correct Answer : 2

Your Answer :

QuestionID : 13387      Subject Name C#.NET

Q47. What namespace contains the ResourceManager class?

1. System.Globalization
2. System.Resources
3. System.Threading
4. System.Threading

Correct Answer : 2

Your Answer :

QuestionID : 13391      Subject Name C#.NET

Q48. Which of the following code segments will correctly display the string resource

txtHello? (All objects are correctly created.)

1. Console.WriteLine(rm.GetString("txtHello"));
2. Console.WriteLine(rm.Strings("txtHello"));
3. Console.Write(txtHello.ToString("s"));

4. Console.WriteLine(rm.GetString("txtHello"));

Correct Answer : 4

Your Answer :

QuestionID : 13395      Subject Name C#.NET

Q49. What does the following command do?

csc /res:strings.resources HelloGlobalWorld.cs

1. Builds only the HelloGlobalWorld program.
2. Builds the HelloGlobalWorld and links the fallback resource.
3. Creates an assembly for the HelloGlobalWorld program.
4. Creates a name resolution report for the HelloGlobalWorld program.

Correct Answer : 4

Your Answer :

QuestionID : 13397      Subject Name C#.NET

Q50. When localizing a web application, you find that you need to encode Unicode characters that are sent to the client. What attribute would you set?

1. ResponseEncoding="UTF-8"
2. Encoding="UTF-8"
3. ResponseCode="UTF-8"
4. EncodedResponse="UTF-8"

Correct Answer : 1

Your Answer :

QuestionID : 13398      Subject Name C#.NET

Q51. What happens when the Resource Manager fails to find the localized resource for a locale?

1. It uses the closest locale.

2. It throws an exception.
3. Nothing, the resource will be blank.
4. It uses the fallback resource.

Correct Answer : 4

Your Answer :

QuestionID : 13401      Subject Name C#.NET

Q52. When you set the Localization property of a form to True, which of the following happens?

1. You allow the application to accept localization resources.
2. The form is translated into the language specified in the Language property.
3. The property asks you for the translation language.
4. The program prompts you to provide a language resource.

Correct Answer : 1

Your Answer :

QuestionID : 13403      Subject Name C#.NET

Q53. Do you have to produce all the locale-specific assemblies before deploying the application?

1. Yes, the assemblies must be present for the final compile of the application.
2. Yes, the fallback manifest must be built from all the satellite assemblies.
3. Yes, the .NET Framework must update the registry with all the information at deployment.
4. No, the satellite assemblies can be deployed at will after initial deployment.

Correct Answer : 4

Your Answer :

QuestionID : 13405      Subject Name C#.NET

Q54. Your application is called AccountingOne.exe. What must the name of the French string resource be?

1. AccountingOne.resources.dll
2. strings.resources
3. strings.fr.resources.dll
4. strings.fr.resources

Correct Answer : 4

Your Answer :

QuestionID : 13406      Subject Name C#.NET

Q55. By setting the Text property on the form, you will cause the value of the Text property to display on which part of the form?

1. Bottom-right corner
2. Top-right corner
3. Title bar
4. Status bar

Correct Answer : 3

Your Answer :

QuestionID : 13407      Subject Name C#.NET

Q56. What does the attribute dir="rtf" stand for?

1. The direction of RTF files.
2. The encoding of RTF files.
3. The direction for the display of characters.
4. A directory listing of all RTF files.

Correct Answer : 3

Your Answer :

QuestionID : 13411      Subject Name C#.NET

Q57. Which command will cause an XML file to be generated from documentation comments?

1. csc MyClass.cs /doc:MyClass.cs
2. cscd MyClass.cs /doc:MyClass.xml
3. cscd MyClass.cs /doc:MyClass.cs
4. csc MyClass.cs /doc:MyClass.xml

Correct Answer : 4

Your Answer :

QuestionID : 13413      Subject Name C#.NET

Q58. What would the outcome of an application that contained this code be?

```
private void Form1_Load (object sender, System.EventArgs e)  
{  
    Form1.Hide();  
}
```

1. The application would not compile.
2. The program would run but no form would display.
3. The program would run and display the form.
4. A runtime error would occur.

Correct Answer : 1

Your Answer :

QuestionID : 13414      Subject Name C#.NET

Q59. What would the outcome of an application that contained this code be?

```
private void Form1_Load (object sender, System.EventArgs e)
```

```
{
```

```
    this.Hide();
```

```
}
```

1. The application would not compile.
2. The program would run but no form would display.
3. The program would run and display the form.
4. A runtime error would occur.

Correct Answer : 3

Your Answer :

QuestionID : 13416      Subject Name C#.NET

Q60. What is the outcome of the following lines of code?

```
button1.Left = 50;
```

```
button1.Top = 100;
```

1. The button will display 50 pixels from the top of the form and 100 spaces from the left.
2. The button will display 50 pixels from the left of the form and 100 spaces from the top.
3. The button will display 50 pixels from the top of the window and 100 spaces from the left.
4. The button will display 50 pixels from the left of the window and 100 spaces from the top.

Correct Answer : 2

Your Answer :

QuestionID : 13426      Subject Name C#.NET

Q61. Visual Studio .NET provides a tool to generate HTML from the XML

documentation file. It is found where?

1. Tools | Generate XML
2. Tools | Generate HTML
3. Tools | Build Comment Pages
4. Tools | Build Comment Web Pages

Correct Answer : 4

Your Answer :

QuestionID : 13434      Subject Name C#.NET

Q62. Which of the following lines of code will produce a message box for the user?

1. MessageDialogBox.Show ("This is your message");
2. MessageDialogBox.Show ("Message", "This is your message");
3. MessageBox.Show ("This is your message");
4. MessageBox.Show ("Message", "This is your message");

Correct Answer : 3

Your Answer :

QuestionID : 13436      Subject Name C#.NET

Q63. To dynamically add a context menu to your application, which section of code should be used?

1. MenuItem m = new MenuItem();

contextMenu1.MenuItems.Add (m);

2. MenuItem m = new MenuItem();

contextMenu1.MenuItem.Add (m);

3. MainMenu m = new MainMenu();

contextMenu1.MenuItem.Add (m);

4. MainMenu m = new MainMenu();

```
contextMenu1.MenuItem.Add (m);
```

Correct Answer : 1

Your Answer :

QuestionID : 13446     Subject Name C#.NET

Q64. Which line of code will set the Link data for a LinkLabel?

1. this.linkLabel1.Text = "http:\\www.microsoft.com";
2. this.linkLabel1.Link = "http://www.microsoft.com";
3. this.linkLabel1.HyperLink = "http://www.microsoft.com";
4. None of the above.

Correct Answer : 4

Your Answer :

QuestionID : 13447     Subject Name C#.NET

Q65. Why will the following XML code not be rendered by a browser?

```
< name >  
< lastname >Dowdy< /lastname >  
< firstname >Howdy< /firstname >  
< /lastname >
```

1. The browser is not specified.
2. The root element is missing.
3. The root element is not closed properly.
4. The firstname element is incorrect.

Correct Answer : 3

Your Answer :

QuestionID : 13449     Subject Name C#.NET

Q66. Which property will allow the user to enter more than one line in a text box?

1. MaxLines
2. MultipleLines
3. MultiLines
4. MultiLine

Correct Answer : 4

Your Answer :

QuestionID : 13451      Subject Name C#.NET

Q67. Which of the following documentation comments is correct?

1. /// summary This is a summary comment summary
2. /// <summary> This is a summary comment </summary>
3. /// <summary> This is a summary comment
4. /// summary This is a summary comment

Correct Answer : 2

Your Answer :

QuestionID : 13454      Subject Name C#.NET

Q68. Which control would you use to group a lot of controls together?

1. GroupControl
2. GroupBox
3. FrameControl
4. FrameBox

Correct Answer : 2

Your Answer :

QuestionID : 13456      Subject Name C#.NET

Q69. You want to examine and change the value of a variable in your C# application.

You are developing using Visual Studio .NET. What window will allow you to

change the value during execution?

1. Locals window
2. Call Stack window
3. Immediate window
4. Watch window

Correct Answer : 3

Your Answer :

QuestionID : 13462      Subject Name C#.NET

Q70. What type of commands can you create?

1. Text, stored procedures, and tables.
2. Text, stored procedures, and TableRows.
3. Text, stored procedures, and TableDirect.
4. Text, stored procedures, and TableColumns.

Correct Answer : 3

Your Answer :

QuestionID : 13466      Subject Name C#.NET

Q71. To debug an ASP.NET application, you need to attach to which process?

1. aspnet.exe
2. asp.net.exe
3. aspnet\_debug.exe
4. aspnet\_wp.exe

Correct Answer : 4

Your Answer :

QuestionID : 13473      Subject Name C#.NET

Q72. The Format event is triggered after which occurrences?

1. Data is sorted.
2. Data is filtered.
3. Data is bound to a control.
4. All of the above.

Correct Answer : 4

Your Answer :

QuestionID : 13481      Subject Name C#.NET

Q73. What will happen when the following code is executed? Assume the connection is created properly and works fine.

```
try
{
    studentConnection.Open();
    studentCommand = studentConnection.CreateCommand();
    studentCommand.CommandType = CommandType.Text;
    studentCommand.CommandText = "SELECT * FROM Student";
    studentAdapter = new SqlDataAdapter (studentCommand);
    studentSet = new DataSet();
    studentAdapter.Fill (studentSet, "Name");
    this.txtFirstName.DataBindings.Add ("Text", studentSet, "FirstName");
}
catch (SqlDbException s)
{
    MessageBox.Show ("Oops, something bad happened");
}
finally
```

```
{  
    studentConnection.Close();  
  
    studentConnection = null;  
}  
}
```

1. The program will not compile.
2. The program will compile but throws an exception upon execution.
3. The program will compile but will not display data.
4. The program will display the data and close the connection properly.

Correct Answer : 2

Your Answer :

QuestionID : 13492      Subject Name C#.NET

Q74. Which of the following object types allow you to view read-only, forward-only data?

1. DataAdapter
2. DataSet
3. DataReader
4. DataCommand

Correct Answer : 3

Your Answer :

QuestionID : 13498      Subject Name C#.NET

Q75. Which of the following statements is correct?

1. The DataSource property refers to the dataset object, and the DisplayMember refers to the field.
2. TheDataMember property refers to the dataset object, and the

DataSource refers to the field.

3. The DataMember property refers to the field, and the DataSource refers to the dataset object.
4. The DisplayMember property refers to the dataset object, and the DataSource refers to the field.

Correct Answer : 1

Your Answer :

QuestionID : 13499      Subject Name C#.NET

Q76. What is the SQL argument that sorts the data returned by an SQL SELECT statement?

1. GROUP BY
2. SORT BY
3. SORTED
4. ORDER BY

Correct Answer : 4

Your Answer :

QuestionID : 13500      Subject Name C#.NET

Q77. Why does the data not display using the following code?

```
studentConnection.Open();  
  
studentCommand = studentConnection.CreateCommand();  
  
studentCommand.CommandType = CommandType.Text;  
  
studentCommand.CommandText = "SELECT * FROM Student";  
  
studentAdapter = new SqlDataAdapter (studentCommand);  
  
studentSet = new DataSet();  
  
this.txtFirstName.DataBindings.Add ("Text", studentSet, "FirstName");
```

1. The command object is instantiated incorrectly.
2. The dataset object is instantiated incorrectly.
3. The data binding is done incorrectly.
4. The dataset has not been populated.

Correct Answer : 4

Your Answer :

QuestionID : 13502      Subject Name C#.NET

Q78. What combination of methods are used to improve the speed of the Fill() method of the DataAdapter?

1. BeginFillData() and EndFillData()
2. StartFillData() and EndFillData()
3. BeginLoadData() and EndLoadData()
4. StartLoadData() and EndLoadData()

Correct Answer : 3

Your Answer :

QuestionID : 13504      Subject Name C#.NET

Q79. The following SQL INSERT statement fails. What is the most probable reason for the failure?

INSERT INTO Employees VALUES (42,'Bob','Carol',12)

1. Syntax error in the INSERT statement.
2. The columns in the Employees table are not in the indicated order (int, char, char, int).
3. The Employees database does not have a default table defined.
4. The SELECT INTO permission is not set.

Correct Answer : 2

Your Answer :

QuestionID : 13510      Subject Name C#.NET

Q80. Which code segment would correctly expose the Convert() method of a web service?

1. public int Convert()

```
{  
// write the method code here  
}
```

2. private int Convert()

```
{  
// write the method code here  
}
```

3. protected int Convert()

```
{  
// write the method code here  
}
```

4. public Convert()

```
{  
// write the method code here  
}
```

Correct Answer : 1

Your Answer :

QuestionID : 13512      Subject Name C#.NET

Q81. Which command-line tool will create a web service proxy?

1. isdlam.exe

2. ildasm.exe
3. tlbimp.exe
4. wsdl.exe

Correct Answer : 4

Your Answer :

QuestionID : 13517     Subject Name C#.NET

Q82. Which of the following will display the Web Services on a remote IIS server (named www.hmr.com) in an assembly called MyServices?

1. http://hmr.com/MyServices/ServiceName
2. http://www.hmr.com/MyServices/ServiceName
3. url://hmr.com/MyServices/ServiceName
4. url://www.hmr.com/MyServices/ServiceName

Correct Answer : 2

Your Answer :

QuestionID : 13518     Subject Name C#.NET

Q83. What ASP.NET object is used to get information about the web servers hostname?

1. The Session object.
2. The Application object.
3. The Response object.
4. The Server object.

Correct Answer : 4

Your Answer :

QuestionID : 13519     Subject Name C#.NET

Q84. What must be done to be ready to consume a web service?

1. Build a proxy library using wsdl.exe.
2. Build a proxy library using csc.exe.
3. Build a proxy library using TblImp.exe.
4. Build a proxy library using pl.exe.

Correct Answer : 1

Your Answer :

QuestionID : 13525      Subject Name C#.NET

Q85. Which of the following code segments can be found in a web service proxy class that exposes a method called CallMe?

1. public class CallMeService()

```
{  
// class code here  
}
```

2. public int CallMeService()

```
{  
object[] results=this.Invoke("CallMeService",new object[0]);  
return((string)(results[0]));  
}
```

3. public int CallMeService()

```
{  
object[] results=this.Invoke("CallMeService",new object[0]);  
return((string)(results[0]));  
}
```

4. public int CallMeService()

```
{
```

```
object[] results=this.Invoke("CallMe",newobject[0]);  
  
return((string)(results[0]));  
  
}
```

Correct Answer : 4

Your Answer :

QuestionID : 13528      Subject Name C#.NET

Q86. You have an assembly that includes a web service named ListCollege.

The ListAll() method is a public method that takes an integer value  
(studentID) and returns a Boolean value—True if the student was found,  
False if no student was found. Which code segment will correctly call this  
method?

1. ListCollege.ListAll la = new ListCollege.ListAll();  
  
bool response = la.ListAll(studentID);
2. ListCollege.ListAll la = new ListCollege.ListAll();  
  
la.ListAll();
3. ListCollege.ListAll la = new ListCollege.ListAll();  
  
bool response = la.ListAll();
4. ListCollege.ListAll la = new ListCollege.ListAll();  
  
la.ListAll(studentID);

Correct Answer : 1

Your Answer :

QuestionID : 13531      Subject Name C#.NET

Q87. Which URL will provide access to the web service called MyWebService,  
located in the WebServices web on the local machine?

1. <http://localhost/MyWebService/WebServices.asmx?WSDL>

2. <http://localhost/WebServices/WebServices.asmx?WSDL>
3. <http://localhost/MyWebService/MyWebService.asmx?WSDL>
4. <http://localhost/WebServices/MyWebService.asmx?WSDL>

Correct Answer : 4

Your Answer :

QuestionID : 13539      Subject Name C#.NET

Q88. Which file must be included in the assembly in order to provide a list of licensed controls within the application?

1. xxxx.LIC
2. xxxx.LCX
3. xxxx.LICX
4. xxxx.Licenses

Correct Answer : 3

Your Answer :

QuestionID : 13542      Subject Name C#.NET

Q89. What is the behavior of a web browser when it receives an invalid element?

1. The web browser will display the element in raw form.
2. The web browser will send a report to the webmaster detailing the error by using the Request object.
3. The web browser will report the error, letting you debug the page.
4. The browser will ignore the invalid section.

Correct Answer : 4

Your Answer :

QuestionID : 13547      Subject Name C#.NET

Q90. Which of the following techniques will expose a new procedure for a newly

created control?

```
1. public string newProperty;  
2. private string newValue;  
  
public string newProperty  
  
{  
  
get  
  
{  
  
return newValue;  
  
}  
  
set  
  
{  
  
newValue = Value;  
  
}  
  
3. public string newValue;  
  
public string newProperty  
  
{  
  
get  
  
{  
  
return newProperty;  
  
}  
  
set  
  
{  
  
newValue = newProperty;  
  
}  
  
4. public string newValue;
```

```
public string newProperty  
{  
    get  
    {  
        return newValue;  
    }  
    set  
    {  
        newValue = Value;  
    }  
}
```

Correct Answer : 2

Your Answer :

QuestionID : 13550      Subject Name C#.NET

Q91. Which set of steps will enable you to test your new control? Assume that a Windows Control Library application has been created, and a single control has been built by extending an existing control.

1. Version A

- i. Build the project.
- ii. Run the project, which will open Internet Explorer to host your control.

2. Version B

- i. Build the project.
- ii. Add a new Windows Forms project.
- iii. Set the new project as the startup project.
- iv. Run the project.

3. Version C

- i. Build the project.
- ii. Add a new Windows Control Library project.
- iii. Set the new project as the startup project.
- iv. Run the project.

#### 4. Version D

- i. Build the project.
- ii. Add a new Web Forms project.
- iii. Set the new project as the startup project.
- iv. Run the project.

Correct Answer : 2

Your Answer :

QuestionID : 13555      Subject Name C#.NET

Q92. Which name is given to the controls that make up part of a composite control?

- 1. Extenders
- 2. Constituents
- 3. Hosts
- 4. Children

Correct Answer : 2

Your Answer :

QuestionID : 13556      Subject Name C#.NET

Q93. Why would you use properties instead of variables to expose attributes for your new control?

- 1. Properties can be displayed in the Property Explorer.
- 2. Properties can be made public, and variables must be private.
- 3. Variables expose a security risk.

4. Variables are, by default, hidden from view.

Correct Answer : 1

Your Answer :

QuestionID : 13573      Subject Name C#.NET

Q94. What code segment represents the event handler registration for the click event of the btnA Button control?

1. `this.btnA.Click.Register(new System.EventHandler  
(this.setList));`
2. `this.btnA.Click.Add(new System.EventHandler  
(this.setList));`
3. `this.btnA.ClickEvent += new System.EventHandler  
(this.setList);`
4. `this.btnA.Click += new System.EventHandler(this.setList);`

Correct Answer : 4

Your Answer :

QuestionID : 13577      Subject Name C#.NET

Q95. What attribute must be set on a validator control for the validation to work?

1. Validate
2. ValidateControl
3. ControlToBind
4. ControlToValidate

Correct Answer : 4

Your Answer :

QuestionID : 13790      Subject Name C#.NET

Q96. By adding the [WebService(Namespace="http://xxx.yyy")] attribute

in front of the class that defines the XML web service, you modify a namespace.

What is that namespace?

1. The namespace of the XML web service.
2. The default namespace of the SOAP messages.
3. The namespace of the ASP.NET server.
4. The default URL that all redirections will go to.

Correct Answer : 1

Your Answer :

QuestionID : 13792      Subject Name C#.NET

Q97. The XML Web service broker stores information about the XML web services that have published their services to the broker. What structure does the service broker store the information in?

1. Broker registry.
2. Windows Registry.
3. UDDI registry.
4. XML document.

Correct Answer : 3

Your Answer :

QuestionID : 13794      Subject Name C#.NET

Q98. After creating a proxy class, you compile it. What type of file will the proxy be compiled to?

1. .dll
2. .asmx
3. .aspx
4. .proxy

Correct Answer : 1

Your Answer :

QuestionID : 15338      Subject Name C#.NET

Q99. MSCIL converts your source code into platform specific code

Correct Answer : F

Your Answer :

QuestionID : 15339      Subject Name C#.NET

Q100. C# supports multiple inheritance like C++

Correct Answer : F

Your Answer :

Q1. Which of the following class definitions will correctly define a new control from an existing control?

```
1. public class NewLabel: System.Windows.Forms.Label
{
    private System.ComponentModel.Container components = null;
    private string varValue;
    public NewLabel()
    {
        InitializeComponent();
    }
    protected override void Dispose (bool disposing)
    {
        if (disposing)
        {
            if (components != null)
                components.Dispose();
        }
        base.Dispose(disposing);
    }
    private string LabelColor
    {
        get
        {
            return varValue;
        }
    }
```

```
set
{
    varValue = value;
}
}

}

2. public class NewLabel: System.Windows.Forms.Label

{
private System.ComponentModel.Container components = null;

private string varValue;

public NewLabel()

{
    InitializeComponent();
}

protected override void Dispose (bool disposing)

{
    if (disposing)
    {
        if (components != null)
            components.Dispose();
    }
    base.Dispose(disposing);
}

public string LabelColor
{
```

```
get
{
    return varValue;
}

set
{
    varValue = value;
}
}

}

3. public class NewLabel: System.Windows.Forms.Label

{
    private System.ComponentModel.Container components = null;
    private int varValue;

    public NewLabel()
    {
        InitializeComponent();
    }

    protected override void Dispose (bool disposing)
    {
        if (disposing)
        {
            if (components != null)
                components.Dispose();
        }
    }
}
```

```
base.Dispose(disposing);
}

private string LabelColor
{
    get
    {
        return varValue;
    }

    set
    {
        varValue = value;
    }
}

4. public class NewLabel: System.Windows.Forms.Control

{
    private System.ComponentModel.Container components = null;

    private int varValue;

    public NewLabel()
    {
        InitializeComponent();
    }

    protected override void Dispose (bool disposing)
    {
        if (disposing)
```

```
{  
if (components != null)  
components.Dispose();  
}  
  
base.Dispose(disposing);  
}  
  
private string LabelColor  
{  
get  
{  
return varValue;  
}  
  
set  
{  
varValue = value;  
}  
}  
}
```

Correct Answer : 2

Your Answer :

QuestionID : 12946      Subject Name C#.NET

Q2. You have followed the steps in creating a Windows Installer Setup project, and after deployment you notice that it does not install properly on the client.

Which of the following could be the problem?

1. You forgot to run the sn.exe utility.

2. The shortcut was not configured properly.
3. The release type is set to Debug.
4. The Registry entry is incorrect.

Correct Answer : 3

Your Answer :

QuestionID : 12953      Subject Name C#.NET

Q3. Which of the following command-line entries would allow you to install an assembly into the GAC?

1. gacutil /l myAssembly.exe
2. gacutil /i myAssembly.exe
3. gacutil /s myAssembly.exe
4. gacutil /h myAssembly.exe

Correct Answer : 2

Your Answer :

QuestionID : 12956      Subject Name C#.NET

Q4. What kind of project can you create from the Setup and Deployment Projects list?

- A. Web Setup project.
- B. GAC project.
- C. Setup project.
- D. CAB project.

1. B,C,D
2. A,C,D
3. A,B
4. B,D

Correct Answer : 2

Your Answer :

QuestionID : 12969      Subject Name C#.NET

Q5. Which tool can you use to configure the security settings for an application?

1. msconfig.msc
2. ngen.exe
3. caspol.exe
4. caspol.msc

Correct Answer : 1

Your Answer :

QuestionID : 12971      Subject Name C#.NET

Q6. Which tool can you use to precompile a Windows application?

1. msconfig.msc
2. ngen.exe
3. caspol.exe
4. caspol.msc

Correct Answer : 2

Your Answer :

QuestionID : 12974      Subject Name C#.NET

Q7. Which of the following code segments will produce an ellipse on the form?

1. Graphics g = new Graphics();  
g.DrawEllipse(myPen, 10, 10, 10, 10);
2. Graphics g = new Graphics();  
g.DrawEllipse (10, 10, 10, 10);
3. Graphics g = this.CreateGraphics();  
g.DrawEllipse (myPen, 10, 10, 10, 10);

```
4. Graphics g = this.CreateGraphics();  
g.DrawEllipse (10, 10, 10, 10);
```

Correct Answer : 4

Your Answer :

QuestionID : 12978     Subject Name C#.NET

Q8. Where would you find the machine.config file on a Windows 2000 machine?

1. < system drive >\Program Files\Microsoft .NET\FrameworkCONFIG\
2. < system drive >\Winnt\Microsoft.NET\Framework\< version >CONFIG\
3. < system drive >\Winnt\CONFIG
4. < system drive >\Documents and Settings\Framework\CONFIG

Correct Answer : 2

Your Answer :

QuestionID : 12988     Subject Name C#.NET

Q9. What are the three different policy-configuration files?

1. Enterprise, Machine, User.
2. Enterprise, Machine, Local.
3. Enterprise, Security, Local.
4. Enterprise, Security, User.

Correct Answer : 1

Your Answer :

QuestionID : 12991     Subject Name C#.NET

Q10. What type of array is the most efficient to work with?

1. Rectangular array
2. One-dimensional array
3. Two-dimensional array

4. Jagged array

Correct Answer : 4

Your Answer :

QuestionID : 12995      Subject Name C#.NET

Q11. Which code segment would test the validity of a role-based user?

1. AppDomain.CurrentDomain.SetPrincipalPolicy

```
(PrincipalPolicy.WindowsPrincipal);
```

```
if (WindowsBuiltInRole == Administrator)
```

```
{
```

```
// do something here
```

```
}
```

2. AppDomain.CurrentDomain.SetPrincipalPolicy

```
(PrincipalPolicy.WindowsPrincipal);
```

```
WindowsPrincipal w = (WindowsPrincipal)
```

```
Thread.CurrentPrincipal;
```

```
if (w.WindowsBuiltInRole == Administrator)
```

```
{
```

```
// do something here
```

```
}
```

3. AppDomain.CurrentDomain.SetPrincipalPolicy

```
(PrincipalPolicy.WindowsPrincipal);
```

```
WindowsPrincipal w = (WindowsPrincipal)
```

```
Thread.CurrentPrincipal;
```

```
if (w.IsInRole(WindowsBuiltInRole == Administrator))
```

```
{
```

```
// do something here  
}  
  
4. AppDomain.CurrentDomain.SetPrincipalPolicy  
(PrincipalPolicy.WindowsPrincipal);  
  
WindowsPrincipal w = (WindowsPrincipal)  
Thread.CurrentPrincipal;  
  
if (w.IsInRole(WindowsBuiltInRole.Administrator))  
{  
  
// do something here  
}
```

Correct Answer : 4

Your Answer :

QuestionID : 12996      Subject Name C#.NET

Q12. What must be done to create a ToolTip on a new Windows control?

1. Add a ToolTip control and set the ToolTip property of the new control.
2. Set the ToolTip property of the new control.
3. Set the Help property of the new control.
4. Create a MessageBox that displays when the user clicks the new control.

Correct Answer : 1

Your Answer :

QuestionID : 13010      Subject Name C#.NET

Q13. What is the default namespace for a new web service?

1. http://localhost
2. http://www.w3.org
3. http://tempuri.org/

4. <http://www.microsoft.com>

Correct Answer : 3

Your Answer :

QuestionID : 13023      Subject Name C#.NET

Q14. Which of the following technologies is a lightweight protocol for exchange of information in a decentralized, distributed environment?

1. XML
2. WSDL
3. XSD
4. SOAP

Correct Answer : 4

Your Answer :

QuestionID : 13029      Subject Name C#.NET

Q15. Which of the following code modules will create a serviced component that will work with COM+ services?

```
1. using System.EnterpriseServices;  
using System.Reflection;  
  
[assembly: ApplicationName("Price")]  
  
namespace Price  
{  
    public class Price: ServicedComponent  
    {  
        public Price()  
        {  
        }  
    }  
}
```

```
public void SomeMethod()
{
    // perform the database operations here
}

}

2. using System.EnterpriseServices;

using System.Reflection;

[assembly: ApplicationName("Price")]

[assembly: AssemblyKeyFileAttribute("PriceKeys.snk")]

namespace Price

{
    public class Price
    {
        public Price()
        {

        }

        public void SomeMethod()
        {
            // perform the database operations here
        }
    }
}

3. using System.EnterpriseServices;

using System.Reflection;

[assembly: ApplicationName("Price")]

[assembly: AssemblyKeyFileAttribute("PriceKeys.snk")]
```

```
namespace Price

{
```

```
public class Price: ServicedComponent
```

```
PART V
```

```
{
```

```
public Price()
```

```
{
```

```
}
```

```
public void SomeMethod()
```

```
{
```

```
// perform the database operations here
```

```
}
```

```
}
```

```
4. using System.Reflection;
```

```
[assembly: ApplicationName("Price")]
```

```
[assembly: AssemblyKeyFileAttribute("PriceKeys.snk")]
```

```
namespace Price
```

```
{
```

```
public class Price
```

```
{
```

```
public Price()
```

```
{
```

```
}
```

```
public void SomeMethod()
```

```
{
```

```
// perform the database operations here  
}  
}
```

Correct Answer : 3

Your Answer :

QuestionID : 13034     Subject Name C#.NET

Q16. You have created a serviced component that will interface with COM+ services.

You want to register the component automatically. Which utility will allow you to do this?

1. gacutil.exe
2. regsvsc.exe
3. xcopy.exe
4. sc.exe

Correct Answer : 3

Your Answer :

QuestionID : 13043     Subject Name C#.NET

Q17. A Windows service must inherit from which class?

1. System.Service.ServiceBase
2. System.ServiceProcess.Service
3. System.ServiceProcess.ServiceBase
4. System.Service.Service

Correct Answer : 3

Your Answer :

QuestionID : 13045     Subject Name C#.NET

Q18. You want to configure your new Windows service. Which of the following tools

will allow you to set configuration properties for the service? Choose all that apply.

1. regedt32.exe
2. sc.exe
3. regsvr32.exe
4. A,B

Correct Answer : 4

Your Answer :

QuestionID : 13048      Subject Name C#.NET

Q19. Which of the following services represent the services that together provide an enterprise application?

1. Business, Logic, Application
2. Application, Business, Data
3. Presentation, Business, Data
4. Presentation, Logic, Data

Correct Answer : 3

Your Answer :

QuestionID : 13058      Subject Name C#.NET

Q20. You have developed a remote object library class for deployment to a web server. You have established that your configuration files are correct, and now you feel that your component classes may have an error. The following is the code for the remote object:

```
using System;  
using System.Runtime.Remoting;  
using System.Runtime.Remoting.Channels;  
using System.Runtime.Remoting.Channels.Http;
```

```
namespace HelloServer

{
    public class Hello: MarshalByRefObject
    {
        public Hello()
        {

        }

        public string HelloWorld(string message)
        {
            return message;
        }

        public static void Main()
        {
            HttpChannel c = new HttpChannel (4242);

            RemotingConfiguration.RegisterWellKnownServiceType {
                Type.GetType("HelloServer"), "Hello",
                WellKnownObjectMode.SingleCall);
            }
        }
    }
}
```

What is the most likely cause of the exception error?

1. You are missing a using declaration.
2. You have used the wrong channel type.
3. You have used the wrong activation mode.
4. You have not registered the channel.

Correct Answer : 4

Your Answer :

QuestionID : 13066      Subject Name C#.NET

Q21. When discussing the XML Web Services architecture, which sentence best describes the service broker node?

1. Broadcasts the available services.
2. Advertises the available services in Active Directory.
3. Advertises the services that are registered in the Registry.
4. Assists the consumer to find the provider that supplies a particular web service.

Correct Answer : 4

Your Answer :

QuestionID : 13299      Subject Name C#.NET

Q22. Why should you close all database objects and set them to NULL before leaving the method where the objects were created?

1. To ensure that the object's destructors are called.
2. To ensure that the connection to the database is closed as soon as possible.
3. To ensure that the objects can be reused.
4. Good coding practice.

Correct Answer : 2

Your Answer :

QuestionID : 13304      Subject Name C#.NET

Q23. Hiding the implementation and exposing the interface is a concept of OOP called:

1. Polymorphism
2. Encapsulation

3. Overloading

4. Static

Correct Answer : 2

Your Answer :

QuestionID : 13308      Subject Name C#.NET

Q24. Which of the following is the correct way to declare the method

GetPayCheck()?

1. public int GetPayCheck()
2. private int GetPayCheck()
3. private void GetPayCheck(int a)
4. public void GetPayCheck(int a)

Correct Answer : 1

Your Answer :

QuestionID : 13310      Subject Name C#.NET

Q25. Which is a definition of a static method?

1. public static MethodA()
2. public void MethodA()
3. private static MethodA()
4. public static void MethodA()

Correct Answer : 4

Your Answer :

QuestionID : 13312      Subject Name C#.NET

Q26. Which of the following languages is not part of the current .NET languages?

1. Visual Basic
2. C#

3. C++

4. FoxPro

Correct Answer : 4

Your Answer :

QuestionID : 13314      Subject Name C#.NET

Q27. You are the developer of a Web Form, and you need to display data from a Microsoft SQL Server 6.5 in a DataGrid on your form. What DataAdapter is the most appropriate?

1. sqlDataAdapter

2. oleDbTypeAdapter

3. odbcDataAdapter

4. adoDataAdapter

Correct Answer : 2

Your Answer :

QuestionID : 13322      Subject Name C#.NET

Q28. Which of the following is not a C# keyword?

1. if

2. delegate

3. private

4. implements

Correct Answer : 4

Your Answer :

QuestionID : 13324      Subject Name C#.NET

Q29. Choose the correct method for declaring a namespace:

1. namespace Osborne.Chapter5

2. namespace Osborne.Chapter5;
3. namespace Osborne.Chapter5.MyClass
4. namespace Osborne.Chapter5.MyClass;

Correct Answer : 4

Your Answer :

QuestionID : 13325      Subject Name C#.NET

Q30. What is the SQL wildcard character?

1. \*
2. %
3. &
4. @

Correct Answer : 2

Your Answer :

QuestionID : 13327      Subject Name C#.NET

Q31. You need to connect to a Microsoft SQL Server version 6.5. What Connection object is the best choice?

1. sqlConnection
2. oleDbConnection
3. ODBCConnection
4. You must upgrade; there is no connection object for this database.

Correct Answer : 2

Your Answer :

QuestionID : 13332      Subject Name C#.NET

Q32. Which line causes a compile error in the following code?

interface Test2

```
{  
    int Int2;  
  
    void Method2A(int);  
  
    string Method2B ();  
  
    int Method2C(int, int);  
  
    int Method2A(char);  
}
```

1. Line 3
2. Line 4
3. Line 5
4. Line 7

Correct Answer : 1

Your Answer :

QuestionID : 13346      Subject Name C#.NET

Q33. The following Machine.config file is installed on the server (<http://www.x3.xxx>)

that will host your web application:

```
<configuration>  
  
<appsettings>  
  
<add key = "Home" value = "/bigsite" />  
  
</appsettings>  
  
</configuration>
```

You need to ensure that your web application always uses <http://www.x3.xxx/> smallsite for its Home variable. What is the most efficient way of accomplishing that task?

1. Add an <appsettings> section to the application's Web.config file, and

add the following to the < appsettings > section: < replace key = "Home"

value = "/smallsite" / >

2. Add an < appsettings > section to the application's Web.config file, and

add the following to the < appsettings > section: < add key = "Home"

value = "/smallsite" / >

3. Add an < appsettings > section to the application's Web.config file, and

add the following to the < appsettings > section: < key = "Home" value

= "/smallsite" / >

4. Add an < appsettings > section to the application's Web.config file, and

add the following to the < appsettings > section: < override key = "Home"

value = "/smallsite" / >

Correct Answer : 2

Your Answer :

QuestionID : 13350      Subject Name C#.NET

Q34. You are configuring security for a web application that will be used on your company intranet. Your company is using Intel-based as well as Apple computers running Windows and other operating systems. The following is part of the

Web.config file for the application:

```
<configuration>
  <authentication mode="<< Enter Answer Here >>" >
    <forms>
      loginUrl="login.aspx"
      protection="All"
      timeout="30"
      path="/"
```

```
</forms>  
</authentication>  
</configuration>
```

What will you replace "<< Enter Answer Here >>" with to successfully have all users authenticate to the application?

1. Forms
2. Basic
3. Digest
4. Windows

Correct Answer : 1

Your Answer :

QuestionID : 13351      Subject Name C#.NET

Q35. What is the outcome of the following code?

```
01 public void MethodB ()  
02 {  
03     int [] MyInts = new int [2];  
04     try  
05     {  
06         for ( int i = 0; i < 3; i++)  
07         {  
08             MyInts[i] = i;  
09         }  
10     } finally  
11     {  
12         System.Console.WriteLine ("This is executed");  
13     }  
14 }
```

13 }

14 }

1. The code will not compile because there is a missing catch block.
2. The code will compile and abort upon execution.
3. The code will compile and displays “This is executed”.
4. The code will compile and will abort upon execution and then display “This is executed”.

Correct Answer : 4

Your Answer :

QuestionID : 13356      Subject Name C#.NET

Q36. You have just installed IIS on your desktop computer that is running Windows 2000 Professional. Directly after the installation, you try to create a web application and you are given error messages indicating that the Internet server is incompatible with the .NET Framework. You need to create a web application, so what is the fastest way to be able to do so?

1. Configure the FrontPage Server Extensions.
2. Repair the .NET Framework installation from the Visual Studio .NET Windows Component update CD.
3. There is no solution. Windows 2000 does not support .NET Framework web application development.
4. Re-boot the computer.

Correct Answer : 2

Your Answer :

QuestionID : 13357      Subject Name C#.NET

Q37. What is required in order to be able to install and use SSL on a web server?

1. Export permission.
2. The SSL add-on CD.
3. Server certificate.
4. Encryption key.

Correct Answer : 3

Your Answer :

QuestionID : 13361      Subject Name C#.NET

Q38. You have been asked to describe what authentication and authorization are.

What statements best describe the two terms? Select two answers.

1. Authentication is the process of validating permissions for resources.
2. Authentication is the process of validating security credentials.
3. Authorization is the process of validating security credentials.
4. None

Correct Answer : 2

Your Answer :

QuestionID : 13364      Subject Name C#.NET

Q39. You want to see all the methods of a particular class that you are using in your application. Which tool would you use?

1. Class Viewer
2. Object Browser
3. Class Explorer
4. Object Explorer

Correct Answer : 2

Your Answer :

QuestionID : 13366      Subject Name C#.NET

Q40. True or false. The Web.config file can be used to store configuration data for properties of some controls.

Correct Answer : T

Your Answer :

QuestionID : 13373      Subject Name C#.NET

Q41. You are deploying the web application you have been developing to a production server. Your application uses a number of resource assemblies and also one utility assembly that has been developed for the web application. You deploy the application by using a file-archiving utility to package all the .aspx and Web.config files into the archive, and the application is installed on the production server by un-packing the archive in the target directory. The deployment did not generate any error messages; but when you are testing the application, you find that it does not work. None of the localized resources display anything, and there are a large number of errors displayed. You need to make the application function normally—what is the most efficient way to achieve that goal?

1. Enable tracing for the application, trace to an XML file, analyze the output, and correct the source of the problems.
2. Copy the /bin directory from the development system to the production server.
3. Install Visual Studio .NET on the production server; enable debugging; and single-step through the application, correcting all problems as they appear.
4. Abort the deployment, and inform the customer that you will be back as soon as you have found the problem.

Correct Answer : 2

Your Answer :

QuestionID : 13374      Subject Name C#.NET

Q42. True or false. The GAC cannot store multiple versions of the same assembly.

Correct Answer : F

Your Answer :

QuestionID : 13375      Subject Name C#.NET

Q43. What is the name given to the type of assembly that contains localized resources?

1. Spoke
2. Hub
3. Sputnik
4. Satellite

Correct Answer : 4

Your Answer :

QuestionID : 13377      Subject Name C#.NET

Q44. You are configuring your web application to require digest-based authentication.

What must you have in place before you can use digest-based authentication?

1. A DNS server.
2. Active Directory.
3. Strong encryption keys.
4. A strongly named Web.config file.

Correct Answer : 2

Your Answer :

QuestionID : 13378      Subject Name C#.NET

Q45. What is the correct name for a resource file with images for the English culture,

in the United States subculture?

1. images.US-en.resources
2. images.en-US.resources
3. resources.images.en-US
4. images.en-US.dll

Correct Answer : 2

Your Answer :

QuestionID : 13382      Subject Name C#.NET

Q46. What tool is used to manage the assemblies in the Global Assembly Cache?

1. gacmgr.exe
2. gacutil.exe
3. gassy.exe
4. al.exe

Correct Answer : 2

Your Answer :

QuestionID : 13384      Subject Name C#.NET

Q47. Which of the following methods are ways to create a Windows Form?

1. Visual inheritance.
2. Building a derived class from System.Windows.Forms.Form.
3. Extending a prebuilt form.
4. All of the above.

Correct Answer : 4

Your Answer :

QuestionID : 13387      Subject Name C#.NET

Q48. What namespace contains the ResourceManager class?

1. System.Globalization
2. System.Resources
3. System.Threading
4. System.Threading.Thread

Correct Answer : 2

Your Answer :

QuestionID : 13388      Subject Name C#.NET

Q49. What is the process called that converts a primitive to a class?

1. Primary
2. Boxing
3. Conversion
4. Encoding

Correct Answer : 2

Your Answer :

QuestionID : 13393      Subject Name C#.NET

Q50. Select the line of code that will create a new form.

1. Form.MyForm m = new MyForm();
2. System.Window.Forms.Form MyForm m =  
new System.Window.Forms.Form();
3. using System.Windows.Forms.Form;
4. public class MyForm: Form  
{  
Form MyForm m = new Form();  
}
4. using System.Windows.Forms;

```
public class MyForm: Form
```

```
{
```

```
    MyForm m = new MyForm();
```

```
}
```

Correct Answer : 4

Your Answer :

QuestionID : 13397      Subject Name C#.NET

Q51. When localizing a web application, you find that you need to encode Unicode characters that are sent to the client. What attribute would you set?

1. ResponseEncoding="UTF-8"
2. Encoding="UTF-8"
3. ResponseCode="UTF-8"
4. EncodedResponse="UTF-8"

Correct Answer : 1

Your Answer :

QuestionID : 13400      Subject Name C#.NET

Q52. In the following code segment, what is the significance of the "Strings" literal?

```
static ResourceManager rm = new ResourceManager("Strings",  
Assembly.GetExecutingAssembly());
```

1. Arbitrary name for the assembly.
2. The base name of the resource to be loaded.
3. The base name of the assembly to be loaded.
4. Alias for the Resource Manager.

Correct Answer : 2

Your Answer :

QuestionID : 13401      Subject Name C#.NET

Q53. When you set the Localization property of a form to True, which of the following happens?

1. You allow the application to accept localization resources.
2. The form is translated into the language specified in the Language property.
3. The property asks you for the translation language.
4. The program prompts you to provide a language resource.

Correct Answer : 1

Your Answer :

QuestionID : 13402      Subject Name C#.NET

Q54. What is the output from the following code segment?

```
using System;  
using System.Windows.Forms;  
  
public class MyForm: Form  
{  
    private Button MyButton;  
  
    public MyForm()  
    {  
        InitializeComponent();  
    }  
  
    private void InitializeComponent()  
    {  
        this.MyButton = new Button();  
        this.MyButton.Text = "Hello World!";  
    }  
}
```

```
this.MyButton.Click += new System.EventHandler(this.MyButton.Click);  
}  
  
public static void Main()  
{  
  
    MyForm m = new MyForm();  
  
    Application.Run(m);  
}  
}
```

1. Program compiles and displays “Hello World!” when button is clicked.
2. Program compiles, but clicking the button does nothing.
3. Program compiles but causes a runtime error.
4. Program does not compile.

Correct Answer : 4

Your Answer :

QuestionID : 13405      Subject Name C#.NET

Q55. Your application is called AccountingOne.exe. What must the name of the French string resource be?

1. AccountingOne.resources.dll
2. strings.resources
3. strings.fr.resources.dll
4. strings.fr.resources

Correct Answer : 4

Your Answer :

QuestionID : 13406      Subject Name C#.NET

Q56. By setting the Text property on the form, you will cause the value of the Text

property to display on which part of the form?

1. Bottom-right corner
2. Top-right corner
3. Title bar
4. Status bar

Correct Answer : 3

Your Answer :

QuestionID : 13413      Subject Name C#.NET

Q57. What would the outcome of an application that contained this code be?

```
private void Form1_Load (object sender, System.EventArgs e)  
{  
    Form1.Hide();  
}
```

1. The application would not compile.
2. The program would run but no form would display.
3. The program would run and display the form.
4. A runtime error would occur.

Correct Answer : 1

Your Answer :

QuestionID : 13414      Subject Name C#.NET

Q58. What would the outcome of an application that contained this code be?

```
private void Form1_Load (object sender, System.EventArgs e)  
{  
    this.Hide();  
}
```

1. The application would not compile.
2. The program would run but no form would display.
3. The program would run and display the form.
4. A runtime error would occur.

Correct Answer : 3

Your Answer :

QuestionID : 13416      Subject Name C#.NET

Q59. What is the outcome of the following lines of code?

button1.Left = 50;

button1.Top = 100;

1. The button will display 50 pixels from the top of the form and 100 spaces from the left.
2. The button will display 50 pixels from the left of the form and 100 spaces from the top.
3. The button will display 50 pixels from the top of the window and 100 spaces from the left.
4. The button will display 50 pixels from the left of the window and 100 spaces from the top.

Correct Answer : 2

Your Answer :

QuestionID : 13425      Subject Name C#.NET

Q60. You want to validate the user input that is retrieved in a text box. Which control will assist you in displaying the error message without moving off the form?

1. RichTextBox
2. NotifyIcon

3. HelpProvider

4. ErrorProvider

Correct Answer : 4

Your Answer :

QuestionID : 13426      Subject Name C#.NET

Q61. Visual Studio .NET provides a tool to generate HTML from the XML documentation file. It is found where?

1. Tools | Generate XML
2. Tools | Generate HTML
3. Tools | Build Comment Pages
4. Tools | Build Comment Web Pages

Correct Answer : 4

Your Answer :

QuestionID : 13427      Subject Name C#.NET

Q62. Which XML rule does the following break?

```
< employees >
< Employee >
< name >Kenneth S. Lind< /name >
< /Employee >
< employee >
< name >Marj Rempel
< /employee >
< /employees >
```

1. There must be a single root element.

2. There must be matching opening and closing tags.

3. XML is case-sensitive.
4. All attributes must be in quotes.

Correct Answer : 2

Your Answer :

QuestionID : 13430      Subject Name C#.NET

Q63. The following piece of code is intended to create a new TabPage in a TabControl. What will happen when you try to run this code?

```
TabPage tpMyNewTabPage = newTabPage();  
tpMyNewTabPage.Text = "Add Students";  
tpMyNewTabPage.Size = new System.Drawing.Size (536, 398);  
  
Button b = new Button();  
tpMyNewTabPage.Controls.Add (b);
```

1. The program compiles and executes properly.
2. The program compiles but the tab page does not show.
3. The program compiles and causes a runtime error.
4. The program does not compile because of a syntax error.

Correct Answer : 2

Your Answer :

QuestionID : 13433      Subject Name C#.NET

Q64. You want to validate the user input that is retrieved in a text box. Which event will assist you in the validation of the data?

1. UponValidation
2. Validation
3. Validating
4. OnValidation

Correct Answer : 3

Your Answer :

QuestionID : 13437      Subject Name C#.NET

Q65. To produce a dialog box similar to the Windows Print dialog box, which of the following controls would you use?

1. PrintPreviewDialog
2. PrintDialog
3. PrintBox
4. SetupPrintDialog

Correct Answer : 2

Your Answer :

QuestionID : 13444      Subject Name C#.NET

Q66. Which of the following lines is an XML declaration?

1. < xml version="1.0" >
2. ?xml version="1.0"?
3. < ?xml version=1.0? >
4. < ?xml version="1.0"? >

Correct Answer : 4

Your Answer :

QuestionID : 13454      Subject Name C#.NET

Q67. Which control would you use to group a lot of controls together?

1. GroupControl
2. GroupBox
3. FrameControl
4. FrameBox

Correct Answer : 2

Your Answer :

QuestionID : 13462      Subject Name C#.NET

Q68. What type of commands can you create?

1. Text, stored procedures, and tables.
2. Text, stored procedures, and TableRows.
3. Text, stored procedures, and TableDirect.
4. Text, stored procedures, and TableColumns.

Correct Answer : 3

Your Answer :

QuestionID : 13463      Subject Name C#.NET

Q69. The correct syntax for adding a trace listener to the Listeners collection

1. TraceListeners.Add (new  
TextWriterTraceListener("myfile.txt"));
2. Trace.Listeners.Add (new  
TextWriterTraceListener("myfile.txt"));
3. Trace.Add (new TraceListener ("myfile.txt"));
4. TraceListener.Add (new TraceListener("myfile.txt"));

Correct Answer : 2

Your Answer :

QuestionID : 13466      Subject Name C#.NET

Q70. To debug an ASP.NET application, you need to attach to which process?

1. aspnet.exe
2. asp.net.exe
3. aspnet\_debug.exe

4. aspnet\_wp.exe

Correct Answer : 4

Your Answer :

QuestionID : 13467      Subject Name C#.NET

Q71. You need to get access to a database that is stored on a server running

Microsoft SQL Server 2000. Which data adapter would you use?

1. SqlDataAdapter
2. OleDbDataAdapter
3. OleDataAdapter
4. OdbcDataAdapter

Correct Answer : 1

Your Answer :

QuestionID : 13481      Subject Name C#.NET

Q72. What will happen when the following code is executed? Assume the connection

is created properly and works fine.

```
try
{
    studentConnection.Open();
    studentCommand = studentConnection.CreateCommand();
    studentCommand.CommandType = CommandType.Text;
    studentCommand.CommandText = "SELECT * FROM Student";
    studentAdapter = new SqlDataAdapter (studentCommand);
    studentSet = new DataSet();
    studentAdapter.Fill (studentSet, "Name");
    this.txtFirstName.DataBindings.Add ("Text", studentSet, "FirstName");
```

```
}

catch (SqlDbException s)

{

MessageBox.Show ("Oops, something bad happened");

}

finally

{

studentConnection.Close();

studentConnection = null;

}

}
```

1. The program will not compile.
2. The program will compile but throws an exception upon execution.
3. The program will compile but will not display data.
4. The program will display the data and close the connection properly.

Correct Answer : 2

Your Answer :

QuestionID : 13488      Subject Name C#.NET

Q73. What connection is used in ADO.NET to connect to an SQL Server 6.0?

1. Use the OleDbConnection class.
2. Upgrade the server to SQL 7.0 and use the OleDbConnection class.
3. Upgrade the server to SQL 2000 and use the OdbcConnection class.
4. Upgrade the server to SQL 6.5 and use the SqlConnection class.

Correct Answer : 1

Your Answer :

QuestionID : 13495      Subject Name C#.NET

Q74. Which command-line tool will generate the proxy for a COM component?

1. isdlam.exe
2. ildasm.exe
3. tlbimp.exe
4. wsdl.exe

Correct Answer : 4

Your Answer :

QuestionID : 13497      Subject Name C#.NET

Q75. When writing server-side code, what marks are used to indicate the code block?

1. <% %>
2. <!-- -->
3. <@ language="c#" @>
4. <asp:script runat="server" />

Correct Answer : 1

Your Answer :

QuestionID : 13500      Subject Name C#.NET

Q76. Why does the data not display using the following code?

```
studentConnection.Open();
studentCommand = studentConnection.CreateCommand();
studentCommand.CommandType = CommandType.Text;
studentCommand.CommandText = "SELECT * FROM Student";
studentAdapter = new SqlDataAdapter (studentCommand);
studentSet = new DataSet();
this.txtFirstName.DataBindings.Add ("Text", studentSet, "FirstName");
```

1. The command object is instantiated incorrectly.
2. The dataset object is instantiated incorrectly.
3. The data binding is done incorrectly.
4. The dataset has not been populated.

Correct Answer : 4

Your Answer :

QuestionID : 13510      Subject Name C#.NET

Q77. Which code segment would correctly expose the Convert() method of a web service?

1. public int Convert()

{

// write the method code here

}

2. private int Convert()

{

// write the method code here

}

3. protected int Convert()

{

// write the method code here

}

4. public Convert()

{

// write the method code here

}

Correct Answer : 1

Your Answer :

QuestionID : 13512      Subject Name C#.NET

Q78. Which command-line tool will create a web service proxy?

1. isdlam.exe
2. ildasm.exe
3. tlbimp.exe
4. wsdl.exe

Correct Answer : 4

Your Answer :

QuestionID : 13516      Subject Name C#.NET

Q79. What ASP.NET object encapsulates the user's data as it is sent from a form  
in a page?

1. The Session object.
2. The Application object.
3. The Response object.
4. The Request object.

Correct Answer : 4

Your Answer :

QuestionID : 13517      Subject Name C#.NET

Q80. Which of the following will display the Web Services on a remote IIS server  
(named www.hmr.com) in an assembly called MyServices?

1. http://hmr.com/MyServices/ServiceName
2. http://www.hmr.com/MyServices/ServiceName
3. url://hmr.com/MyServices/ServiceName

4. url://www.hmr.com/MyServices/ServiceName

Correct Answer : 2

Your Answer :

QuestionID : 13521      Subject Name C#.NET

Q81. What computer language is installed with the .NET Framework, by default?

1. JavaScript
2. Quick Basic
3. C
4. LiveScript

Correct Answer : 1

Your Answer :

QuestionID : 13531      Subject Name C#.NET

Q82. Which URL will provide access to the web service called MyWebService, located in the WebServices web on the local machine?

1. http://localhost/MyWebService/WebServices.asmx?WSDL
2. http://localhost/WebServices/WebServices.asmx?WSDL
3. http://localhost/MyWebService/MyWebService.asmx?WSDL
4. http://localhost/WebServices/MyWebService.asmx?WSDL

Correct Answer : 4

Your Answer :

QuestionID : 13535      Subject Name C#.NET

Q83. When you test a web service, what do you expect to see as output?

1. The web service running.
2. The web site.
3. The XML of the web proxy.

4. The XML of the web service.

Correct Answer : 3

Your Answer :

QuestionID : 13538      Subject Name C#.NET

Q84. What language is the standard web script language ECMAScript based on?

1. JavaScript
2. Java
3. Perl
4. Jscript

Correct Answer : 1

Your Answer :

QuestionID : 13539      Subject Name C#.NET

Q85. Which file must be included in the assembly in order to provide a list of licensed controls within the application?

1. xxxx.LIC
2. xxxx.LCX
3. xxxx.LICX
4. xxxx.Licenses

Correct Answer : 3

Your Answer :

QuestionID : 13544      Subject Name C#.NET

Q86. You are planning to create a new control that will be used in place of the Button control. The new control will blink and change color whenever the user moves the mouse over the control. Which control type would you use?

1. Derived control from the Button class.

2. Derived control from the Control class.
3. Derived control from the UserControl class.
4. Customized control using GDI+.

Correct Answer : 1

Your Answer :

QuestionID : 13546      Subject Name C#.NET

Q87. What object would you use if you need to support Netscape Navigator and Microsoft Internet Explorer?

1. ActiveX control
2. Intrinsic controls
3. XML
4. Java applet

Correct Answer : 3

Your Answer :

QuestionID : 13547      Subject Name C#.NET

Q88. Which of the following techniques will expose a new procedure for a newly created control?

1. public string newProperty;
2. private string newValue;

```
public string newProperty  
{  
    get  
    {  
        return newValue;  
    }  
}
```

```
set
{
    newValue = Value;
}

3. public string newValue;

public string newProperty

{
    get
    {
        return newProperty;
    }

    set
    {
        newValue = newProperty;
    }
}

4. public string newValue;

public string newProperty

{
    get
    {
        return newValue;
    }

    set
    {
        newValue = Value;
    }
}
```

}

Correct Answer : 2

Your Answer :

QuestionID : 13548      Subject Name C#.NET

Q89. What method(s) must be used with the Application object to ensure that only one process accesses a variable at a time?

1. Synchronize()
2. Lock() and UnLock()
3. Lock() and Unlock()
4. SingleUse()

Correct Answer : 2

Your Answer :

QuestionID : 13549      Subject Name C#.NET

Q90. What ASP.NET object encapsulates the web site?

1. The Session object.
2. The Application object.
3. The Response object.
4. The Request object.

Correct Answer : 2

Your Answer :

QuestionID : 13558      Subject Name C#.NET

Q91. Why did Microsoft invent assemblies?

1. To allow applications to take care of their own components.
2. To speed up processing.
3. To confuse developers studying for the .NET development exams.

4. To ensure that all components register properly in the Registry.

Correct Answer : 1

Your Answer :

QuestionID : 13560      Subject Name C#.NET

Q92. Which of the following code segments would properly extend a TextBox control?

1. public class myTextBox:

System.Windows.Forms.Controls.TextBox

2. public class myTextBox: System.Windows.Forms.TextBox

3. public class myTextBox: System.Forms.TextBox

4. public class myTextBox extends

System.Windows.Forms.TextBox

Correct Answer : 2

Your Answer :

QuestionID : 13570      Subject Name C#.NET

Q93. When working with ASP.NET server controls, it is important to use the right event handlers to capture the event for the application to function properly.

What event would you use to capture the selection of a new item in a

DropDownList control?

1. The Click event.

2. The SelectionChanged event.

3. The SelectedIndexChanged event.

4. The ChangedSelection event.

Correct Answer : 3

Your Answer :

QuestionID : 13791      Subject Name C#.NET

Q94. By setting the EnableSession property to True, you have access to what resources?

1. Nothing. You need to create the session first.
2. Session variables.
3. Application variables.
4. Local variables stored in the Web Method session.

Correct Answer : 2

Your Answer :

QuestionID : 13793      Subject Name C#.NET

Q95. True or false? XML documents contain the data model of the data they contain.

Correct Answer : T

Your Answer :

QuestionID : 15330      Subject Name C#.NET

Q96. The heart of .NET framework is

1. CTS
2. CLR
3. CLS
4. Framework class libraries

Correct Answer : 2

Your Answer :

QuestionID : 15331      Subject Name C#.NET

Q97. MSIL is stand for Microsoft Intermediate Language

Correct Answer : T

Your Answer :

QuestionID : 15334      Subject Name C#.NET

Q98. \_\_\_\_\_ and \_\_\_\_\_ keyword clause is used to create readable and writeable property

1. get
2. set
3. readOnly and writeOnly
4. both a and b

Correct Answer : 4

Your Answer :

QuestionID : 15337      Subject Name C#.NET

Q99. To create an abstract class,type the \_\_\_\_\_ keyword to the left of its name

1. Sealed
2. Abstract
3. Public
4. None of the above

Correct Answer : 2

Your Answer :

QuestionID : 15340      Subject Name C#.NET

Q100. \_\_\_\_\_ are also known as smart fields

1. indexers
2. properties
3. delegates
4. events

Correct Answer : 2

Your Answer :



## **Module – .NET Framework and C#**

**Date : 4<sup>th</sup> January 2003**

**Duration : 1 ½ Hours**

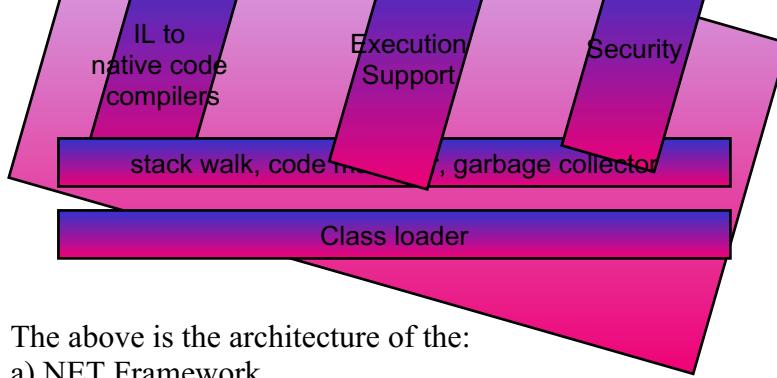
**Max. Marks : 50**

---

### **I. Select the correct answer (15 marks)**

- 1) ( i )It is much more easier to create and use COM components, rather than .NET components  
( ii ).NET does not provide any utility to use components created using COM  
a)( i ) is true, ( ii ) is false  
b)( i ) is false, ( ii ) is true  
c) both are true  
d)both are false
  
- 2) \_\_\_\_\_ that are focused on one aspect of development. These classes are extended from the Base Class Library, and are designed to make it easier and faster to develop a specific type of application  
a)Foundation Class Library  
b)Common Language Runtime  
c)Common Language Specification  
d)Extended class library
  
- 3) The \_\_\_\_\_ supplies managed code with services such as cross-language integration, code access security, object lifetime management, and debugging  
a)Foundation Class Library  
b)Common Language Runtime  
c)Common Language Specification  
d)Just-in-time compiler
  
- 4)Code that you develop with a language compiler that targets the runtime is called \_\_\_\_\_  
a)MSIL  
b)Managed code  
c)Unmanaged code  
d)JIT-compiled code
  
- 5)The idea behind \_\_\_\_\_ recognizes the fact that some code may never get called during execution; therefore, rather than using time and memory to convert all of the MSIL in a PE (portable executable) file to CPU specific code, it makes sense to convert the MSIL as it is needed during execution and store the resulting code so that it is accessible for subsequent calls  
a)Compilation with language specific compiler  
b)Metadata compilation  
c)Common Language Runtime compilation  
d)Just-In-Time compilation
  
- 6)Code that uses pointers is called \_\_\_\_\_ code  
a)Unsafe  
b)Unmanaged  
c)Managed  
d)None of the above
  
- 7)The \_\_\_\_\_ works with the CLR to determine which references are actively being used by a running application, and which may be released  
a)Stalk Walker

- b)Virtual Execution System
  - c)Garbage Collector
  - d)Code Manager
- 8)When we compile any application written in a CLS compliant language using a language compiler, the application is compiled into \_\_\_\_\_
- a)Metadata
  - b)Microsoft Intermediate Language
  - c)Native code
  - d)CPU specific code
- 9)\_\_\_\_\_ defines standard reference and value types that are supported in the .NET Framework
- a)Foundation Class Library
  - b)Common Language Specification
  - c)Common Type System
  - d)Extended class library
- 10)Exchange Server 2000 and Commerce Server 2000 belong to the .NET \_\_\_\_\_ family
- a)Server
  - b)Client
  - c)Messaging
  - d)Security
- 11).NET components are self describing, because the \_\_\_\_\_ is stored as part of the compiled component.
- a)Metadata
  - b)Microsoft Intermediate Language
  - c)Common Type System
  - d)Garbage Collector
- 12)Before code can be executed, \_\_\_\_\_ must be converted to native code
- a)Microsoft Intermediate Language
  - b)Common Type System
  - c)Metadata
  - d>Manifest
- 13)For objects to be able to understand each other no matter what language compiler they are compiled with, they must expose to callers only those data types and features that are common to all the languages they need to interoperate with. For this reason, the runtime has identified a set of language features called the \_\_\_\_\_
- a)Foundation Class Library
  - b)Common Language Specification
  - c)Common Type System
  - d)Extended class library
- 14)



The above is the architecture of the:

- a).NET Framework
- b)Common Language Runtime
- c)What lies below the Extended Class Library
- d)Common Type System

15) Abstract and sealed modifiers are used for \_\_\_\_\_

- a)Classes
- b)Methods
- c)Members
- d)Properties

## II. Answer the following (any 5) (15 marks)

1. Building blocks of .Net Framework
2. Types of compilers in the .Net framework
3. Describe the methods of Console.In and Console.Out with appropriate examples
4. What is Method Hiding? Explain with a help of an example
5. What are static members? Also give an example.
6. Explain Exception Handling with appropriate examples

## III. Solve the following exercises: (10 Marks)

1. Write the code to create a type called student. It contains the following properties
  - Read- write property Studno
  - Read only property Marks
  - Also show the its implementation in the Main() method
2. Create a class and display it's the namespace it belongs to along with the class name that it is derived from

## IV. Fill in the Blanks: (10 Marks)

1. \_\_\_\_\_ keyword is used to stop the GC from moving objects while it is being referenced by a pointer
2. Read() returns \_\_\_\_\_ if no more characters are remaining
3. If the method doesn't return a value its return type is \_\_\_\_\_
4. If an argument is passed by \_\_\_\_\_ any change made to the local copy inside the function doesn't affect the value of the original argument.
5. Checked and unchecked statements check the \_\_\_\_\_ exception.
6. An \_\_\_\_\_ contains member and method signatures, all of which are public
7. C# supports \_\_\_\_\_ inheritance
8. A \_\_\_\_\_ is similar to the safe function pointer of C++
9. Variable argument lists are implemented using the \_\_\_\_\_ keyword together with reference to an array object
10. UDDI stands for \_\_\_\_\_

## C# Questions & Answers – Integer Data Types

1. How many Bytes are stored by ‘Long’ Data type in C# .net?

- a) 8
- b) 4
- c) 2
- d) 1

[View Answer](#)

Answer: a

Explanation: ‘Long’ is the data type keyword used for storing data of unlimited length so by definition its size is always maximum i.e 8.

2. Choose “.NET class” name from which data type “UInt” is derived ?

- a) System.Int16
- b) System.UInt32
- c) System.UInt64
- d) System.UInt16

[View Answer](#)

Answer: b

Explanation: By Definition class assigned to

- a) System.Int16 = short.
- b) System.UInt32 = UInt.
- c) System.UInt64 = ULong.
- d) System.UInt16 = UShort.

3. Correct Declaration of Values to variables ‘a’ and ‘b’?

- a) int a = 32, b = 40.6;
- b) int a = 42; b = 40;
- c) int a = 32; int b = 40;
- d) int a = b = 42;

[View Answer](#)

Answer: c

Explanation: a) Although, declaration of ‘b’ and ‘a’ are correct but initialization of value to ‘b’ should be ‘int’ data type not float.

b) Missing declaration type of ‘b’.

c) correctly declared data types ‘a’ and ‘b’.

d) ‘b’ can’t be assigned values before declaration.

- a) ‘k’ should not be declared constant
- b) Expression assigned to ‘k’ should be constant in nature
- c) Expression (m \* k) is invalid
- d) ‘m’ is declared in invalid format

[View Answer](#)

Answer: b

Explanation: ‘k’ should be declared as const int k = 10/5 \* 100\*10 i.e only constant values should be assigned to a constant.

Output:

```
Error 1 - The expression being assigned to 'k' must be constant.
```

5. Arrange the following data type in order of increasing magnitude sbyte, short, long, int.

- a) long < short < int < sbyte
- b) sbyte < short < int < long
- c) short < sbyte < int < long

d) short < int < sbyte < long

[View Answer](#)

Answer: b

Explanation: By definition.

---

6. Which data type should be more preferred for storing a simple number like 35 to improve execution speed of a program?

- a) sbyte
- b) short
- c) int
- d) long

[View Answer](#)

Answer: a

Explanation: Wider data type like int,long takes more time for manipulation of a program.

---

7. Which Conversion function of ‘Convert.ToInt32()’ and ‘Int32.Parse()’ is efficient?

- 1) Int32.Parse() is only used for strings and throws argument exception for null string
  - 2) Convert.ToInt32() used for data types and returns directly ‘0’ for null string
- a) 2
  - b) Both 1,2
  - c) 1
  - d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: Convenient for every data type so mostly preferred.

---

8. Correct way to assign values to variable ‘c’ when int a=12, float b=3.5,int c;

- a) c = a + b;
- b) c = a + int(float(b));
- c) c = a + convert.ToInt32(b);
- d) c = int(a + b);

[View Answer](#)

Answer: c

Explanation: None.

---

[View Answer](#)

Answer: c

Explanation: Usage of typecasting operation. Separately check each expression taking typecast operations in concern.

Output :

74 .

---

a) Yes

b) No

[View Answer](#)

Answer: No

Explanation:

Output –

- 1) 5 .
- 2) 6 .

---

11. Default Type of number without decimal is?

- a) Long Int
- b) Unsigned Long
- c) Int
- d) Unsigned Int

[View Answer](#)

Answer: c

Explanation: By definition.

---

- a) 23.453
- b) 22
- c) 23
- d) 22.453

[View Answer](#)

Answer: c

Explanation: The two data type ‘float’ and ‘long’ after arithmetic operation completely converted to nearest whole number 23.

Output :

23.

ayzom.com

## C# Questions & Answers – Char Types and String Literals

3. Given is the code of days(example:"MTWTFSS") which I need to split and hence create a list of days of week in strings(example:"Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday", "Sunday"). A set of code is given for this purpose but there is the error occurring in that set of code related to the conversion of char to strings. Hence, Select a code to solve the given error.

```
1. static void Main(string[] args)
2. {
3.     var days = "MTWTFSS";
4.     var daysArray = days.ToCharArray().Cast<string>().ToArray();
5.     for (var i = 0; i < daysArray.Length; i++)
6.     {
7.         switch (daysArray[i])
8.         {
9.             case "M":
10.                 daysArray[i] = "Monday";
11.                 break;
12.             case "T":
13.                 daysArray[i] = "Tuesday";
14.                 break;
15.             case "W":
16.                 daysArray[i] = "Wednesday";
17.                 break;
18.             case "R":
19.                 daysArray[i] = "Thursday";
20.                 break;
21.             case "F":
22.                 daysArray[i] = "Friday";
23.                 break;
24.             case "S":
25.                 daysArray[i] = "Saturday";
26.                 break;
27.             case "U":
28.                 daysArray[i] = "Sunday";
29.                 break;
30.         }
```

```
31.    }
32.    daysArray[daysArray.Length - 1] = "and " + daysArray[daysArray.Length - 1];
33.    Console.WriteLine(string.Join(", ", daysArray));
34. }
```

1. What is the Size of 'Char' datatype?

- a) 8 bit
- b) 12 bit
- c) 16 bit
- d) 20 bit

[View Answer](#)

Answer: c

Explanation: None.

---

3. Given is the code of days(example:"MTWTFSS") which I need to split and hence create a list of days of week in strings(example:"Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday", "Sunday"). A set of code is given for this purpose but there is the error occurring in that set of code related to the conversion of char to strings. Hence, Select a code to solve the given error.

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6.     {
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14.                 break;
15.             case "W":
16.                 daysArray[i] = "Wednesday";
17.                 break;
18.             case "R":
19.                 daysArray[i] = "Thursday";
20.                 break;
21.             case "F":
22.                 daysArray[i] = "Friday";
```

```
23.         break;
24.     case "S":
25.         daysArray[i] = "Saturday";
26.         break;
27.     case "U":
28.         daysArray[i] = "Sunday";
29.         break;
30.     }
31. }
32. daysArray[daysArray.Length - 1] = "and " + daysArray[daysArray.Length - 1];
33. Console.WriteLine(string.Join(", ", daysArray));
34. }
```

- a) I am a human bein c
- b) I am a human being
- c) I am a human being c
- d) I am a human bein

View Answer

Answer: b

Explanation: 'g' is stored in character variable 'c' which later on is converted to string using method Convert.ToString() and hence appended at last of the string in s1.

Output:

I am a human being.

3. Given is the code of days(example:"MTWTFSS") which I need to split and hence create a list of days of week in strings(example:"Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday", "Sunday"). A set of code is given for this purpose but there is the error occurring in that set of code related to the conversion of char to strings. Hence, Select a code to solve the given error.

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6.     {
7.         switch (daysArray[i])
8.         {
9.             case "M":
10.                 daysArray[i] = "Monday";
11.                 break;
12.             case "T":
13.                 daysArray[i] = "Tuesday";
```

```

14.         break;
15.     case "W":
16.         daysArray[i] = "Wednesday";
17.         break;
18.     case "R":
19.         daysArray[i] = "Thursday";
20.         break;
21.     case "F":
22.         daysArray[i] = "Friday";
23.         break;
24.     case "S":
25.         daysArray[i] = "Saturday";
26.         break;
27.     case "U":
28.         daysArray[i] = "Sunday";
29.         break;
30.     }
31. }
32. daysArray[daysArray.Length - 1] = "and " + daysArray[daysArray.Length - 1];
33. Console.WriteLine(string.Join(", ", daysArray));
34. }
```

- a) var daysArray = new List();
- b) var daysArray = days.Select(c => dayMapping[c]).ToArray();
- c) var daysArray = days.ToCharArray().Select(c => c.ToString()).ToArray();
- d) None of above mentioned.

[View Answer](#)

Answer: c.

Explanation: The problem arises due to cast conversion from “char” to “string” as one is not inherited from other. So, quick way of conversion is just using Char.ToString().

3. Given is the code of days(example:”MTWTFSS”) which I need to split and hence create a list of days of week in strings(example:”Monday”, “Tuesday”, “Wednesday”, “Thursday”, “Friday”, “Saturday”, “Sunday”). A set of code is given for this purpose but there is the error occurring in that set of code related to the conversion of char to strings. Hence, Select a code to solve the given error.

```

1. static void Main(string[] args)
2. {
3.     var days = "MTWTFSS";
4.     var daysArray = days.ToCharArray().Cast<string>().ToArray();
5.     for (var i = 0; i < daysArray.Length; i++)
```

```
6.    {
7.        switch (daysArray[i])
8.        {
9.            case "M":
10.                daysArray[i] = "Monday";
11.                break;
12.            case "T":
13.                daysArray[i] = "Tuesday";
14.                break;
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16.                daysArray[i] = "Wednesday";
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19.                daysArray[i] = "Thursday";
20.                break;
21.            case "F":
22.                daysArray[i] = "Friday";
23.                break;
24.            case "S":
25.                daysArray[i] = "Saturday";
26.                break;
27.            case "U":
28.                daysArray[i] = "Sunday";
29.                break;
30.        }
31.    }
32.    daysArray[daysArray.Length - 1] = "and " + daysArray[daysArray.Length - 1];
33.    Console.WriteLine(string.Join(", ", daysArray));
34. }
```

a) Monday ,Tuesday ,Wednesday ,Friday ,Saturday ,Sunday

b) Monday

Tuesday

Wednesday

Friday

Sunday

c) Monday

Tuesday

Wednesday

Friday

Saturday

d) Monday ,Tuesday ,Wednesday ,Friday ,Saturday

[View Answer](#)

Answer: c.

Explanation:None.

Output:

```
Monday  
Tuesday  
Wednesday  
Friday  
Saturday
```

---

3. Given is the code of days(example:"MTWTFSS") which I need to split and hence create a list of days of week in strings(example:"Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday", "Sunday"). A set of code is given for this purpose but there is the error occurring in that set of code related to the conversion of char to strings. Hence, Select a code to solve the given error.

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8.         {  
9.             case "M":  
10.                 daysArray[i] = "Monday";  
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15.             case "W":  
16.                 daysArray[i] = "Wednesday";  
17.                 break;  
18.             case "R":  
19.                 daysArray[i] = "Thursday";  
20.                 break;  
21.             case "F":  
22.                 daysArray[i] = "Friday";  
23.                 break;  
24.             case "S":
```

```
25.         daysArray[i] = "Saturday";
26.         break;
27.     case "U":
28.         daysArray[i] = "Sunday";
29.         break;
30.     }
31. }
32. daysArray[daysArray.Length - 1] = "and " + daysArray[daysArray.Length - 1];
33. Console.WriteLine(string.Join(", ", daysArray));
34. }
```

5. Select the correct differences between char and varchar data types?

1. varchar is non unicode and char is unicode character data type
  2. char is 'n' bytes whereas varchar is actual length in bytes of data entered in terms of storage size
  3. varchar is variable in length and char is the fixed length string
  4. For varchar, if a string is less than the maximum length then it is stored in verbatim without any extra characters while for char if a string is less than the set length it is padded with extra characters to equalize its length to given length
- a) 1, 3, 4  
b) 2, 3, 4  
c) 1, 2, 4  
d) 3, 4

[View Answer](#)

Answer: d.

Explanation: By definition.

---

3. Given is the code of days(example:"MTWTFSS") which I need to split and hence create a list of days of week in strings(example:"Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday", "Sunday"). A set of code is given for this purpose but there is the error occurring in that set of code related to the conversion of char to strings. Hence, Select a code to solve the given error.

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6.     {
7.         switch (daysArray[i])
8.         {
9.             case "M":
10.                 daysArray[i] = "Monday";
11.                 break;
12.             case "T":
13.                 daysArray[i] = "Tuesday";
```

```
14.         break;
15.     case "W":
16.         daysArray[i] = "Wednesday";
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25.         daysArray[i] = "Saturday";
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28.         daysArray[i] = "Sunday";
29.         break;
30.     }
31. }
32. daysArray[daysArray.Length - 1] = "and " + daysArray[daysArray.Length - 1];
33. Console.WriteLine(string.Join(", ", daysArray));
34. }
```

6. Which is the String method used to compare two strings with each other ?

- a) Compare To()
- b) Compare()
- c) Copy()
- d) ConCat()

[View Answer](#)

Answer: b

Explanation: Compare() used to compare two strings by taking length of strings in considerations.

3. Given is the code of days(example:"MTWTFSS") which I need to split and hence create a list of days of week in strings(example:"Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday", "Sunday"). A set of code is given for this purpose but there is the error occurring in that set of code related to the conversion of char to strings. Hence, Select a code to solve the given error.

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```

```
6.    {
7.        switch (daysArray[i])
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10.                daysArray[i] = "Monday";
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30.        }
31.    }
32.    daysArray[daysArray.Length - 1] = "and " + daysArray[daysArray.Length - 1];
33.    Console.WriteLine(string.Join(", ", daysArray));
34. }
```

- a) DelhiJaipuri
- b) Delhi Jaipur
- c) Delhi
- d) DelhiJaipur

View Answer

Answer: d.

Explanation:Insert method() of string class used to join two strings s1 and s2.

Output :

DelhiJaipur

3. Given is the code of days(example:"MTWTFSS") which I need to split and hence create a list of days of week in strings(example:"Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday", "Sunday"). A set of code is given for this purpose but there is the error occurring in that set of code related to the conversion of char to strings. Hence, Select a code to solve the given error.

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26.                 break;
27.             case "U":
28.                 daysArray[i] = "Sunday";
29.                 break;
30.         }
}
```

```
31.    }
32.    daysArray[daysArray.Length - 1] = "and " + daysArray[daysArray.Length - 1];
33.    Console.WriteLine(string.Join(", ", daysArray));
34. }
```

8. For two strings s1 and s2 to be equal, which is the correct way to find if the contents of two strings are equal ?

- a) if(s1 == s2)
- b) int c;
- c) s1.CompareTo(s2);
- d) if(strcmp(s1, s2))

[View Answer](#)

Answer : b

---

3. Given is the code of days(example:"MTWTFSS") which I need to split and hence create a list of days of week in strings(example:"Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday", "Sunday"). A set of code is given for this purpose but there is the error occurring in that set of code related to the conversion of char to strings. Hence, Select a code to solve the given error.

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```

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31. }
32. daysArray[daysArray.Length - 1] = "and " + daysArray[daysArray.Length - 1];
33. Console.WriteLine(string.Join(", ", daysArray));
34. }
```

Enter a String:BOMBAY.

- a) BOMBA
- b) YABMOB
- c) BOMAYB
- d) YABMO

View Answer

Answer : b.

Explanation: Explain the concept of reversal of string without using any string inbuilt method but using while loop conditions.

Output:

YABMOB

---

3. Given is the code of days(example:"MTWTFSS") which I need to split and hence create a list of days of week in strings(example:"Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday", "Sunday"). A set of code is given for this purpose but there is the error occurring in that set of code related to the conversion of char to strings. Hence, Select a code to solve the given error.

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30.     }
31. }
32. daysArray[daysArray.Length - 1] = "and " + daysArray[daysArray.Length - 1];
33. Console.WriteLine(string.Join(", ", daysArray));
34. }
```

d) None of the mentioned

[View Answer](#)

Answer : c.

Explanation: None.

Output:

```
public static string ConvertStringToHex (String input, System.Text.Encoding encoding)
{
    Byte[] stringBytes = encoding.GetBytes(input);
    StringBuilder sbBytes = new StringBuilder(stringBytes.Length * 2);
    foreach (byte b in stringBytes)
    {
        sbBytes.AppendFormat("{0:X2}", b);
    }
    Console.WriteLine(sbBytes.ToString()); //sbBytes.ToString();
    return sbBytes.ToString();
}
```

---

3. Given is the code of days(example:"MTWTFSS") which I need to split and hence create a list of days of week in strings(example:"Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday", "Sunday"). A set of code is given for this purpose but there is the error occurring in that set of code related to the conversion of char to strings. Hence, Select a code to solve the given error.

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18.             case "R":
19.                 daysArray[i] = "Thursday";
20.                 break;
21.             case "F":
22.                 daysArray[i] = "Friday";
23.                 break;
24.             case "S":
25.                 daysArray[i] = "Saturday";
26.                 break;
27.             case "U":
28.                 daysArray[i] = "Sunday";
29.                 break;
30.         }
31.     }
32.     daysArray[daysArray.Length - 1] = "and " + daysArray[daysArray.Length - 1];
33.     Console.WriteLine(string.Join(", ", daysArray));
34. }
```

d) None of the mentioned

[View Answer](#)

Answer : b

Output:

```
public static string ConvertHexToString(String hexInput, System.Text.Encoding encoding)
{
    int numberChars = hexInput.Length;
    byte[] bytes = new byte[numberChars / 2];
    for (int i = 0; i < numberChars; i += 2)
    {
        bytes[i / 2] = Convert.ToByte(hexInput.Substring(i, 2), 16);
    }
    return encoding.GetString(bytes);
}
```

---

3. Given is the code of days(example:"MTWTFSS") which I need to split and hence create a list of days of week in strings(example:"Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday", "Sunday"). A set of code is given for this purpose but there is the error occurring in that set of code related to the conversion of char to strings. Hence, Select a code to solve the given error.

```
1. static void Main(string[] args)
2. {
3.     var days = "MTWTFSS";
4.     var daysArray = days.ToCharArray().Cast<string>().ToArray();
5.     for (var i = 0; i < daysArray.Length; i++)
6.     {
7.         switch (daysArray[i])
8.         {
9.             case "M":
10.                 daysArray[i] = "Monday";
11.                 break;
12.             case "T":
13.                 daysArray[i] = "Tuesday";
14.                 break;
15.             case "W":
16.                 daysArray[i] = "Wednesday";
17.                 break;
18.             case "R":
19.                 daysArray[i] = "Thursday";
20.                 break;
21.             case "F":
22.                 daysArray[i] = "Friday";
23.                 break;
24.             case "S":
```

```
25.         daysArray[i] = "Saturday";
26.         break;
27.     case "U":
28.         daysArray[i] = "Sunday";
29.         break;
30.     }
31. }
32. daysArray[daysArray.Length - 1] = "and " + daysArray[daysArray.Length - 1];
33. Console.WriteLine(string.Join(", ", daysArray));
34. }
```

a) AM BEST

b) I AM BES

c) BEST

d) I AM

[View Answer](#)

Answer : c

Explanation: Substring() of string class used to extract substrings from given string. In the given substring condition, it extracts a substring beginning at 5th position and ending at 4th position.

Output:

BEST.

---

3. Given is the code of days(example:"MTWTFSS") which I need to split and hence create a list of days of week in strings(example:"Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday", "Sunday"). A set of code is given for this purpose but there is the error occurring in that set of code related to the conversion of char to strings. Hence, Select a code to solve the given error.

```
1. static void Main(string[] args)
2. {
3.     var days = "MTWTFSS";
4.     var daysArray = days.ToCharArray().Cast<string>().ToArray();
5.     for (var i = 0; i < daysArray.Length; i++)
6.     {
7.         switch (daysArray[i])
8.         {
9.             case "M":
10.                 daysArray[i] = "Monday";
11.                 break;
12.             case "T":
13.                 daysArray[i] = "Tuesday";
14.                 break;
15.             case "W":
```

```
16.         daysArray[i] = "Wednesday";
17.         break;
18.     case "R":
19.         daysArray[i] = "Thursday";
20.         break;
21.     case "F":
22.         daysArray[i] = "Friday";
23.         break;
24.     case "S":
25.         daysArray[i] = "Saturday";
26.         break;
27.     case "U":
28.         daysArray[i] = "Sunday";
29.         break;
30.     }
31. }
32. daysArray[daysArray.Length - 1] = "and " + daysArray[daysArray.Length - 1];
33. Console.WriteLine(string.Join(", ", daysArray));
34. }
```

13. Correct statement about strings are ?

- a) a string is created on the stack
- b) a string is primitive in nature
- c) a string created on heap
- d) created of string on a stack or on a heap depends on the length of the string

[View Answer](#)

Answer : c

Explanation: None.

---

3. Given is the code of days(example:"MTWTFSS") which I need to split and hence create a list of days of week in strings(example:"Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday", "Sunday"). A set of code is given for this purpose but there is the error occurring in that set of code related to the conversion of char to strings. Hence, Select a code to solve the given error.

```
1. static void Main(string[] args)
2. {
3.     var days = "MTWTFSS";
4.     var daysArray = days.ToCharArray().Cast<string>().ToArray();
5.     for (var i = 0; i < daysArray.Length; i++)
6.     {
7.         switch (daysArray[i])
```

```
8.        {
9.        case "M":
10.       daysArray[i] = "Monday";
11.       break;
12.       case "T":
13.       daysArray[i] = "Tuesday";
14.       break;
15.       case "W":
16.       daysArray[i] = "Wednesday";
17.       break;
18.       case "R":
19.       daysArray[i] = "Thursday";
20.       break;
21.       case "F":
22.       daysArray[i] = "Friday";
23.       break;
24.       case "S":
25.       daysArray[i] = "Saturday";
26.       break;
27.       case "U":
28.       daysArray[i] = "Sunday";
29.       break;
30.     }
31.   }
32.   daysArray[daysArray.Length - 1] = "and " + daysArray[daysArray.Length - 1];
33.   Console.WriteLine(string.Join(", ", daysArray));
34. }
```

14. Verbatim string literal is better used for ?

- a) Convenience and better readability of strings when string text consist of backslash characters
- b) Used to initialize multi line strings
- c) To embed a quotation mark by using double quotation marks inside a verbatim string
- d) All of the mentioned

[View Answer](#)

Answer : d

Explanation: By definition.

---

3. Given is the code of days(example:"MTWTFSS") which I need to split and hence create a list of days of week in strings(example:"Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday", "Sunday"). A set of code is given for this purpose but there is

the error occurring in that set of code related to the conversion of char to strings. Hence, Select a code to solve the given error.

```
1. static void Main(string[] args)
2. {
3.     var days = "MTWTFSS";
4.     var daysArray = days.ToCharArray().Cast<string>().ToArray();
5.     for (var i = 0; i < daysArray.Length; i++)
6.     {
7.         switch (daysArray[i])
8.         {
9.             case "M":
10.                 daysArray[i] = "Monday";
11.                 break;
12.             case "T":
13.                 daysArray[i] = "Tuesday";
14.                 break;
15.             case "W":
16.                 daysArray[i] = "Wednesday";
17.                 break;
18.             case "R":
19.                 daysArray[i] = "Thursday";
20.                 break;
21.             case "F":
22.                 daysArray[i] = "Friday";
23.                 break;
24.             case "S":
25.                 daysArray[i] = "Saturday";
26.                 break;
27.             case "U":
28.                 daysArray[i] = "Sunday";
29.                 break;
30.         }
31.     }
32.     daysArray[daysArray.Length - 1] = "and " + daysArray[daysArray.Length - 1];
33.     Console.WriteLine(string.Join(", ", daysArray));
34. }
```

15. Why strings are of reference type in C#.NET ?

- a) To create string on stack
- b) To reduce size of string
- c) To overcome problem of stackoverflow
- d) None of the mentioned

[View Answer](#)

Answer : b

Explanation: The problem of stack overflow very likely to occur since transport protocol used on web these days are ‘HTTP’ and data standard as ‘XML’.Hence, both make use of strings extensively which will result in stack overflow problem.So, to avoid this situation it is good idea to make strings a reference type and hence create it on heap.

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## C# Questions & Answers – Initialization of Variables

---

- a) 11, 10
- b) 16, 10
- c) 16, 11
- d) 15, 11

[View Answer](#)

Answer: c

Explanation:  $c = 6 + 10 = 16$  and  $b = 11$  as we know `++` operator increments and then executes similarly `operator++` executes and then increments.

Output:

16, 11

---

2. Storage location used by computer memory to store data for usage by an application is ?

- a) Pointers
- b) Constants
- c) Variable
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: ‘Variables’ are essential locations in memory of computer that are reserved for storing data used by an application. Each variable is given a name by programmer and hence assigned a value .The name assigned to variable then used in C# code to access value assigned to variable.

---

3. DIFFERENCE BETWEEN KEYWORDS ‘VAR’ AND ‘DYNAMIC’ ?

- a) ‘Var’ is introduced in C# (3.0) and ‘Dynamic’ is introduced in C# (4.0)
- b) ‘Var’ is a type of variable where declaration is done at compile time by compiler while ‘Dynamic’ declaration is achieved at runtime by compiler
- c) For ‘Var’ Error is caught at compile time and for ‘Dynamic’ Error is caught at runtime
- d) All of the mentioned

[View Answer](#)

Answer: d

---

- a) True for (1);False for (2)
- b) True for (2);False for (1)
- c) Both (1) and (2) are equivalents
- d) Both (1) and (2) are not equivalents

[View Answer](#)

Answer: c.

Explanation: When we create a type in ‘C#’, It automatically gets filled with padded zeros. For the case of class (reference types) this equates to a null pointer. Hence, for code 1) Both variable values are equivalent to each other.Similarly, for code 2) i.e for value type (including int/float/double etc.), the type is passed with zeros. Hence, they are equivalent.

---

- a)  $b = 10, a = 5$
- b)  $b = 15, a = 5$
- c)  $a = 15, b = 10$
- d)  $a = 10, b = 10$

[View Answer](#)

Answer: c

Explanation: b is assigned 10 and after that its value is added with 5 and then saved in a, so a will be 15.

a) 1, 97

b) 65, 97

c) 65, 97

d) 97, 1

[View Answer](#)

Answer: c

Explanation: ASCII value of character ‘a’ is 65 and ASCII value of string “a” is 97.

Output:

65, 97

---

a) Dr.Gupta

b) Good Morning

c) Good Morning Dr.Gupta

d) Good Morning name

[View Answer](#)

Answer: c.

Explanation: How to initialize a string variable and concatenate string using ‘+’ operator.

Output:

Good Morning Dr.Gupta.

---

a) -7, 10

b) -5, 11

c) -6, 11

d) 15, 11

[View Answer](#)

Answer: c

Explanation: None.

Output:

-6, 11.

---

a) 600, 720

b) Compile time error.

c) 25, 30

d) 5, 6

[View Answer](#)

Answer: b

Explanation: The left hand side of an assignment must be a variable,property or indexer i.e for both ‘a’ and ‘b’

---

a) He is playing in a grou

b) .ground a in playing is He

c) .dnuorg a ni gniyalp si eH

d) He playing a

[View Answer](#)

Answer: c

Explanation: Reversal of array of strings character by character.

Output:

.dnuorg a ni gniyalp si eH

## C# Questions & Answers – Scope and Lifetime of Variables

---

3. Correct Output for the given set of programming code is :

```
1. class Program  
2. {  
3.     static void Main(string[] args)  
4.     {  
5.         int i;  
6.         for ( i = 0; i < 5; i++)  
7.         {  
8.  
9.     }  
10.        Console.WriteLine(i);  
11.        Console.ReadLine();  
12.    }  
13. }
```

Scope declaration:

- a) m = static variable, n = local variable, x = output parameter, y = reference parameter, j = instance variable, z = output parameter, a[0] = array element
- b) m = static variable, n = instance variable, x = value parameter, y = reference parameter, j = local variable, z = output parameter, a[0] = array element
- c) m = static variable, n = instance variable, x = reference parameter, y = value parameter, j = local variable, z = output parameter, a[0] = array element
- d) m = local variable, n = instance variable, x = reference parameter, y = value parameter, j = static variable, z = output parameter, a[0] = array element

[View Answer](#)

Answer: b

Explanation: By definition of scope of variables.

---

3. Correct Output for the given set of programming code is :

```
1. class Program  
2. {  
3.     static void Main(string[] args)  
4.     {  
5.         int i;  
6.         for ( i = 0; i < 5; i++)  
7.         {  
8.  
9.     }  
10. }
```

```
10.     Console.WriteLine(i);
11.     Console.ReadLine();
12. }
13. }
```

- a) 0, 1, 2, 3, 4, 5
- b) 0, 1, 2, 3
- c) 0, 1, 2, 3, 4
- d) 0, 0, 0, 0, 0

[View Answer](#)

Answer: c

Explanation: Scope of 'i' is alive within block in which it is declared. So, change in value of i within for loop is reserved until condition of for loop is executing.

Output:

```
0, 1, 2, 3, 4
```

---

3. Correct Output for the given set of programming code is :

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         int i;
6.         for (i = 0; i < 5; i++)
7.         {
8.
9.         }
10.        Console.WriteLine(i);
11.        Console.ReadLine();
12.    }
13. }
```

- a) 0, 1, 2, 3, 4, 5
- b) 0, 1, 2, 3, 4
- c) 5
- d) 4

[View Answer](#)

Answer: c

Explanation: Since final console statement is outside forloop. So, result will be printed in final values only.

Output:

```
5
```

---

3. Correct Output for the given set of programming code is :

```
1. class Program  
2. {  
3.     static void Main(string[] args)  
4.     {  
5.         int i;  
6.         for ( i = 0; i < 5; i++)  
7.         {  
8.         }  
9.         Console.WriteLine(i);  
10.        Console.ReadLine();  
11.    }  
12. }  
13. }
```

- a) 0, 1, 2, 3, 4, 5, 6
- b) 0, 1, 2, 3, 4, 5
- c) 0, 1, 2, 3, 4
- d) 0, 1, 2, 3

[View Answer](#)

Answer: b

Explanation: None.

Output:

0, 1, 2, 3, 4, 5

---

3. Correct Output for the given set of programming code is :

```
1. class Program  
2. {  
3.     static void Main(string[] args)  
4.     {  
5.         int i;  
6.         for ( i = 0; i < 5; i++)  
7.         {  
8.         }  
9.         }  
10.        Console.WriteLine(i);  
11.        Console.ReadLine();  
12.    }  
13. }
```

- a) 0, 1, 6, 18, 40
- b) 0, 1, 5, 20, 30
- c) Compile time error
- d) 0, 1, 2, 3, 4, 5

[View Answer](#)

Answer: c

Explanation: The scope of j is local in nature it cannot be extended outside the block in which it is defined.

3. Correct Output for the given set of programming code is :

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         int i;
6.         for ( i = 0; i < 5; i++)
7.         {
8.
9.         }
10.        Console.WriteLine(i);
11.        Console.ReadLine();
12.    }
13. }
```

6. Scope of variable is related to definition of variable as:

- 1. Region of code within which variable value is valid and hence can be accessed.
- 2. No, relation with region where variable is declared its value is valid in entire scope.
- a) a
- b) b
- c) a, b
- d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: Scope of variable is the area or region within which variable is declared and hence initialized values of different kind. Based, on which operations of different kinds are carried out on that variable declared within that scope. Its value is preserved until and unless scope of that block ({ }) is not expired because as soon as scope gets over. Hence, variable value gets expired. Hence, it's inaccessible after it.

3. Correct Output for the given set of programming code is :

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         int i;
```

```
6.         for ( i = 0; i < 5; i++)
7.         {
8.
9.         }
10.        Console. WriteLine(i);
11.        Console. ReadLine();
12.    }
13. }
```

a) 5, 10, 15, 20

b) 0, 5, 10, 20

c) Compile time error

d) 0, 1, 2, 3, 4

[View Answer](#)

Answer: c

Explanation: The compiler cannot interpret between variable ‘i’ declared as an instance variable outside for loop block and variable ‘i’ declared as a local variable inside the for loop context. The instance variable ‘id’ defined before the for loop is still in scope inside for loop and hence goes out of scope only when main() is finished executing. The local variable ‘i’ declared inside for loop had scope limited within blocks({ }) in which it is declared and hence creates name conflict with instance variable ‘i’ so, compiler is unable to distinguish between both. When instance variable ‘i’ is removed away. The program runs accurately producing the output as “0, 200, 400, 600, 800”, this explains the concept of scope deceleration.

3. Correct Output for the given set of programming code is :

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         int i;
6.         for ( i = 0; i < 5; i++)
7.         {
8.
9.         }
10.        Console. WriteLine(i);
11.        Console. ReadLine();
12.    }
13. }
```

[View Answer](#)

Answer: a

Explanation: By definition.

3. Correct Output for the given set of programming code is :

```
1. class Program  
2. {  
3.     static void Main(string[] args)  
4.     {  
5.         int i;  
6.         for ( i = 0; i < 5; i++)  
7.         {  
8.         }  
9.         Console.WriteLine(i);  
10.        Console.ReadLine();  
11.    }  
12. }  
13. }
```

a) 15, 15

b) 10, 5

c) 15, 5

d) 10, 15

[View Answer](#)

Answer: c

Explanation: `j='5'` will return value of 5 stored in variable 'j' but value assigned to variable 'i' will be first value of 'j' and hence increment a value of '10' in that value of 'j' i.e 15.

Output:

15, 5

---

3. Correct Output for the given set of programming code is :

```
1. class Program  
2. {  
3.     static void Main(string[] args)  
4.     {  
5.         int i;  
6.         for ( i = 0; i < 5; i++)  
7.         {  
8.         }  
9.         }  
10.        Console.WriteLine(i);  
11.        Console.ReadLine();  
12.    }  
13. }
```

10. Choose effective differences between ‘Boxing’ and ‘Unboxing’.

- a) ‘Boxing’ is the process of converting a value type to the reference type and ‘Unboxing’ is the process of converting reference to value type
- b) ‘Boxing’ is the process of converting a reference type to value type and ‘Unboxing’ is the process of converting value type to reference type
- c) In ‘Boxing’ we need explicit conversion and in ‘Unboxing’ we need implicit conversion
- d) Both ‘Boxing’ and ‘Unboxing’ we need implicit conversion

[View Answer](#)

Answer: a

Explanation: By definition.

---

3. Correct Output for the given set of programming code is :

```
1. class Program  
2. {  
3.     static void Main(string[] args)  
4.     {  
5.         int i;  
6.         for ( i = 0; i < 5; i++)  
7.         {  
8.               
9.         }  
10.        Console.WriteLine(i);  
11.        Console.ReadLine();  
12.    }  
13. }
```

11. Select differences between reference type and value type :

- 1. Memory allocated to ‘Value type’ is from heap and reference type is from ‘System. ValueType’
- 2. Memory allocated to ‘Value type’ is from ‘System. ValueType’ and reference type is from ‘Heap’
- 3. Structures, enumerated types derived from ‘System. ValueType’ are created on stack, hence known as ValueType and all ‘classes’ are reference type because values are stored on heap

- a) 1, 3
- b) 2, 3
- c) 1, 2, 3
- d) 1

[View Answer](#)

Answer: b

Explanation: By definition.

---

3. Correct Output for the given set of programming code is :

```
1. class Program  
2. {  
3.     static void Main(string[] args)  
4.     {  
5.         int i;
```

```
6.         for ( i = 0; i < 5; i++)
7.         {
8.
9.         }
10.        Console. WriteLine(i);
11.        Console. ReadLine();
12.    }
13. }
```

- a) 123, 123
- b) 456, 123
- c) 456, 456
- d) 123, 456

[View Answer](#)

Answer: b

Explanation: The concept of boxing is implemented here. The variable ‘i’ of ‘int’ type is boxed using variable ‘o’ of object type and hence value is stored inside it and is initialized to the object variable ‘o’. Next, variable ‘i’ is again initialized with some value overriding its previous stored value.

Output:

456, 123

3. Correct Output for the given set of programming code is :

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         int i;
6.         for ( i = 0; i < 5; i++)
7.         {
8.
9.         }
10.        Console. WriteLine(i);
11.        Console. ReadLine();
12.    }
13. }
```

- a) 546, 0
- b) 546, 546
- c) 546, 70
- d) 70, 546

[View Answer](#)

Answer: c

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Explanation: The concept of ‘unboxing’ is implemented here . To ‘unbox’ an object back to value type, we have to do it explicitly as “int n = (int) o”.

Output:

546, 70

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## C# Questions & Answers –Type Conversion in Expressions

---

1. What is the need for ‘Conversion of data type’ in C#?

- a) To store a value of one data type into a variable of another data type
- b) To get desired data
- c) To prevent situations of runtime error during change or conversion of data type
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: By Definition.

---

2. Types of ‘Data Conversion’ in C#?

- a) Implicit Conversion
- b) Explicit Conversion
- c) Implicit Conversion and Explicit Conversion
- d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: By Definition.

---

3.’Implicit Conversion’ follows the order of conversion as per compatibility of data type as :

- a) float < char < int
- b) char < int < float
- c) int < char < float
- d) float < int < char

[View Answer](#)

Answer: b

Explanation: None.

---

a) Compiler will generate runtime error

b) Conversion is implicit type, no error generation

c) Specifying data type for conversion externally will solve the problem

d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: Since,conversion of data type is implicit type as ‘int’ is a subset of ‘longtype’ hence no need to explicitly convert data from one type to another.Compiler will automatically do conversion.

Output: Total is:

70000.

---

5. The subset of ‘int’ data type is :

- a) long ,ulong, ushort
- b) long, ulong, uint
- c) long, float, double
- d) long, float, ushort

[View Answer](#)

Answer: c

Explanation: By definition.

---

6. Type of Conversion in which compiler is unable to convert the data type implicitly is?

- a) ushort to long
- b) int to uint
- c) ushort to long
- d) byte to decimal

[View Answer](#)

Answer:b

Explanation: 'int' is 32 bit signed integer whereas 'uint' is 32 bit unsigned integer .Range of int is larger than uint.So, the compiler cannot implicitly convert from larger data type to smaller data type.

7. Disadvantages of Explicit Conversion are?

- a) Makes program memory heavier
- b) Results in loss of data
- c) Potentially Unsafe
- d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: By definition.

- a) Compiler will generate runtime error
- b) Conversion is explicit type
- c) Compiler will urge for conversion from 'integer' to 'character' data type
- d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: Since, given conversion is of explicit type as one data type is in integer and other is in 'char'.Compiler is needed to make a clear distinction between both type of data types and hence,explicitly one need to specify data type as compiler is unable to make automatic conversion.

Output :

advertisement

L.

- a) 2.000
- b) 2.910
- c) 2.928
- d) 3.000

[View Answer](#)

Answer: c

Explanation: None.

Output :

sum = 2.928698.

- a) c = a, b = c
- b) a = c, b = a
- c) b = a, c = a
- d) All of the mentioned

[View Answer](#)

Answer: a

Explanation: Conversion of data type from 'int' to 'double' is implicit in nature for 'c = a' as int is subset of double but same is not applicable for

'b = c' as 'c' had wider scope of data range then 'b' so explicit conversion is needed.

Output:

```
Error 1: Can not implicitly convert type 'long' to 'int'. An explicit conversion exists (are you missing a c
Error 2: Cannot implicitly convert type 'double' to 'long'. An explicit conversion exists (are you missing a
```

Correct solution :

```
static void Main(string[] args)
{
    int a = 22;
    long b = 44;
    double c = 1.406;
    b = a;
    c = a;
    a = (int)b;
    b = (long)c;
}
```

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## C# Questions & Answers – Arithmetic Operators

```
1. static void Main(string[] args)
2. {
3.     int a, b, c, x;
4.     a = 80;
5.     b = 15;
6.     c = 2;
7.     x = a - b / (3 * c) * (a + c);
8.     Console.WriteLine(x);
9.     Console.ReadLine();
10. }
```

- a) 106
- b) 104.789
- c) 105.8546
- d) 103.45

[View Answer](#)

Answer: c

Explanation: The first expression evaluated is ‘b+a’ as both are combined. Next the expression is multiplied by operand ‘a’ i.e a (b+a) the whole result of numerator is combined and divided by denominator expression (a – b).

Output:

```
result is : 105.8546.
```

```
1. static void Main(string[] args)
2. {
3.     int a, b, c, x;
4.     a = 80;
5.     b = 15;
6.     c = 2;
7.     x = a - b / (3 * c) * (a + c);
8.     Console.WriteLine(x);
9.     Console.ReadLine();
10. }
```

- a) 92
- b) 89
- c) 90
- d) 88

[View Answer](#)

Answer: c

Explanation: The basic evaluation process includes two left to right passes through the expression. During first pass, the high priority operators

are applied and during second pass, the low priority operators are applied as they are encountered.

```
First pass :
    step 1 : x = 90 - 15 / 3 + 3 * 2 - 1 (15 / 3 evaluated)
    step 2 : x = 90 - 5 + 3 * 2 - 1
    step 3 : x = 90 - 5 + 3 * 2 - 1 (3 * 2 is evaluated)
    step 4 : x = 90 - 5 + 6 - 1

Second pass :
    step 5 : x = 85 + 6 - 1 (90 - 5 is evaluated)
    step 6 : x = 91 - 1 ( 85 + 6 is evaluated )
    step 7 : x = 90 (91 - 1 is evaluated)

Output : 90.
```

---

```
1. static void Main(string[] args)
2. {
3.     int a, b, c, x;
4.     a = 80;
5.     b = 15;
6.     c = 2;
7.     x = a - b / (3 * c) * (a + c);
8.     Console.WriteLine(x);
9.     Console.ReadLine();
10. }
```

- a) 78
- b) -84
- c) 80
- d) 98

[View Answer](#)

Answer: b

Explanation: Whenever the parentheses are used, the expressions within parentheses assumes higher priority. If Two or more sets of parentheses appear one after another as shown above, the expression contained on the left side is evaluated first and right hand side last .

```
First pass:
    Step 1: 80 - 15/(3*2)*(80 + 2)
    Step 2: 80 - 15/6*82 ( (3 * 2) evaluated first and ( 80 + 2) evaluated later )
Second pass:
    Step 3: 80 - 2*82
    Step 4: 80 - 164.
Third pass:
    Step 5 : -84. (80 - 164 is evaluated)
Output : -84 .
```

---

```
1. static void Main(string[] args)
2. {
3.     int a, b, c, x;
4.     a = 80;
5.     b = 15;
6.     c = 2;
7.     x = a - b / (3 * c) * (a + c);
```

```
8.     Console.WriteLine(x);
9.     Console.ReadLine();
10.    }
```

4. Correct order of priorities are :

- a) '/' > '%' > '\*' > '+'
- b) '/' > '\*' > '%' > '+'
- c) '\*' > '/' > '%' > '+'
- d) '%' > '\*' > '/' > '+'

[View Answer](#)

Answer: c

Explanation: By definition.

---

```
1. static void Main(string[] args)
2. {
3.     int a, b, c, x;
4.     a = 80;
5.     b = 15;
6.     c = 2;
7.     x = a - b / (3 * c) * (a + c);
8.     Console.WriteLine(x);
9.     Console.ReadLine();
10. }
```

- a) -4 -3 -2
- b) -6 -4 -1
- c) -2 -2 -2
- d) -4 -4 -4

[View Answer](#)

Answer: c

Explanation:

Here i = 0 , j = 1 .

```
        k = 1 - 3 ( j++ = 2 and ++j = 3)
        k = -2 .
        i = 1 , j = 3 .
        k = 3 - 5 ( j++ = 4 and ++j = 5)
        k = -2 .
        i = 2 , j = 5 .
        k = 5 - 7 (j++ = 6 and ++j = 7)
        k = -2 .
Output : -2 ,-2 ,-2 .
```

---

```
1. static void Main(string[] args)
2. {
3.     int a, b, c, x;
4.     a = 80;
```

```
5.     b = 15;
6.     c = 2;
7.     x = a - b / (3 * c) * ( a + c);
8.     Console.WriteLine(x);
9.     Console.ReadLine();
10.    }
```

- a) My Name
  - b) My nAme
  - c) My name
  - d) Myname
- [View Answer](#)

Answer: c

Explanation: Solving the expression  $l = (b * c) + (r * e) + 10$ . While from left to right the parentheses are given preference first.

Step 1 :  $b * c$  is evaluated first inside first parentheses.  
Step 2 :  $r * e$  is evaluated second on right side of first addition symbol .  
Step 3 : After evaluating both parentheses 10 is added to value of both.

Output : My name.

---

```
1. static void Main(string[] args)
2. {
3.     int a, b, c, x;
4.     a = 80;
5.     b = 15;
6.     c = 2;
7.     x = a - b / (3 * c) * ( a + c);
8.     Console.WriteLine(x);
9.     Console.ReadLine();
10.    }
```

- a) A  
AA  
AAA  
AAAA
- b) A  
AB  
ABC  
ABCD
- c) A  
AA  
AAA  
AAAA  
AAAAA
- d) A  
BC  
DEF  
DEFG

[View Answer](#)

Answer: c

Explanation: Solving the expression for value of 'z' as 65. With each passage of loop value number of 'z' increases for each row as

```
Row 1: A
Row 2: AA
-
-
Row 5: AAAAA
Output : A
AA
AAA
AAAA
AAAAA
```

---

```
1. static void Main(string[] args)
2. {
3.     int a, b, c, x;
4.     a = 80;
5.     b = 15;
6.     c = 2;
7.     x = a - b / (3 * c) * (a + c);
8.     Console.WriteLine(x);
9.     Console.ReadLine();
10. }
```

a) A  
AA  
AAA  
AAAA  
AAAAA

b) A  
AB  
ABC  
ABCD  
ABCDE

c) A  
BC  
DEF  
GHIJ  
KLMNO

d) A  
AB  
BC  
BCD  
BCDE

[View Answer](#)

Answer: c

Explanation: Solving expression 'z' value is 65. Before going inside first loop

```
Step 1: c = 1, n = 5
        k = 1, k <= 1. (as c = 1)
```

```

z = 65 converted to 'A' as ascii value of 'A' is 65.
z++ increment for next loop condition by '1'as 66.
Row 1: A
Step 2: c = 2, n = 5
k = 2,k <= 2. (as c = 2)
z = 66 from step 1 converted value of 66 is 'B'.Since,k <= 2
loop will again loop to second value after 66 which is 67 as z is
incremented from 66 to +1 as '67'.so,converting ascii value of 67 to character as 'C'.
Row 2: B C
Similarly,
Step 3:
    Row 3: D E F
Step 4:
    Row 4: G H I J
Step 5:
    Row 5: K L M N O.
Output : A
        BC
        DEF
        GHIJ
        KLMNO

```

---

```

1. static void Main(string[] args)
2. {
3.     int a, b, c, x;
4.     a = 80;
5.     b = 15;
6.     c = 2;
7.     x = a - b / (3 * c) * (a + c);
8.     Console.WriteLine(x);
9.     Console.ReadLine();
10. }

```

- a) They have same value
- b) Parentheses changes values
- c) Since both have equal values, no conclusion
- d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: Solving for expression 'a' expression inside parentheses are given preference evaluating (d+e) as 17.

```

a = 10 * 17/6 + 12.
a = 40.
Solving for expression 'b' expression inside parentheses (d + e /f + d ) are evaluated as (1
b = 10 *(12 + 5/6 + 12 ).
b = 240.
Output : 40
        240
        parentheses changes values.

```

---

```

1. static void Main(string[] args)
2. {
3.     int a, b, c, x;
4.     a = 80;

```

```
5.     b = 15;  
6.     c = 2;  
7.     x = a - b / (3 * c) * ( a + c);  
8.     Console.WriteLine(x);  
9.     Console.ReadLine();  
10.    }
```

10. The correct way of incrementing the operators are :

- a) ++ a ++
- b) b ++ 1
- c) c += 1
- d) d =+ 1

[View Answer](#)

Answer: c

Explanation: This += is known as short hand operator which is same as variable = variable +1 .Similarly, a-= 1 is a = a-1, a\*=1 is a = a \* 1. They are used to make code short and efficient.

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## C# Questions & Answers – Relational and Logical Operators

a) “Line 1 – a is greater to b”

11

b) “Line 1 – a is not greater to b”

9

c) Both are equal

d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: Now, here in ‘if’ condition both conditions of parenthesis and hence evaluating operators based on parenthesis are tested. for expression :

```
((a * b / c) + d)
Step 1 : (a*b/c) (Evaluating as 4*5/6 = 3)
Step 2 : ( (a*b/c) + d ) (Evaluating (3 + 8 = 11))
Result : 11
for expression : (b * c + d) / a
Step 1 : (b*c + d) (Evaluating as 5*6 +8 = 38)
Step 2: (b*c + d) / a (Evaluating as 38 / 4 = 9)
Result : 9
```

The relational operator “>=” between both expressions check for largest figure and hence consecutively executes the if condition.

Output:

```
Line 1 - a is greater to b.
11
```

a) 0

C# is great!

20

b) 0

C# is not great!

25

c) 0

C# is great!

25

d) 0

C# is not great!

20

[View Answer](#)

Answer: d

Explanation: The expression  $(a * (c - b) / e + (b + c))$  on evaluation parenthesis by parenthesis gives result mathematically as 25. Similarly,  $(e * (c + a) / (b + c) + a)$  on evaluation parenthesis by parenthesis gives mathematically result as 20. Relational operator now checks for condition as in if condition as  $(25 < 20)$  which is false. So, a false bit in form of ‘0’ is assigned to d. Now, in if condition  $(d != 1)$  as  $d = 0$ . So, condition after else is evaluated.

Output :

```
0.
C# is not great!.
20.
```

3. Which of the following is/are not Relational operators in C#.NET ?

a) >=

b) <>=

c) Not

d) <=

[View Answer](#)

Answer: b

Explanation: By definition.

---

a) 6 2

b

b) 8 1

a

c) 6 1

a

d) 8 1

b

[View Answer](#)

Answer: b

Explanation: After evaluation of the test expression  $(!((p*q)/n \leq (q*w)+n/p))$ . The use of logical operator(!) turns false(0) result to bit '1' and hence the condition evaluated by 'if' loop is after else as :

$-p = 3$

$q = 5$

$-p + q = 8$  where now value of 'q' is 4.

$-n = 2 - 1 = 1$ .

So, values after evaluations are 8 1.

a.

Output :

8 1  
a

---

a)  $y = 5, m = 6 ; y = 5, m = 5$

b)  $y = 6, m = 6; y = 7, m = 6$

c)  $y = 5, m = 6; y = 7, m = 7$

d)  $y = 5, m = 6; y = 7, m = 8$

[View Answer](#)

Answer: c

Explanation:

advertisement

step 1 :  $m = 5, y = m++$  i.e  $y = 5, m = 6$ .

step 2 :  $y = ++m$ , Since  $m = 6$ . So,  $m = 7$  on  $++m$  and hence  $y = 7$ .

Output :  $y = 5, m = 6; y = 7, m = 7$ .

---

a) 2 ,2 ,1

b) 2 ,3 ,2

c) 2 ,2 ,2

d) 2 ,0 ,9

[View Answer](#)

Answer: c

Explanation:  $z = 6$  as  $++b$ .

$y = 2$  as  $++c$ .

$6 \&& 2 = 1$

$(++a == b)$  which is false as  $4 != 6$ . Now,  $!(false) = true$  i.e 1.

So,  $1 \parallel 1 = 1$ . So,  $b = 1$ .

Similarly,  $c = 2$  and  $a = 4$ . Now,  $2 \parallel 4 = 1$ .

So,  $a = 1$ .

Hence  $++a = 2, ++b = 2, c = 2$ .

Output :

2, 2, 2

---

- a) 12, 5, 0
- b) 11, 4, False
- c) 11, 5, 0
- d) 12, 4, False

[View Answer](#)

Answer: b

Explanation: Step 1: Convert.ToInt32( $u < b$ )(Evaluate result as  $9 < 5$  which is false in nature. So, solution is converted from 'false' to '0').

Step 2:  $(a + b--)$  evaluated as  $4 + 5 = 9 + 2 = 11$ .  
Step 3:  $u < b$  evaluated as 'False' without being converted to '0'.

Output: 11  
4  
False.

---

- a) 0 0
- b) 1 0
- c) 0 1
- d) 1 1

[View Answer](#)

Answer : c

Explanation: Solving the expression for  $b1$  tests the condition for either true or false result in '0'. Similarly, for ' $b2$ ' '1' on solving gives '0'. So, condition is true for bool  $b2$  as  $0 == 0$ . Hence,  $k = 0$  and  $z = 1$ .

Output :

0 1.

---

- a) -1, 22, 0
- b) -1, 21, 1
- c) 0, 22, 1
- d) 0, 22, 0

[View Answer](#)

Answer : b

Explanation: Here, for first value of  $c$ ,  $++b = 1$  and  $1 * (22 \% 2) = 0$ .  $c = 0$ . Now  $c -- = 0$  and  $--a = 22 - 1 = 21$ . Now,  $c --$  is the first condition executed and then decremented So,  $c = -1$ . Similarly,  $a++ = 21$ . Now, as we can see from options we are confirmed over value of  $c = -1$ ,  $a = 21$ . So, we can easily know that  $d = 1$ .

Output:

-1 21 1

---

- a) Figure is square
- b) Figure is hypotenuse
- c) False
- d) None of the mentioned

[View Answer](#)

Answer : a

Explanation: Solving the expression for ' $c$ ' we get  $c == 10$  in if first condition as ( $c == \text{Convert.ToInt32}(\text{Math.Sqrt}(a * a + b * b))$ ). The logical condition when  $d == (c = 10)$  suits here . Similarly, going for second condition where  $c == 10$  as ' $\&&$ ' operator exists between both given condition and at last both are evaluated to true as  $c == 10$ . So, only first statement is executed.

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Output :

Figure is square

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## C# Questions & Answers – Bitwise and Conditional Operators

3. Select the output for the following set of Code:

```
1. static void Main(string[] args)
2. {
3.     byte b1 = 0 * AB;
4.     byte b2 = 0 * 99;
5.     byte temp;
6.     temp = (byte) ~b2;
7.     Console.WriteLine( temp + " ");
8.     temp = (byte) (b1 << b2);
9.     Console.WriteLine(temp + " ");
10.    temp = (byte) (b2 >> 2);
11.    Console.WriteLine(temp);
12.    Console.ReadLine();
13. }
```

- a) 0, 20
- b) 10, 10
- c) 0, 10
- d) 0, 0

[View Answer](#)

Answer: c

Explanation: When ‘OR’ operations is done on the binary values following are the results of OR.  
‘OR’ means addition(+) operation.

0 (false) + 0 (false) = 0 (false)
1 (True) + 0 (false) = 1 (True)
0 (false) + 1 (True) = 1 (True)
1 (True) + 1 (True) = 1 (True)

When using OR operation it gives FALSE only when both the values are FALSE. In all other cases ‘OR’ operation gives ‘true’.  
Output :

```
10 AND 20 Result :0.
10 AND 10 Result :10.
```

3. Select the output for the following set of Code:

```
1. static void Main(string[] args)
2. {
3.     byte b1 = 0 * AB;
4.     byte b2 = 0 * 99;
5.     byte temp;
```

```
6.     temp = (byte) ~b2;
7.     Console.Write( temp + " ");
8.     temp = (byte) (b1 << b2);
9.     Console.Write(temp + " ");
10.    temp = (byte) (b2 >> 2);
11.    Console.WriteLine(temp);
12.    Console.ReadLine();
13. }
```

a) 20, 10

b) 30, 10

c) 10, 20

d) 10, 10

[View Answer](#)

Answer: b

Explanation: There are two kinds of Shift operations “Right Shift” and “Left Shift”. Right Shift operation is used for shifting the bit positions towards right side. Left Shift operation is used for shifting the bit positions towards left side. When Right Shift operations are done on a binary value the bits are shifted one position towards the right.

Output :

```
10 OR 20 Result :30.
10 OR 10 Result :10.
```

---

3. Select the output for the following set of Code:

```
1. static void Main(string[] args)
2. {
3.     byte b1 = 0 * AB;
4.     byte b2 = 0 * 99;
5.     byte temp;
6.     temp = (byte) ~b2;
7.     Console.Write( temp + " ");
8.     temp = (byte) (b1 << b2);
9.     Console.Write(temp + " ");
10.    temp = (byte) (b2 >> 2);
11.    Console.WriteLine(temp);
12.    Console.ReadLine();
13. }
```

a) 101 0 34

b) 103 2 38

c) 102 0 38

d) 101 1 35

[View Answer](#)

Answer: c

Explanation: None.

Output:

102 0 38.

---

3. Select the output for the following set of Code:

```
1. static void Main(string[] args)
2. {
3.     byte b1 = 0 * AB;
4.     byte b2 = 0 * 99;
5.     byte temp;
6.     temp = (byte) ~b2;
7.     Console.Write( temp + " ");
8.     temp = (byte) (b1 << b2);
9.     Console.Write(temp + " ");
10.    temp = (byte) (b2 >> 2);
11.    Console.WriteLine(temp);
12.    Console.ReadLine();
13. }
```

4. Which of the following options is not a Bitwise Operator in C#?

- a) &, |
- b) ^, ~
- c) <<, >>
- d) +=, -=

[View Answer](#)

Answer: d

Explanation: +=, -= are Assignment Operators in C#.

---

3. Select the output for the following set of Code:

```
1. static void Main(string[] args)
2. {
3.     byte b1 = 0 * AB;
4.     byte b2 = 0 * 99;
5.     byte temp;
6.     temp = (byte) ~b2;
7.     Console.Write( temp + " ");
8.     temp = (byte) (b1 << b2);
9.     Console.Write(temp + " ");
10.    temp = (byte) (b2 >> 2);
```

```
11.     Console.WriteLine(temp);
12.     Console.ReadLine();
13. }
```

- a) 0
- b) 1
- c) True
- d) False

[View Answer](#)

Answer: c

Explanation: ‘bools’ are single bits, and so a bit-wise OR is the same as a logical OR.

Output :

True.

---

3. Select the output for the following set of Code:

```
1. static void Main(string[] args)
2. {
3.     byte b1 = 0 * AB;
4.     byte b2 = 0 * 99;
5.     byte temp;
6.     temp = (byte) ~b2;
7.     Console.Write( temp + " ");
8.     temp = (byte) (b1 << b2);
9.     Console.Write(temp + " ");
10.    temp = (byte) (b2 >> 2);
11.    Console.WriteLine(temp);
12.    Console.ReadLine();
13. }
```

- a)  $x \% y == 0 ? (x == y ? (x += 2):(y = x + y)):y = y * 10;$
- b)  $x \% y == 0 ? y += 10:(x += 10);$
- c)  $x \% y == 0 ? \text{return}(x) : \text{return} (y);$
- d) All of the mentioned.

[View Answer](#)

Answer: b

Explanation: None.

Output :

```
{
    int x = 10, y = 20;
    int res;
    x % y == 0 ? y += 10:(x += 10);
    Console.WriteLine(res);
}
```

---

3. Select the output for the following set of Code:

```
1. static void Main(string[] args)
2. {
3.     byte b1 = 0 * AB;
4.     byte b2 = 0 * 99;
5.     byte temp;
6.     temp = (byte) ~b2;
7.     Console.Write( temp + " ");
8.     temp = (byte) (b1 << b2);
9.     Console.Write(temp + " ");
10.    temp = (byte) (b2 >> 2);
11.    Console.WriteLine(temp);
12.    Console.ReadLine();
13. }
```

a) 5, 8

b) 10, 4

c) 8, 5

d) 11, 8

[View Answer](#)

Answer: c

Explanation: Since condition  $y > 10$  is false and  $!(false) = true$ . So, first statement  $x = y + 3$  is executed which is  $x = 8$  with  $y = 5$ .

Output:

8, 5.

---

3. Select the output for the following set of Code:

```
1. static void Main(string[] args)
2. {
3.     byte b1 = 0 * AB;
4.     byte b2 = 0 * 99;
5.     byte temp;
6.     temp = (byte) ~b2;
7.     Console.Write( temp + " ");
8.     temp = (byte) (b1 << b2);
9.     Console.Write(temp + " ");
10.    temp = (byte) (b2 >> 2);
11.    Console.WriteLine(temp);
12.    Console.ReadLine();
13. }
```

8. Which among the following is a conditional operator ?

- a) ‘?’
- b) ?;
- c) ?:
- d) ??

[View Answer](#)

Answer: c

Explanation: By definition.

---

3. Select the output for the following set of Code:

```
1. static void Main(string[] args)
2. {
3.     byte b1 = 0 * AB;
4.     byte b2 = 0 * 99;
5.     byte temp;
6.     temp = (byte) ~b2;
7.     Console.Write( temp + " ");
8.     temp = (byte) (b1 << b2);
9.     Console.WriteLine(temp + " ");
10.    temp = (byte) (b2 >> 2);
11.    Console.WriteLine(temp);
12.    Console.ReadLine();
13. }
```

a) True

False

b) False

True

c) True

True

d) False

False

[View Answer](#)

Answer: c

Explanation: a % c == 0 condition is true as (4 % 2 == 0). So, b is evaluated as true. Now (a/c == 2) which means if condition is also true hence it is evaluated as true.

Output:

```
True
True
```

---

3. Select the output for the following set of Code:

```
1. static void Main(string[] args)
2. {
3.     byte b1 = 0 * AB;
```

```
4.     byte b2 = 0 * 99;
5.     byte temp;
6.     temp = (byte) ~b2;
7.     Console.Write( temp + " ");
8.     temp = (byte) (b1 << b2);
9.     Console.Write(temp + " ");
10.    temp = (byte) (b2 >> 2);
11.    Console.WriteLine(temp);
12.    Console.ReadLine();
13. }
```

- a) ?:< &&< !=< & <++
- b) ?:< &&< !=< ++< &
- c) ?:< &&< & <!=< ++
- d) ?:< &&< !=< & <++

[View Answer](#)

Answer: c

Explanation: By definition.

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## C# Questions & Answers – IF Statements

```
1. static void Main(string[] args)
2. {
3.     Console.WriteLine("Enter a letter:");
4.     char c = (char)Console.Read();
5.     if (Char.IsDigit(c) == true)
6.         Console.WriteLine("A number");
7.     else if (char.IsLower(c) == true)
8.         Console.WriteLine("A lowercase letter");
9.     else if (char.IsUpper(c) == true)
10.        Console.WriteLine("An uppercase letter");
11.        Console.ReadLine();
12.    }
13. 1. Enter a letter :
14.  a
15.  An uppercase letter
16. 2. Enter a letter :
17.  A
18.  An uppercase letter
19. 3. Enter a letter :
20.  2
21.  A number
22. 4. Enter a letter :
23.  2
24.  A lowercase letter.
```

- a) In if
- b) In else
- c) In if

In main

- d) In else

In main

[View Answer](#)

Answer: d

Explanation: Usage of '=' operator instead of '==' operator .hence,the condition is not true.

Output:

```
In else
In main
```

```
1. static void Main(string[] args)
2. {
3.     Console.WriteLine("Enter a letter:");
4.     char c = (char)Console.Read();
5.     if (Char.IsDigit(c) == true)
6.         Console.WriteLine("A number");
7.     else if (char.IsLower(c) == true)
8.         Console.WriteLine("A lowercase letter");
9.     else if (char.IsUpper(c) == true)
10.        Console.WriteLine("An uppercase letter");
11.    Console.ReadLine();
12. }
13. 1. Enter a letter :
14.     a
15.     An uppercase letter
16. 2. Enter a letter :
17.     A
18.     An uppercase letter
19. 3. Enter a letter :
20.     2
21.     A number
22. 4. Enter a letter :
23.     2
24.     A lowercase letter.
```

- a) 1 2 3 4 5 6 7 8 9
- b) 0 1 2 3 4 5 6 7 8
- c) 0 1 2 3
- d) 0 1 2 3 4

[View Answer](#)

Answer: c

Explanation: The if condition will never be fulfilled as  $((a / b) * 2 == 2)$  is never true. Hence, only else part of condition will be executed until  $i = 4$  i.e  $i = 0, 1, 2, 3$ .

Output:

0 1 2 3

---

```
1. static void Main(string[] args)
2. {
3.     Console.WriteLine("Enter a letter:");
```

```
4.     char c = (char)Console.Read();
5.     if (Char.IsDigit(c) == true)
6.         Console.WriteLine("A number");
7.     else if (char.IsLower(c) == true)
8.         Console.WriteLine("A lowercase letter");
9.     else if (char.IsUpper(c) == true)
10.        Console.WriteLine("An uppercase letter");
11.        Console.ReadLine();
12.    }
13. 1. Enter a letter :
14.     a
15.     An uppercase letter
16. 2. Enter a letter :
17.     A
18.     An uppercase letter
19. 3. Enter a letter :
20.     2
21.     A number
22. 4. Enter a letter :
23.     2
24.     A lowercase letter.
```

Which of the following conditions are true ?

- a) a ,b ,c
- b) b ,c ,d
- c) a ,d ,b
- d) b ,c

[View Answer](#)

Answer: d

Output:

```
Enter a letter :
A
An uppercase letter
Enter a letter :
2
A number
```

---

```
1. static void Main(string[] args)
2. {
3.     Console.WriteLine("Enter a letter:");
4.     char c = (char)Console.Read();
```

```
5.     if (Char.IsDigit(c) == true)
6.         Console.WriteLine("A number");
7.     else if (char.IsLower(c) == true)
8.         Console.WriteLine("A lowercase letter");
9.     else if (char.IsUpper(c) == true)
10.        Console.WriteLine("An uppercase letter");
11.        Console.ReadLine();
12.    }
13. 1. Enter a letter :
14. a
15. An uppercase letter
16. 2. Enter a letter :
17. A
18. An uppercase letter
19. 3. Enter a letter :
20. 2
21. A number
22. 4. Enter a letter :
23. 2
24. A lowercase letter.
```

a) 1 0 0

0 1 0

0 0 1

b) 0 1 0

1 0 0

0 0 1

c) 0 0 1

0 1 0

1 0 0

d) 1 0 0

0 0 1

0 1 0

View Answer

Answer: c

Explanation: In first row for i = 2 : j = 0 == 0 as if condition fails for (i==j)

i=2 :j = 1 == 0 as again if condition fails for ( i==j)

i=2 :j = 2 == 1 as (i==j).

In Second row for i = 1 :j = 0 == 0 as if condition fails for (i==j)

i= 1 :j = 1 == 1 (as i==j)

i= 1 :j = 2 == 0 as (i==j) not true

In Third row for i = 0 :j = 0 == 1 as (i==j) true

i= 0 :j = 1 == 0 as (i==j) not true.

i= 0 :j = 2 == 0 .

So, 0 0 1  
0 1 0  
1 0 0

Output: 0 0 1  
0 1 0  
1 0 0

```
1. static void Main(string[] args)
2. {
3.     Console.WriteLine("Enter a letter:");
4.     char c = (char)Console.Read();
5.     if (Char.IsDigit(c) == true)
6.         Console.WriteLine("A number");
7.     else if (char.IsLower(c) == true)
8.         Console.WriteLine("A lowercase letter");
9.     else if (char.IsUpper(c) == true)
10.        Console.WriteLine("An uppercase letter");
11.    Console.ReadLine();
12. }
13. 1. Enter a letter :
14. a
15. An uppercase letter
16. 2. Enter a letter :
17. A
18. An uppercase letter
19. 3. Enter a letter :
20. 2
21. A number
22. 4. Enter a letter :
23. 2
24. A lowercase letter.
```

[View Answer](#)

Answer: c

Explanation:

```
int []num = {50, 65, 56, 88, 43, 52};
int even = 0, odd = 0;
for (int i = 0 ;i < num.Length ;i++)
{
    if (num[i] % 2 == 0)
```

```
        even += 1;
    }
    else
    {
        odd += 1;
    }
}
Console.WriteLine("Even Numbers: " +even);
Console.WriteLine("Odd Numbers: " +odd);
Console.ReadLine();
```

```
1. static void Main(string[] args)
2. {
3.     Console.WriteLine("Enter a letter:");
4.     char c = (char)Console.Read();
5.     if (Char.IsDigit(c) == true)
6.         Console.WriteLine("A number");
7.     else if (char.IsLower(c) == true)
8.         Console.WriteLine("A lowercase letter");
9.     else if (char.ToUpper(c) == true)
10.        Console.WriteLine("An uppercase letter");
11.    Console.ReadLine();
12. }
13. 1. Enter a letter :
14. a
15. An uppercase letter
16. 2. Enter a letter :
17. A
18. An uppercase letter
19. 3. Enter a letter :
20. 2
21. A number
22. 4. Enter a letter :
23. 2
24. A lowercase letter.
```

- a) cquestionbank
- b) It will print nothing
- c) Compile time error
- d) Run time error

[View Answer](#)

Answer: c

Explanation: Keyword “break” is not part of if-else statement. This keyword is used in case of loop or switch case statement.

```
1. static void Main(string[] args)
2. {
3.     Console.WriteLine("Enter a letter:");
4.     char c = (char)Console.Read();
5.     if (Char.IsDigit(c) == true)
6.         Console.WriteLine("A number");
7.     else if (char.IsLower(c) == true)
8.         Console.WriteLine("A lowercase letter");
9.     else if (char.IsUpper(c) == true)
10.        Console.WriteLine("An uppercase letter");
11.    Console.ReadLine();
12. }
13. 1. Enter a letter :
14.     a
15.     An uppercase letter
16. 2. Enter a letter :
17.     A
18.     An uppercase letter
19. 3. Enter a letter :
20.     2
21.     A number
22. 4. Enter a letter :
23.     2
24.     A lowercase letter.
```

- a) Rahul Dravid
- b) Sachin Tendulkar
- c) Ms Dhoni
- d) Warning : Unreachable Code

[View Answer](#)

Answer: b

Explanation: (0.002 – 0.1f) not equivalent to zero hence it is true. So, only first if clause will execute and print Sachin Tendulkar on console. As, first condition is always true so no else if statement will be executed.

Output:

Sachin Tendulkar

---

```
1. static void Main(string[] args)
2. {
```

```
3.     Console.WriteLine("Enter a letter:");
4.     char c = (char)Console.Read();
5.     if (Char.IsDigit(c) == true)
6.         Console.WriteLine("A number");
7.     else if (char.ToLower(c) == true)
8.         Console.WriteLine("A lowercase letter");
9.     else if (char.ToUpper(c) == true)
10.        Console.WriteLine("An uppercase letter");
11.    Console.ReadLine();
12. }
13. 1. Enter a letter :
14.    a
15.    An uppercase letter
16. 2. Enter a letter :
17.    A
18.    An uppercase letter
19. 3. Enter a letter :
20.    2
21.    A number
22. 4. Enter a letter :
23.    2
24.    A lowercase letter.
```

- a) a
- b) b
- c) Compile time error
- d) Code execute successfully with no output

[View Answer](#)

Answer: c

Explanation: Both a and b are constants. Illegal to assign a value to constant on left hand of '=' operator .Hence,it must be some variable.

---

```
1. static void Main(string[] args)
2. {
3.     Console.WriteLine("Enter a letter:");
4.     char c = (char)Console.Read();
5.     if (Char.IsDigit(c) == true)
6.         Console.WriteLine("A number");
7.     else if (char.ToLower(c) == true)
```

```
8.         Console.WriteLine("A lowercase letter");
9.     else if (char.ToUpper(c) == true)
10.         Console.WriteLine("An uppercase letter");
11.     Console.ReadLine();
12. }
13. 1. Enter a letter :
14.     a
15.     An uppercase letter
16. 2. Enter a letter :
17.     A
18.     An uppercase letter
19. 3. Enter a letter :
20.     2
21.     A number
22. 4. Enter a letter :
23.     2
24.     A lowercase letter.
```

- a) Compile time error: Misplaced else
- b) Compile time error: Undefined symbol
- c) java
- d) Warning: Condition is always true

[View Answer](#)

Answer: c

Explanation:

```
0xB: hexadecimal integer constant.
022: It octal integer constant.
'\xeb': It is hexadecimal character constant.
```

As, zero is false and any non-zero number is true. All, constants return a non-zero value. So, all if conditions in the above program are true.  
Output:

java.

---

```
1. static void Main(string[] args)
2. {
3.     Console.WriteLine("Enter a letter:");
4.     char c = (char)Console.Read();
5.     if (Char.IsDigit(c) == true)
6.         Console.WriteLine("A number");
7.     else if (char.ToLower(c) == true)
```

```
8.         Console.WriteLine("A lowercase letter");  
9.     else if (char.ToUpper(c) == true)  
10.        Console.WriteLine("An uppercase letter");  
11.    Console.ReadLine();  
12. }  
13. 1. Enter a letter :  
14. a  
15. An uppercase letter  
16. 2. Enter a letter :  
17. A  
18. An uppercase letter  
19. 3. Enter a letter :  
20. 2  
21. A number  
22. 4. Enter a letter :  
23. 2  
24. A lowercase letter.
```

- a) 6 11
- b) 6 16
- c) 6 12
- d) 6 10

[View Answer](#)

Answer: d

Explanation: Consider the following expression: `(++a || ++b)`. In this expression `||` is ‘Logical OR operator’. Two important properties of this operator are:

Property 1:

`(Expression1) || (Expression2)`

`||` operator returns 0 if and only if both expressions return a zero otherwise `||` operator returns 1.

initial value of `a` is 5. So `++a` will be 6. Since `++a` is returning a non-zero so `++b` will not execute.

Output :

6 10.

## C# Questions & Answers – Switch Statements

---

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int i = 2, k = 3;
4.     switch (i - k)
5.     {
6.         case -1:
7.             ++i;
8.             ++k;
9.             break;
10.        case 2:
11.            --i;
12.            ++k;
13.            break;
14.        default:
15.            i += 3;
16.            k += i;
17.            break;
18.    }
19.    Console.WriteLine(i + "\n" + k);
20.    Console.ReadLine();
21. }
```

- a) 3 Idiots
- b) Ghazini
- c) Race
- d) Krishh

[View Answer](#)

Answer: c

Explanation: We can put ‘default’ case in any order and hence write cases in any order.

Output:

Race.

---

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
```

```
3.     int i = 2, k = 3;
4.     switch (i - k)
5.     {
6.         case -1:
7.             ++i;
8.             ++k;
9.             break;
10.        case 2:
11.            --i;
12.            ++k;
13.            break;
14.        default:
15.            i += 3;
16.            k += i;
17.            break;
18.    }
19.    Console.WriteLine(i + "\n" + k);
20.    Console.ReadLine();
21. }
```

- a) 3 to 10 will be printed
- b) 1 and 2 will be printed
- c) The code reports an error as missing ; before :
- d) The code gives output as 3 to 10

View Answer

Answer: c

Explanation: Syntax error- switch case does not work with syntax as 3 to 10:

Output :

Here i = 2,j = 4.So,(i + j \* 2) gives output as 10 and case 10 is missing.So,prints nothing for given code.

---

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int i = 2, k = 3;
4.     switch (i - k)
5.     {
6.         case -1:
7.             ++i;
8.             ++k;
```

```
9.         break;
10.        case 2:
11.            --i;
12.            ++k;
13.            break;
14.        default:
15.            i += 3;
16.            k += i;
17.            break;
18.        }
19.        Console.WriteLine(i + "\n" + k);
20.        Console.ReadLine();
21.    }
```

a) 2 3 3

b) 3 2 3

c) 3 4 4

d) 5 10 10

[View Answer](#)

Answer: c

Output:

```
3
4
4
```

Explanation:  $i - k = -1$ . So, case -1 will be executed only.

---

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int i = 2, k = 3;
4.     switch (i - k)
5.     {
6.         case -1:
7.             ++i;
8.             ++k;
9.             break;
10.        case 2:
11.            --i;
12.            ++k;
```

```
13.         break;
14.     default:
15.         i += 3;
16.         k += i;
17.         break;
18.     }
19.     Console.WriteLine(i + "\n" + k);
20.     Console.ReadLine();
21. }
```

- a) A
- b) B
- c) C
- d) Compile time error

[View Answer](#)

Answer: d

Explanation: In case expression we don't have constant variable.

---

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int i = 2, k = 3;
4.     switch (i - k)
5.     {
6.         case -1:
7.             ++i;
8.             ++k;
9.             break;
10.        case 2:
11.            --i;
12.            ++k;
13.            break;
14.        default:
15.            i += 3;
16.            k += i;
17.            break;
18.    }
19.    Console.WriteLine(i + "\n" + k);
```

```
20.     Console.ReadLine();  
21. }
```

- a) 1 3 1
- b) 2 3 4
- c) 5 3 4
- d) Compile time error.

[View Answer](#)

Answer: a

Explanation: Solving expression  $(i + j - k)$  gives 1 and hence,solving for case 1:case 3:case 5::

Output :

advertisement

```
1  
3  
1
```

3. Select the output for the following set of code :

```
1. static void Main(string[] args)  
2. {  
3.     int i = 2, k = 3;  
4.     switch (i - k)  
5.     {  
6.         case -1:  
7.             ++i;  
8.             ++k;  
9.             break;  
10.        case 2:  
11.            --i;  
12.            ++k;  
13.            break;  
14.        default:  
15.            i += 3;  
16.            k += i;  
17.            break;  
18.    }  
19.    Console.WriteLine(i + "\n" + k);  
20.    Console.ReadLine();  
21. }
```

- a) 5 7

- b) 9 13
- c) Compile time error
- d) 9 7

[View Answer](#)

Answer: c

Explanation: Invalid expression '7:' in case 9:7:

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int i = 2, k = 3;
4.     switch (i - k)
5.     {
6.         case -1:
7.             ++i;
8.             ++k;
9.             break;
10.        case 2:
11.            --i;
12.            ++k;
13.            break;
14.        default:
15.            i += 3;
16.            k += i;
17.            break;
18.    }
19.    Console.WriteLine(i + "\n" + k);
20.    Console.ReadLine();
21. }
```

- a) amish
- b) ANKIT
- c) harsh
- d) Compile time error

[View Answer](#)

Answer: d

Explanation: Only integral values are allowed for case expression.

5.0f = (int)5.0f

5.0L = (int)5.0L

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int i = 2, k = 3;
4.     switch (i - k)
5.     {
6.         case -1:
7.             ++i;
8.             ++k;
9.             break;
10.        case 2:
11.            --i;
12.            ++k;
13.            break;
14.        default:
15.            i += 3;
16.            k += i;
17.            break;
18.    }
19.    Console.WriteLine(i + "\n" + k);
20.    Console.ReadLine();
21. }
```

- a) 23
- b) 15
- c) Compile time error
- d) 12

[View Answer](#)

Answer: c

Explanation: Continue cannot be used as a part of switch statement.

---

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int i = 2, k = 3;
4.     switch (i - k)
5.     {
6.         case -1:
7.             ++i;
```

```
8.         ++k;
9.         break;
10.        case 2:
11.            --i;
12.            ++k;
13.            break;
14.        default:
15.            i += 3;
16.            k += i;
17.            break;
18.        }
19.        Console.WriteLine(i + "\n" + k);
20.        Console.ReadLine();
21.    }
```

- a) Compile time error
- b) case A|case a
- c) case B|case b
- d) case D|case d

[View Answer](#)

Answer: d

Explanation: Case statement declared last will only be executed as no particular case number is declared is to be called.

Output:

```
case D|case d
```

---

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int i = 2, k = 3;
4.     switch (i - k)
5.     {
6.         case -1:
7.             ++i;
8.             ++k;
9.             break;
10.        case 2:
11.            --i;
12.            ++k;
```

```
13.         break;
14.     default:
15.         i += 3;
16.         k += i;
17.         break;
18.     }
19.     Console.WriteLine(i + "\n" + k);
20.     Console.ReadLine();
21. }
```

- a) coco main
- b) coco 112
- c) coco 112 main
- d) compile time error

[View Answer](#)

Answer: c

Explanation: ASCII value of 'p' is 112.Hence, coco 112 main.

Output:

coco 112 main.

ayzom.com

## C# Questions & Answers – For Loop Statements

```
1. static void Main(string[] args)
2. {
3.     int I, X;
4.     for (I = 1; I <= (9 % 2 + I); I++)
5.     {
6.         X = (I * 3 + I * 2) / I;
7.         Console.WriteLine(X);
8.     }
9.     Console.ReadLine();
10. }
```

- a) No output
- b) hello
- c) hello printed infinite times
- d) Code will give error as expression syntax

[View Answer](#)

Answer: c

Explanation: Testing condition for the loop is absent. So, loop will continue executing.

Output :

```
hello
hello
hello
.
.
.
```

```
1. static void Main(string[] args)
2. {
3.     int I, X;
4.     for (I = 1; I <= (9 % 2 + I); I++)
5.     {
6.         X = (I * 3 + I * 2) / I;
7.         Console.WriteLine(X);
8.     }
9.     Console.ReadLine();
10. }
```

- a) 1.1
- b) 0.1
- c) 0.1 0.2 0.3 0.4 0.5
- d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: f=0.1 and ++f= 0.1+1 = 1.1.So,1.1>0.5,Condition fails and hence loop terminates.

Output :

```
1.1
1.
2. {
3.     int I, X;
4.     for (I = 1; I <= (9 % 2 + I); I++)
5.     {
6.         X = (I * 3 + I * 2) / I;
7.         Console.WriteLine(X);
8.     }
9.     Console.ReadLine();
10. }
```

- a) Output of code is 5 10
- b) Output is 5 5 5
- c) Print 5 infinite times
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: Testing condition is always incremented i.e i never '>' (9%2+I).So,loop will never terminate.

Output :

```
5 5 5.....
```

```
1.
2. {
3.     int I, X;
4.     for (I = 1; I <= (9 % 2 + I); I++)
5.     {
6.         X = (I * 3 + I * 2) / I;
7.         Console.WriteLine(X);
8.     }
9.     Console.ReadLine();
10. }
```

- a) 1 2 3 4 5 6 7 8 9
- b) 25
- c) 1
- d) Run time error

[View Answer](#)

Answer: d

Explanation: Due to presence of ';' after for() loop condition do not work as according to the statement. Remove the ';'.

Output :

25.

---

```
1. static void Main(string[] args)
2. {
3.     int I, X;
4.     for (I = 1; I <= (9 % 2 + I); I++)
5.     {
6.         X = (I * 3 + I * 2) / I;
7.         Console.WriteLine(X);
8.     }
9.     Console.ReadLine();
10. }
```

- a) 4 3 2 1
- b) 3 2 1
- c) 5 4 3 2 1
- d) 2 1

[View Answer](#)

Answer: c

Explanation: Since, i = 5 and test condition is executed until i!=0. So, i decrements value of i till condition is satisfied.

Output:

5 4 3 2 1

---

```
1. static void Main(string[] args)
2. {
3.     int I, X;
4.     for (I = 1; I <= (9 % 2 + I); I++)
5.     {
6.         X = (I * 3 + I * 2) / I;
7.         Console.WriteLine(X);
8.     }
9.     Console.ReadLine();
10. }
```

- a) Code report error
- b) Code runs in infinite loop condition
- c) Code gives output as 0 1 3 6 10 15 21 28 36 45
- d) Code give output as 55

[View Answer](#)

Answer: d

Explanation: Since occurrence of termination symbol(;) at end of for loop.

Output:

55.

---

```
1. static void Main(string[] args)
2. {
3.     int I, X;
4.     for (I = 1; I <= (9 % 2 + I); I++)
5.     {
6.         X = (I * 3 + I * 2) / I;
7.         Console.WriteLine(X);
8.     }
9.     Console.ReadLine();
10. }
```

7. Which statement is correct among the mentioned statements?

1. The for loop works faster than a while loop
2. for(;;) implements an infinite loop
- a) Only 1 is correct
- b) Only 2 is correct
- c) Both 1 and 2 are correct
- d) Both 1 and 2 are incorrect

[View Answer](#)

Answer: b

Explanation: By definition.

---

```
1. static void Main(string[] args)
2. {
3.     int I, X;
4.     for (I = 1; I <= (9 % 2 + I); I++)
5.     {
6.         X = (I * 3 + I * 2) / I;
7.         Console.WriteLine(X);
8.     }
9.     Console.ReadLine();
10. }
```

- a) Prints 'Hi' for one time
- b) Prints 'Hi' for infinite times
- c) Stack overflow exception Condition generated
- d) None of above mentioned

[View Answer](#)

Answer: c

Explanation: Occurrence of 'main()' condition after for loop.

Output:

```
Hi  
Hi  
. .  
stack overflow exception.
```

---

```
1. static void Main(string[] args)  
2. {  
3.     int I, X;  
4.     for (I = 1; I <= (9 % 2 + I); I++)  
5.     {  
6.         X = (I * 3 + I * 2) / I;  
7.         Console.WriteLine(X);  
8.     }  
9.     Console.ReadLine();  
10. }
```

[View Answer](#)

Answer: c

Explanation: Input in Console and run the code.

---

```
1. static void Main(string[] args)  
2. {  
3.     int I, X;  
4.     for (I = 1; I <= (9 % 2 + I); I++)  
5.     {  
6.         X = (I * 3 + I * 2) / I;  
7.         Console.WriteLine(X);  
8.     }  
9.     Console.ReadLine();  
10. }
```

- a) B B zero A A A
- b) B zero A A A
- c) B B B zero A A A
- d) A A A zero B B B

[View Answer](#)

Answer: c

Explanation: for i=-3,-2,-1 statement executed as B. for i=0,it is zero and for i=1,2,3 again statement printed as A separately for each value of

i

Output:

B B B zero A A A.

---

```
1. static void Main(string[] args)
2. {
3.     int I, X;
4.     for (I = 1; I <= (9 % 2 + I); I++)
5.     {
6.         X = (I * 3 + I * 2) / I;
7.         Console.WriteLine(X);
8.     }
9.     Console.ReadLine();
10. }
```

11. Which of the following is not infinite loop?

- a) for(;0';)
- b) for(;0';)
- c) for(;1';)
- d) for(;1';)

[View Answer](#)

Answer: b

Explanation: None.

---

```
1. static void Main(string[] args)
2. {
3.     int I, X;
4.     for (I = 1; I <= (9 % 2 + I); I++)
5.     {
6.         X = (I * 3 + I * 2) / I;
7.         Console.WriteLine(X);
8.     }
9.     Console.ReadLine();
10. }
```

- a) i=0, j=1;
- b) i=1, j=0;
- c) j=0;
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: Since for i = 1, j = 1 and 1 <= 3 also 1 >= 0 we had i == j. But after i++ and j-. The initial value of 'j' which is '0' as j- preferred other than value of 'j' in i=j.

Output:

j = 0.

---

```
1. static void Main(string[] args)
2. {
3.     int I, X;
4.     for (I = 1; I <= (9 % 2 + I); I++)
5.     {
6.         X = (I * 3 + I * 2) / I;
7.         Console.WriteLine(X);
8.     }
9.     Console.ReadLine();
10. }
```

- a) -9 -8 -7 -6 -5 -4 -3 -2 -1
- b) -10 -9 -8 -7 -6 -5 -4 -3 -2
- c) -10 -9 -8 -7 -6 -5 -4 -3 -2 -1
- d) -8 -7 -6 -5 -4 -3 -2 -1

[View Answer](#)

Answer: c

Explanation: For first value of i=-10. Condition is executed until i!=0.

Output:

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1.

## C# Questions & Answers – While Loop Statements

```
1. static void Main(string[] args)
2. {
3.     int i;
4.     i = 0;
5.     while (i++ < 5)
6.     {
7.         Console.WriteLine(i);
8.     }
9.     Console.WriteLine("\n");
10.    i = 0;
11.    while ( ++i < 5)
12.    {
13.        Console.WriteLine(i);
14.    }
15.    Console.ReadLine();
16. }
```

- a) 11 21 31  
b) 1 12 13 1  
c) 11 21 31  
d) 1 1 2 1 3 1

[View Answer](#)

**Answer:** c

**Explanation:** Since, condition never satisfied for any value of i and j for which  $(i \% j == 2)$ . Hence, j is always constant '1' and 'i' increments for  $i = 1, 2, 3$ .

**Output:**

11 21 31.

```
1. static void Main(string[] args)
2. {
3.     int i;
4.     i = 0;
5.     while (i++ < 5)
6.     {
7.         Console.WriteLine(i);
8.     }
9.     Console.WriteLine("\n");
```

```
10.     i = 0;
11.     while ( ++i < 5)
12.     {
13.         Console.WriteLine(i);
14.     }
15.     Console.ReadLine();
16. }
```

- a) 0.1
- b) 1.1
- c) 0.1 0.2 0.3 0.4 0.5
- d) No output

[View Answer](#)

Answer: b

Explanation: For the first while condition check when s = 0. If it is true as control goes inside loop ++s increments value of s by 1 as 1+0.1 = 1.1. So, for next condition while loop fails and hence, prints final value of s as 1.1.

Output:

1.1

---

```
1. static void Main(string[] args)
2. {
3.     int i;
4.     i = 0;
5.     while (i++ < 5)
6.     {
7.         Console.WriteLine(i);
8.     }
9.     Console.WriteLine("\n");
10.    i = 0;
11.    while ( ++i < 5)
12.    {
13.        Console.WriteLine(i);
14.    }
15.    Console.ReadLine();
16. }
```

- a) 1 2 3 4  
1 2 3 4 5
- b) 1 2 3  
1 2 3 4
- c) 1 2 3 4 5  
1 2 3 4

d) 1 2 3 4 5

1 2 3 4 5

[View Answer](#)

Answer: c

Explanation: For while( $i++ < 5$ ) current value of ‘i’ is checked first and hence prints incremented value afterwards. So,  $i=1, 2, 3, 4, 5$ . But, for while( $++i < 5$ ) current value is incremented first and then checks that value with given condition and hence then prints that value. So,  $i=1, 2, 3, 4$ .

Output:

```
1 2 3 4 5  
1 2 3 4
```

---

```
1. static void Main(string[] args)  
2. {  
3.     int i;  
4.     i = 0;  
5.     while (i++ < 5)  
6.     {  
7.         Console.WriteLine(i);  
8.     }  
9.     Console.WriteLine("\n");  
10.    i = 0;  
11.    while (++i < 5)  
12.    {  
13.        Console.WriteLine(i);  
14.    }  
15.    Console.ReadLine();  
16. }
```

a) 1 2 3 4 5 6 7 8 9 10

11 12 13 14 15 16 17 18 19 20

b) 0 2 4 6 8 10 12 14 16 18 20

c) 0 2 4 6 8

d) 0 2 4 6 8 10

[View Answer](#)

Answer: c

Explanation: Inner while loop condition checks for even number between 0 and 10 and hence prints number between the given range.

Output:

```
0 2 4 6 8.
```

---

```
1. static void Main(string[] args)  
2. {  
3.     int i;
```

```
4.     i = 0;
5.     while (i++ < 5)
6.     {
7.         Console.WriteLine(i);
8.     }
9.     Console.WriteLine("\n");
10.    i = 0;
11.    while ( ++i < 5)
12.    {
13.        Console.WriteLine(i);
14.    }
15.    Console.ReadLine();
16. }
```

a) Execute while 1 time

Execute while 3 time

Execute while 5 time

Execute while 7 time

b) Execute while 2 time

Execute while 4 time

Execute while 6 time

Execute while 8 time

c) Execute while 1 time

Execute while 2 time

Execute while 3 time

Execute while 4 time

Execute while 5 time

Execute while 6 time

Execute while 7 time

d) Execute while 2 time

Execute while 3 time

Execute while 4 time

Execute while 5 time

[View Answer](#)

Answer: b

Explanation: Checks condition if number is divisible by 2 then it will print it even number times as given for x = 8 so, prints between 2 to 8 times

Similarly, for x = 5, Execute 2 and 4 time.

OUTPUT:

```
Execute while 2 time.
Execute while 4 time.
Execute while 6 time.
Execute while 8 time.
```

---

```
1. static void Main(string[] args)
2. {
3.     int i;
```

```
4.     i = 0;
5.     while (i++ < 5)
6.     {
7.         Console.WriteLine(i);
8.     }
9.     Console.WriteLine("\n");
10.    i = 0;
11.    while (++i < 5)
12.    {
13.        Console.WriteLine(i);
14.    }
15.    Console.ReadLine();
16. }
```

a) 3245

b) 2354

c) 2345

d) 5423

[View Answer](#)

Answer: c

Explanation: Reverse of number using while loop.

Output:

2345.

---

```
1. static void Main(string[] args)
2. {
3.     int i;
4.     i = 0;
5.     while (i++ < 5)
6.     {
7.         Console.WriteLine(i);
8.     }
9.     Console.WriteLine("\n");
10.    i = 0;
11.    while (++i < 5)
12.    {
13.        Console.WriteLine(i);
14.    }
}
```

```
15.     Console.ReadLine();  
16. }
```

[View Answer](#)

Answer:c

Explanation: By definition.

```
1. static void Main(string[] args)  
2. {  
3.     int i;  
4.     i = 0;  
5.     while (i++ < 5)  
6.     {  
7.         Console.WriteLine(i);  
8.     }  
9.     Console.WriteLine("\n");  
10.    i = 0;  
11.    while (++i < 5)  
12.    {  
13.        Console.WriteLine(i);  
14.    }  
15.    Console.ReadLine();  
16. }
```

- a) 0.05f
- b) 1.50f
- c) -0.04999995f
- d) 1.50f

[View Answer](#)

Answer:c

Explanation: for while( $i = 1.0f$  and  $j = 0.05f$ ). We, had ‘&&’ condition which gives ‘1’. So, control enters while loop. Since,  $i = 1$  and  $i++ =$  first execute then increment. So, first with ‘i’ value as  $1.0f$  and  $++j =$  first increment and then executes we had  $j = 1.05f$  and Since operation  $(i++ - ++j)$  gives us a negative sign number. So, we can stick our choice to option ‘c’ clearly. Now, as  $i = 2.0f$  so loop breaks.

Output:

-0.04999995f.

```
1. static void Main(string[] args)  
2. {  
3.     int i;  
4.     i = 0;  
5.     while (i++ < 5)  
6.     {
```

```
7.         Console.WriteLine(i);
8.     }
9.     Console.WriteLine("\n");
10.    i = 0;
11.    while ( ++i < 5)
12.    {
13.        Console.WriteLine(i);
14.    }
15.    Console.ReadLine();
16. }
```

- a) code prints output as 0 0 0 0
- b) code prints output as 10 20 30 40 50
- c) infinite loop but doesn't print anything
- d) Code generate error

[View Answer](#)

Answer: c

Explanation: None.

```
1. static void Main(string[] args)
2. {
3.     int i;
4.     i = 0;
5.     while (i++ < 5)
6.     {
7.         Console.WriteLine(i);
8.     }
9.     Console.WriteLine("\n");
10.    i = 0;
11.    while ( ++i < 5)
12.    {
13.        Console.WriteLine(i);
14.    }
15.    Console.ReadLine();
16. }
```

- a) 12 11
- b) 10 11
- c) 11 10
- d) 11 12

[View Answer](#)

Answer: c

Explanation: As `++i`, first increments then execute so, for `++i` i is 11 and `j++` is first execute then increments. So, `j = 10`.

Output:

11 10.

---

```
1. static void Main(string[] args)
2. {
3.     int i;
4.     i = 0;
5.     while (i++ < 5)
6.     {
7.         Console.WriteLine(i);
8.     }
9.     Console.WriteLine("\n");
10.    i = 0;
11.    while ( ++i < 5)
12.    {
13.        Console.WriteLine(i);
14.    }
15.    Console.ReadLine();
16. }
```

- a) Hi...
- b) Hello....
- c) Hi...infinite times
- d) Hello infinite times

[View Answer](#)

Answer: b

Explanation: Ascii value of 'A' is 65 and 'a' is 97. So, clearly 'A' < 'a'.

Output:

Hello.

---

```
1. static void Main(string[] args)
2. {
3.     int i;
4.     i = 0;
5.     while (i++ < 5)
6.     {
7.         Console.WriteLine(i);
```

```
8.      }
9.      Console.WriteLine("\n");
10.     i = 0;
11.     while ( ++i < 5)
12.     {
13.         Console.WriteLine(i);
14.     }
15.     Console.ReadLine();
16. }
```

- a) -127 to +127
- b) 0 to 127
- c) 1
- d) Infinite loop condition

[View Answer](#)

Answer: c

Explanation: `i++` = first executes then increments as `i = 0`. So, `i++ != 0`, which is false clearly as `i = 0`. Now, control goes inside loop with `i = 1`. So, statement prints `i = 1`.

Output:

1.

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## C# Questions & Answers – Do While Loop Statements

---

3. Select the output for the following code :

```
1. static void Main(string[] args)
2. {
3.     int i = 1, j = 5;
4.     do
5.     {
6.         Console.WriteLine(i = i++ * j);
7.     }while (i <= 10);
8.     Console.ReadLine();
9. }
```

- a) 0 0 0
- b) True True True
- c) 1 1 1
- d) False False False

[View Answer](#)

Answer: b

Explanation: 1 AND 1 = True.Similarly , non zero number || non zero number = True.

Output:

True True True.

---

3. Select the output for the following code :

```
1. static void Main(string[] args)
2. {
3.     int i = 1, j = 5;
4.     do
5.     {
6.         Console.WriteLine(i = i++ * j);
7.     }while (i <= 10);
8.     Console.ReadLine();
9. }
```

- a) 0.05
- b) -0.05
- c) 0.95
- d) -0.04999995

[View Answer](#)

Answer: d

Explanation: None.

Output :

-0.04999995

3. Select the output for the following code :

```
1. static void Main(string[] args)
2. {
3.     int i = 1, j = 5;
4.     do
5.     {
6.         Console.WriteLine(i = i++ * j);
7.     }while (i <= 10);
8.     Console.ReadLine();
9. }
```

- a) 5 10 15 20 25 30 35 40 45 50
- b) 5 25
- c) 5 11 16 21 26 31 36 41 46 51
- d) 5 30

[View Answer](#)

Answer: b

Explanation: For first step of loop  $i = 1$ . So,  $i++ * j = 1 * 5 = 5$ . For second step of loop  $i = 5, j = 5$ . So,  $i++ * j = 25$ . As,  $i = 25$  hence,  $25 \geq 10$  loop condition breaks.

Output:

5 25.

3. Select the output for the following code :

```
1. static void Main(string[] args)
2. {
3.     int i = 1, j = 5;
4.     do
5.     {
6.         Console.WriteLine(i = i++ * j);
7.     }while (i <= 10);
8.     Console.ReadLine();
9. }
```

[View Answer](#)

Answer: a

Output :

```
static void Main(string[] args)
{
    int i = 1234, j = 0;
```

```
do
{
    j = j +( i % 10);

}while ((i = i / 10) != 0);
Console.WriteLine(j);

}
```

---

3. Select the output for the following code :

```
1. static void Main(string[] args)

2. {
3.     int i = 1, j = 5;
4.     do
5.     {
6.         Console.WriteLine(i = i++ * j);
7.     }while (i <= 10);
8.     Console.ReadLine();
9. }
```

- a) number of digits present in x
- b) prints '1'
- c) prints reverse of x
- d) prints sum of digits of 'x'

[View Answer](#)

Answer: c

Explanation: Reverse of digits using while loop statements.

Output:

4321.

---

3. Select the output for the following code :

```
1. static void Main(string[] args)

2. {
3.     int i = 1, j = 5;
4.     do
5.     {
6.         Console.WriteLine(i = i++ * j);
7.     }while (i <= 10);
8.     Console.ReadLine();
9. }
```

- a) It finds binary equivalent of i
- b) It finds octal equivalent of i
- c) It finds sum of digits of i

d) It finds reverse of i

[View Answer](#)

Answer: b

Explanation: None.

Output :

```
i = 342.  
s = 526.
```

---

3. Select the output for the following code :

```
1. static void Main(string[] args)  
2. {  
3.     int i = 1, j = 5;  
4.     do  
5.     {  
6.         Console.WriteLine(i = i++ * j);  
7.     }while (i <= 10);  
8.     Console.ReadLine();  
9. }
```

[View Answer](#)

Answer: d

Explanation: By definition

Output:

```
do  
{  
    statement;  
}while (condition);
```

---

3. Select the output for the following code :

```
1. static void Main(string[] args)  
2. {  
3.     int i = 1, j = 5;  
4.     do  
5.     {  
6.         Console.WriteLine(i = i++ * j);  
7.     }while (i <= 10);  
8.     Console.ReadLine();  
9. }
```

a) 13

b) 15

c) 11

d) 10

[View Answer](#)

Answer: d

Explanation: Here in do while condition ‘&&’ i.e ‘AND’ operator return ‘0’ i.e false. So, as condition is false so program comes out of the loop.  
Output :

10.

---

3. Select the output for the following code :

```
1. static void Main(string[] args)
2. {
3.     int i = 1, j = 5;
4.     do
5.     {
6.         Console.WriteLine(i = i++ * j);
7.     }while (i <= 10);
8.     Console.ReadLine();
9. }
```

- a) 0 0 0....infinite times
- b) 1 1 1....infinite times
- c) 1 1 1 1 1 1
- d) System overflow exception error

[View Answer](#)

Answer: c

Explanation: The execution of for loop is done for six consecutive times.

Output :

1 1 1 1 1 1

---

3. Select the output for the following code :

```
1. static void Main(string[] args)
2. {
3.     int i = 1, j = 5;
4.     do
5.     {
6.         Console.WriteLine(i = i++ * j);
7.     }while (i <= 10);
8.     Console.ReadLine();
9. }
```

- a) 1 2 3 4 5
- b) 10
- c) 5 6 7 8 9 10
- d) 1 2 3 4 5 6 7 8 9 10

[View Answer](#)

Answer: d

Explanation: The condition will print the numbers from 1 to 10 when  $x == 5$  and when  $x$  does not satisfy if condition until  $x < 10$ .

Output:

```
1 2 3 4 5 6 7 8 9 10 .
```

---

3. Select the output for the following code :

```
1. static void Main(string[] args)
2. {
3.     int i = 1, j = 5;
4.     do
5.     {
6.         Console.WriteLine(i = i++ * j);
7.     }while (i <= 10);
8.     Console.ReadLine();
9. }
```

- a) 1 12 1 3 1
- b) 1 12 13 1
- c) 12 22 32
- d) 11 21 31

[View Answer](#)

Answer: c

Explanation: None.

Output :

```
12 22 32.
```

## C# Questions & Answers – Continue, Goto Statements

---

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int i = 1, j;
4.     do
5.     {
6.         for (j = 1; ; j++)
7.         {
8.             if (j > 2)
9.                 break;
10.            if (i == j)
11.                continue;
12.            Console.WriteLine(i + " " + j);
13.        }
14.        i++;
15.    } while (i < 3);
16.    Console.ReadLine();
17. }
```

- a) 12
- b) 11
- c) Compile time error
- d) 13

[View Answer](#)

Answer: c

Explanation: ‘Continue’ loop cannot be used within ‘if’ loop .replace while with if(i<7).

Output: Compile time error.

---

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int i = 1, j;
4.     do
5.     {
6.         for (j = 1; ; j++)
7.     }
```

```
8.         if (j > 2)
9.             break;
10.            if (i == j)
11.                continue;
12.                Console.WriteLine(i + " " + j);
13.            }
14.            i++;
15.        } while (i < 3);
16.        Console.ReadLine();
17.    }
```

- a) number is odd
- b) number is even
- c) Compile time error
- d) none of the mentioned

[View Answer](#)

Answer: c

Explanation: “Undefined label ‘even’ in main(). The syntax ‘goto even:’ is incorrect instead use ‘goto even;’.

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int i = 1, j;
4.     do
5.     {
6.         for (j = 1; ; j++)
7.         {
8.             if (j > 2)
9.                 break;
10.            if (i == j)
11.                continue;
12.                Console.WriteLine(i + " " + j);
13.            }
14.            i++;
15.        } while (i < 3);
16.        Console.ReadLine();
17.    }
```

- a) 1 2

2 1

b) 2 1

1 2

c) 1 3

2 1

d) 1 1

2 1

[View Answer](#)

Answer: a

Explanation: for  $i = 1$ . When control enters in loop first if condition is checked for where  $j = 1$  and as ( $j > 2$ ) which is false. Control is now passed to console statement with  $i = 1$  and  $j = 2$ . Now, in while condition value of 'i' reflected is 2 i.e  $i = 2$  as  $i++$ . Since, ( $i < 3$ ) control again enters in for loop with  $i = 2$  but  $j = 1$  not  $j = 2$  for  $j++$  and hence, again same condition executes for console statement.

Output : 1 2

2 1

---

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int i = 1, j;
4.     do
5.     {
6.         for (j = 1; ; j++)
7.         {
8.             if (j > 2)
9.                 break;
10.            if (i == j)
11.                continue;
12.            Console.WriteLine(i + " " + j);
13.        }
14.        i++;
15.    } while (i < 3);
16.    Console.ReadLine();
17. }
```

a) 1 2 3 4 5 6 7 8 9 10

b) 10 9 8 7 6 5 4 3 2 1 0

c) 9 8 7 6 5 4 3 2 1

d) 10 9 8 7 6 5 4 3 2 1

[View Answer](#)

Answer: c

Explanation: for  $i = 10$ , loop executes for first time in 'if' loop as ( $i > 0$ ) i.e ( $9 > 0$ ) and hence printing '9'. Similarly, label condition executes again go for ( $i - 1$ ) i.e ( $9 - 1 = 8$ ) and hence again prints  $i = 8$ . In this way looping condition executes as 9, 8 to 3, 2, 1.

OUTPUT :

9 8 7 6 5 4 3 2 1.

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int i = 1, j;
4.     do
5.     {
6.         for (j = 1; ; j++)
7.         {
8.             if (j > 2)
9.                 break;
10.            if (i == j)
11.                continue;
12.            Console.WriteLine(i + " " + j);
13.        }
14.        i++;
15.    } while (i < 3);
16.    Console.ReadLine();
17. }
```

- a) hi hi hi  
b) hi hi  
c) hi  
d) hi hi hi....infinite times

[View Answer](#)

Answer: d

Explanation: Since,i= so,test condition for 'i' never satisfies it fails and hence infinite loop occurs.  
output:

hi hi hi.....

---

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int i = 1, j;
4.     do
5.     {
6.         for (j = 1; ; j++)
7.     }
```

```
8.         if (j > 2)
9.             break;
10.            if (i == j)
11.                continue;
12.                Console.WriteLine(i + " " + j);
13.            }
14.            i++;
15.        } while (i < 3);
16.        Console.ReadLine();
17.    }
```

- a) Hi...infinite times
- b) Code runs prints nothing
- c) Hi Hi
- d) Hi...

[View Answer](#)

Answer: d

Explanation: for i = 0 ,if condition is satisfied as (i== 0).So,label statement is printed.

Output :

Hi

---

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int i = 1, j;
4.     do
5.     {
6.         for (j = 1; ; j++)
7.         {
8.             if (j > 2)
9.                 break;
10.            if (i == j)
11.                continue;
12.                Console.WriteLine(i + " " + j);
13.            }
14.            i++;
15.        } while (i < 3);
16.        Console.ReadLine();
```

17. }

- a) loop is printed infinite times
- b) loop
- c) loop loop
- d) Compile time error

[View Answer](#)

Answer: c

Explanation: Since outer while loop i.e while( $i < 2$ ) executes only for two times. Hence, loop while executing third time for ( $j < 3$ ) could not be able to satisfy condition  $i < 2$  as  $i = 2$ . hence, loop breaks and control goes out of loop.

Output :

loop loop.

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int i = 1, j;
4.     do
5.     {
6.         for (j = 1; ; j++)
7.         {
8.             if (j > 2)
9.                 break;
10.            if (i == j)
11.                continue;
12.            Console.WriteLine(i + " " + j);
13.        }
14.        i++;
15.    } while (i < 3);
16.    Console.ReadLine();
17. }
```

- a) 0 0 0 0
- b) 0 0 0
- c) 0 infinite times
- d) 0

[View Answer](#)

Answer: c

Explanation: Since, if condition is always true. Loop will continue executing always without any end condition.

Output:

0 0 0....

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int i = 1, j;
4.     do
5.     {
6.         for (j = 1; ; j++)
7.         {
8.             if (j > 2)
9.                 break;
10.            if (i == j)
11.                continue;
12.            Console.WriteLine(i + " " + j);
13.        }
14.        i++;
15.    } while (i < 3);
16.    Console.ReadLine();
17. }
```

- a) Prints hi 4 times
- b) Prints hi 3 times
- c) Prints hi 6 times
- d) Prints hi infinite times

[View Answer](#)

Answer: c

Explanation: None.

Output :

```
hi
hi
hi
hi
hi
hi.
```

---

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int i = 1, j;
4.     do
5.     {
6.         for (j = 1; ; j++)
```

```
7.         {
8.             if (j > 2)
9.                 break;
10.            if (i == j)
11.                continue;
12.            Console.WriteLine(i + " " + j);
13.        }
14.        i++;
15.    } while (i < 3);
16.    Console.ReadLine();
17. }
```

- a) print hello 4 times
- b) print hello 3 times
- c) print hello 5 times
- d) print hello infinite times

[View Answer](#)

Answer: c

Explanation: Condition executes until and unless  $i < 5$ . So, it prints “hello” until ‘i’ condition is satisfied.

Output :

```
Hello
Hello
Hello
Hello
Hello
```

---

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int i = 1, j;
4.     do
5.     {
6.         for (j = 1; ; j++)
7.         {
8.             if (j > 2)
9.                 break;
10.            if (i == j)
11.                continue;
12.            Console.WriteLine(i + " " + j);
13.     }
```

```
14.         i++;
15.     } while (i < 3);
16.     Console.ReadLine();
17. }
```

- a) Hi Hello
- b) Hi
- c) Hello
- d) Compile time error

[View Answer](#)

Answer: d

Explanation: Absence of any loop condition in order to make decision of break or continue.

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## C# Questions & Answers – Fundamentals of Class

---

- a) sample.fun(1, 5) will not work correctly
- b) s.i = 10 cannot work as i is 'public'
- c) sample.fun(1, 5) will set value as 5 in arr[1].
- d) s.fun(1, 5) will work correctly

[View Answer](#)

Answer: a

Explanation: An Object reference is required for non static field,method or property. i.e

```
sample s = new sample();
s.i = 10;
sample.fun(1, 5);
sample.fun(1, 5);
Console.ReadLine();
```

---

2. Which of the following is used to define the member of a class externally?

- a) :
- b) ::
- c) #
- d) none of the mentioned

[View Answer](#)

Answer: b

Explanation: By definition.

---

3. The operator used to access member function of a class?

- a) :
- b) ::
- c) .
- d) #

[View Answer](#)

Answer: c

Explanation: objectname.function name(actual arguments);

---

4. What is the most specified using class declaration ?

- a) type
- b) scope
- c) type & scope
- d) None of mentioned

[View Answer](#)

Answer: c

Explanation: General form of class declaration in C# is :

```
class class_name
{
    member variables
    variable1;
    variable2;
    variableN;
    method1(parameter_list)
    {
        method body
    }
}
```

```
method2(parameter_list)
{
method body
}
methodN(parameter_list)
{
method body
}
}
```

---

- a) Error while calling s.fun() due to inaccessible level
- b) Error as ‘this’ reference would not be able to call ‘i’ and ‘j’
- c) 1 2
- d) Runs successfully but prints nothing

[View Answer](#)

Answer: c

Explanation: Variable ‘i’ and ‘j’ declared with scope public in sample class are accessed using object of class ‘sample’ which is ‘s’.

Output:

1 2 .

---

6. Which of following statements about objects in “C#” is correct?

- a) Everything you use in C# is an object, including Windows Forms and controls
- b) Objects have methods and events that allow them to perform actions
- c) All objects created from a class will occupy equal number of bytes in memory
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: By definition.

---

7. “A mechanism that binds together code and data in manipulates, and keeps both safe from outside interference and misuse.In short it isolates a particular code and data from all other codes and data. A well-defined interface controls the access to that particular code and data.”

- a) Abstraction
- b) Polymorphism
- c) Inheritance
- d) Encapsulation

[View Answer](#)

Answer: d

Explanation: By definition.

---

- a) 10 20  
5 25
- b) 20 10  
25 5
- c) 10 20  
5 125
- d) 20 10  
125 5

[View Answer](#)

Answer: c

Explanation: Member function() ‘set’ is accessed using object of class ‘z’ values are passed as parameter to ‘a’ and ‘b’.Since, variable ‘c1’ and ‘c2’ are public data member of class ‘z’.They are accessed using classname.

Output :

10 20  
5 125.

---

9. Correct way of declaration of object of the following class is ?

- class name
- a) name n = new name();
  - b) n = name();
  - c) name n = name();
  - d) n = new name();

[View Answer](#)

Answer: a

Explanation: None.

---

10. The data members of a class by default are ?

- a) protected, public
- b) private, public
- c) private
- d) public

[View Answer](#)

Answer: c

Explanation: None.

---

- a) Syntax error
- b) {0} is in city{1} harsh new delhi
- c) harsh is in new delhi
- d) Run successfully prints nothing

[View Answer](#)

Answer: c

Explanation: Member function show() accessed using object of class 'z' which is 'n' as object.member().

Output :

harsh is in new delhi.

---

- a) Object creation on class csharp
- b) Create an object of type csharp on heap or on stack depending on the size of object
- c) create a reference c on csharp and an object of type csharp on heap
- d) create an object of type csharp on stack

[View Answer](#)

Answer: c

Explanation: None.

---

- a) Code runs successfully prints nothing
- b) Code runs and prints "Csharp"
- c) Syntax error as t is unassigned variable which is never used
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: object of class test should be declared as test t = new test();

```
test t = new test();
t.print();
Console.ReadLine();
```

## C# Questions & Answers – Reference Variables and Assignment

---

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int[] arr = new int[] {1 ,2 ,3 ,4 ,5 };
4.     fun1(ref arr);
5.     Console.ReadLine();
6. }
7. static void fun1(ref int[] array)
8. {
9.     for (int i = 0; i < array.Length; i++)
10.    {
11.        array[i] = array[i] + 5;
12.        Console.WriteLine(array[i] + " ");
13.    }
14. }
```

1. Which reference modifier is used to define reference variable?

- a) &
- b) ref
- c) #
- d) \$

[View Answer](#)

Answer: b

Explanation: None.

---

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int[] arr = new int[] {1 ,2 ,3 ,4 ,5 };
4.     fun1(ref arr);
5.     Console.ReadLine();
6. }
7. static void fun1(ref int[] array)
8. {
9.     for (int i = 0; i < array.Length; i++)
10.    {
```

```
11.         array[i] = array[i] + 5;
12.         Console.WriteLine(array[i] + " ");
13.     }
14. }
```

- a) 5
- b) 0
- c) 20
- d) 25

[View Answer](#)

Answer: d

Explanation: Here 'a' = 5 .Copy of variable is passed as reference to parameter 'a'.

Output:

25.

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int[] arr = new int[] {1 ,2 ,3 ,4 ,5 };
4.     fun1(ref arr);
5.     Console.ReadLine();
6. }
7. static void fun1(ref int[] array)
8. {
9.     for (int i = 0; i < array.Length; i++)
10.    {
11.        array[i] = array[i] + 5;
12.        Console.WriteLine(array[i] + " ");
13.    }
14. }
```

- a) 6 7 8 9 10
- b) 15 17 8 8 20
- c) 15 17 8 29 20

d) Syntax error while passing reference of array variable.

[View Answer](#)

Answer: a

Explanation: array 'arr' after declaration is passed as reference parameter.

$a[0] = 1 + 5 = 6$ .

$a[1] = 2 + 5 = 7$ .

$\dots$   
 $a[4] = 5 + 5 = 10$ .

Output :

15 17 8 29 20.

---

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int[] arr = new int[] {1 ,2 ,3 ,4 ,5 };
4.     fun1(ref arr);
5.     Console.ReadLine();
6. }
7. static void fun1(ref int[] array)
8. {
9.     for (int i = 0; i < array.Length; i++)
10.    {
11.        array[i] = array[i] + 5;
12.        Console.WriteLine(array[i] + " ");
13.    }
14. }
```

a) Result before swap is: 20 10

Result after swap is: 20 10

b) Result before swap is: 10 20

Result after swap is: 20 10

c) Result before swap is: 10 20

Result after swap is: 10 20

d) Result before swap is: 20 10

Result after swap is: 10 20

[View Answer](#)

Answer: b

Explanation: Makes use of call by reference parameter.

Output:

```
Result before swap is: 10 20.
Result after swap is: 20 10.
```

---

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int[] arr = new int[] {1 ,2 ,3 ,4 ,5 };
4.     fun1(ref arr);
5.     Console.ReadLine();
6. }
```

```
7. static void fun1(ref int[] array)
8. {
9.     for (int i = 0; i < array.Length; i++)
10.    {
11.        array[i] = array[i] + 5;
12.        Console.WriteLine(array[i] + " ");
13.    }
14. }
```

a) numbers are : 2 4 6 8 10

b) numbers are : 3 5 7 9 11

c) numbers are : 2 3 4 5 6

d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: Those numbers divisible by 2 are 2,4,6,8,10 and when condition of loop is executed it increments by 1.  
i.e for  $x[1] = 2 \% 2 == 0$ .So,  $x[1] = 2 + 1 = 3$ .

$x[3] = 4 \% 2 == 0$ .So,  $x[3] = 4 + 1 = 5$  and so on.

Output :

3 5 7 9 11.

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int[] arr = new int[] { 1 ,2 ,3 ,4 ,5 };
4.     fun1(ref arr);
5.     Console.ReadLine();
6. }
7. static void fun1(ref int[] array)
8. {
9.     for (int i = 0; i < array.Length; i++)
10.    {
11.        array[i] = array[i] + 5;
12.        Console.WriteLine(array[i] + " ");
13.    }
14. }
```

6. Select the wrong statement about ‘ref’ keyword in C#?

a) References can be called recursively

b) The ‘ref’ keyword causes arguments to be passed by reference

- c) When ‘ref’ are used, any changes made to parameters in method will be reflected in variable when control is passed back to calling method  
d) All of above mentioned

[View Answer](#)

Answer: a

Explanation: None.

---

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int[] arr = new int[] {1 ,2 ,3 ,4 ,5 };
4.     fun1(ref arr);
5.     Console.ReadLine();
6. }
7. static void fun1(ref int[] array)
8. {
9.     for (int i = 0; i < array.Length; i++)
10.    {
11.        array[i] = array[i] + 5;
12.        Console.WriteLine(array[i] + " ");
13.    }
14. }
```

7. Select correct differences between ‘=’ and ‘==’ in C#.

- a) ‘==’ operator is used to assign values from one variable to another variable  
‘=’ operator is used to compare value between two variables  
b) ‘=’ operator is used to assign values from one variable to another variable  
‘==’ operator is used to compare value between two variables  
c) No difference between both operators  
d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: None.

---

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int[] arr = new int[] {1 ,2 ,3 ,4 ,5 };
4.     fun1(ref arr);
5.     Console.ReadLine();
6. }
7. static void fun1(ref int[] array)
```

```
8.  {
9.      for (int i = 0; i < array.Length; i++)
10.     {
11.         array[i] = array[i] + 5;
12.         Console.WriteLine(array[i] + " ");
13.     }
14. }
```

- a) It is zero
- b) It is not zero
- c) Infinite loop
- d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: The operator '=' used is not comparison operator it is assignment operator. Since value assigned to 'X' = 0. So, '0' value is stored in 'X' and with the help of if condition implementation it is converted to 'false' which directly means It is not zero but '1' which means 'true'.

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int[] arr = new int[] {1, 2, 3, 4, 5};
4.     fun1(ref arr);
5.     Console.ReadLine();
6. }
7. static void fun1(ref int[] array)
8. {
9.     for (int i = 0; i < array.Length; i++)
10.    {
11.        array[i] = array[i] + 5;
12.        Console.WriteLine(array[i] + " ");
13.    }
14. }
```

- a) 12
- b) 6
- c) 18
- d) Compile time error

[View Answer](#)

Answer: c

Explanation: X\*=X/Y.

X=x\*(X/Y).

Output:

18.

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int[] arr = new int[] {1 ,2 ,3 ,4 ,5 };
4.     fun1(ref arr);
5.     Console.ReadLine();
6. }
7. static void fun1(ref int[] array)
8. {
9.     for (int i = 0; i < array.Length; i++)
10.    {
11.        array[i] = array[i] + 5;
12.        Console.WriteLine(array[i] + " ");
13.    }
14. }
```

- a) 4 2
- b) 0 4
- c) 4 0
- d) None of mentioned

[View Answer](#)

Answer: c

Explanation:  $x = x - b$  and  $b = b/(x*b)$ .

Output:

4 0

3. Select the output for the following set of code :

```
1. static void Main(string[] args)
2. {
3.     int[] arr = new int[] {1 ,2 ,3 ,4 ,5 };
4.     fun1(ref arr);
5.     Console.ReadLine();
6. }
7. static void fun1(ref int[] array)
8. {
9.     for (int i = 0; i < array.Length; i++)
10.    {
```

```
11.         array[i] = array[i] + 5;  
12.         Console.WriteLine(array[i] + " ");  
13.     }  
14. }
```

11. What is output for the following set of expression?

int a+= (float) b/= (long)c.

- a) float
- b) int
- c) long
- d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: None.

---

3. Select the output for the following set of code :

```
1. static void Main(string[] args)  
2. {  
3.     int[] arr = new int[] {1 ,2 ,3 ,4 ,5 };  
4.     fun1(ref arr);  
5.     Console.ReadLine();  
6. }  
7. static void fun1(ref int[] array)  
8. {  
9.     for (int i = 0; i < array.Length; i++)  
10.    {  
11.        array[i] = array[i] + 5;  
12.        Console.WriteLine(array[i] + " ");  
13.    }  
14. }
```

a) 8 2 32

b) 32 4 8

c) 32 2 8

d) Compile time error

[View Answer](#)

Answer: d

Explanation: Exception handling error of dividing by zero.

---

3. Select the output for the following set of code :

```
1. static void Main(string[] args)  
2. {
```

```
3.     int[] arr = new int[] {1 ,2 ,3 ,4 ,5 };
4.     fun1(ref arr);
5.     Console.ReadLine();
6. }
7. static void fun1(ref int[] array)
8. {
9.     for (int i = 0; i < array.Length; i++)
10.    {
11.        array[i] = array[i] + 5;
12.        Console.WriteLine(array[i] + " ");
13.    }
14. }
```

- a) 8 2 32
- b) 32 4 8
- c) 32 2 8
- d) Compile time error

[View Answer](#)

Answer: c

Explanation:  $x /= b /= C$  is  $x = x * c / b$ .

Output:

32 2 8.

## C# Questions & Answers – Methods in Class

---

3. What is output of the code?

```
1. static void Main(string[] args)
2. {
3.     Mul();
4.     m();
5.     Console.ReadLine();
6. }
7. static void Mul()
8. {
9.     Console.WriteLine("4");
10. }
11. static void m()
12. {
13.     Console.WriteLine("3");
14.     Mul();
15. }
```

- a) 125 25
- b) 25 125
- c) Compile time error
- d) 0 0

[View Answer](#)

Answer: b

Explanation: The value of variable a is passed by value while value of variable s and c is passed by reference.

Output:

25 125.

---

3. What is output of the code?

```
1. static void Main(string[] args)
2. {
3.     Mul();
4.     m();
5.     Console.ReadLine();
6. }
7. static void Mul()
8. {
```

```
9.     Console.WriteLine("4");  
10. }  
11. static void m()  
12. {  
13.     Console.WriteLine("3");  
14.     Mul();  
15. }
```

2. Which of following statements are correct about functions?

- a) C# allows a function to have arguments with default values
- b) Redefining a method parameter in the method's body causes an exception
- c) C# allows function to have arguments with default values
- d) Omitting the return type in method definition results into exception

[View Answer](#)

Answer: a

Explanation: None.

---

3. What is output of the code?

```
1. static void Main(string[] args)  
2. {  
3.     Mul();  
4.     m();  
5.     Console.ReadLine();  
6. }  
7. static void Mul()  
8. {  
9.     Console.WriteLine("4");  
10. }  
11. static void m()  
12. {  
13.     Console.WriteLine("3");  
14.     Mul();  
15. }
```

- a) 4 3 3
- b) 4 4 3
- c) 4 3 4
- d) 3 4 4

[View Answer](#)

Answer: c

Explanation: First Mul() will be executed to print the number '4' after that function m() will be executed to print the number '3' and at last mentioned function Mul() will be executed to print the statement 4 to return the output as 4 3 4.

Output:

4 3 4.

---

3. What is output of the code?

```
1. static void Main(string[] args)
2. {
3.     Mul();
4.     m();
5.     Console.ReadLine();
6. }
7. static void Mul()
8. {
9.     Console.WriteLine("4");
10. }
11. static void m()
12. {
13.     Console.WriteLine("3");
14.     Mul();
15. }
```

- a) HI HI HI  
b) HI  
c) Stack overflow exception  
d) Compile time error

[View Answer](#)

Answer: c

Explanation: Control of statement when enters for once in m() does not go out, then it executes again and again inside the block until stack overflow exception occurs.

---

3. What is output of the code?

```
1. static void Main(string[] args)
2. {
3.     Mul();
4.     m();
5.     Console.ReadLine();
6. }
7. static void Mul()
8. {
9.     Console.WriteLine("4");
```

```
10. }
11. static void m()
12. {
13.     Console.WriteLine("3");
14.     Mul();
15. }
```

[View Answer](#)

Answer: b

Explanation: Correct way of declaration of function is defined as return\_type name of function(return type).

---

3. What is output of the code?

```
1. static void Main(string[] args)
2. {
3.     Mul();
4.     m();
5.     Console.ReadLine();
6. }
7. static void Mul()
8. {
9.     Console.WriteLine("4");
10. }
11. static void m()
12. {
13.     Console.WriteLine("3");
14.     Mul();
15. }
```

a) 35.78

10

b) 10

35.00

c) 10

35.78

d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: ‘int’ datatype is sub datatype of ‘double’. Hence, when first part of func() is executed it is integer part and hence when second part is executed it is double.

Output:

advertisement

35.78

---

3. What is output of the code?

```
1. static void Main(string[] args)
2. {
3.     Mul();
4.     m();
5.     Console.ReadLine();
6. }
7. static void Mul()
8. {
9.     Console.WriteLine("4");
10. }
11. static void m()
12. {
13.     Console.WriteLine("3");
14.     Mul();
15. }
```

7. How many values does a function return?

- a) 0
- b) 2
- c) 1
- d) any number of values

[View Answer](#)

Answer: c

Explanation: A method can return only either single value or no value if no then it's declared as void method();

---

3. What is output of the code?

```
1. static void Main(string[] args)
2. {
3.     Mul();
4.     m();
5.     Console.ReadLine();
6. }
7. static void Mul()
8. {
9.     Console.WriteLine("4");
10. }
```

```
11. static void m()
12. {
13.     Console.WriteLine("3");
14.     Mul();
15. }
```

- a) hi hi
- b) hi
- c) Stack overflow exception
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: If loop never gets over, it will execute continuously. The control never goes out of 'if' statement.

Output:

hi

.

.

stack overflow exception

---

3. What is output of the code?

```
1. static void Main(string[] args)
2. {
3.     Mul();
4.     m();
5.     Console.ReadLine();
6. }
7. static void Mul()
8. {
9.     Console.WriteLine("4");
10. }
11. static void m()
12. {
13.     Console.WriteLine("3");
14.     Mul();
15. }
```

9. Which return statement correctly returns the output:

- a) public int cube(int x)  
{  
return (x + x);  
}  
b) public int cube(int x)  
return (x + x);

c) public int cube(int x)  
{  
return x + x;  
}  
d) None of mentioned

[View Answer](#)

Answer: a

Explanation: The correct syntax of return statement is defined within block of statements as { return(statement);}.

3. What is output of the code?

```
1. static void Main(string[] args)  
2. {  
3.     Mul();  
4.     m();  
5.     Console.ReadLine();  
6. }  
7. static void Mul()  
8. {  
9.     Console.WriteLine("4");  
10. }  
11. static void m()  
12. {  
13.     Console.WriteLine("3");  
14.     Mul();  
15. }
```

- a) Compile time error  
b) hi  
c) hi infinite times  
d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: invalid definition of function p() inside main().

## C# Questions & Answers – Constructors in Class

---

1. Which operator among the following signifies the destructor operator?

- a) ::
- b) :
- c) ~
- d) &

[View Answer](#)

Answer: c

Explanation: None.

---

2. The method called by clients of a class to explicitly release any resources like network, connection, open files etc. When the object is no longer required?

- a) Finalize()
- b) End()
- c) Dispose()
- d) Close()

[View Answer](#)

Answer: c

Explanation: Dispose() is only method called by clients of a class to explicitly release any resource like network connection, open files etc. when object is no longer required. Hence, Dispose() provides programmer with such programming control.

---

3. Name a method which has the same name as that of class and which is used to destroy objects also called automatically when application is finally on process of being getting terminated.

- a) Constructor
- b) Finalize()
- c) Destructor
- d) End

[View Answer](#)

Answer: c

Explanation: Definition of destructor.

---

4. Which of the following statements are correct?

- a) There is one garbage collector per program running in memory
- b) There is one common garbage collector for all programs
- c) To garbage collect an object set all references to it as null
- d) Both There is one common garbage collector for all programs & To garbage collect an object set all references to it as null

[View Answer](#)

Answer: d

Explanation: None.

---

5. Operator used to free the memory when memory is allocated ?

- a) new
- b) free
- c) delete
- d) none of the mentioned

[View Answer](#)

Answer: c

Explanation: 'New' is used to allocate memory in the constructors. Hence, we should use 'delete' to free that memory.

---

6. Select wrong statement about destructor in C#?

- a) A class can have one destructor only
- b) Destructors cannot be inherited or overloaded
- c) Destructors can have modifiers or parameters
- d) All of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

---

- a) 0 0
- b) 10.5 0
- c) Compile time error
- d) 10.5 5.5

[View Answer](#)

Answer: d

Explanation: First constructor ‘sample’ is called and hence then destructor ‘~sample’ is evaluated.

Output :

10.5, 5.5

---

8. What is the return type of destructor ?

- a) int
- b) void
- c) float
- d) none of the mentioned

[View Answer](#)

Answer: d

Explanation: Destructors do not have any return type not even void.

---

- a) 0
- b) 180
- c) Compile time error
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: We cannot use any kind of modifier with destructor.

---

- a) 0
- b) Code executes successfully but prints nothing
- c) Compile time error
- d) 180

[View Answer](#)

Answer: d

Explanation: None.

Output:

180.

## C# Questions & Answers – Array and Initialization

```
1. int[][]a = new int[2][];  
2. a[0] = new int[3]{3, 4, 2};  
3. a[1] = new int[2]{8, 5};  
4. foreach( int[]i in a)  
5. {  
6. /* add for loop */  
7. console.write( j+ " ");  
8. console.writeline();  
9. }
```

- a) 0,0,0 4,4,4 8,8,8  
b) 4,4,4 8,8,8 12,12,12  
c) 8,8,8 12,12,12 16,16,16  
d) 0,0,0 1,1,1, 2,2,2

[View Answer](#)

Answer: a

Explanation: Since, with each value of 'i' the value of 'j' is executed three times i.e  
for i = 0, j = 0, 0, 0, i = 1, j = 2, 2, 2.

Output:

0, 0, 0 4, 4, 4 8, 8, 8.

```
1. int[][]a = new int[2][];  
2. a[0] = new int[3]{3, 4, 2};  
3. a[1] = new int[2]{8, 5};  
4. foreach( int[]i in a)  
5. {  
6. /* add for loop */  
7. console.write( j+ " ");  
8. console.writeline();  
9. }
```

- a) M L  
b) U L  
c) L M  
d) A B

[View Answer](#)

Answer: c

Explanation: “++” increments the value of character by 1. A and B are given values K and 76, when we use increment operator their values increments by 1, A and B becomes L and M.

Output:

L, M.

```
1. int[][]a = new int[2][];  
2. a[0] = new int[3]{3, 4, 2};  
3. a[1] = new int[2]{8, 5};  
4. foreach( int[]i in a)  
5. {  
6. /* add for loop */  
7. console.write( j+ " ");  
8. console.writeline();  
9. }
```

- a) foreach (int j = 1;(j<)(a(0).GetUpperBound)); (j++);
- b) foreach (int j = 1;(j<)(a.GetUpperBound(0))); (j++);
- c) foreach (int j in a.Length);
- d) foreach (int j in i);

[View Answer](#)

Answer: d

Explanation: None.

```
1. int[][]a = new int[2][];  
2. a[0] = new int[3]{3, 4, 2};  
3. a[1] = new int[2]{8, 5};  
4. foreach( int[]i in a)  
5. {  
6. /* add for loop */  
7. console.write( j+ " ");  
8. console.writeline();  
9. }
```

- a) 98
- b) 89
- c) 88
- d) 84

[View Answer](#)

Answer: b

Explanation: Type casting a larger variable into a smaller variable results in modules of larger variable by range of smaller variable. a is '345.09' which is larger than byte range ie -128 to 127.

Output :

89.

```
1. int[][]a = new int[2][];  
2. a[0] = new int[3]{3, 4, 2};
```

```
3. a[1] = new int[2]{8, 5};  
4. foreach( int[]i in a)  
5. {  
6. /* add for loop */  
7. console.write( j+ " ");  
8. console.writeline();  
9. }
```

5. Which statement is correct about following c#.NET code ?

- int[] a= {11, 3, 5, 9, 6};  
a) ‘a’ is a reference to the array created on stack  
b) ‘a’ is a reference to an object created on stack  
c) ‘a’ is a reference to an object of a class that compiler derives from ‘System.Array’ class  
d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: A perfect way of defining single array in C# which is derived automatically from class ‘System.Array’.

```
1. int[][]a = new int[2][];  
2. a[0] = new int[3]{3, 4, 2};  
3. a[1] = new int[2]{8, 5};  
4. foreach( int[]i in a)  
5. {  
6. /* add for loop */  
7. console.write( j+ " ");  
8. console.writeline();  
9. }
```

6. What is the advantage of using 2D jagged array over 2D rectangular array?

- a) Easy initialization of elements  
b) Allows unlimited elements as well as rows which had ‘0’ or are empty in nature  
c) All of the mentioned  
d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: In many applications where 2 dimensional arrays are used,not all rows need to have all the elements i.e they are sparse.Many rows have 0 elements.In such cases it is better to use 2D jagged arrays as they allow unequal number of elements in each row and also allow for empty rows.

```
1. int[][]a = new int[2][];  
2. a[0] = new int[3]{3, 4, 2};  
3. a[1] = new int[2]{8, 5};  
4. foreach( int[]i in a)  
5. {
```

```
6. /* add for loop */  
7. console.write( j+ " ");  
8. console.writeline();  
9. }
```

7. Which statement is correct about following set of code ?

- int[, ]a={{5, 4, 3},{9, 2, 6}};  
a)'a' represents 1-D array of 5 integers  
b) a.GetUpperBound(0) gives 9  
c)'a' represents rectangular array of 2 columns and 3 arrays  
d) a.GetUpperBound(0) gives 2

[View Answer](#)

Answer: c

Explanation: By definition.

---

```
1. int[][]a = new int[2][];  
2. a[0] = new int[3]{3, 4, 2};  
3. a[1] = new int[2]{8, 5};  
4. foreach( int[]i in a)  
5. {  
6. /* add for loop */  
7. console.write( j+ " ");  
8. console.writeline();  
9. }
```

- a) Compile time error  
b) Run time error  
c) Code runs successfully but prints nothing  
d) Code runs successfully and prints given on console

[View Answer](#)

Answer: d

Explanation: Object 'p' makes a call to invoke function display() and hence consecutively prints the output. Array 'a' is declared with elements again object 'p' makes a call to display() and hence, consecutively prints the output with given elements.

Output:

```
ARRAY IS HAVING:2  
ARRAY IS HAVING:3  
ARRAY IS HAVING:8  
elements added are:  
ARRAY IS HAVING:2  
ARRAY IS HAVING:2  
ARRAY IS HAVING:56  
ARRAY IS HAVING:78  
ARRAY IS HAVING:66
```

---

```
1. int[][]a = new int[2][];  
2. a[0] = new int[3]{3, 4, 2};  
3. a[1] = new int[2]{8, 5};
```

```
4. foreach( int[] i in a)
5. {
6. /* add for loop */
7. console.write( j+ " ");
8. console.writeline();
9. }
```

9. Which is the correct way of defining and initializing an array of 3 integers?

- a) int[] a={78, 54};
- b) int[] a;
- c) a = new int[3];  
a[1] = 78;  
a[2] = 9;  
a[3] = 54;
- d) int[] a;  
a = new int[3]{78, 9, 54};

[View Answer](#)

Answer: d

Explanation: None.

```
1. int[][] a = new int[2][];
2. a[0] = new int[3]{3, 4, 2};
3. a[1] = new int[2]{8, 5};
4. foreach( int[] i in a)
5. {
6. /* add for loop */
7. console.write( j+ " ");
8. console.writeline();
9. }
```

10. Choose selective differences between an array in c# and array in other programming languages.

- a) Declaring array in C# the square bracket([]) comes after the type but not after identifier
- b) It is necessary to declare size of an array with its type
- c) No difference between declaration of array in c# as well as in other programming languages
- d) All of the mentioned

[View Answer](#)

Answer: a

Explanation:

1. When declaring an array in C#, the square brackets ([]) come after the type, not the identifier. Brackets after the identifier is not legal syntax in C#.

example :

```
int[] IntegerArray;
```

2. The size of the array is not part of its type as it is in the C language. This allows to declare an array and assign any array of int objects to it, regardless of the array's length.

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```
int[] IntegerArray;  
IntegerArray = new int[10];  
IntegerArray = new int[50];
```

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## C# Questions & Answers – Basic Operation on Strings

---

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0;i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

1. Which of the following string() method are used to compare two strings with each other?

- a) CopyTo()
- b) Copy()
- c) Compare()
- d) CompareTo()

[View Answer](#)

Answer: b

Explanation: Creates a new string by copying one string to another.

---

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0;i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

2. Choose the base class for string() method :

- a) System.Array
- b) System.char
- c) System.String
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: String is an alias for the predefined “System.string” class from which most of the string() methods are derived.

---

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0;i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

a) Csharp

b) CsharpP

c) Csharp

d) Cshrap

[View Answer](#)

Answer: c

Explanation: Insertion of character ‘a’ at position ‘3’ using insert() which returns a new string with a substring inserted at a specified location.  
Output:

Csharp

---

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0;i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

4. Which of the following statement is correct about a string in C#.NET?

a) The System.Array class is used to represent a string

b) A string has a zero-based index

c) A number cannot be represented in the form of a string

d) A string is mutable because it can be modified once it has been created

[View Answer](#)

Answer: b

Explanation: None.

---

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0;i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

a) Equal

Unequal

b) Unequal

Equal

c) Equal

Equal

d) Unequal

Unequal

[View Answer](#)

Answer: d

Explanation: In first comparison it is being checked either two strings are equal or not but in second comparison it is checked whether two references are equal or not.

Output:

```
Unequal
Unequal
```

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0;i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

a) HelloILoveComputerScience

b) Hello I Love ComputerScience

c) Compile time error

d) Hello

[View Answer](#)

Answer: b

Explanation: Here '+' defined operator works as concatenation for strings.

Output :

Hello I Love ComputerScience.

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0;i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

7. Correct way to find if contents of two strings are equal ?

- a) if(s1 == s2)
- b) if(s1 != s2)
- c) if(strcmp (s1 ,s2))
- d) if( s1 is s2)

[View Answer](#)

Answer: c

Explanation: “==” operator used to compare length of two strings and strcmp() is the inbuilt method derived from string class.

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0;i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

8. Which of the following statements are correct?

- a) String is value type
- b) String literals can contain any character literal including escape sequences
- c) The equality operators are defined to compare values of string objects as well as references
- d) All of the mentioned

[View Answer](#)

Answer: b

Explanation: None

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0;i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

9. Which of these operators can be used to concatenate two or more String objects?

- a) +
- b) +=
- c) &
- d) ||

[View Answer](#)

Answer: a

Explanation:

```
string s1 = "Hello"+ " I " + "Love" + " ComputerScience ";
Console.WriteLine(s1);
Hello I Love ComputerScience.
```

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0;i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

10. The Method use to remove white space from string?

- a) Split()
- b) Substring()
- c) Trim()
- d) TrimStart()

[View Answer](#)

Answer: c

Explanation: Perfectly removes a whitespace from string whereas TrimStart() removes a string of characters from the end of the string.

## C# Questions & Answers – String Class with Description

---

1. What is the String in C# meant for?

- a) Variable
- b) Character Array
- c) Object
- d) Class

[View Answer](#)

Answer: c

Explanation: C# Supports a predefined reference type known as string. When we declare a string using string type we are declaring the object to be of type “System.String”.

---

2. What does the term ‘immutable’ means in term of string objects?

- a) We can modify characters included in the string
- b) We cannot modify characters contained in the string
- c) We cannot perform various operation of comparison, inserting, appending etc
- d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: String objects are ‘immutable’ means we cannot modify the characters contained in string. Also operation on string produce a modified version of string rather than modifying characters of string.

---

3. To perform comparison operation on strings supported operations are :

- a) Compare()
- b) Equals()
- c) Assignment ‘==’ operator
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

---

- a) I
- b) Hello I
- c) Love
- d) H

[View Answer](#)

Answer: d

Explanation: ‘I’ = index position[6] , ‘l’ = index position[2]. So,  $I - l = 6 - 2 = 4 * (\text{index position of } p = 18) = 72$ . Character with ASCII Value 72 = ‘H’.

Output : H

---

5. Correct way to convert a string to uppercase using string class method()?

- a) Upper()
- b) ToUpper()
- c) Object.ToUpper()
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: string s1 = “Hello I Love Csharp”;  
Console.WriteLine(s1.ToUpper());

Output: HELLO I LOVE CSHARP.

---

- a) True True
- b) False False
- c) True 0
- d) False 1

[View Answer](#)

Answer: c

Explanation: Equal() checks if two string objects ‘obj’ and ‘obj2’ are equal or not and hence returns true or false. Similarly, “CompareTo” operator check two objects and since string obj2 = obj, it returns bool value ‘0’. Hence, they are equal.

Output :

True 0

---

- a) hello world
- 10
- b) hello world
- 6
- c) hello world
- 11
- d) hello world
- 5

[View Answer](#)

Answer: c

Explanation: Length() method calculates number of characters in a string . ‘Obj2’ assumes the value of object ‘obj’ in itself.

Output:

hello world  
11

---

- a) 7
- b) 8
- c) 9
- d) 10

[View Answer](#)

Answer: b

Explanation: IndexOf() used to find absolute position of a character of substring.

Output:

advertisement

8

---

- a) hello
- b) orld
- c) world
- d) o world

[View Answer](#)

Answer: c

Explanation: ‘Substring()’ extract substrings from a given string using overloaded substring() method provided by string class.

Output:

world

---

- a) hello hello
- b) hello worn
- c) hello corn
- d) hello

[View Answer](#)

Answer: c

Explanation: Replace() method provided by string builder class is used to replace characters.

Output:

```
hello corn
```

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## C# Questions & Answers – Comparison of Strings

---

1. Which of these methods of class String is used to compare two String objects for their equality?

- a) equals()
- b) Equals()
- c) isequal()
- d) Isequal()

[View Answer](#)

Answer: a

Explanation: None.

---

2. Which of these methods is used to compare two strings such that after comparison output returns different integer values as ( 0 for false, 1 for true)?

- a) Equals ()
- b) === operator
- c) Compare()
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: The comparison is case sensitive in nature and hence different integer values are returned for different conditions as under :

1. zero integer (0), if string s1 equal to string s2.
  2. positive integer(+1) , if string s1 greater than s2.
  3. Negative integer(-1) , if string s1 is less than s2.
- 

3. Which of these methods of class String is used to check whether a substring exists at the beginning of the particular string?

- a) StartsWith()
- b) EndsWith()
- c) Starts()
- d) ends()

[View Answer](#)

Answer: a

Explanation: Method startswith() of string class is used to check whether a substring exists in the beginning of string or not.

---

4. Which of these methods returns the string such that some characters which are specified to be removed from the end of strings are removed from string by mentioning the number of characters to be removed?

- a) Trim()
- b) Remove()
- c) TrimEnd()
- d) Split()

[View Answer](#)

Answer: a

Explanation: Removes a string of characters from the end of string by mentioning the number of characters to be removed from the string.

---

5. What is the value returned by function compareTo() if the invoking string is less than the string compared?

- a) zero
- b) value less than zero
- c) value greater than zero
- d) none of the mentioned

[View Answer](#)

Answer: b

Explanation: compareTo() function returns zero when both the strings are equal, it returns a value less than zero if the invoking string is less than the other string being compared and value greater than zero when invoking string is greater than the string compared to.

6. Which of these data type values is returned by equals() method of String class?

- a) char
- b) int
- c) boolean
- d) all of the mentioned

[View Answer](#)

Answer: c

Explanation: equals() method of string class returns boolean value true if both the strings are equal and false if they are unequal.

- a) true
- b) false
- c) 0
- d) 1

[View Answer](#)

Answer: b

Explanation: StartsWith() method is case sensitive “i” and “I” are treated differently, hence false is stored in a.

Output:

```
false
```

- a) true true
- b) false false
- c) true false
- d) false true

[View Answer](#)

Answer: a

Explanation: The ‘==’ operator tests the equality of strings and since s1 = “I love You” and also s2 = s1 .So, true is returned .Similarly, Equals() returns true

since the content of both s1 and s2 are equal in nature.

Output :

```
advertisement
```

```
true true
```

- a) zx
- b) xy
- c) zy
- d) yz

[View Answer](#)

Answer: c

Explanation: compareTo() function returns zero when both the strings are equal, it returns a value less than zero if the invoking string is less than the other string being compared and value greater than zero when invoking string is greater than the string compared To.

Output :

```
zy
```

- a) 0
- b) 1
- c) -2

d) -1

[View Answer](#)

Answer: d

Explanation: Negative integer -1 is returned as 'a' is less than 'b' by CompareTo() method.

Output :

-1

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## C# Questions & Answers – Searching and Modifying Strings

---

1. Which of these methods of class String is used to separate a substring from a String object?

- a) substring()
- b) Substring()
- c) SubString()
- d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: None.

---

- a) IloveCSHARP
- b) I loveCSHARP
- c) Ilove
- d) Ilove CSHARP

[View Answer](#)

Answer: d

Explanation: Concat() method is used to join two strings without the use of '+' operator .

Output :

Ilove CSHARP

---

3. Which of these methods of class are used to remove the leading and backward whitespaces?

- a) startsWith()
- b) trim()
- c) Trim()
- d) doTrim()

[View Answer](#)

Answer: c

Explanation: None.

---

- a) Ilove CSHARP
- b) love CSHARP
- c) ve CSHARP
- d) ve CSARP

[View Answer](#)

Answer: c

Explanation: trimstart() removes character mentioned consecutively in front positions not characters in mentioned in between positions.

Output :

ve CSHARP

---

- a) "Hello Computer"
- b) "HelloComputer"
- c) "Hello Computer"
- d) Hello Computer

[View Answer](#)

Answer: c

Explanation: Trim() method is used to remove forward and backward spaces in strings.

Output :

"Hello Computer"

- a) "Hello Bye"
- b) "HelloBye"
- c) Hello Bye
- d) HelloBye

[View Answer](#)

Answer: d

Explanation: '+' operator method works in the form of concatenate method() and hence is used to join two strings together.

Output :

advertisement

HelloBye

- a) Helloll
- b) Hewlo
- c) Helwo
- d) Hewwo

[View Answer](#)

Answer: d

Explanation: None.

Output :

Hewwo

8. Which of the following statements is correct?

- a) replace() method replaces last occurrence of a character in invoking strings with another character
- b) replace() method replaces only first occurrence of a character in invoking strings with another character
- c) replace() method replaces all occurrences of one character in invoking strings with another character
- d) none of the mentioned

[View Answer](#)

Answer: c

Explanation: By definition.

- a) ove
- b) you
- c) yo
- d) love you

[View Answer](#)

Answer: c

Explanation: None.

Output :

yo

d) None of the mentioned [View Answer](#)

Answer: c

Explanation:

```
static void Main(string[] args)
{
    String c = "She sold her beauty in one night to someone else";
```

```
int i,j;  
  
i = c.IndexOf("s");  
j = c.IndexOf("s", i + 1);  
Console.WriteLine(i + " " + j);  
Console.ReadLine();  
}  
Output : 4, 36
```

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## C# Questions & Answers – Operation on Characters

---

1. Which of these methods of the class String is used to obtain length of String object?

- a) get()
- b) Sizeof()
- c) lengthof()
- d) length()

[View Answer](#)

Answer: d

Explanation: Method length() of string class is used to get the length of the object as string.Length and hence invokes the length() method.

---

2. Which of these methods is an alternative to getChars() that stores the characters in an array of bytes?

- a) getBytes()
- b) GetByte()
- c) giveByte()
- d) Give Bytes()

[View Answer](#)

Answer: a

Explanation: getBytes() stores the character in an array of bytes. It uses default character to byte conversions.

---

3. Which of these methods can be used to convert all characters in a String into a character array?

- a) CharAt()
- b) getChars()
- c) TocharArray()
- d) All of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

---

- a) x
- b) xy
- c) z
- d) xyz

[View Answer](#)

Answer: d

Explanation: String(chars) is a constructor of class string, it initializes string s with the values stored in character array chars, therefore s contains "xyz".

Output :

xyz

---

- a) Insert()
- b) Add()
- c) Append()
- d) Join()

[View Answer](#)

Answer: c

Explanation:

```
static void Main(string[] args)
{
```

```
StringBuilder s = new StringBuilder("object");
s.Append("Oriented Language");
Console.WriteLine(s);
Console.ReadLine();
}
Output : objectOriented Language
```

---

- a) 3 5 7
- b) 4 5 6
- c) 3 9 6
- d) 2 4 6

[View Answer](#)

Answer: c

Explanation: indexOf('l') and lastIndexOf('o') are pre defined functions which are used to get the index of first and last occurrence of the character pointed by l and o respectively in the given array.

Output :

3, 9, 6

---

7. Which of these methods of class String is used to extract all the characters from a String object?

- a) CHARAT()
- b) Remove()
- c) charAt()
- d) Replace()

[View Answer](#)

Answer: b

Explanation: Replace() replaces all instances of a character with a new character while Remove extracts characters from the string.

---

- a) ello
- b) h
- c) hell
- d) none of the mentioned

[View Answer](#)

Answer: b

Explanation: The remove() deletes characters from the string except the character which is specified with its given position.

Output :

h

---

9. How is a string typically processed?

- a) On a character by character basis
- b) On a string by string basis
- c) Both On a character by character basis & On a string by string basis
- d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: None.

---

10. How to print \\ on the screen?

- a) Console.WriteLine("\\");
- b) Console.WriteLine("\\\\");
- c) Console.WriteLine("\\\\");
- d) Console.WriteLine("\\\\\\");

[View Answer](#)

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Answer: c

Explanation : `Console.WriteLine("\\\"");`

Output :

\\

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## C# Questions & Answers – Public & Private Access Modifier

---

1. Which of these is used as a default specifier for a member of the class if no access specifier is used for it?
- a) private
  - b) public
  - c) public, within its own class
  - d) protected

[View Answer](#)

Answer: a

Explanation: By definition if a class has no access specifiers,it defaults to private accessibility.

---

2. Which of these is used to access members of class before the object of that class is created?
- a) public
  - b) private
  - c) static
  - d) protected

[View Answer](#)

Answer: c

Explanation: None.

---

3. Which of these base classes are accessible to the derived class members?
- a) static
  - b) protected
  - c) private
  - d) Shared

[View Answer](#)

Answer: b

Explanation: None.

---

4. What is the process by which we can control parts of a program that can access the members of a class?
- a) Polymorphism
  - b) Abstraction
  - c) Encapsulation
  - d) Recursion

[View Answer](#)

Answer: c

Explanation: By definition.

---

- a) 48, 30
- b) 48, 0
- c) 0, 0
- d) Compile time error

[View Answer](#)

Answer: d

Explanation: variable 'y' is not accessible due to its access level.

Output :

Change private y to public y

---

- a) 6, 9

b) 5, 9

c) 9, 10

d) 3, 2

[View Answer](#)

Answer: b

Explanation: Here,  $a = 2$ ,  $a + 1 = 2 + 1 = 3$ .

So,  $a = 2$ ,  $b = 3$ .

$x = 2 + 3 = 5$ .

$y = 5 + 3 = 8$ .

Similarly,  $a = 5$ ,  $b = a + 1 = 4$ .

$y = 5 + 4 = 9$ .

Output :

5, 9.

a) 10, 20

b) 20, 10

c) 40, 12

d) 5, 40

[View Answer](#)

Answer: c

Explanation: `t.sum(t)` sends object 't' as parameter whose variables `a` & `b` are multiplied and added by 2 respectively by `sum()` function of class `math`. Hence, `a` & `b` become 40 and 12 respectively.

Output :

40, 12

8. Accessibility modifier defined in a class are?

a) public, private, protected

b) public, internal, protected internal.

c) public, private, internal, protected internal.

d) public, private, protected, internal, protected internal

[View Answer](#)

Answer: d

Explanation: None.

9. Choose the statements which are false in nature:

a) The base class member functions can access public member functions of derived class

b) An object of a derived class cannot access private member of the base class

c) Private members of the base class cannot be accessed by derived class member functions or objects of derived class

d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: None.

10. Which of these access specifiers must be used for `main()` method?

a) private

b) public

c) protected

d) none of the mentioned

[View Answer](#)

Answer: a

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Explanation: By default main() is declared private if no other access specifier is used for it.

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## C# Questions & Answers – Use of Ref and Out Parameters

---

3. What will be the output for the given set of code?

```
1. static void main(string[] args)
2. {
3.     int n = 1;
4.     method(n);
5.     console.WriteLine(n);
6.     method1(ref n);
7.     console.WriteLine(n);
8. }
9. static void method(int num)
10. {
11.     num += 20;
12.     console.WriteLine(num);
13. }
14. static void method1(ref int num)
15. {
16.     num += 20;
17.     console.WriteLine(num);
18. }
```

a) 36, 10

b) 10, 36

c) 0, 0

d) 36, 0

[View Answer](#)

Answer: b

Explanation: Variable ‘i’ is passed as reference parameter declared with ‘ref’ modifier and variable ‘j’ is passed as a output parameter declared with ‘out’ keyword .Reference parameter used to pass value by reference is the same with out parameter.

Output :

10, 36

---

3. What will be the output for the given set of code?

```
1. static void main(string[] args)
2. {
3.     int n = 1;
4.     method(n);
5.     console.WriteLine(n);
```

```
6.     method1(ref n);
7.     console.Writeline(n);
8. }
9. static void method(int num)
10. {
11.     num += 20;
12.     console.writeline(num);
13. }
14. static void method1(ref int num)
15. {
16.     num += 20;
17.     console.writeline(num);
18. }
```

2. Statements about ‘ref’ keyword used in C#.NET are?

- a) The ref keyword causes arguments to be passed by reference
- b) While using ‘ref’ keyword any changes made to the parameter in the method will be reflected in the variable when control is passed back to the calling method
- c) Ref usage eliminates overhead of copying large data items
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

---

3. What will be the output for the given set of code?

```
1. static void main(string[] args)
2. {
3.     int n = 1;
4.     method(n);
5.     console.Writeline(n);
6.     method1(ref n);
7.     console.Writeline(n);
8. }
9. static void method(int num)
10. {
11.     num += 20;
12.     console.writeline(num);
13. }
14. static void method1(ref int num)
```

```
15. {
16.     num += 20;
17.     console.WriteLine(num);
18. }
```

a) 1

1

1

b) 21

1

21

21

c) 11

21

21

11

d) 21

1

21

21

View Answer

Answer: d

Explanation: None.

Output :

21 1 21 21

3. What will be the output for the given set of code?

```
1. static void main(string[] args)
2. {
3.     int n = 1;
4.     method(n);
5.     console.WriteLine(n);
6.     method1(ref n);
7.     console.WriteLine(n);
8. }
9. static void method(int num)
10. {
11.     num += 20;
12.     console.WriteLine(num);
13. }
14. static void method1(ref int num)
15. {
```

```
16.     num += 20;  
17.     console.WriteLine(num);  
18. }
```

- a) Call by reference
- b) Call by value
- c) Output parameter
- d) parameter arrays

[View Answer](#)

Answer: a

Explanation: The following set of code explains swapping of numbers by reference parameters which makes usage of call by reference process.

3. What will be the output for the given set of code?

```
1. static void main(string[] args)  
2. {  
3.     int n = 1;  
4.     method(n);  
5.     console.WriteLine(n);  
6.     method1(ref n);  
7.     console.WriteLine(n);  
8. }  
9. static void method(int num)  
10. {  
11.     num += 20;  
12.     console.WriteLine(num);  
13. }  
14. static void method1(ref int num)  
15. {  
16.     num += 20;  
17.     console.WriteLine(num);  
18. }
```

- a) 0, 0, 32, 0, 0, 0
- b) 0, 24, 0, 32, 0, 0
- c) 24, 0, 32, 0, 0, 0
- d) 0, 0, 32, 0, 0, 0

[View Answer](#)

Answer: b

Explanation: index positions which are assigned the new values are passed as a reference parameter and hence rest positions are filled with zero values.

Output :

```
0 24 0 32 0 0
```

3. What will be the output for the given set of code?

```
1. static void main(string[] args)
2. {
3.     int n = 1;
4.     method(n);
5.     console.WriteLine(n);
6.     method1(ref n);
7.     console.WriteLine(n);
8. }
9. static void method(int num)
10. {
11.     num += 20;
12.     console.WriteLine(num);
13. }
14. static void method1(ref int num)
15. {
16.     num += 20;
17.     console.WriteLine(num);
18. }
```

- a) 4490
- b) 5040
- c) 5400
- d) 3500

[View Answer](#)

Answer: b

Explanation: None.

Output:

5040

---

3. What will be the output for the given set of code?

```
1. static void main(string[] args)
2. {
3.     int n = 1;
4.     method(n);
5.     console.WriteLine(n);
6.     method1(ref n);
7.     console.WriteLine(n);
```

```
8. }
9. static void method(int num)
10. {
11.     num += 20;
12.     console.WriteLine(num);
13. }
14. static void method1(ref int num)
15. {
16.     num += 20;
17.     console.WriteLine(num);
18. }
```

- a) 30, 55
- b) 55, 30
- c) Compile time error
- d) 0, 0

[View Answer](#)

Answer: c

Explanation: Error occurrence as mismatch in parameter of method() definition. Keyword 'ref' should be used with parameter 'p' as ref int p.

3. What will be the output for the given set of code?

```
1. static void main(string[] args)
2. {
3.     int n = 1;
4.     method(n);
5.     console.WriteLine(n);
6.     method1(ref n);
7.     console.WriteLine(n);
8. }
9. static void method(int num)
10. {
11.     num += 20;
12.     console.WriteLine(num);
13. }
14. static void method1(ref int num)
15. {
16.     num += 20;
17.     console.WriteLine(num);
```

18. }

8. Keyword used to define call by reference parameter in C# .NET?

- a) &
- b) out
- c) ref
- d) &&

[View Answer](#)

Answer: c

Explanation: By definition.

---

3. What will be the output for the given set of code?

```
1. static void main(string[] args)
2. {
3.     int n = 1;
4.     method(n);
5.     console.WriteLine(n);
6.     method1(ref n);
7.     console.WriteLine(n);
8. }
9. static void method(int num)
10. {
11.     num += 20;
12.     console.WriteLine(num);
13. }
14. static void method1(ref int num)
15. {
16.     num += 20;
17.     console.WriteLine(num);
18. }
```

- a) ref int a, int b, ref float c
- b) ref int a, ref float c, ref int b
- c) ref int a, ref int b, float c
- d) ref int a, ref int b, ref float c

[View Answer](#)

Answer: d

Explanation: static Void main(string[] args)

```
{  
int a = 5;  
int b = 6;  
float c = 7.2f;  
math(ref a, ref b, ref c);  
console.WriteLine(a + " " + b + " " + c);
```

}

---

3. What will be the output for the given set of code?

```
1. static void main(string[] args)
2. {
3.     int n = 1;
4.     method(n);
5.     console.WriteLine(n);
6.     method1(ref n);
7.     console.WriteLine(n);
8. }
9. static void method(int num)
10. {
11.     num += 20;
12.     console.WriteLine(num);
13. }
14. static void method1(ref int num)
15. {
16.     num += 20;
17.     console.WriteLine(num);
18. }
```

10. Which statement is/are correct?

- a) An argument passed to a ref parameter need not to be initialized first
- b) Variables passed as out arguments need to be initialized prior to being passed
- c) To use a ref parameter, only the calling method must explicitly use the ref keyword
- d) None of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

## C# Questions & Answers – Use of Variable Number of Arguments

---

3. What will be the output for the given set of code ?

```
1. static void Main(string[] args)
2. {
3.     object[] a = {"1", 4.0f, "harsh"};
4.     fun(a);
5.     Console.ReadLine();
6. }
7. static void fun(params object[] b)
8. {
9.     for (int i = 0; i < b.Length - 1; i++)
10.        Console.WriteLine(b[i] + " ");
11. }
```

1. The method in which large or variable number of arguments are handled is known as:

- a) Value parameters
- b) Output parameters
- c) Parameter arrays
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

---

3. What will be the output for the given set of code ?

```
1. static void Main(string[] args)
2. {
3.     object[] a = {"1", 4.0f, "harsh"};
4.     fun(a);
5.     Console.ReadLine();
6. }
7. static void fun(params object[] b)
8. {
9.     for (int i = 0; i < b.Length - 1; i++)
10.        Console.WriteLine(b[i] + " ");
11. }
```

2. The modifiers used to define an array of parameters or list of arguments:

- a) ref
- b) out

c) param

d) var

[View Answer](#)

Answer: c

Explanation: None.

---

3. What will be the output for the given set of code ?

```
1. static void Main(string[] args)
2. {
3.     object[] a = {"1", 4.0f, "harsh"};
4.     fun(a);
5.     Console.ReadLine();
6. }
7. static void fun(params object[] b)
8. {
9.     for (int i = 0; i < b.Length - 1; i++)
10.        Console.WriteLine(b[i] + " " );
11. }
```

a) 1 4.0 harsh

b) 1 4

c) 1 4 hars

d) 1 4 harsh

[View Answer](#)

Answer: d

Explanation: 'a' is declared as array of objects which is passed as a parameter to a single method fun() using variable number of parameters.  
Output :

1 4 harsh

---

3. What will be the output for the given set of code ?

```
1. static void Main(string[] args)
2. {
3.     object[] a = {"1", 4.0f, "harsh"};
4.     fun(a);
5.     Console.ReadLine();
6. }
7. static void fun(params object[] b)
8. {
9.     for (int i = 0; i < b.Length - 1; i++)
10.        Console.WriteLine(b[i] + " " );
```

11. }

4. Which of the following statements are correct?

- a) C SHARP allows a function to have arguments with default values
- b) C SHARP allows a function to have variable number of arguments
- c) Params is used to specify the syntax for a function having arguments
- d) Omitting the return value type in method definition results into an exception

[View Answer](#)

Answer: b

Explanation: None.

---

3. What will be the output for the given set of code ?

```
1. static void Main(string[] args)  
2. {  
3.     object[] a = {" 1 ", 4.0f, " harsh "};  
4.     fun(a);  
5.     Console.ReadLine();  
6. }  
7. static void fun(params object[] b)  
8. {  
9.     for (int i = 0; i < b.Length - 1; i++)  
10.        Console.WriteLine(b[i] + " ");  
11. }
```

a) Compile time error

- b) 3, 4, 7, 8, 5
- c) 3, 4, 7, 8, 5, 1, 2, 3, 4, 5
- d) 4, 6, 10, 12, 5

[View Answer](#)

Answer: d

Explanation: Passing of array parameters declared in main() and hence adding elements of array passed using param to another array k[] declared in fun() method.

Output :

4, 6, 10, 12, 5

---

3. What will be the output for the given set of code ?

```
1. static void Main(string[] args)  
2. {  
3.     object[] a = {" 1 ", 4.0f, " harsh "};  
4.     fun(a);  
5.     Console.ReadLine();  
6. }
```

```
7. static void fun(params object[] b)
8. {
9.     for (int i = 0; i < b.Length - 1; i++)
10.        Console.WriteLine(b[i] + " ");
11. }
```

- a) 1, 2, 3, 4, 5
- b) 5, 10, 15, 20, 25
- c) 5, 25, 125, 625, 3125
- d) 6, 12, 18, 24, 30

[View Answer](#)

Answer: b

Explanation: None.

Output :

```
5, 10, 15, 20, 25.
```

---

3. What will be the output for the given set of code ?

```
1. static void Main(string[] args)
2. {
3.     object[] a = {" 1 ", 4.0f, " harsh "};
4.     fun(a);
5.     Console.ReadLine();
6. }
7. static void fun(params object[] b)
8. {
9.     for (int i = 0; i < b.Length - 1; i++)
10.        Console.WriteLine(b[i] + " ");
11. }
```

- a) Compile time error
- b) 2, 21, 34, 4, 6, 46, 88, 90
- c) 2, 4, 34, 46, 6, 88, 90
- d) 2, 34, 46, 88, 90

[View Answer](#)

Answer: d

Explanation: None.

---

3. What will be the output for the given set of code ?

```
1. static void Main(string[] args)
2. {
3.     object[] a = {" 1 ", 4.0f, " harsh "};
4.     fun(a);
```

```
5.     Console.ReadLine();
6. }
7. static void fun(params object[] b)
8. {
9.     for (int i = 0; i < b.Length - 1; i++)
10.        Console.WriteLine(b[i] + " ");
11. }
```

[View Answer](#)

Answer: d

Explanation: None.

---

3. What will be the output for the given set of code ?

```
1. static void Main(string[] args)
2. {
3.     object[] a = {"1", 4.0f, "harsh"};
4.     fun(a);
5.     Console.ReadLine();
6. }
7. static void fun(params object[] b)
8. {
9.     for (int i = 0; i < b.Length - 1; i++)
10.        Console.WriteLine(b[i] + " ");
11. }
```

a) 67 83 72 65 82 80

b) P R A H S C

c) C S H A R P

d) 80 82 65 72 83 67

[View Answer](#)

Answer: c

Explanation: None.

---

3. What will be the output for the given set of code ?

```
1. static void Main(string[] args)
2. {
3.     object[] a = {"1", 4.0f, "harsh"};
4.     fun(a);
5.     Console.ReadLine();
```

```
6.    }
7. static void fun(params object[] b)
8. {
9.     for (int i = 0; i < b.Length - 1; i++)
10.        Console.WriteLine(b[i] + " ");
11. }
```

- a) A, B, C, D, E, F
- b) F, E, D, C, B, A
- c) f, e, d, c, b
- d) b, c, d, e, f

[View Answer](#)

Answer: c

Explanation: None.

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## C# Questions & Answers – Polymorphism

1. The capability of an object in Csharp to take number of different forms and hence display behaviour as according is known as:

- a) Encapsulation
- b) Polymorphism
- c) Abstraction
- d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: None.

- a) 100 150 1000
- b) 1000 150 1000
- c) 100 150 1000
- d) 100 150 100

[View Answer](#)

Answer: c

Explanation: sample.x = 100

sample.y = 150

variable within scope of main() is x = 1000

Output :

100 150 1000

3. Which of the following keyword is used to change data and behavior of a base class by replacing a member of the base class with a new derived member?

- a) Overloads
- b) Overrides
- c) new
- d) base

[View Answer](#)

Answer: c

Explanation: None.

4. Correct way to overload +operator?

- a) public sample operator + ( sample a, sample b)
- b) public abstract operator + (sample a, sample b)
- c) public static sample operator + (sample a, sample b)
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

- a) The subject class version of a() method gets called using sample class reference which holds subject class object
- b) subject class hides a() method of base class
- c) The code replaces the subject class version of a() with its math class version
- d) None of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

- a) f1() of derived class get executed
- f2() of derived class get executed
- f3() of base class get executed
- b) f1() of base class get executed
- f2() of derived class get executed
- f3() of base class get executed
- c) f1() of base class get executed
- f2() of derived class get executed
- f3() of derived class get executed
- d) f1() of derived class get executed
- f2() of base class get executed
- f3() of base class get executed

[View Answer](#)

Answer: b

Explanation: None.

---

7. Which of the following statements is correct?

- a) Each derived class does not have its own version of a virtual method
- b) If a derived class does not have its own version of virtual method then one in base class is used
- c) By default methods are virtual
- d) All of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

- 
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

---

9. Selecting appropriate method out of number of overloaded methods by matching arguments in terms of number ,type and order and binding that selected method to object at compile time is called?

- a) Static binding
- b) Static Linking
- c) Compile time polymorphism
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

---

10. Wrong statement about run time polymorphism is?

- a) The overridden base method should be virtual,abstract or override
- b) An abstract method is implicitly a virtual method
- c) An abstract inherited property cannot be overridden in a derived class
- d) Both override method and virtual method must have same access level modifier

[View Answer](#)

Answer: c

Explanation: None.

## C# Questions & Answers – Structures

---

- a) New structure can be inherited from struct book
- b) When the program terminates, variable b will get garbage collected
- c) The structure variable ‘b’ will be created on the stack
- d) When the program terminates, variable b will get garbage collected

[View Answer](#)

Answer: c

Explanation: None.

---

- a) trial object referred by z is created on the stack
- b) z is created on the heap
- c) Both s and z will be created on the heap
- d) s will be created on the stack

[View Answer](#)

Answer: d

Explanation: None.

---

3. Choose the correct statement among the following which supports the fact that C# does not allow the creation of empty structures?

- a) C#.NET supports creation of abstract user-defined data types using structures
- b) By having empty structures,it would mean that the new data types have no data associated with, which does not make any sense in C#.NET
- c) Basic reason to create structures is the inability to represent real life objects using standard data types offered by the language
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: Basic definition of structures in C#.NET.

---

4. Choose the correct statement about structures as to why they are defined as value types but not reference types?

- a) Since space required for structure variables is allocated on stack which is a form of memory that is automatically available when a variable to be used is in scope.
- b) Structures generally are used to represent user defined data types that consists of small amount of data in them.Hence using stack for declaration of such variables is not a problem.
- c) All of the mentioned
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

---

5. Choose the wrong statement about structures in C#.NET?

- a) Structures can be declared within a procedure
- b) Structures can implement an interface but they cannot inherit from another structure
- c) Structure members cannot be declared as protected
- d) A structure cannot be empty

[View Answer](#)

Answer: a

Explanation: None.

---

- a) abc e = new abc();
- b) abc();
- c) abc e;

e = new abc;  
d) abc e = new abc;  
[View Answer](#)

Answer: a  
Explanation: None.

---

d) All of the mentioned  
[View Answer](#)

Answer: a  
Explanation: None.

---

8. When does a structure variable get destroyed?  
a) When no reference refers to it, it will get garbage collected  
b) Depends on whether it is created using new or without new operator  
c) As variable goes out of the scope  
d) Depends on either we free its memory using free() or delete()  
[View Answer](#)

Answer: c  
Explanation: None.

---

a) 24 bytes  
b) 8 bytes  
c) 16 bytes  
d) 12 bytes  
[View Answer](#)

Answer: d  
Explanation: None.  
Output –

12 bytes

---

a) 10  
10  
b) 20  
10  
c) 10  
20  
d) 20  
20  
[View Answer](#)

Answer: d  
Explanation: None.  
Output –

20  
20

---

11. Select the wrong statements among the following?  
a) A structure can contain properties  
b) A structure can contain constructors  
c) A structure can contain protected data members  
d) A structure can contain constants

[View Answer](#)

Answer: c

Explanation: None.

---

- a) Elements of 'q' will be copied into corresponding elements of p.
- b) Address stored in q will get copied into p
- c) Address of first element of q will get copied into p
- d) Once assignment is over, q will go out of scope and hence get exited forever

[View Answer](#)

Answer: a

Explanation: None.

---

- a) 10 10
- b) 10 15
- c) 15 10
- d) 15 15

[View Answer](#)

Answer: b

Explanation: None.

Output:

10 15

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## C# Questions & Answers – Enumerations

3. Choose the correct output for the C#.NET code given below?

```
1. enum days:int  
2. {  
3.     sunday = -3,  
4.     monday,  
5.     tuesday  
6. }  
7. Console.WriteLine((int)days.sunday);  
8. Console.WriteLine((int)days.monday);  
9. Console.WriteLine((int)days.tuesday);
```

1. Choose the correct statements about enum used in C#.NET?

- a) An enum variable cannot have a private access modifier
- b) An enum variable can be defined inside a class or a namespace
- c) An enum variable cannot have a protected access modifier
- d) An enum variable cannot have a public access modifier

[View Answer](#)

Answer: c

Explanation: None.

3. Choose the correct output for the C#.NET code given below?

```
1. enum days:int  
2. {  
3.     sunday = -3,  
4.     monday,  
5.     tuesday  
6. }  
7. Console.WriteLine((int)days.sunday);  
8. Console.WriteLine((int)days.monday);  
9. Console.WriteLine((int)days.tuesday);
```

2. Which among the following cannot be used as a datatype for an enum in C#.NET?

- a) short
- b) double
- c) int
- d) all of the mentioned

[View Answer](#)

Answer: b

Explanation: None.

3. Choose the correct output for the C#.NET code given below?

```
1. enum days:int  
2. {  
3.     sunday = -3,  
4.     monday,  
5.     tuesday  
6. }  
7. Console.WriteLine((int)days.sunday);  
8. Console.WriteLine((int)days.monday);  
9. Console.WriteLine((int)days.tuesday);
```

- a) -3 0 1
- b) 0 1 2
- c) -3 -2 -1
- d) sunday monday tuesday

[View Answer](#)

Answer: c

Explanation: None.

3. Choose the correct output for the C#.NET code given below?

```
1. enum days:int  
2. {  
3.     sunday = -3,  
4.     monday,  
5.     tuesday  
6. }  
7. Console.WriteLine((int)days.sunday);  
8. Console.WriteLine((int)days.monday);  
9. Console.WriteLine((int)days.tuesday);
```

- a) byte value cannot be assigned to enum elements
- b) enum elements should always take successive values
- c) enum must always be of int type
- d) When the valid range of byte exceeds, the compiler will report an error

[View Answer](#)

Answer: d

Explanation: None.

3. Choose the correct output for the C#.NET code given below?

```
1. enum days:int  
2. {
```

```
3.     sunday = -3,  
4.     monday,  
5.     tuesday  
6. }  
7. Console.WriteLine((int)days.sunday);  
8. Console.WriteLine((int)days.monday);  
9. Console.WriteLine((int)days.tuesday);
```

5. Wrong statement about enum used in C#.NET is?

- a) An enum can be declared inside a class
- b) An object cannot be assigned to an enum variable
- c) An enum can be declared outside a class
- d) An enum can have Single and Double values

[View Answer](#)

Answer: d

Explanation: None.

---

3. Choose the correct output for the C#.NET code given below?

```
1. enum days:int  
2. {  
3.     sunday = -3,  
4.     monday,  
5.     tuesday  
6. }  
7. Console.WriteLine((int)days.sunday);  
8. Console.WriteLine((int)days.monday);  
9. Console.WriteLine((int)days.tuesday);
```

- a) 11
- b) 1
- c) 2
- d) compile time error

[View Answer](#)

Answer: d

Explanation: It will report an error since enum element cannot be assigned a value outside the enum declaration.

---

3. Choose the correct output for the C#.NET code given below?

```
1. enum days:int  
2. {  
3.     sunday = -3,  
4.     monday,  
5.     tuesday
```

```
6. }
7. Console.WriteLine((int)days.sunday);
8. Console.WriteLine((int)days.monday);
9. Console.WriteLine((int)days.tuesday);
```

a) 2 10

b) 2 11

c) 1 11

d) 1 5

[View Answer](#)

Answer: c

Explanation: None.

Output:

```
1 11
```

---

3. Choose the correct output for the C#.NET code given below?

```
1. enum days:int
2. {
3.     sunday = -3,
4.     monday,
5.     tuesday
6. }
7. Console.WriteLine((int)days.sunday);
8. Console.WriteLine((int)days.monday);
9. Console.WriteLine((int)days.tuesday);
```

a) -1

b) 0

c) a

d) letters.a

[View Answer](#)

Answer: c

Explanation: None.

Output:

```
a
```

---

3. Choose the correct output for the C#.NET code given below?

```
1. enum days:int
2. {
3.     sunday = -3,
4.     monday,
5.     tuesday
```

```
6. }
7. Console.WriteLine((int)days.sunday);
8. Console.WriteLine((int)days.monday);
9. Console.WriteLine((int)days.tuesday);
```

- a) 0
- b) black
- c) red
- d) 1

[View Answer](#)

Answer: c

Explanation: None.

Output:

red

---

3. Choose the correct output for the C#.NET code given below?

```
1. enum days:int
2. {
3.     sunday = -3,
4.     monday,
5.     tuesday
6. }
7. Console.WriteLine((int)days.sunday);
8. Console.WriteLine((int)days.monday);
9. Console.WriteLine((int)days.tuesday);
```

10. Choose the correct statement about enum used in C#.NET ?

- a) By default the first enumerator has a value equal to the number of elements present in the list
- b) Values of the enum elements cannot be populated from database
- c) The value of each successive enumerator is decreased by 1
- d) An enumerator has a white space in its name

[View Answer](#)

Answer: b

Explanation: None.

---

3. Choose the correct output for the C#.NET code given below?

```
1. enum days:int
2. {
3.     sunday = -3,
4.     monday,
5.     tuesday
6. }
```

```
7. Console.WriteLine((int)days.sunday);  
8. Console.WriteLine((int)days.monday);  
9. Console.WriteLine((int)days.tuesday);
```

11. Which among the following differentiates enum in C#.NET from enum in C language?

- a) C is strictly a typed language, C#.NET also is a strictly typed language
- b) In C, language variables of enum types can be used interchangeably with integers using type casts while enum variables cannot be used as a normal integers in C#.NET
- c) None of the mentioned
- d) All of the mentioned

[View Answer](#)

Answer: b

Explanation: None.

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## C# Questions & Answers – Inheritance Implementation

3. The following set of code is run on single level of inheritance. Find correct statement about the code?

```
1. class sample
2. {
3.     int i = 10;
4.     int j = 20;
5.     public void display()
6.     {
7.         Console.WriteLine("base method ");
8.     }
9. }
10. class sample1 : sample
11. {
12.     public int s = 30;
13. }
14. class Program
15. {
16.     static void Main(string[] args)
17.     {
18.         sample1 obj = new sample1();
19.         Console.WriteLine("{0}, {1}, {2}", obj.i, obj.j, obj.s);
20.         obj.display();
21.         Console.ReadLine();
22.     }
23. }
```

- a) 1
- b) 3
- c) 2
- d) Compile Time error

[View Answer](#)

Answer: c

Explanation: class sample & class sample1 both contain display() method, class sample1 inherits class sample, when display() method is called by object of class sample 1, display() method of class sample 1 is executed rather than that of Class sample.

3. The following set of code is run on single level of inheritance. Find correct statement about the code?

```
1. class sample
```

```
2.  {
3.      int i = 10;
4.      int j = 20;
5.      public void display()
6.      {
7.          Console.WriteLine("base method ");
8.      }
9.  }
10. class sample1 : sample
11. {
12.     public int s = 30;
13. }
14. class Program
15. {
16.     static void Main(string[] args)
17.     {
18.         sample1 obj = new sample1();
19.         Console.WriteLine("{0}, {1}, {2}", obj.i, obj.j, obj.s);
20.         obj.display();
21.         Console.ReadLine();
22.     }
23. }
```

- a) Index should be declared as protected if it is to become available in inheritance chain
- b) Constructor of sample class does not get inherited in sample 1 class
- c) During constructing an object referred to by z, Firstly constructor of sample class will be called followed by constructor of sample 1 class
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

---

3. The following set of code is run on single level of inheritance. Find correct statement about the code?

```
1. class sample
2. {
3.     int i = 10;
4.     int j = 20;
5.     public void display()
6.     {
```

```
7.         Console.WriteLine("base method ");
8.     }
9. }
10. class sample1 : sample
11. {
12.     public int s = 30;
13. }
14. class Program
15. {
16.     static void Main(string[] args)
17.     {
18.         sample1 obj = new sample1();
19.         Console.WriteLine("{0}, {1}, {2}", obj.i, obj.j, obj.s);
20.         obj.display();
21.         Console.ReadLine();
22.     }
23. }
```

- a) 10, 20, 30  
base method  
b) 10, 20, 0  
c) compile time error  
d) base method

[View Answer](#)

Answer: c

Explanation: 'i' and 'j' are inaccessible due to protection level. Declare them as public variable and hence will be accessed in code.

3. The following set of code is run on single level of inheritance. Find correct statement about the code?

```
1. class sample
2. {
3.     int i = 10;
4.     int j = 20;
5.     public void display()
6.     {
7.         Console.WriteLine("base method ");
8.     }
9. }
10. class sample1 : sample
```

```
11. {
12.     public int s = 30;
13. }
14. class Program
15. {
16.     static void Main(string[] args)
17.     {
18.         sample1 obj = new sample1();
19.         Console.WriteLine("{0}, {1}, {2}", obj.i, obj.j, obj.s);
20.         obj.display();
21.         Console.ReadLine();
22.     }
23. }
```

- a) 20 bytes
- b) 12 bytes
- c) 16 bytes
- d) 24 bytes

[View Answer](#)

Answer: d

Explanation: Explained in fundamentals of inheritance.

---

3. The following set of code is run on single level of inheritance. Find correct statement about the code?

```
1. class sample
2. {
3.     int i = 10;
4.     int j = 20;
5.     public void display()
6.     {
7.         Console.WriteLine("base method ");
8.     }
9. }
10. class sample1 : sample
11. {
12.     public int s = 30;
13. }
14. class Program
15. {
```

```
16.     static void Main(string[] args)
17.     {
18.         sample1 obj = new sample1();
19.         Console.WriteLine("{0}, {1}, {2}", obj.i, obj.j, obj.s);
20.         obj.display();
21.         Console.ReadLine();
22.     }
23. }
```

- a) Code executes successfully prints nothing
- b) This is base class constructor
- c) Compile time error
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: Base class accessibility level is much less compared to derived class. Declare it public to get desired output.

---

3. The following set of code is run on single level of inheritance. Find correct statement about the code?

```
1. class sample
2. {
3.     int i = 10;
4.     int j = 20;
5.     public void display()
6.     {
7.         Console.WriteLine("base method ");
8.     }
9. }
10. class sample1 : sample
11. {
12.     public int s = 30;
13. }
14. class Program
15. {
16.     static void Main(string[] args)
17.     {
18.         sample1 obj = new sample1();
19.         Console.WriteLine("{0}, {1}, {2}", obj.i, obj.j, obj.s);
20.         obj.display();
```

```
21.         Console.ReadLine();
22.     }
23. }
```

- a) Console.WriteLine( a + " " + this.a);
- b) Console.WriteLine( MyBase.a + " " + a);
- c) console.WriteLine(a + " " + base.a);
- d) console.WriteLine(base.a + " " + a);

[View Answer](#)

Answer: c

Explanation: None.

---

3. The following set of code is run on single level of inheritance. Find correct statement about the code?

```
1. class sample
2. {
3.     int i = 10;
4.     int j = 20;
5.     public void display()
6.     {
7.         Console.WriteLine("base method ");
8.     }
9. }
10. class sample1 : sample
11. {
12.     public int s = 30;
13. }
14. class Program
15. {
16.     static void Main(string[] args)
17.     {
18.         sample1 obj = new sample1();
19.         Console.WriteLine("{0}, {1}, {2}", obj.i, obj.j, obj.s);
20.         obj.display();
21.         Console.ReadLine();
22.     }
23. }
```

- a) Compile time error
- b) Output : b  
a

- c) Output : a  
b  
d) The program will work correctly if we replace base(a1) with base.baseclass(a1)

[View Answer](#)

Answer: c

Explanation: None.

Output :

a  
b

---

3. The following set of code is run on single level of inheritance. Find correct statement about the code?

```
1. class sample
2. {
3.     int i = 10;
4.     int j = 20;
5.     public void display()
6.     {
7.         Console.WriteLine("base method ");
8.     }
9. }
10. class sample1 : sample
11. {
12.     public int s = 30;
13. }
14. class Program
15. {
16.     static void Main(string[] args)
17.     {
18.         sample1 obj = new sample1();
19.         Console.WriteLine("{0}, {1}, {2}", obj.i, obj.j, obj.s);
20.         obj.display();
21.         Console.ReadLine();
22.     }
23. }
```

- a) x.a();  
b) a();  
c) base.a();  
d) x:a();

[View Answer](#)

Answer: c

Explanation: None.

3. The following set of code is run on single level of inheritance. Find correct statement about the code?

```
1. class sample
2. {
3.     int i = 10;
4.     int j = 20;
5.     public void display()
6.     {
7.         Console.WriteLine("base method ");
8.     }
9. }
10. class sample1 : sample
11. {
12.     public int s = 30;
13. }
14. class Program
15. {
16.     static void Main(string[] args)
17.     {
18.         sample1 obj = new sample1();
19.         Console.WriteLine("{0}, {1}, {2}", obj.i, obj.j, obj.s);
20.         obj.display();
21.         Console.ReadLine();
22.     }
23. }
```

9. Which statements are correct?

- a) If a base class consists of a member function fun() and a derived class do not have any function with this name. An object of derived class can access fun()
- b) A class D can be derived from class C, which is derived from class B which in turn is derived from class A
- c) If a base class and a derived class each include a member function with same name, the member function of the derived class will be called by object of derived class
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

3. The following set of code is run on single level of inheritance. Find correct statement about the code?

```
1. class sample
2. {
3.     int i = 10;
4.     int j = 20;
5.     public void display()
6.     {
7.         Console.WriteLine("base method ");
8.     }
9. }
10. class sample1 : sample
11. {
12.     public int s = 30;
13. }
14. class Program
15. {
16.     static void Main(string[] args)
17.     {
18.         sample1 obj = new sample1();
19.         Console.WriteLine("{0}, {1}, {2}", obj.i, obj.j, obj.s);
20.         obj.display();
21.         Console.ReadLine();
22.     }
23. }
```

- a) 2 1
- b) 1 0
- c) 0 2
- d) 1 2

[View Answer](#)

Answer: d

Explanation: Both class A & B have members with same name that is j, member of class B will be called by default if no specifier is used. i contains 1 & j contains 2, printing 1 2.

Output:

1, 2

---

3. The following set of code is run on single level of inheritance. Find correct statement about the code?

```
1. class sample
2. {
3.     int i = 10;
```

```
4.     int j = 20;
5.     public void display()
6.     {
7.         Console.WriteLine("base method ");
8.     }
9. }
10. class sample1 : sample
11. {
12.     public int s = 30;
13. }
14. class Program
15. {
16.     static void Main(string[] args)
17.     {
18.         sample1 obj = new sample1();
19.         Console.WriteLine("{0}, {1}, {2}", obj.i, obj.j, obj.s);
20.         obj.display();
21.         Console.ReadLine();
22.     }
23. }
```

- a) 1, 3
- b) 2, 3
- c) 1, 2
- d) compile time error

[View Answer](#)

Answer: d

Explanation: Class contains a private member variable j, this cannot be inherited by subclass B and does not have access to it.

---

3. The following set of code is run on single level of inheritance. Find correct statement about the code?

```
1. class sample
2. {
3.     int i = 10;
4.     int j = 20;
5.     public void display()
6.     {
7.         Console.WriteLine("base method ");
8.     }
```

```
9. }
10. class sample1 : sample
11. {
12.     public int s = 30;
13. }
14. class Program
15. {
16.     static void Main(string[] args)
17.     {
18.         sample1 obj = new sample1();
19.         Console.WriteLine("{0}, {1}, {2}", obj.i, obj.j, obj.s);
20.         obj.display();
21.         Console.ReadLine();
22.     }
23. }
```

12. Which of these keywords is used to refer to member of base class from a sub class?

- a) upper
- b) base
- c) this
- d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: Whenever a subclass needs to refer to its immediate super class, it can do so by use of the keyword base.

---

3. The following set of code is run on single level of inheritance. Find correct statement about the code?

```
1. class sample
2. {
3.     int i = 10;
4.     int j = 20;
5.     public void display()
6.     {
7.         Console.WriteLine("base method ");
8.     }
9. }
10. class sample1 : sample
11. {
12.     public int s = 30;
```

```
13. }
14. class Program
15. {
16.     static void Main(string[] args)
17.     {
18.         sample1 obj = new sample1();
19.         Console.WriteLine("{0}, {1}, {2}", obj.i, obj.j, obj.s);
20.         obj.display();
21.         Console.ReadLine();
22.     }
23. }
```

13. Which of these operators must be used to inherit a class?

- a) :
- b) &
- c) ::
- d) extends

[View Answer](#)

Answer: a

Explanation: class a  
{  
}  
class b : a  
{  
}

---

3. The following set of code is run on single level of inheritance. Find correct statement about the code?

```
1. class sample
2. {
3.     int i = 10;
4.     int j = 20;
5.     public void display()
6.     {
7.         Console.WriteLine("base method ");
8.     }
9. }
10. class sample1 : sample
11. {
12.     public int s = 30;
```

```
13. }
14. class Program
15. {
16.     static void Main(string[] args)
17.     {
18.         sample1 obj = new sample1();
19.         Console.WriteLine("{0}, {1}, {2}", obj.i, obj.j, obj.s);
20.         obj.display();
21.         Console.ReadLine();
22.     }
23. }
```

- a) I am a base class
- I am a child class
- b) I am a child class
- I am a base class
- c) compile time error
- d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: This is because base classes are automatically instantiated before derived classes. Notice the output, The BaseClass constructor is executed before the ChildClass constructor.

Output: I am a base class

I am a child class

## C# Questions & Answers – Method Overloading

3. What could be the output of the following set of code?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         Console.WriteLine( vol(10));
6.         Console.WriteLine( vol(2.5f, 5));
7.         Console.WriteLine( vol( 51, 4, 5));
8.         Console.ReadLine();
9.     }
10.    static int vol(int x)
11.    {
12.        return(x * x * x);
13.    }
14.    static float vol(float r, int h)
15.    {
16.        return(3.14f * r * r * h);
17.    }
18.    static long vol(long l, int b, int h)
19.    {
20.        return(l * b * h);
21.    }
22. }
```

1. The process of defining two or more methods within the same class that have same name but different parameters list?

- a) Method overloading
- b) Method overriding
- c) Encapsulation
- d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: Two or more methods can have same name as long as their parameters declaration and definitions are different, the methods are said to be overloaded and the process is called method overloading. Method overloading is used when methods are required to perform similar tasks using different input parameters.

3. What could be the output of the following set of code?

```
1. class Program
```

```
2. {
3.     static void Main(string[] args)
4.     {
5.         Console.WriteLine( vol(10));
6.         Console.WriteLine( vol(2.5f, 5));
7.         Console.WriteLine( vol( 51, 4, 5));
8.         Console.ReadLine();
9.     }
10.    static int vol(int x)
11.    {
12.        return(x * x * x);
13.    }
14.    static float vol(float r, int h)
15.    {
16.        return(3.14f * r * r * h);
17.    }
18.    static long vol(long l, int b, int h)
19.    {
20.        return(l * b * h);
21.    }
22. }
```

2. Which of these can be overloaded?

- a) Constructors
- b) Methods
- c) Both Constructors & Methods
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

---

3. What could be the output of the following set of code?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         Console.WriteLine( vol(10));
6.         Console.WriteLine( vol(2.5f, 5));
```

```
7.         Console.WriteLine( vol( 51,  4,  5));
8.         Console.ReadLine();
9.     }
10.    static int vol(int x)
11.    {
12.        return(x * x * x);
13.    }
14.    static float vol(float r,  int h)
15.    {
16.        return(3.14f * r * r * h);
17.    }
18.    static long vol(long l, int b, int h)
19.    {
20.        return(l * b * h);
21.    }
22. }
```

- a) 1000  
0  
100  
b) 0  
0  
100  
c) compile time error  
d) 1000  
98.125  
100

[View Answer](#)

Answer: d

Explanation: The concept of method overloading is implemented in method “vol” with same name but different definitions and parameter list which is overloaded three times and each time the return type is different for each method and hence matches the method using types of parameters .

Output:

```
1000
98.125
100
```

---

3. What could be the output of the following set of code?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         Console.WriteLine( vol(10));
```

```
6.         Console.WriteLine( vol(2.5f,  5));
7.         Console.WriteLine( vol( 51,  4,  5));
8.         Console.ReadLine();
9.     }
10.    static int vol(int x)
11.    {
12.        return(x * x * x);
13.    }
14.    static float vol(float r,  int h)
15.    {
16.        return(3.14f * r * r * h);
17.    }
18.    static long vol(long l, int b, int h)
19.    {
20.        return(l * b * h);
21.    }
22. }
```

a) 8

8

b) 0

2

c) 8

10

d) 7

8

[View Answer](#)

Answer: d

Explanation: None.

Output:

7, 8

---

3. What could be the output of the following set of code?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         Console.WriteLine( vol(10));
6.         Console.WriteLine( vol(2.5f,  5));
7.         Console.WriteLine( vol( 51,  4,  5));
```

```
8.         Console.ReadLine();
9.     }
10.    static int vol(int x)
11.    {
12.        return(x * x * x);
13.    }
14.    static float vol(float r,  int h)
15.    {
16.        return(3.14f * r * r * h);
17.    }
18.    static long vol(long l, int b, int h)
19.    {
20.        return(l * b * h);
21.    }
22. }
```

- a) Compile time error  
b) 25  
0  
c) 216  
0  
d) 216  
25

[View Answer](#)

Answer: d

Explanation: None.

Output:

```
216
25
```

---

3. What could be the output of the following set of code?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         Console.WriteLine( vol(10));
6.         Console.WriteLine( vol(2.5f,  5));
7.         Console.WriteLine( vol( 51,  4,  5));
8.         Console.ReadLine();
9.     }
}
```

```
10.     static int vol(int x)
11.     {
12.         return(x * x * x);
13.     }
14.     static float vol(float r,  int h)
15.     {
16.         return(3.14f * r * r * h);
17.     }
18.     static long vol(long l, int b, int h)
19.     {
20.         return(l * b * h);
21.     }
22. }
```

a) 4, 3.5

b) 8, 0

c) 7.5, 8

d) 8, 7

[View Answer](#)

Answer: d

Explanation: None

Output:

advertisement

8, 7

---

3. What could be the output of the following set of code?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         Console.WriteLine( vol(10));
6.         Console.WriteLine( vol(2.5f,  5));
7.         Console.WriteLine( vol( 5l,  4,  5));
8.         Console.ReadLine();
9.     }
10.    static int vol(int x)
11.    {
12.        return(x * x * x);
```

```
13.    }
14.    static float vol(float r, int h)
15.    {
16.        return(3.14f * r * r * h);
17.    }
18.    static long vol(long l, int b, int h)
19.    {
20.        return(l * b * h);
21.    }
22. }
```

a) method 1:

method 2:

20

method 1:

b) method 2:

20

method 1:

method 1:

c) method 1:

0

method 2:

method 2:

d) method 1:

20

method 1:

method 2:

[View Answer](#)

Answer: d

Explanation: None.

Output :

```
method 1:
20
method 1:
method 2:
```

---

3. What could be the output of the following set of code?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         Console.WriteLine( vol(10));
6.         Console.WriteLine( vol(2.5f, 5));
7.         Console.WriteLine( vol( 51, 4, 5));
8.         Console.ReadLine();
```

```
9.     }
10.    static int vol(int x)
11.    {
12.        return(x * x * x);
13.    }
14.    static float vol(float r,  int h)
15.    {
16.        return(3.14f * r * r * h);
17.    }
18.    static long vol(long l, int b, int h)
19.    {
20.        return(l * b * h);
21.    }
22. }
```

8. What is the process of defining a method in terms of itself, that is a method that calls itself?

- a) Polymorphism
- b) Abstraction
- c) Encapsulation
- d) Recursion

[View Answer](#)

Answer: d

Explanation: None.

---

3. What could be the output of the following set of code?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         Console.WriteLine( vol(10));
6.         Console.WriteLine( vol(2.5f,  5));
7.         Console.WriteLine( vol( 5l,  4,  5));
8.         Console.ReadLine();
9.     }
10.    static int vol(int x)
11.    {
12.        return(x * x * x);
13.    }
```

```
14.     static float vol(float r, int h)
15.     {
16.         return(3.14f * r * r * h);
17.     }
18.     static long vol(long l, int b, int h)
19.     {
20.         return(l * b * h);
21.     }
22. }
```

a) 30

2.5f

b) 2.5f

30

c) 20

2.5f

d) 20

3.4f

[View Answer](#)

Answer: d

Explanation: None.

Output:

```
20
3.4f
```

3. What could be the output of the following set of code?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         Console.WriteLine( vol(10));
6.         Console.WriteLine( vol(2.5f, 5));
7.         Console.WriteLine( vol( 51, 4, 5));
8.         Console.ReadLine();
9.     }
10.    static int vol(int x)
11.    {
12.        return(x * x * x);
13.    }
14.    static float vol(float r, int h)
```

```
15.    {
16.        return(3.14f * r * r * h);
17.    }
18.    static long vol(long l, int b, int h)
19.    {
20.        return(l * b * h);
21.    }
22. }
```

- a) 190, 26.78f
- b) 0, 26.78f
- c) 190, 26
- d) 190, 0

[View Answer](#)

Answer: c

Explanation: None.

Output:

```
190
26
```

---

3. What could be the output of the following set of code?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         Console.WriteLine( vol(10));
6.         Console.WriteLine( vol(2.5f, 5));
7.         Console.WriteLine( vol( 51, 4, 5));
8.         Console.ReadLine();
9.     }
10.    static int vol(int x)
11.    {
12.        return(x * x * x);
13.    }
14.    static float vol(float r, int h)
15.    {
16.        return(3.14f * r * r * h);
17.    }
18.    static long vol(long l, int b, int h)
```

```
19.    {
20.        return(l * b * h);
21.    }
22. }
```

- a) 0, 0, 0  
12, 14.78
- b) 0, 0, 0  
0, 0
- c) 90, 100, 12  
12, 14
- d) 90, 100, 12  
12, 14.78

[View Answer](#)

Answer: d

Explanation: None.

Output:

```
90, 100, 12
12, 14.78
```

---

3. What could be the output of the following set of code?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         Console.WriteLine( vol(10));
6.         Console.WriteLine( vol(2.5f, 5));
7.         Console.WriteLine( vol( 51, 4, 5));
8.         Console.ReadLine();
9.     }
10.    static int vol(int x)
11.    {
12.        return(x * x * x);
13.    }
14.    static float vol(float r, int h)
15.    {
16.        return(3.14f * r * r * h);
17.    }
18.    static long vol(long l, int b, int h)
19.    {
```

```
20.         return(l * b * h);  
21.     }  
22. }
```

- a) 1 1 1
- b) 0 0 0
- c) 25 100000 12.34
- d) -25 -100000 -12.34

[View Answer](#)

Answer: c

Explanation: None.

Output:

```
25 100000 12.34
```

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## C# Questions & Answers – Method Overriding

---

1. Which keyword is used to declare a base class method while performing overriding of base class methods?

- a) this
- b) virtual
- c) override
- d) extend

[View Answer](#)

Answer: b

Explanation: None.

---

2. The process of defining a method in a subclass having same name & type signature as a method in its superclass is known as?

- a) Method overloading
- b) Method overriding
- c) Method hiding
- d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: None.

---

3. Which of the given modifiers can be used to prevent Method overriding?

- a) Static
- b) Constant
- c) Sealed
- d) final

[View Answer](#)

Answer: c

Explanation: When an instance method declaration includes the sealed modifier, the method is said to be sealed method. It means a derived class cannot override this method.

---

4. Select the correct statement from the following?

- a) Static methods can be a virtual method
- b) Abstract methods can be a virtual method
- c) When overriding a method, the names and type signatures of the override method must be the same as the virtual method that is being overridden
- d) We can override virtual as well as nonvirtual methods

[View Answer](#)

Answer: c

Explanation: None.

---

5. Which of the following cannot be used to declare a class as a virtual?

- a) Methods
- b) Properties
- c) Events
- d) Fields

[View Answer](#)

Answer: d

Explanation: None.

---

- a) 0

- b) 2
- c) 1
- d) Compile time error

[View Answer](#)

Answer: b

Explanation: When method `display()` is called using objects of class ‘B’. The method ‘`display()`’ for class ‘B’ is called instead of class ‘A’ as class ‘B’ is inherited by class ‘A’.

Output :

2

---

- a) A, A
- b) B, B
- c) Compile time error
- d) A, B

[View Answer](#)

Answer: d

Explanation: The method overriding procedure has been used to produce the values from two `display()`.

Output:

advertisement

A B

---

8. The modifier used to hide the base class methods is?

- a) Virtual
- b) New
- c) Override
- d) Sealed

[View Answer](#)

Answer: b

Explanation: Used in condition when we cannot use virtually to override a base class method. Hence, we use ‘New’ to hide the base class methods and redefine the method defined in the subclass.

---

9. To override a method in the subclass, the base class method should be defined as?

- a) Virtual
- b) Abstract
- c) Override
- d) All of the mentioned.

[View Answer](#)

Answer: d

Explanation: None.

---

- a) Base method
- b) Derived method
- c) Code runs successfully prints nothing
- d) Compile time error

[View Answer](#)

Answer: b

Explanation: Use of ‘new’ modifier hides the inherited member i.e it makes only inherited member inaccessible in derived class and hence calls suitable method().

Output :

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derived method

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## C# Questions & Answers – Constructor Overloading

3. What will be the output of the given set of code?

```
1. class maths
2. {
3.     public maths()
4.     {
5.         Console.WriteLine("constructor 1 :");
6.     }
7.     public maths(int x)
8.     {
9.         int p = 2;
10.        int u;
11.        u = p + x;
12.        Console.WriteLine("constructor 2: " + u);
13.    }
14. }
15. class Program
16. {
17.     static void Main(string[] args)
18.     {
19.         maths k = new maths(4);
20.         maths t = new maths();
21.         Console.ReadLine();
22.     }
23. }
```

a) 60, 24

b) 60, 0

c) 60, 144

d) 60, 144.0

[View Answer](#)

Answer: c

Explanation: Matching the values passed as parameters. The respective constructors are overloaded according to the matching parameter type.  
Output :

60  
144

3. What will be the output of the given set of code?

```
1. class maths
2. {
3.     public maths()
4.     {
5.         Console.WriteLine("constructor 1 :");
6.     }
7.     public maths(int x)
8.     {
9.         int p = 2;
10.        int u;
11.        u = p + x;
12.        Console.WriteLine("constructor 2: " +u);
13.    }
14. }
15. class Program
16. {
17.     static void Main(string[] args)
18.     {
19.         maths k = new maths(4);
20.         maths t = new maths();
21.         Console.ReadLine();
22.     }
23. }
```

a) 8, 8

b) 0, 2

c) 8, 10

d) 7, 8

[View Answer](#)

Answer: d

Explanation: None.

---

3. What will be the output of the given set of code?

```
1. class maths
2. {
3.     public maths()
4.     {
5.         Console.WriteLine("constructor 1 :");
```

```
6.      }
7.      public maths(int x)
8.      {
9.          int p = 2;
10.         int u;
11.         u = p + x;
12.         Console.WriteLine("constructor 2: " +u);
13.     }
14. }
15. class Program
16. {
17.     static void Main(string[] args)
18.     {
19.         maths k = new maths(4);
20.         maths t = new maths();
21.         Console.ReadLine();
22.     }
23. }
```

- a) constructor 1:  
constructor 2: 6  
b) constructor 2: 6  
constructor 2: 6  
c) constructor 2: 6  
constructor 1:  
d) none of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

Output:

```
constructor 2: 6
constructor 1:
```

---

3. What will be the output of the given set of code?

```
1. class maths
2. {
3.     public maths()
4.     {
5.         Console.WriteLine("constructor 1 :");
6.     }
}
```

```
7.     public maths(int x)
8.     {
9.         int p = 2;
10.        int u;
11.        u = p + x;
12.        Console.WriteLine("constructor 2: " +u);
13.    }
14. }
15. class Program
16. {
17.     static void Main(string[] args)
18.     {
19.         maths k = new maths(4);
20.         maths t = new maths();
21.         Console.ReadLine();
22.     }
23. }
```

- a) hello bye
- b) 12 hello
- c) bye 12
- d) Compile time error

[View Answer](#)

Answer: a

Explanation: None.

---

3. What will be the output of the given set of code?

```
1. class maths
2. {
3.     public maths()
4.     {
5.         Console.WriteLine("constructor 1 :");
6.     }
7.     public maths(int x)
8.     {
9.         int p = 2;
10.        int u;
11.        u = p + x;
```

```
12.         Console.WriteLine("constructor 2: " +u);
13.     }
14. }
15. class Program
16. {
17.     static void Main(string[] args)
18.     {
19.         maths k = new maths(4);
20.         maths t = new maths();
21.         Console.ReadLine();
22.     }
23. }
```

- a) 4, 26, 144
- b) 26, 4, 144
- c) 144, 26, 4
- d) 0, 0, 0

View Answer

Answer: c

Explanation: None.

---

3. What will be the output of the given set of code?

```
1. class maths
2. {
3.     public maths()
4.     {
5.         Console.WriteLine("constructor 1 :");
6.     }
7.     public maths(int x)
8.     {
9.         int p = 2;
10.        int u;
11.        u = p + x;
12.        Console.WriteLine("constructor 2: " +u);
13.    }
14. }
15. class Program
16. {
```

```
17.     static void Main(string[] args)
18.     {
19.         maths k = new maths(4);
20.         maths t = new maths();
21.         Console.ReadLine();
22.     }
23. }
```

6. Which keyword is used to refer baseclass constructor to subclass constructor?

- a) This
- b) Static
- c) Base
- d) Extend

[View Answer](#)

Answer: c

Explanation: None.

---

3. What will be the output of the given set of code?

```
1. class maths
2. {
3.     public maths()
4.     {
5.         Console.WriteLine("constructor 1 :");
6.     }
7.     public maths(int x)
8.     {
9.         int p = 2;
10.        int u;
11.        u = p + x;
12.        Console.WriteLine("constructor 2: " +u);
13.    }
14. }
15. class Program
16. {
17.     static void Main(string[] args)
18.     {
19.         maths k = new maths(4);
20.         maths t = new maths();
```

```
21.         Console.ReadLine();  
22.     }  
23. }
```

7. When we call a constructor method among different given constructors. We match the suitable constructor by matching the name of constructor first , then the number and then the type of parameters to decide which constructor is to be overloaded.The process is also known as?

- a) Method overriding
- b) Inheritance
- c) Polymorphism
- d) Encapsulation

[View Answer](#)

Answer: c

Explanation: None.

---

3. What will be the output of the given set of code?

```
1. class maths  
2. {  
3.     public maths()  
4.     {  
5.         Console.WriteLine("constructor 1 :");  
6.     }  
7.     public maths(int x)  
8.     {  
9.         int p = 2;  
10.        int u;  
11.        u = p + x;  
12.        Console.WriteLine("constructor 2: " +u);  
13.    }  
14. }  
15. class Program  
16. {  
17.     static void Main(string[] args)  
18.     {  
19.         maths k = new maths(4);  
20.         maths t = new maths();  
21.         Console.ReadLine();  
22.     }  
23. }
```

8. Correct statement about constructor overloading in C# is?

- a) Overloaded constructors have the same name as the class
- b) Overloaded constructors cannot use optional arguments
- c) Overloaded constructors can have different type of number of arguments as well as differ in number of arguments
- d) All of the mentioned

[View Answer](#)

Answer: c

Explanation: By definition of overloaded constructors.

---

3. What will be the output of the given set of code?

```
1. class maths
2. {
3.     public maths()
4.     {
5.         Console.WriteLine("constructor 1 :");
6.     }
7.     public maths(int x)
8.     {
9.         int p = 2;
10.        int u;
11.        u = p + x;
12.        Console.WriteLine("constructor 2: " +u);
13.    }
14. }
15. class Program
16. {
17.     static void Main(string[] args)
18.     {
19.         maths k = new maths(4);
20.         maths t = new maths();
21.         Console.ReadLine();
22.     }
23. }
```

a) 10, 10

b) 0, 10

c) 8, 10

d) 8, 8

[View Answer](#)

Answer: c

Explanation: None.

Output:

8, 10

---

3. What will be the output of the given set of code?

```
1. class maths
2. {
3.     public maths()
4.     {
5.         Console.WriteLine("constructor 1 :");
6.     }
7.     public maths(int x)
8.     {
9.         int p = 2;
10.        int u;
11.        u = p + x;
12.        Console.WriteLine("constructor 2: " +u);
13.    }
14. }
15. class Program
16. {
17.     static void Main(string[] args)
18.     {
19.         maths k = new maths(4);
20.         maths t = new maths();
21.         Console.ReadLine();
22.     }
23. }
```

- a) -25
- 1000
- b) -1000
- 25
- c) 25
- 1000
- d) None of the mentioned

View Answer

Answer: c

Explanation: None.

Output :

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25, 1000

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## C# Questions & Answers – Abstract Class & Methods

---

1. A type of class which does not have its own objects but acts as a base class for its subclass is known as?
- a) Static class
  - b) Sealed class
  - c) Abstract class
  - d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

---

2. The modifier used to define a class which does not have objects of its own but acts as a base class for its subclass is?
- a) Sealed
  - b) Static
  - c) New
  - d) Abstract

[View Answer](#)

Answer: d

Explanation: abstract class Base

```
{  
}  
class derived : Base  
{  
}  
}
```

Base b1; /\*object of Base class which can never be possible \*/  
Derived d1; /\*object of derived class which is possible \*/

---

3. Choose the correct statements among the following:
- a) An abstract method does not have implementation
  - b) An abstract method can take either static or virtual modifiers
  - c) An abstract method can be declared only in abstract class
  - d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

---

- a) 0
- b) 2
- c) Compile time error
- d) 1

[View Answer](#)

Answer: b

Explanation: Here in abstract class ‘A’ abstract method display() is declared and its full implementation i.e definition is given in subclass of class ‘A’.

Output : 2

---

- a) 1, 5
- b) 0, 5
- c) 1, 0
- d) 1, 3

[View Answer](#)

Answer: d

Explanation: obj.i = 1 initializes value of i as 1 as it is the abstract member of abstract class 'A'. Now, 'j' is also a same member as class 'A'. Since it is initialized the value of 5 when declared in subclass. But since abstract method is redefined in subclass using 'this' keyword as this.j = 3, method will execute only abstract class member 'j' not subclass 'B' own defined data member 'j'.

Output :

1 , 3

---

a) 2, 10

12

b) 0, 10

10

c) 2, 0

2

d) 0, 0

0

[View Answer](#)

Answer: c

Explanation: Abstract method implementation is processed in subclass 'B'. Also the object 'obj' of abstract class 'A' initializes value of i as 2. The object of class 'B' also initializes value of j as 10. Since, the method display() is called using object of class A which is 'obj' and hence i = 2 whereas j = 0. So, sum = 2.

Output :

2 0  
sum is : 2

---

7. If a class inheriting an abstract class does not define all of its functions then it is known as?

- a) Abstract
- b) A simple class
- c) Static class
- d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: Any subclass of an abstract class must either implement all of the abstract method in the super class or itself be declared abstract.

---

8. Which of the following modifiers is used when an abstract method is redefined by a derived class?

- a) Overloads
- b) Override
- c) Base
- d) Virtual

[View Answer](#)

Answer: b

Explanation: None.

---

a) 0, 8

b) 1, 8

c) 1, 7

d) 7, 1

[View Answer](#)

Answer: d

Explanation: Data member 'i' of abstract class A will be preferred over variable initialized and executed by obj1 as obj1.i = 8 as 'obj' of class B

executes display() method.

Output :

7, 1.

---

a) 8, 1

b) 8

c) 1

d) 1, 8

[View Answer](#)

Answer: c

Explanation: Class A & class B both contain display() method, class B inherits class A, when display() method is called by object of class B, display() method of class B is executed rather than that of Class A.

Output:

1.

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## C# Questions & Answers – Interfaces Introduction

---

1. Which statement correctly defines Interfaces in C#.NET?  
a) Interfaces cannot be inherited  
b) Interfaces consists of data static in nature and static methods  
c) Interfaces consists of only method declaration  
d) None of the mentioned

[View Answer](#)

Answer: d

Explanation: Leaving all options only option ‘a’ is correct as interfaces can be inherited i.e inheritance can be performed in csharp .net.

---

2. Which of the following cannot be used to declare an interface correctly?  
a) Properties  
b) Methods  
c) Structures  
d) Events

[View Answer](#)

Answer: c

Explanation: None.

---

3. A class consists of two interfaces with each interface consisting of three methods. The class had no instance data. Which of the following indicates the correct size of object created from this class?  
a) 12 bytes  
b) 16 bytes  
c) 0 bytes  
d) 24 bytes

[View Answer](#)

Answer: d

Explanation: None.

---

4. Which of the following statements correctly define about the implementation of interface?  
a) The calls to implementation of interface methods are routed through a method table  
b) A class which implements an interface can explicitly implement members of that interface  
c) One interface can be implemented in another interface  
d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: None.

---

5. Select the correct statement among the given statements?  
a) One class could implement only one interface  
b) Properties could be declared inside an interface  
c) Interfaces cannot be inherited  
d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: None.

---

6. Which keyword is used for correct implementation of an interface in C#.NET?  
a) interface

b) Interface

c) intf

d) Intf

[View Answer](#)

Answer: a

Explanation: None.

7. Choose the statements which makes interface different from classes?

a) Unlike classes, interfaces consists of only declaration but not implementation

b) Interfaces cannot be used directly like classes to create new objects

c) Interfaces consists of declaration of methods, properties, events and type definitions

d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

8. Which of the following is the correct way of implementing an interface addition by class maths?

a) class maths : addition {}

b) class maths implements addition {}

c) class maths imports addition {}

d) none of the mentioned

[View Answer](#)

Answer: a

Explanation: None.

9. Does C#.NET support partial implementation of interfaces?

a) True

b) False

c) Can't Say

d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: Interface is a behaviour. It represents a protocol or a contract of sorts. Hence, it is impossible to implement an interface partially.

d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

11. Which of these can be used to fully abstract a class from its implementation?

a) Objects

b) Packages

c) Interfaces

d) None of the Mentioned

[View Answer](#)

Answer: c

Explanation: None.

12. Access specifiers which can be used for an interface are?

a) Public

- b) Protected
- c) Private
- d) All of the mentioned

[View Answer](#)

Answer: a

Explanation: Access specifier of an interface is either public or none. When no access specifier is specified then only default access specifier is used due to which interface is available only to other members of the package in which it is declared, when declared public it can be used by any code declared anywhere in the class area.

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## C# Questions & Answers – Interfaces Implementation

---

3. Choose the correct statement about following code snippet given below:

```
1. interface a1  
2. {  
3.     void f1();  
4.     void f2();  
5. }  
6. class a :a1  
7. {  
8.     private int i;  
9.     void a1.f1()  
10.    {  
11.    }  
12. }
```

- a) class a is an abstract class
- b) A method table would not be created for class a
- c) The definition of f1() in class a should be void a1.f1()
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

---

3. Choose the correct statement about following code snippet given below:

```
1. interface a1  
2. {  
3.     void f1();  
4.     void f2();  
5. }  
6. class a :a1  
7. {  
8.     private int i;  
9.     void a1.f1()  
10.    {  
11.    }  
12. }
```

2. Choose the wrong statement about ‘INTERFACE’ in C#.NET?

- a) An explicitly implemented member could be accessed from an instance of the interface
- b) Interfaces are declared public automatically
- c) An interface could not contain signature of the indexer
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

---

3. Choose the correct statement about following code snippet given below:

```
1. interface a1
2. {
3.     void f1();
4.     void f2();
5. }
6. class a :a1
7. {
8.     private int i;
9.     void a1.f1()
10.    {
11.    }
12. }
```

- a) Class a could not have an instance data
- b) Class a is an abstract class
- c) Class a fully implements the interface a1
- d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: None.

---

3. Choose the correct statement about following code snippet given below:

```
1. interface a1
2. {
3.     void f1();
4.     void f2();
5. }
6. class a :a1
7. {
8.     private int i;
9.     void a1.f1()
```

```
10.    {  
11.    }  
12. }
```

- a) Functions should be declared inside an interface
- b) It is workable code
- c) Properties cannot be declared inside an interface
- d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: None.

---

3. Choose the correct statement about following code snippet given below:

```
1. interface a1  
2. {  
3.     void f1();  
4.     void f2();  
5. }  
6. class a :a1  
7. {  
8.     private int i;  
9.     void a1.f1()  
10.    {  
11.    }  
12. }
```

- a) 0
- b) 2
- c) 4
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

Output :

4

---

3. Choose the correct statement about following code snippet given below:

```
1. interface a1  
2. {  
3.     void f1();  
4.     void f2();  
5. }
```

```
6. class a :al
7. {
8.     private int i;
9.     void a1.f1()
10.    {
11.    }
12. }
```

- a) 0 0
- b) 2 2
- c) 4 1
- d) 1 4

[View Answer](#)

Answer: c

Explanation: class displayA executes the interface calculate by doubling the value of item . Similarly class displayB implements the interface by dividing item by item.So, variable x of class displayA stores 4 and variable x of class displayB stores 1.

Output :

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4, 1

3. Choose the correct statement about following code snippet given below:

```
1. interface al
2. {
3.     void f1();
4.     void f2();
5. }
6. class a :al
7. {
8.     private int i;
9.     void a1.f1()
10.    {
11.    }
12. }
```

- a) i1.fun
- b) i2.fun
- i1.fun
- c) 0
- d) i1.fun
- i2.fun

[View Answer](#)

Answer: d

Explanation: None.

3. Choose the correct statement about following code snippet given below:

```
1. interface a1
2. {
3.     void f1();
4.     void f2();
5. }
6. class a :a1
7. {
8.     private int i;
9.     void a1.f1()
10.    {
11.    }
12. }
```

d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: None.

3. Choose the correct statement about following code snippet given below:

```
1. interface a1
2. {
3.     void f1();
4.     void f2();
5. }
6. class a :a1
7. {
8.     private int i;
9.     void a1.f1()
10.    {
11.    }
12. }
```

a) fun2

b) fun1

c) fun1

fun2

d) fun2

fun1

[View Answer](#)

Answer: c

Explanation: None.

---

3. Choose the correct statement about following code snippet given below:

```
1. interface a1
2. {
3.     void f1();
4.     void f2();
5. }
6. class a :a1
7. {
8.     private int i;
9.     void a1.f1()
10.    {
11.    }
12. }
```

d) All of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

## C# Questions & Answers – Introduction of Overloaded Operators

3. Arrange the following overloaded operators in increasing order of precedence?

%, <<, &, /, +

1. Which of the following keyword is used to overload user defined types by defining static member functions?

- a) op
- b) opoverload
- c) operator
- d) operatoroverload

[View Answer](#)

Answer: c

Explanation: None.

3. Arrange the following overloaded operators in increasing order of precedence?

%, <<, &, /, +

2. Which of following statements are correct in nature?

- a) The conditional logical operators cannot be overloaded
- b) The array indexing operator can be overloaded
- c) A public or nested public preference type does not overload the equality operator
- d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: None.

3. Arrange the following overloaded operators in increasing order of precedence?

%, <<, &, /, +

- a) '%' < '<<' < '+' < '-' < '&' < '/'
- b) '<<' < '&' < '%' < '-' < '/' < '+'
- c) '&' < '-' < '%' < '<<' < '/' < '+'
- d) '/' < '-' < '%' < '+' < '<<' < '&'

[View Answer](#)

Answer: b

Explanation: None.

3. Arrange the following overloaded operators in increasing order of precedence?

%, <<, &, /, +

4. Operators that can be overloaded are?

- a) ||
- b) '+='
- c) +
- d) [].

[View Answer](#)

Answer: c

Explanation: None.

3. Arrange the following overloaded operators in increasing order of precedence?

%, <<, &, /, +

5. Which statements are correct about operator overloading?

- a) Mathematical or physical modeling where we use classes to represent objects such as vectors,matrices,complex-numbers etc
- b) Graphical programs where coordinate related objects are used to represent positions on the screen
- c) Financial programs where a class represents an amount of money
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

---

3. Arrange the following overloaded operators in increasing order of precedence?

%, <<, &, /, +

[View Answer](#)

Answer: c

Explanation: None.

---

3. Arrange the following overloaded operators in increasing order of precedence?

%, <<, &, /, +

7. Correct method to define + operator is?

- a) public sample operator +(int a, int b)
- b) public abstract operator +(int a, int b)
- c) public static sample operator +(int a, int b)
- d) public abstract sample operator +(int a, int b)

[View Answer](#)

Answer: c

Explanation: None.

---

3. Arrange the following overloaded operators in increasing order of precedence?

%, <<, &, /, +

8. Choose the correct statement among the below mentioned statements:

- a) Forgetting to declare an operator method as public
- b) Forgetting to declare an operator method as static
- c) Forgetting to return a bool type value while overloading a relational operator
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

---

3. Arrange the following overloaded operators in increasing order of precedence?

%, <<, &, /, +

9. What is vector in operator overloading?

- a) class
- b) method()
- c) data type
- d) none of the mentioned

[View Answer](#)

Answer: c

Explanation: It is a data type of class . It is defined as : public static Vector operator + (Vector a, Vector b).

---

3. Arrange the following overloaded operators in increasing order of precedence?

%, <<, &, /, +

10. Choose the wrong statement from the given set of statements?

- a) All operators in C#.NET cannot be overloaded
- b) We can use the new modifier to modify a nested type if the nested type is hiding another type
- c) Operator overloading permits the use of symbols to represent computations for a type
- d) In case of operator overloading all parameters must be of different type than the class or struct that declares the operators

[View Answer](#)

Answer: d

Explanation: None.

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## C# Questions & Answers – Recursion

---

1. What is Recursion in CSharp defined as?

- a) Recursion is another form of class
- b) Recursion is another process of defining a method that calls other methods repeatedly
- c) Recursion is a process of defining a method that calls itself repeatedly
- d) Recursion is a process of defining a method that calls other methods which in turn calls this method

[View Answer](#)

Answer: c

Explanation: Recursion is the process of defining something in terms of itself. It allows us to define method that calls itself repeatedly until it meets some base case condition.

---

2. Which of these will happen if recursive method does not have a base case?

- a) Infinite loop condition occurrence
- b) System gets hanged
- c) After 10000 executions program will be automatically stopped
- d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: If a recursive method does not have a base case which is necessary to meet the end of condition then an infinite loop occurs which results in stackoverflow exception error.

---

3. Which of these is not a correct statement?

- a) A recursive method must have a base case
- b) Recursion always uses stack
- c) Recursion is always managed by C# Runtime environment
- d) Recursive methods are faster than programmer written loop to call the function repeatedly using a stack

[View Answer](#)

Answer: c

Explanation: No matter whatever is the programming language recursion is always managed by operating system.

---

- a) 24
- b) 30
- c) 120
- d) 144

[View Answer](#)

Answer: a

Explanation: None.

---

- a) 2
- b) 10
- c) 1
- d) 0

[View Answer](#)

Answer: c

Explanation: fact() calculates recursively the factorial of a number when n turns to be 1, base case is executed consecutively and hence 1 is returned.

Output: 1

---

- a) 64

- b) 60
- c) 120
- d) 48

[View Answer](#)

Answer: d

Explanation:  $4! = 4 * 3 * 2 * 1$  &  $2! = 2 * 1$ . So,  $24 * 2 = 48$ .

Output : 48

---

- a) 64
- b) 60
- c) 72
- d) 84

[View Answer](#)

Answer: c

Explanation:  $4! = 4 * 3 * 2 * 1 = 24 * 3 = 72$ . Not factorial of 3 but just multiply the number with 3.

Output : 72

---

8. Which of these data types is used by operating system to manage the Recursion in Csharp?

- a) Array
- b) Queue
- c) Tree
- d) Stack

[View Answer](#)

Answer: d

Explanation: None.

---

- a) 24
- b) 30
- c) Compile time error
- d) Runtime Error

[View Answer](#)

Answer: d

Explanation: Absence of base case condition. So absence of limit or end of for execution of a loop and hence results in stackoverflow exception error.

---

- a) 24
- b) 0
- c) 12
- d) 1

[View Answer](#)

Answer: c

Explanation: fact() calculates factorial of number '4' but this time base case condition is executed upto 2 only. As soon as n reaches 2 it returns 2.

## C# Questions & Answers – Introduction of Indexers

---

1. Choose the correct statement among the followings?

- a) Indexers are location indicators
- b) Indexers are used to access class objects
- c) Indexer is a form of property and works in the same way as a property
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: By definition.

---

2. Choose the keyword which declares the indexer?

- a) base
- b) this
- c) super
- d) extract

[View Answer](#)

Answer: b

Explanation: The indexer is declared using the name this.

---

3. Choose the operator/operators which is/are not used to access the [] operator in indexers?

- a) get
- b) set
- c) access
- d) all of the mentioned

[View Answer](#)

Answer: c

Explanation: The indexer is implemented through the get and set accessors for the [] operator as:

```
public double this[int idx]
{
    get
    {
        if()
        {
        }
        else
        {
            return ([idx]);
        }
    }

    set
    {
        array[idx];
    }
}
```

---

4. Choose the correct statement among the following?

- a) A property can be a static member whereas an indexer is always an instance member
- b) A get accessor of a property corresponds to a method with no parameters whereas get accessor of an indexer corresponds to a method with the same formal parameters lists as the indexer
- c) It is an error for indexer to declare a local variable with the same name as indexer parameters
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

---

[View Answer](#)

Answer: b

Explanation: None.

---

6. Which among the following are the advantages of using indexers?

- a) To use collection of items at a large scale we make use of indexers as they utilize objects of class that represent the collection as an array
- b) Indexers are also convenient as they can also make use of different types of indexers like int, string etc
- c) An indexer allows an object to be indexed such as an array
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: Indexers provides a view at large scale to visualize a collection of items as an array. It is really easy to use the object of the class that represents a collection as if it is an array. Hence, indexed properties allow us to represent such a view. Indexers can also use different types of indexes like int , string etc. Use int as an index where sequential access to a collection is desired. When symbolic access is needed,use string as an index.

---

7. Choose the correct statement about properties describing the indexers?

- a) No need to use the name of the property while using an indexed property
- b) An indexer property should accept at least one argument
- c) Indexers can be overloaded
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

---

8. Choose the correct alternative that utilizes the indexed property such that a group named class has indexed property which stores or retrieves value to/from an array of 5 numbers?

- a) group[3] = 34;
- b) group g = group();
- c) Console.WriteLine(group[3]);
- d) group g = new group();  
Console.WriteLine(g[3]);

[View Answer](#)

Answer: d

Explanation: None.

---

9. Choose the correct option among the following indexers which correctly allows to index in same way as an array?

- a) A class
- b) An interface
- c) A function
- d) A property

[View Answer](#)

Answer: a

Explanation: None.

- 
- a) Compile time error
  - b) Run time error
  - c) 123, abc, xyz
  - d) 0

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[View Answer](#)

Answer: b

Explanation: Index out of range which arises only when index is non negative or less than the collection of size.

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## C# Questions & Answers – Introduction of Properties

---

1. Choose the wrong statement about the properties used in C#.NET?
  - a) Each property consists of accessor as get and set
  - b) A property cannot be either read or write only
  - c) Properties can be used to store and retrieve values to and from the data members of a class
  - d) Properties are like actual methods which work like data members

[View Answer](#)

Answer: a

Explanation: None.

---

2. Choose the statements which makes use of essential properties rather than making data member public in C#.NET?
  - a) Properties have their own access levels like private, public, protected etc. which allows it to have better control about managing read and write properties
  - b) Properties give us control about what values may be assigned to a member variables of a class they represent
  - c) Properties consist of set accessor inside which we can validate the value before assigning it to the data variable
  - d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

---

3. Where the properties can be declared?

- a) Class
- b) Struct
- c) Interface
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

---

4. Select the modifiers which can be used with the properties?

- a) Private
- b) Public
- c) Protected Internal
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

---

5. Choose the correct statements about write-only properties in C#.NET?

- a) Properties which can only be set
- b) Properties once set and hence values cannot be read back in nature
- c) Useful for usage in classes which store sensitive information like password of a user
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

---

6. Consider a class maths and we had a property called as sum.b is a reference to a maths object and we want the statement b.sum = 10 to fail.Which of the following is the correct solution to ensure this functionality?

- a) Declare sum property with both get and set accessors
- b) Declare sum property with only get accessor
- c) Declare sum property with get, set and normal accessors
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

---

7. Consider a class maths and we had a property called as sum.b which is the reference to a maths object and we want the statement Console.WriteLine(b.sum) to fail. Which among the following is the correct solution to ensure this functionality?

- a) Declares sum property with only get accessor
- b) Declares sum property with only set accessor
- c) Declares sum property with both set and get accessor
- d) Declares sum property with both set, get and normal accessor

[View Answer](#)

Answer: b

Explanation: None.

---

- a) Declare maths property with get and set accessors
- b) Declare maths property with only get accessors
- c) Declare maths property with only set accessors
- d) Declare maths property with only get, set and normal accessors

[View Answer](#)

Answer: a

Explanation: None.

---

- c) Console.WriteLine(math.add);
- d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: None.

---

10. If the math class had add property with get accessors then which of the following statements will work correctly?

- a) math m = new math();  
m.add = 10;
- b) math m = new math();  
m.add = m.add + 20;
- c) math m = new math();  
int i;  
i = m.add;
- d) math.add = 20;

[View Answer](#)

Answer: c

Explanation: None.

## C# Questions & Answers – Properties and its Applications

---

d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: None.

---

d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: None.

---

3. Select the correct statement about properties of read and write in C#.NET?

- a) A property can simultaneously be read or write only
- b) A property cannot be either read only or write only
- c) A write only property will only have get accessor
- d) A read only property will only have get accessor

[View Answer](#)

Answer: d

Explanation: None.

---

a) 0

b) Compile time error

c) 60

d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

Output :

advertisement

60

---

a) 0

b) 120

c) 1200

d) Compile time error

[View Answer](#)

Answer: c

Explanation: None.

Output :

1200

---

a) 0

b) 180

c) 30

d) Compile time error

[View Answer](#)

Answer: c

Explanation: None.

Output :

30

---

a) 30

b) 75

c) 80

d) 0

[View Answer](#)

Answer: b

Explanation: None.

Output :

75

---

a) 73

b) 37

c) 0

d) Run time error

[View Answer](#)

Answer: a

Explanation: None.

Output :

73

---

d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: None.

a) 0

b) Compile time error

c) Run time error

d) scores had greater value : 13

scores had greater value : 32

scores1 had greater value : 40

[View Answer](#)

Answer: d

Explanation: None.

Output :

```
scores had greater value : 13
scores had greater value : 32
scores1 had greater value : 40
```

## C# Questions & Answers – Fundamentals of Exception Handling

---

1. Which among the following is NOT an exception?

- a) Stack Overflow
- b) Arithmetic Overflow or underflow
- c) Incorrect Arithmetic Expression
- d) All of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

---

2. Which among the following is considered as .NET Exception class?

- a) Exception
- b) StackUnderflow Exception
- c) File Found Exception
- d) All of the mentioned

[View Answer](#)

Answer: b, c

Explanation: None.

---

3. Which of the following is the object oriented way to handle run time errors?

- a) Error codes
- b) HERRRESULT
- c) OnError
- d) Exceptions

[View Answer](#)

Answer: d

Explanation: None.

---

4. Select the statements which describe the correct usage of exception handling over conventional error handling approaches?

- a) As errors can be ignored but exceptions cannot be ignored
- b) Exception handling allows separation of program's logic from error handling logic making software more reliable and maintainable
- c) try – catch – finally structure allows guaranteed cleanup in event of errors under all circumstances
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

---

5. Select the correct statement about an Exception?

- a) It occurs during loading of program
- b) It occurs during Just-In-Time compilation
- c) It occurs at run time
- d) All of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

---

6. Which of these keywords is not a part of exception handling?

- a) try
- b) finally

c) thrown

d) catch

[View Answer](#)

Answer: c

Explanation:Exception handling is managed via 5 keywords – try, catch, throws, throw and finally.

---

7. Which of these keywords must be used to monitor exceptions?

a) try

b) finally

c) throw

d) catch

[View Answer](#)

Answer: a

Explanation:None.

---

8. Which of these keywords is used to manually throw an exception?

a) try

b) finally

c) throw

d) catch

[View Answer](#)

Answer: c

Explanation:None.

---

a) value 40 will be assigned to a[5];

b) The output will be :

Index out of bounds

Remaining program

c) The output will be :

Remaining program

d) None of the mentioned

[View Answer](#)

Answer: b

Explanation:None.

---

a) csharp

b) java

c) run time error

d) csharp 0

[View Answer](#)

Answer: b

Explanation: 1 / 0, hence system out of flow exception error.

---

11. Which of the following is the wrong statement about exception handling in C#.NET?

a) finally clause is used to perform cleanup operations of closing network and database connections

b) a program can contain multiple finally clauses

c) the statement in final clause will get executed no matter whether an exception occurs or not

d) all of the mentioned

[View Answer](#)

Answer: b

Explanation: None.

---

- a) csharp 0
- b) Run time Exception generation
- c) Compile time error
- d) Java

[View Answer](#)

Answer: b

Explanation: Run time Error of division by zero.

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## C# Questions & Answers – Implementation of Exception Handling

---

3. What will be the output of given code snippet?

```
1. {
2.     try
3.     {
4.         int []a = {1, 2, 3, 4, 5};
5.         for (int i = 0; i < 7; ++i)
6.             Console.WriteLine(a[i]);
7.     }
8.     catch(IndexOutOfRangeException e)
9.     {
10.        Console.WriteLine("0");
11.    }
12.    Console.ReadLine();
13. }
```

- a) 0
- b) 0 5
- c) 0 -10
- d) Compile time error

[View Answer](#)

Answer: c

Explanation: Value of variable sum is printed as sum and is defined outside try & catch block. If defined inside the try block then sum would be undefined for execution.

Output : 0 -10

---

3. What will be the output of given code snippet?

```
1. {
2.     try
3.     {
4.         int []a = {1, 2, 3, 4, 5};
5.         for (int i = 0; i < 7; ++i)
6.             Console.WriteLine(a[i]);
7.     }
8.     catch(IndexOutOfRangeException e)
9.     {
10.        Console.WriteLine("0");
11.    }
12. }
```

```
12.     Console.ReadLine();  
13. }
```

- a) 1234
- b) 12345
- c) Run time error
- d) 12345B

[View Answer](#)

Answer: d

Explanation: Due to occurrence of arithmetic exception here 'B' is printed after 12345.

Output : 12345B

---

3. What will be the output of given code snippet?

```
1. {  
2.     try  
3.     {  
4.         int []a = {1, 2, 3, 4, 5};  
5.         for (int i = 0; i < 7; ++i)  
6.             Console.WriteLine(a[i]);  
7.     }  
8.     catch(IndexOutOfRangeException e)  
9.     {  
10.        Console.WriteLine("0");  
11.    }  
12.    Console.ReadLine();  
13. }
```

- a) 12345
- b) 123450
- c) 1234500
- d) Compile time error

[View Answer](#)

Answer: b

Explanation: When array index goes out of bound then IndexOutOfBoundsException exception is thrown by the system.

Output : 123450

---

3. What will be the output of given code snippet?

```
1. {  
2.     try  
3.     {  
4.         int []a = {1, 2, 3, 4, 5};  
5.         for (int i = 0; i < 7; ++i)
```

```
6.         Console.WriteLine(a[i]);
7.     }
8.     catch(IndexOutOfRangeException e)
9.     {
10.         Console.WriteLine("0");
11.     }
12.     Console.ReadLine();
13. }
```

- a) A
- b) B
- c) Compile time error
- d) Run time error

[View Answer](#)

Answer: b

Explanation: Since b = 0 since a = 10 / 0 so, arithmetic exception is caught and hence statement in catch block is executed.  
Output : B

---

3. What will be the output of given code snippet?

```
1. {
2.     try
3.     {
4.         int []a = {1, 2, 3, 4, 5};
5.         for (int i = 0; i < 7; ++i)
6.             Console.WriteLine(a[i]);
7.     }
8.     catch(IndexOutOfRangeException e)
9.     {
10.         Console.WriteLine("0");
11.     }
12.     Console.ReadLine();
13. }
```

- a) -1
- b) 0
- c) -1 0
- d) -1 0 -1

[View Answer](#)

Answer: c

Explanation: None.  
Output :-1 0

3. What will be the output of given code snippet?

```
1. {
2.     try
3.     {
4.         int []a = {1, 2, 3, 4, 5};
5.         for (int i = 0; i < 7; ++i)
6.             Console.WriteLine(a[i]);
7.     }
8.     catch(IndexOutOfRangeException e)
9.     {
10.        Console.WriteLine("0");
11.    }
12.    Console.ReadLine();
13. }
```

- a) A
- b) B
- c) B C
- d) Run time error

[View Answer](#)

Answer: c

Explanation: finally keyword is used to execute before catch and try block is executed.

Output : B C

---

3. What will be the output of given code snippet?

```
1. {
2.     try
3.     {
4.         int []a = {1, 2, 3, 4, 5};
5.         for (int i = 0; i < 7; ++i)
6.             Console.WriteLine(a[i]);
7.     }
8.     catch(IndexOutOfRangeException e)
9.     {
10.        Console.WriteLine("0");
11.    }
12.    Console.ReadLine();
13. }
```

a) Exception occurred

b) Program executed

c) Exception occurred

Program executed

d) Program executed

Exception occurred

[View Answer](#)

Answer: c

Explanation: None.

Output: Exception occurred

Program executed

---

3. What will be the output of given code snippet?

```
1. {
2.     try
3.     {
4.         int []a = {1, 2, 3, 4, 5};
5.         for (int i = 0; i < 7; ++i)
6.             Console.WriteLine(a[i]);
7.     }
8.     catch(IndexOutOfRangeException e)
9.     {
10.        Console.WriteLine("0");
11.    }
12.    Console.ReadLine();
13. }
```

8. When is no exception thrown at runtime then who will catch it?

a) CLR

b) Operating System

c) Loader

d) Compiler

[View Answer](#)

Answer: a

Explanation: None.

---

3. What will be the output of given code snippet?

```
1. {
2.     try
3.     {
4.         int []a = {1, 2, 3, 4, 5};
5.         for (int i = 0; i < 7; ++i)
```

```
6.         Console.WriteLine(a[i]);
7.     }
8.     catch(IndexOutOfRangeException e)
9.     {
10.         Console.WriteLine("0");
11.     }
12.     Console.ReadLine();
13. }
```

- a) Compile time error
- b) Run time error
- c) B 0
- d) B

[View Answer](#)

Answer: c

Explanation: The catch block is called, as the exception is caught by the same block and hence statements are executed consecutively.  
Output : B 0

---

3. What will be the output of given code snippet?

```
1. {
2.     try
3.     {
4.         int []a = {1, 2, 3, 4, 5};
5.         for (int i = 0; i < 7; ++i)
6.             Console.WriteLine(a[i]);
7.     }
8.     catch(IndexOutOfRangeException e)
9.     {
10.         Console.WriteLine("0");
11.     }
12.     Console.ReadLine();
13. }
```

10. Choose the correct statement which makes exception handling work in C#.NET?

- a) .Net runtime makes search for the exception handler where exception occurs
- b) If no exception is matched, exception handler goes up the stack and hence finds the match there
- c) If no match is found at the highest level of stack call, then unhandledException is generated and hence termination of program occurs
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: By definition of exceptionhandling mechanism in C#.NET.

## C#Questions & Answers – Exceptions of Type Finally and Built in Exceptions

---

1. Which of these clauses will be executed even if no exceptions are found?

- a) throws
- b) finally
- c) throw
- d) catch

[View Answer](#)

Answer: b

Explanation: finally keyword is used to define a set of instructions that will be executed irrespective of whether the exception is found or not.

---

2. A single try block must be followed by which of these?

- a) finally
- b) catch
- c) Both finally & catch
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: Try block can be followed by any of finally or catch block, try block checks for exceptions and work is performed by finally and catch block as per the exception.

---

3. Which of these exceptions handles the divide by zero error?

- a) ArithmeticException
- b) MathException
- c) IllegalAccessException
- d) IllegarException

[View Answer](#)

Answer: a

Explanation: None.

---

4. Which of these exceptions will occur if we try to access the index of an array beyond its length?

- a) ArithmeticException
- b) ArrayException
- c) ArrayArguementException
- d) IndexOutOfRangeException

[View Answer](#)

Answer: d

Explanation: IndexOutOfRangeException is a built in exception that is caused when we try to access an index location which is beyond the length of an array.

---

- a) 0
- b) 1
- c) Compile time error
- d) Runtime error

[View Answer](#)

Answer: b

Explanation: None.

---

- a) A
- b) B

- c) Compile time error
- d) Runtime error

[View Answer](#)

Answer: d

Explanation: Try block is throwing NullPointerException but the catch block is used to counter Arithmetic Exception. Hence NullPointerException occurs since no catch is there which can handle it, runtime error occurs.

- a) A
- b) B
- c) AB
- d) BA

[View Answer](#)

Answer: a

Explanation: The inner try block does not have a catch which can tackle IndexOutOfRangeException hence finally is executed which prints 'A'. The outer try block does have catch for IndexOutOfBoundsException exception but no such exception occurs in it hence its catch is never executed and only 'A' is printed.

- a) TypeA
- b) TypeB
- c) 0TypeA
- d) Compile time error

[View Answer](#)

Answer: b

Explanation: None.

9. Which of the following keywords is used by the calling function to guard against the exception that is thrown by called function?

- a) try
- b) throw
- c) throws
- d) catch

[View Answer](#)

Answer: c

Explanation: If a method is capable of causing an exception that it does not handle. It must specify this behaviour so that callers of the method can guard themselves against that exception. This is done by using throws clause in methods declaration.

10. Which of these classes is related to all the exceptions that are explicitly thrown?

- a) Error
- b) Exception
- c) Throwable
- d) Throw

[View Answer](#)

Answer: c

Explanation: None.

## C#Questions & Answers – Try & Catch in Detail

---

1. What is the use of try & catch?
  - a) It is used to manually handle the exception
  - b) It helps to fix the errors
  - c) It prevents automatic terminating of the program in cases when an exception occurs
  - d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

---

- a) Hello
- b) C
- c) Hellossharp
- d) Csharp

[View Answer](#)

Answer: d

Explanation: finally block execution takes place after the tryblock, no matter exception is found or not. catch block is executed only when exception is found. Here divide by zero exception is found hence both catch and finally are executed.

---

3. Choose the statement which is incorrect?
  - a) try block does not need to be followed by catch block
  - b) try block can be followed by finally block instead of catch block
  - c) try can be followed by both catch and finally block
  - d) try need not to be followed by anything

[View Answer](#)

Answer: d

Explanation: try followed by either catch or finally block.

---

- a) Hi
- b) hello
- c) Hihello
- d) Compile time error

[View Answer](#)

Answer: b

Explanation: None.

---

5. Which of the keywords are used for the block to be examined for exceptions?

- a) try
- b) catch
- c) throw
- d) check

[View Answer](#)

Answer: a

Explanation: try is used for the block that needs to be checked for exception.

---

6. Which of these keywords are used for the block to handle the exceptions generated by try block?

- a) try
- b) catch
- c) throw

d) check

[View Answer](#)

Answer :b

Explanation: None.

---

a) Csharp

b) sharp

c) C

d) Compile time error

[View Answer](#)

Answer: d

Explanation: try should be followed by either catch or finally.

---

a) C

b) sharp

c) Csharp

d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: finally block is always executed after try block, no matter if the exception is found or not.

---

a) Hi

b) hello

c) Hihello

d) Compile time error

[View Answer](#)

Answer: a

Explanation: None.

---

10. Which of these keywords are used for generating an exception manually?

a) try

b) catch

c) throw

d) check

[View Answer](#)

Answer: c

Explanation: None.

## C# Questions & Answers – Attributes

---

1. Which of the following cannot further inspect the attribute that is once applied?

- a) Linker
- b) ASP.NET Runtime
- c) Language compilers
- d) CLR

[View Answer](#)

Answer: a

Explanation: None.

---

2. To apply an attribute to an Assembly, the correct way of implementation is?

- a) [AssemblyInfo: AssemblyDescription ("Csharp")].
- b) [assembly: AssemblyDescription("Csharp")].
- c) [AssemblyDescription("Csharp")].
- d) (Assembly:AssemblyDescription("Csharp")].

[View Answer](#)

Answer: b

Explanation: None.

---

3. The correct method to pass parameter to an attribute is?

- a) By name
- b) By address
- c) By value
- d) By reference

[View Answer](#)

Answer: a

Explanation: None.

---

[View Answer](#)

Answer: c

Explanation: By definition.

---

5. Which among the following cannot be a target for a custom attribute?

- a) Enum
- b) Event
- c) Interface
- d) Namespace

[View Answer](#)

Answer: d

Explanation: None.

---

6. Select the correct statement about Attributes used in C#.NET?

- a) The CLR can change the behaviour of the code depending on attributes applied to it
- b) If a bugFixAttribute is to receive three parameters, then the BugFixAttribute class should implement a zero argument constructor
- c) To create a custom attribute we need to create a custom attribute structure and derive it from System.Attribute
- d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: None.

---

7. The correct way to apply the custom attribute called Employer which receives two arguments – name of the employee and employeeid is?

- a) Custom attribute can be applied to an assembly
- b) [assembly : Employer("Ankit",employeeid.one)].
- c) [ Employer("Ankit", employeeid.second)] class employee  
{  
}
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

---

8. Which of the following is the correct statement about inspecting an attribute in C#.NET?

- a) An attribute can be inspected at link time
- b) An attribute can be inspected at design time
- c) An attribute can be inspected at run time
- d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: None.

---

9. Attributes could be applied to

- a) Method
- b) Class
- c) Assembly
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

---

10. The [Serializable()] attributes gets inspected at:

- a) compile time
- b) run time
- c) design time
- d) linking time

[View Answer](#)

Answer: b

Explanation: None.

## C# Questions & Answers – Introduction of Console I/O Operations

---

1. Which of the classes provide the operation of reading from and writing to the console in C#.NET?

- a) System.Array
- b) System.Output
- c) System.ReadLine
- d) System.Console

[View Answer](#)

Answer: d

Explanation: The method for reading and writing to the console in C#.NET is provided by System.Console class. This class gives us access to the standard input, output and standard error streams.

---

2. Which of the given stream methods provide access to the output console by default in C#.NET?

- a) Console.In
- b) Console.Out
- c) Console.Error
- d) All of the mentioned

[View Answer](#)

Answer: b

Explanation: The standard output stream Console.Out sends output to the screen by default.

---

3. Which of the given stream methods provide the access to the input console in C#.NET?

- a) Console.Out
- b) Console.Error
- c) Console.In
- d) All of the mentioned

[View Answer](#)

Answer: c

Explanation: Console.In is an instance of TextReader, and we can use the methods and properties defined by TextReader to access it to read the input from the keyboard.

---

4. The number of input methods defined by the stream method Console.In in C#.NET is?

- a) 4
- b) 3
- c) 2
- d) 1

[View Answer](#)

Answer: b

Explanation: Two basic methods : read() and readline() and third method readkey() introduced in .NET FrameWork 2.0.

---

5. Select the correct methodS provided by Console.In?

- a) Read(), ReadLine()
- b) ReadKey(), ReadLine()
- c) Read(), ReadLine(), ReadKey()
- d) ReadKey(), ReadLine()

[View Answer](#)

Answer: c

Explanation: The two method Read() and ReadLine() available in .NET Framework 1.0 and Third method ReadKey() was added by .NET Framework 2.0.

---

6. Choose the output returned when read() reads the character from the console?

- a) String
- b) Char
- c) Integer
- d) Boolean

[View Answer](#)

Answer: c

Explanation: Read() returns the character read from the console. It returns the result. The character is returned as an int, which should be cast to char.

7. Choose the output returned when error condition is generated while read() reads from the console.

- a) False
- b) 0
- c) -1
- d) All of the mentioned

[View Answer](#)

Answer: c

Explanation: Read() returns -1 on error. This method also throws an IOException on failure.

8. Choose the object of TextReader class.

- a) Console.In
- b) Console.Out
- c) Console.Error
- d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: Console.In is an instance(object) of TextReader class and we can use the methods and properties defined by TextReader to invoke the object console.in.

9. Choose the object/objects defined by the Textwriter class.

- a) Console.In
- b) Console
- c) Console.Error
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: Console.Out and Console.Error are objects of type TextWriter class.

- a) This will generate an exception
- b) 0
- c) Compile time error
- d) This will generate an exception

Attempted to Divide by Zero

[View Answer](#)

Answer: d

Explanation: None.

11. Choose the methods provided by Console.Out and Console.Error?

- a) Write
- b) WriteLine
- c) WriteKey
- d) Write & WriteLine

[View Answer](#)

Answer: d

Explanation: None.

---

- a) Compile time error
- b) Runs successfully does not print anything
- c) Runs successfully, ask for input and hence displays the result
- d) Syntax Error

[View Answer](#)

Answer: c

Explanation: None.

Output : This is a Console Application:

Please enter your lucky number: 3

Square of number is :9

ayzom.com

## C# Questions & Answers – Reading Console Input Operations

---

1. Name the exception thrown by read() on failure.

- a) InterruptedException
- b) SystemException
- c) SystemInputException
- d) I/O Exception

[View Answer](#)

Answer: d

Explanation: read() throws I/O exception on failure.

---

2. Which of these methods are used to read single character from the console?

- a) get()
- b) getline()
- c) read()
- d) readLine()

[View Answer](#)

Answer: c

Explanation: None.

---

3. Which of these method used to read strings from the console?

- a) get()
- b) getline()
- c) read()
- d) readLine()

[View Answer](#)

Answer: d

Explanation: None.

---

4. Which among the following methods are used to write characters to a string?

- a) StreamWriter
- b) StreamReader
- c) StringWriter
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: The stream class method writes characters to the string.

---

5. Which method in Console enables to read individual inputs directly from the keyboard in a non line buffered manner?

- a) Read()
- b) ReadKey()
- c) ReadLine()
- d) All of the mentioned

[View Answer](#)

Answer: b

Explanation: The .NET Framework includes a method in Console that enables you to read individual keystrokes directly from the keyboard, in a non-line-buffered manner. This method is called ReadKey(). When it is called, it waits until a key is pressed. When the key is pressed, ReadKey( ) returns the keystroke immediately.

---

6. What is the output returned by Console if ReadLine() stores I/O error?

- a) 1
- b) 0
- c) False
- d) I/O EXCEPTION ERROR

[View Answer](#)

Answer: d

Explanation: None.

---

- a) Compile time error
- b) Code run successfully prints nothing on console
- c) Code runs successfully prints input on console
- d) Run time error

[View Answer](#)

Answer: d

Explanation: Since only a single character is required to be entered on console when a string is entered , a run time exception is being generated as we had not used Read() which reads single character but used readLine() which reads string and is converted into the char using convert.tochar().

---

8. Name the method/methods used to read byte streams from the file?

- a) ReadByte()
- b) Read
- c) Readkey()
- d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: None.

---

9. Which of these classes are used by Byte streams for input and output operation?

- a) InputStream
- b) InputOutputSteam
- c) Reader
- d) All of the mentioned

[View Answer](#)

Answer: b

Explanation: Byte stream uses InputStream and OutputStream classes for input and output operation.

---

10. Which of these method/methods are used to read block or array of bytes from the file?

- a) Read()
- b) ReadByte()
- c) ReadLine()
- d) Readkey()

[View Answer](#)

Answer: a

Explanation: To read a block of bytes, use Read( ), which has this general form:  
int Read(byte[ ] array, int offset, int count).

## C# Questions & Answers – Writing Console Output Operations

---

1. Select the objects of the class TextWriter which is/are not used to perform the write operations to the console?

- a) Write()
- b) WriteLine()
- c) WriteError()
- d) All of the mentioned

[View Answer](#)

Answer: c

Explanation: TextWriter is a class with objects as write() and writeln().

---

- a) sharp
- b) c
- sharp
- c) c
- d) sharp c

[View Answer](#)

Answer: b

Explanation: Write() is used here which outputs one or more values to the screen without a newline character.

Output :

c  
sharp

---

3. Choose the correct statement about the WriteLine()?

- a) Can display one or more value to the screen
- b) Adds a newline character at the end of the each new output
- c) Allows to output data in as many different formats
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: By the definition of writeln().

---

- a) 0 6 7 8
- b) 0 5 7 9
- c) 5 9 0 7
- d) 0 5 7 12

[View Answer](#)

Answer: d

Explanation: indexOf('i') and lastIndexOf('i') are pre defined functions which are used to get the index of first and last occurrence of the character pointed by i in the given array.

Output :

0 5 7 12

- 
- a) hello 6world
  - b) hello good world
  - c) hello goodworld
  - d) hello good world

[View Answer](#)

Answer: c

Explanation: The insert() method inserts one string into another. It is overloaded to accept values of all simple types, plus String and Objects. String is inserted into invoking object at specified position. “Good ” is inserted in “Hello World” index 6 giving “Hello Good World”.

- a) efil evoli
- b) lifelove i
- c) efilevol i
- d) efil evol i

[View Answer](#)

Answer: c

Explanation: Reverse() an inbuilt method reverses all the characters singly and hence embed them into the string completely.

Output :

```
efilevol i
```

7. Which of the following statement is correct?

- a) reverse() method reverses some characters
- b) reverseall() method reverses all characters
- c) replace() method replaces all instances of a character with new character
- d) replace() method replaces first occurrence of a character in invoking string with another character

[View Answer](#)

Answer: c

Explanation: reverse() and replace() are by definition.

8. Which of these classes is used to create an object whose character sequence is mutable?

- a) String()
- b) StringBuilder()
- c) String() & StringBuilder()
- d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: Mutable strings are dynamic strings. They can grow dynamically as characters are added to them. stringbuilder class supports those methods that are useful for manipulating dynamic strings.

9. Select the namespace/namespaces which consists of methods like Length(), Indexer(), Append() for manipulating the strings.

- a) System.Class
- b) System.Array
- c) System.Text
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: The system.text namespace contains the StringBuilder class and hence must include using system.text for manipulating the mutable strings.

10. Select the method used to write single byte to a file?

- a) Write()
- b) WrteLine()
- c) WriteByte()
- d) All of the mentioned

[View Answer](#)

Answer: c

Explanation: To write a byte to a file, the WriteByte( ) method is used. Its simplest form is shown here:

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```
void WriteByte(byte value)
```

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Visit <https://ayzom.com> | <https://t.me/arki7n>

## C# Questions & Answers – Introduction of Stream Classes

---

1. Select the namespace on which the stream classes are defined?

- a) System.IO
- b) System.Input
- c) System.Output
- d) All of the mentioned

[View Answer](#)

Answer: a

Explanation: The core stream classes are defined within the System.IO namespace. To use these classes, you will usually include the following statement near the top of your program: using System.IO;

---

2. Choose the class on which all stream classes are defined?

- a) System.IO.stream
- b) System.Input.stream
- c) System.Output.stream
- d) All of the mentioned

[View Answer](#)

Answer: a

Explanation: The core stream class is System.IO.Stream. Stream represents a byte stream and is a base class for all other stream classes. It is also abstract, which means that you cannot instantiate a Stream object. Stream defines a set of standard stream operations.

---

3. Choose the stream class method which is used to close the connection:

- a) close()
- b) static close()
- c) void close()
- d) none of the mentioned

[View Answer](#)

Answer: c

Explanation: void close() closes the stream.

---

4. The method used to write a single byte to an output stream?

- a) void WriteByte(byte value)
- b) int Write(byte[] buffer ,int offset ,int count)
- c) write()
- d) none of the mentioned

[View Answer](#)

Answer: a

Explanation: Writes a single byte to an output stream.

---

5. Select the method which writes the contents of the stream to the physical device.

- a) fflush()
- b) void fflush()
- c) void Flush()
- d) flush()

[View Answer](#)

Answer: c

Explanation: The method used to write the contents of the stream to the physical device.

---

6. Select the method which returns the number of bytes from the array buffer:

- a) void WriteByte(byte value)
- b) int Write(byte[] buffer ,int offset ,int count)
- c) write()
- d) none of the mentioned

[View Answer](#)

Answer: b

Explanation: Writes a subrange of count bytes from the array buffer,beginning at buffer[offset], returning the number of bytes written.

7. Name the method which returns integer as -1 when the end of file is encountered.

- a) int read()
- b) int ReadByte()
- c) void readbyte()
- d) none of the mentioned

[View Answer](#)

Answer: b

Explanation: Returns an integer representation of the next available byte of input. Returns –1 when the end of the file is encountered.

8. Select the statements which define the stream.

- a) A stream is an abstraction that produces or consumes information
- b) A stream is linked to a physical device by the I/O system
- c) C# programs perform I/O through streams
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

9. Select the action of the method long seek()?

- a) Attempts to readup to count bytes into buffer starting at buffer[offset].
- b) Writes a single byte to an output stream
- c) Sets the current position in the stream to the specified offset from specified origin and hence returns the new position
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation:

```
long Seek(long offset, SeekOrigin origin)
```

Sets the current position in the stream to the specified offset from the specified origin. It returns the new position.

10. Which among the following attempts to read up to count bytes into buffer starting at buffer[offset], returning the number of bytes successfully read?

- a) int ReadByte()
- b) int Read(byte[] buffer ,int offset ,int count)
- c) Void WriteByte(byte value)
- d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: None.

## C# Questions & Answers – Byte Stream

---

1. Which of these classes is used to read and write bytes in a file?

- a) FileReader
- b) FileWriter
- c) FileInputStream
- d) InputStreamReader

[View Answer](#)

Answer: c

Explanation: None.

---

2. Which of these data types is returned by every method of OutputStream?

- a) int
- b) float
- c) byte
- d) none of the mentioned

[View Answer](#)

Answer: d

Explanation: Every method of OutputStream returns void and throws an IOException in case of errors.

---

3. Which of these classes is used for input and output operation when working with bytes?

- a) InputStream
- b) Reader
- c) Writer
- d) All of the mentioned

[View Answer](#)

Answer: a

Explanation: InputStream & OutputStream are designed for byte stream. Reader and writer are designed for character stream.

---

4. Which among the following is used for storage of memory aspects?

- a) BufferedStream
- b) FileStream
- c) MemoryStream
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: A byte stream that uses memory for storage.

---

5. Which among the following is used for storage of unmanaged memory aspects?

- a) BufferedStream
- b) FileStream
- c) MemoryStream
- d) UnmanagedMemoryStream

[View Answer](#)

Answer: d

Explanation: A byte stream that uses unmanaged memory for storage.

---

6. Which property among the following represents the current position of the stream?

- a) long Length
- b) long Position

- c) int Length
- d) all of the mentioned

[View Answer](#)

Answer: a

Explanation: This property contains the length of the stream. This property is read-only.

---

7. Choose the FileMode method which is used to create a new output file with the condition that the file with same name must not exist.

- a) FileMode.CreateNew
- b) FileMode.Create
- c) FileMode.OpenOrCreate
- d) FileMode.Truncate

[View Answer](#)

Answer: a

Explanation: Creates a new output file. The file must not already be existing.

---

8. Choose the FileMode method which is used to create a new output file with the condition that the file with same name if exists will destroy the old file:

- a) FileMode.CreateNew
- b) FileMode.Create
- c) FileMode.OpenOrCreate
- d) FileMode.Truncate

[View Answer](#)

Answer: b

Explanation: Creates a new output file. Any pre-existing file with the same name will be destroyed.

---

9. Which of these is a method used to clear all the data present in output buffers?

- a) clear()
- b) flush()
- c) fflush()
- d) close()

[View Answer](#)

Answer: b

Explanation: None.

---

10. Which of these is a method used for reading bytes from the file?

- a) clear()
- b) ReadByte()
- c) put()
- d) write()

[View Answer](#)

Answer: b

Explanation: FileStream defines two methods that reads bytes from a file: ReadByte() and Read().

## C# Questions & Answers – Character Stream

---

1. From which of these classes, the character based output stream class StreamWriter is derived?

- a) TextWriter
- b) TextReader
- c) Character Stream
- d) All of the mentioned

[View Answer](#)

Answer: a

Explanation: StreamWriter is derived from TextWriter. To create a character-based output stream, wrap a Stream object (such as a FileStream) inside a StreamWriter

---

2. The advantages of using character stream based file handling are?

- a) they operate directly on unicode characters
- b) they operate directly on bits
- c) they store unicode text
- d) all of the mentioned

[View Answer](#)

Answer: a

Explanation: Although byte-oriented file handling is quite common, it is possible to use character-based streams for this purpose. The advantage of the character streams is that they operate directly on Unicode characters. Thus, if you want to store Unicode text, the character streams are certainly the best option.

---

3. Which among the following classes are used to perform the character based file operations?

- a) StreamReader
- b) InputStream
- c) OutputStream
- d) All of the mentioned

[View Answer](#)

Answer: a, b

Explanation: In general, to perform character-based file operations, wrap a FileStream inside a StreamReader or a StreamWriter. These classes automatically convert a byte stream into a character stream, and vice versa.

---

4. Which of these is a method used to clear all the data present in output buffers?

- a) clear()
- b) flush()
- c) fflush()
- d) close()

[View Answer](#)

Answer: b

Explanation: None.

---

5. Which method of the character stream class returns the numbers of characters successfully read starting at index?

- a) int Read()
- b) int Read(char[] buffer, int index, int count)
- c) int ReadBlock(char[ ] buffer, int index, int count)
- d) none of the mentioned

[View Answer](#)

Answer: c

Explanation: Attempts to read the count characters into buffer starting at buffer[index], returning the number of characters successfully read.

---

6. Which method of character stream class returns the numbers of characters successfully read starting at count?

- a) int Read()
- b) int Read(char[] buffer, int index, int count)
- c) int ReadBlock(char[] buffer, int index, int count)
- d) none of the mentioned

[View Answer](#)

Answer: b

Explanation: Attempts to read the count characters into buffer starting at buffer[count], returning the number of characters successfully read.

7. Which method among the following returns the integer if no character is available?

- a) int peek()
- b) int read()
- c) string ReadLine()
- d) none of the mentioned

[View Answer](#)

Answer: a

Explanation: Obtains the next character from the input stream, but does not remove that character. Returns -1 if no character is available.

8. Which of the following is used to perform all input & output operations in C#?

- a) streams
- b) Variables
- c) classes
- d) Methods

[View Answer](#)

Answer: a

Explanation: Streams are used for input and output operations in any programming language.

9. Which of the following is a type of stream in C#?

- a) Integer stream
- b) Character stream
- c) Float stream
- d) Long stream

[View Answer](#)

Answer: b

Explanation: Two types of streams – Byte stream and character stream are defined in C#.

- a) the name of the file to open
- b) specifies the full path of file
- c) if append is true, the file is appended to the end of the existing file
- d) all of the mentioned

[View Answer](#)

Answer: d

Explanation: StreamWriter(string path, bool append) .Here, path specifies the name of the file to be opened, which can include a full path specifier. In the second form, if append is true, then the output is appended to the end of an existing file. Otherwise, output overwrites the specified file.

## C# Questions & Answers – Fundamental of Delegates

---

1. The ‘ref’ keyword can be used with which among the following?

- a) Static function/subroutine
- b) Static data
- c) Instance function/subroutine
- d) All of the mentioned

[View Answer](#)

Answer: a

Explanation: None.

---

2. To implement delegates, the necessary condition is?

- a) class declaration
- b) inheritance
- c) runtime polymorphism
- d) exceptions

[View Answer](#)

Answer: a

Explanation: None.

---

3. Suppose a Generic class called as SortObjects is to be made capable of sorting objects of any type(integer, single, byte etc).Then, which of the following programming constructs is able to implement the comparison function?

- a) interface
- b) encapsulation
- c) delegate
- d) attribute

[View Answer](#)

Answer: c

Explanation: None.

---

4. To generate a simple notification for an object in runtime, the programming construct to be used for implementing this idea?

- a) namespace
- b) interface
- c) delegate
- d) attribute

[View Answer](#)

Answer: c

Explanation: None.

---

5. Choose the incorrect statement among the following about the delegate?

- a) delegates are of reference types
- b) delegates are object oriented
- c) delegates are type safe
- d) none of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

---

6. Which among the following is the correct statement about delegate declaration ?

`delegate void del(int i);`

- a) on declaring the delegate, a class called del is created
- b) the del class is derived from the MulticastDelegate class
- c) the del class will contain a one argument constructor and an invoke() method
- d) all of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

---

7. Which of the following is an incorrect statement about delegate?

- a) a single delegate can invoke more than one method
- b) delegates could be shared
- c) delegates are type safe wrappers for function pointers
- d) delegate is a value type

[View Answer](#)

Answer: c

Explanation: None.

---

8. Which among the following differentiates a delegate in C#.NET from a conventional function pointer in other languages?

- a) delegates in C#.NET represent a new type in the Common Type System
- b) delegates allows static as well as instance methods to be invoked
- c) delegates are type safe and secure
- d) none of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

---

9. Choose the incorrect statement about delegates?

- a) delegates are not type safe
- b) delegates can be used to implement callback notification
- c) delegate is a user defined type
- d) delegates permits execution of a method in an asynchronous manner

[View Answer](#)

Answer: a

Explanation: None.

---

10. Which of the following statements is correct about a delegate?

- a) inheritance is a prerequisite for using delegates
- b) delegates are not type safe
- c) delegates provides wrappers for function pointers
- d) none of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

## C# Questions & Answers – Delegates in Detail

---

c)

```
csharp s = new csharp();
delegate void del = new delegate(ref abc);
del();
```

d) all of the mentioned

[View Answer](#)

Answer: b

Explanation: None.

---

c)

```
csharp s = new csharp();
delegate void del = new delegate(ref abc);
del();
```

d) none of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

---

c)

```
csharp s = new csharp();
delegate void del = new delegate(ref abc);
del();
```

d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: None.

---

c)

```
csharp s = new csharp();
delegate void del = new delegate(ref abc);
del();
```

a) Test Your

b) ur C#.NET

c) ur C#.NET Skills

d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

---

c)

```
csharp s = new csharp();
delegate void del = new delegate(ref abc);
del();
```

a) Test Your

- b) Test-Your-C#.NET-Skills
- c) ur C#.NET Skills
- d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: None.

Output:

Test-Your-C#.NET-Skills

---

c)

```
csharp s = new csharp();
delegate void del = new delegate(ref abc);
del();
```

6. Choose the statements which makes delegate in C#.NET different from a normal class?

- a) Delegates in C#.NET is a base class for all delegates type
- b) Delegates created in C#.NET are further not allowed to derive from the delegate types that are created
- c) Only system and compilers can derive explicitly from the Delegate or MulticastDelegate class
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

c)

```
csharp s = new csharp();
delegate void del = new delegate(ref abc);
del();
```

7. Which of the following are the correct statements about delegates?

- a) Delegates can be used to implement callback notification
- b) Delegates permit execution of a method on a secondary thread in an asynchronous manner
- c) Delegate is a user defined type
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

c)

```
csharp s = new csharp();
delegate void del = new delegate(ref abc);
del();
```

- a) Test Ykur C#.NET Skills
- b) Test Ykour C#.NET Skills
- c) Test Your C#.NET Skills
- d) Test ur C#.NET Skills

[View Answer](#)

Answer: c

Explanation: None.

Output:

Test Your C#.NET Skills

---

c)

```
csharp s = new csharp();
delegate void del = new delegate(ref abc);
del();
```

9. Incorrect statements about delegates are?

- a) Delegates are reference types
- b) Delegates are object oriented
- c) Delegates are type safe
- d) Only one method can be called using a delegate

[View Answer](#)

Answer: d

Explanation: None.

---

c)

```
csharp s = new csharp();
delegate void del = new delegate(ref abc);
del();
```

10. Select the modifiers which control the accessibility of the delegate:

- a) new
- b) protected
- c) public
- d) all of the mentioned

[View Answer](#)

Answer: d

Explanation: By definition

## C# Questions & Answers – Fundamental of Generics

---

1. What is meant by the term generics?

- a) parameterized types
- b) class
- c) structure
- d) interface

[View Answer](#)

Answer: a

Explanation: The term generics means parameterized types. Parameterized types are important because they enable us to create classes, structures, interfaces, methods, and delegates in which, the type of data upon which they operate is specified as a parameter.

---

2. Are generics in C# same as the generics in java and templates in C++?

- a) Yes
- b) No
- c) May be
- d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: Although C# generics are similar to templates in C++ and generics in Java, they are not the same as either. In fact, there are some fundamental differences among these three approaches to generics

---

3. Choose the advantages of using generics?

- a) Generics facilitate type safety
- b) Generics facilitate improved performance and reduced code
- c) Generics promote the usage of parameterized types
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: By definition of generics.

---

- a) Generics class declaration
- b) Generic constructor declaration
- c) A simple class declaration
- d) All of the mentioned

[View Answer](#)

Answer: a

Explanation: class Gen This defines the generics declaration where 'T' is the name of type parameter. This parameter is used as a placeholder for the actual type that will be specified when a Gen object is created. Gen is a generic class. T is used to declare a variable called 'ob'.

---

- a) Generics class Declaration
- b) Declaration of variable
- c) Generic constructor declaration
- d) All of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

---

6. Select the type argument of an open constructed type?

- a) Gen<int>

- b) Gen<T>
- c) Gen<>
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: A generic type, such as Gen, is an abstraction. In C# terminology, a construct such as Gen is called an open constructed type, because the type parameter T (rather than an actual type, such as int) is specified.

7. Which among the given classes is present in System.Collection.Generic.namespace?

- a) Stack
- b) Tree
- c) Sorted Array
- d) All of the mentioned

[View Answer](#)

Answer: a

Explanation: None.

8. Which of these is a correct way of defining generic method?

- a) name(T1, T2, ..., Tn) { /\* ... \*/ }
- b) public name { /\* ... \*/ }
- c) class name[T1, T2, ..., Tn] { /\* ... \*/ }
- d) name{T1, T2, ..., Tn} { /\* ... \*/ }

[View Answer](#)

Answer: b

Explanation: The syntax for a generic method includes a type parameter, inside angle brackets, and appears before the method's return type. For static generic methods, the type parameter section must appear before the method's return type.

9. Which of these type parameters is used for generic methods to return and accept any type of object?

- a) K
- b) N
- c) T
- d) V

[View Answer](#)

Answer: c

Explanation: T is used for type. A type variable can be any non-primitive type you specify: any class type, any interface type, any array type, or even another type variable.

d) all of the mentioned

[View Answer](#)

Answer: b

Explanation: None.

- a) 0
- b) Runtime Error
- c) 40
- d) Compile time Error

[View Answer](#)

Answer: c

Explanation: None.

Output :

40.

- 
- a) Compile time error
  - b) Csharp
  - c) 0
  - d) Run time error

[View Answer](#)

Answer: b

Explanation: None.

Output :

Csharp

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## C# Question & Answers – Generic Methods

---

- a) Class MyConatiner requires that its type argument must implement Icomparable interface
- b) There are multiple constraints on type argument to MyConatiner class
- c) Compiler will report an error
- d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: None.

---

- a) Run time exception error
- b) Compile time error
- c) Code runs successfully and prints required output
- d) None of the mentioned

[View Answer](#)

Answer: c

Output :

```
hi  
20
```

---

3. Which of given statements are valid about generics in .NET Framework?

- a) generics are useful in collection classes in .NET framework
- b) generics delegates are not allowed in C#.NET
- c) generics is a not language feature
- d) all of the mentioned

[View Answer](#)

Answer: a

Explanation: None.

---

- a) Compile time error
- b) Generic being a keyword cannot be used as a class name
- c) Runtime error
- d) Code runs successfully

[View Answer](#)

Answer: d

Output :

```
Hello
```

---

- a) Compile time error
- b) A
- c) Run time error
- d) Code runs successfully but prints nothing

[View Answer](#)

Answer: b

Output :

```
A
```

---

6. Which of the following is a valid statement about generic procedures in C#.NET are?

- a) All procedures in a Generic class are generic
- b) Generic procedures should take at least one type parameter
- c) Only those procedures labeled as Generic are Generic
- d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: None.

- 
- a) Class MyContainer requires that its type argument must implement IComparable interface
  - b) There are multiple constraints on type argument to MyContainer class
  - c) Type argument of class MyContainer should be IComparable
  - d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: None.

- 
- a) code runs successfully but prints nothing
  - b) code runs successfully and prints 1
  - c) program will give run time error
  - d) compile time error

[View Answer](#)

Answer: d

Explanation: compiler will give error as operator '+' is not defined for types 'T' and 'int'

---

9. Which among the given classes represents System.Collections.Generic namespace?

- a) SortedDictionary
- b) Sorted Array
- c) Stack
- d) All of the mentioned

[View Answer](#)

Answer: a

Explanation: None.

- 
- a) Compile time error
  - b) Csharp
  - c) 0
  - d) Run time error

[View Answer](#)

Answer: b

Output :

Csharp

- 
- a) 0
  - b) 30
  - c) Runtime Error
  - d) Compile time Error

[View Answer](#)

Answer: b

Explanation: None.

Output :

30.

---

a) C++

b) 20

c) C++

20

d) 0

[View Answer](#)

Answer: c

Explanation: None.

Output :

```
C++  
20
```

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## C# Questions & Answers – Fundamental of LINQ

1. Assume 2 columns named as Product and Category how can be both sorted out based on first by category and then by product name?

- a) var sortedProds = \_db.Products.OrderBy(c => c.Category)
- b) var sortedProds = \_db.Products.OrderBy(c => c.Category) + ThenBy(n => n.Name)
- c) var sortedProds = \_db.Products.OrderBy(c => c.Category) . ThenBy(n => n.Name)
- d) all of the mentioned

[View Answer](#)

Answer: c

Explanation: var sortedProds = \_db.Products.OrderBy(c => c.Category) . ThenBy(n => n.Name).

2. Choose the wrong statement about the LINQ?

- a) The main concept behind the linq is query
- b) linq makes use of foreach loop to execute the query
- c) It is not required that linq should make use of IEnumerable interface
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: LINQ at core is the query. A query specifies what data will be obtained from a data source. Query in linq is executed using foreach loop. In order for a source of data to be used by LINQ, it must implement the IEnumerable interface.

3. Choose the namespace in which the interface IEnumerable is declared?

- a) System.Collections
- b) System.Collections.Generic
- c) Both System.Collections & System.Collections.Generic
- d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: By definition.

4. Can we use linq to query against a DataTable?

- a) Yes
- b) No
- c) Either Yes or No
- d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: We cannot use query against the DataTable's Rows collection, since DataRowCollection doesn't implement IEnumerable. We need to use the AsEnumerable() extension for DataTable. As an example:

```
var results = from myRow in myDataTable.AsEnumerable()
where myRow.Field<int>("RowNo") == 1
select myRow;
```

- a) 0, 1, -2, -4, 5
- b) 1, 3, 0, 5
- c) 1, 3, 5
- d) Run time error

[View Answer](#)

Answer: b

Explanation: A simple linq query generated program to show a query is implemented using linq.

Output :

1, 3, 0, 5

---

6. Select the namespace which should be included while making use of LINQ operations:

- a) System.Text
- b) System.Collections.Generic
- c) System.Linq
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: By definition.

---

- a) code run successfully prints nothing
- b) run time error
- c) code run successfully and executes output
- d) compile time error

[View Answer](#)

Answer: c

Explanation: -2, 0, -4

---

- a) Prints nothing code runs successfully
- b) Run time error
- c) Arranged in descending order code runs successfully
- d) Compile time error

[View Answer](#)

Answer: c

Explanation: None.

Output :

5, 3, 1, 0, -2, -4

---

- a) Code runs successfully prints nothing
- b) Code runs successfully prints required output
- c) Run time error
- d) Compile time error

[View Answer](#)

Answer: b

Explanation: None.

Output :

4, 3, 5

---

- a) Code runs successfully prints nothing
- b) Run time error
- c) Code runs successfully prints required output
- d) Compile time error

[View Answer](#)

Answer: c

Explanation: None.

Output :

Akhilesh Yadav | [Linkedin.com/in/arki7n](https://www.linkedin.com/in/arki7n) | [instagram.com/arki7n](https://www.instagram.com/arki7n)

The largest values in nums: 78

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Visit <https://ayzom.com> | <https://t.me/arki7n>

## C# Questions & Answers – Operation with LINQ

---

3. What will be the output of the given code snippet?

```
1. class Program  
2. {  
3.     static void Main(string[] args)  
4.     {  
5.         int[] nums = {3, 1, 2, 5, 4};  
6.         var ltAvg = from n in nums  
7.                     let x = nums.Average()  
8.                     where n < x  
9.                     select n;  
10.        Console.WriteLine("The average is " + nums.Average());  
11.        Console.ReadLine();  
12.    }  
13. }
```

- a) a a l h a b g m m a p e t a
- b) a a a a a b e g h l m m p t
- c) a g h l m m p t a a a b e
- d) Run time error

[View Answer](#)

Answer: b

Explanation: None.

Output:

a a a a a b e g h l m m p t

---

3. What will be the output of the given code snippet?

```
1. class Program  
2. {  
3.     static void Main(string[] args)  
4.     {  
5.         int[] nums = {3, 1, 2, 5, 4};  
6.         var ltAvg = from n in nums  
7.                     let x = nums.Average()  
8.                     where n < x  
9.                     select n;  
10.        Console.WriteLine("The average is " + nums.Average());
```

```
11.         Console.ReadLine();
12.     }
13. }
```

- a) code run successfully prints nothing
- b) run time error
- c) code run successfully prints multiple of 2
- d) compile time error

[View Answer](#)

Answer: c

Explanation: We had created the queries by using query method such as Where() and Select(). This creates a query called posNums that creates a sequence of positive values in nums in descending order using the method OrderByDescending().

Output:

```
10 6 2
```

---

3. What will be the output of the given code snippet?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         int[] nums = {3, 1, 2, 5, 4};
6.         var ltAvg = from n in nums
7.                     let x = nums.Average()
8.                     where n < x
9.                     select n;
10.        Console.WriteLine("The average is " + nums.Average());
11.        Console.ReadLine();
12.    }
13. }
```

- a) Run time error
- b) 3
- c) 5
- d) Compile time error

[View Answer](#)

Answer: b

Explanation: Built in method Avg() is used

Output:

```
3
```

---

3. What will be the output of the given code snippet?

```
1. class Program
```

```
2. {
3.     static void Main(string[] args)
4.     {
5.         int[] nums = {3, 1, 2, 5, 4};
6.         var ltAvg = from n in nums
7.                     let x = nums.Average()
8.                     where n < x
9.                     select n;
10.        Console.WriteLine("The average is " + nums.Average());
11.        Console.ReadLine();
12.    }
13. }
```

- a) Compile time error
- b) Run time error
- c) 5 is a factor of 10
- d) 7 is not a factor of 10
- e) 5 is a factor of 10

[View Answer](#)

Answer: d

Explanation: The current program has introduced the concept of expression tree. An expression tree is a representation of a lambda expression as data. The program illustrates the two key steps in using an expression tree. First, it creates an expression tree by using this statement:

Expression>

IsFactorExp = (n, d) => (d != 0) ? (n % d) == 0 : false;

Second, this constructs a representation of a lambda expression in memory.

Output:

```
5 is a factor of 10
```

3. What will be the output of the given code snippet?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         int[] nums = {3, 1, 2, 5, 4};
6.         var ltAvg = from n in nums
7.                     let x = nums.Average()
8.                     where n < x
9.                     select n;
10.        Console.WriteLine("The average is " + nums.Average());
11.        Console.ReadLine();
```

```
12.    }
13. }
```

5. Choose the namespace in which Expression trees are encapsulated:

- a) System.Linq
- b) System.Linq.Expressions
- c) System.Text
- d) System.Collections.Generic

[View Answer](#)

Answer: b

Explanation: By definition.

---

3. What will be the output of the given code snippet?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         int[] nums = {3, 1, 2, 5, 4};
6.         var ltAvg = from n in nums
7.                     let x = nums.Average()
8.                     where n < x
9.                     select n;
10.        Console.WriteLine("The average is " + nums.Average());
11.        Console.ReadLine();
12.    }
13. }
```

a) from n in nums where n > 0

select n

b) from n in nums where n > 0

select n.Count()

c) (from n in nums where n > 0

select n).Count();

d) Both “from n in nums where n > 0 select n.Count()” & “(from n in nums where n > 0 select n).Count();”

[View Answer](#)

Answer: c

Explanation: None.

Output:

advertisement

```
int len = (from n in nums where n > 0
           select n).Count();
```

---

3. What will be the output of the given code snippet?

```
1. class Program
```

```
2. {
3.     static void Main(string[] args)
4.     {
5.         int[] nums = {3, 1, 2, 5, 4};
6.         var ltAvg = from n in nums
7.             let x = nums.Average()
8.             where n < x
9.             select n;
10.        Console.WriteLine("The average is " + nums.Average());
11.        Console.ReadLine();
12.    }
13. }
```

- a) Execution of code with nothing being printed
- b) Execution of code with printing all numbers
- c) Execution of code with counting total numbers greater than zero
- d) Run time error

[View Answer](#)

Answer: c

Explanation: None.

Output:

3

---

3. What will be the output of the given code snippet?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         int[] nums = {3, 1, 2, 5, 4};
6.         var ltAvg = from n in nums
7.             let x = nums.Average()
8.             where n < x
9.             select n;
10.        Console.WriteLine("The average is " + nums.Average());
11.        Console.ReadLine();
12.    }
13. }
```

- a) Compile time error

- b) Run time error
- c) 1 -2 0 0 -1 2
- d) 2 -1 0 0 -2 1

[View Answer](#)

Answer: c

Explanation: Query solved using lambda expression .The code “var posNums = nums.Where(n => n < 10).Select(r => r%3)” creates a query called posNums that creates a sequence of the values less than 10 in nums.

Output:

```
1 -2 0 0 -1 2
```

3. What will be the output of the given code snippet?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         int[] nums = {3, 1, 2, 5, 4};
6.         var ltAvg = from n in nums
7.                     let x = nums.Average()
8.                     where n < x
9.                     select n;
10.        Console.WriteLine("The average is " + nums.Average());
11.        Console.ReadLine();
12.    }
13. }
```

- a) Compile time error

- b) Run time error

- c) facebook.com

netflix.net

google.net

- d) google.net

netflix.net

[View Answer](#)

Answer: d

Explanation: Searches for the string which ends with .net.

Output:

```
google.net
netflix.net
```

3. What will be the output of the given code snippet?

```
1. class Program
2. {
3.     static void Main(string[] args)
```

```
4.    {
5.        int[] nums = {3, 1, 2, 5, 4};
6.        var ltAvg = from n in nums
7.            let x = nums.Average()
8.            where n < x
9.            select n;
10.       Console.WriteLine("The average is " + nums.Average());
11.       Console.ReadLine();
12.    }
13. }
```

- a) 10 2 -4 -6
- b) 5 1 -2 -3
- c) 1 5 -2 -3
- d) Run time error

[View Answer](#)

Answer: a

Explanation: None.

Output:

10 2 -4 -6

## C# Questions & Answers – Introduction of Array Class

1. Select the class which is the base class for all arrays in C#?

- a) Array
- b) Text
- c) arrays
- d) Both Array & Text

[View Answer](#)

Answer: a

Explanation: None.

2. Select the interfaces implemented by array class:

- a) ICloneable, ICollection
- b) IEnumerable, IStructuralComparable, IStructuralEquatable
- c) ICloneable, ICollection, IList
- d) Only IEnumerable, IStructuralComparable, IStructuralEquatable & ICloneable, ICollection, IList

[View Answer](#)

Answer: d

Explanation: None.

3. Choose the correct statement about the IComparer interface in C#:

- a) The IComparer interface is in System.Collections
- b) It defines a method called Compare(), which compares the values of two objects
- c) Both The IComparer interface is in System.Collections & It defines a method called Compare(), which compares the values of two objects
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: The IComparer interface is in System.Collections. It defines a method called Compare(), which compares the values of two objects. It is shown here: int Compare(object x, object y). It returns greater than zero if x is greater than y, less than zero if x is less than y, and zero if the two values are equal.

4. Choose the correct statement about the IComparer interface in C#:

- a) The IComparer is in System.Collections.Generic
- b) It defines a generic form of Compare()
- c) Only The IComparer is in System.Collections.Generic
- d) Both The IComparer is in System.Collections.Generic & It defines a generic form of Compare()

[View Answer](#)

Answer: d

Explanation: IComparer is in System.Collections.Generic. It defines a generic form of Compare(), which is shown here: int Compare(T x, T y). It works the same as its non-generic relative: returning greater than zero if x is greater than y, less than zero if x is less than y, and zero if the two values are equal.

- a) a property is read only by nature
- b) property is true if the array object is read only and false otherwise
- c) value is false for arrays
- d) all of the mentioned

[View Answer](#)

Answer: d

Explanation: A read-only property that is true if the Array object is read-only and false if it is not. This value is false for arrays.

- a) Searches a portion of the array specified by array for the value specified by value
- b) The search begins at the index specified by index and is restricted to length elements. Returns the index of the first match.
- c) If value is not found, returns a zero value
- d) All of the mentioned

[View Answer](#)

Answer: b

Explanation: Searches a portion of the array specified by array for the value specified by value. The search begins at the index specified by index and is restricted to length elements. Returns the index of the first match. If the value is not found, returns a negative value. The array should be sorted and one-dimensional.

- a) True
- 0
- b) Run time error
- c) True
- 9
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: Using Built in method Sort() , first array is sorted then index of number '14' is searched using array class built in method Array.BinarySearch(nums, 14) and hence at last if loop is used to make comparison of index position with random position '9' chosen here.  
Output:

True  
9

- a) Array elements:  
beta alpha gamma  
Array elements now:  
ammag ahpla ateb
- b) Array elements:  
beta alpha gamma  
Array elements now:  
gamma beta alpha
- c) Array elements:  
beta alpha gamma  
Array elements now:  
gamma alpha beta
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: 'Reverse()' a built in method to reverse an array of string defined in array class is used.

Output:

advertisement

```
Array elements:  
beta alpha gamma  
Array elements now:  
gamma alpha beta
```

9. Which among the following is the wrong way to define and initialize an array of 4 integers?

- a) int[] a = {25, 30, 40, 5}
- b) int[] a;  
a = new int[3] a[0] = 25  
a[1] = 30

a[2] = 40  
a[3] = 5  
c) int[] a  
a = new int[4]{25, 30, 40, 5}  
d) int[] a  
a = new int[4] a[0] = 25  
a[1] = 30  
a[2] = 40  
a[3] = 5  
View Answer

Answer: b

Explanation: None.

---

10. Which method will be used to copy content from one array to another array?

- a) Copy()
- b) copy()
- c) Both Copy() & copy()
- d) None of the mentioned

View Answer

Answer: a

Explanation: Copy() is a built-in method of array class used to copy the elements from one array to another array

---

- a) Run time error
- b) 5, 4, 3, 2, 1
- c) Compile time error
- d) None of the mentioned

View Answer

Answer: b

Explanation: Reverse built in method() of array class is used to reverse the given array.

Output:

5, 4, 3, 2, 1

## C# Question & Answers – Runtime Type

1. Which mechanism among the following helps in identifying a type during the execution of a program?

- a) Reflection
- b) Runtime type ID
- c) Both Reflection & Runtime type ID
- d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: Runtime type ID is the mechanism that lets identify a type during the execution of a program. Using Runtime type ID we can construct and use objects at runtime.

2. Select the statement which are correct about RTTI(Runtime type identification):

- a) It allows the type of an object to be determined during program execution
- b) It tells what type of object is being referred to by a base class reference determined by RTTI
- c) Helps in prevention of an invalid cast exception in advance
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: Runtime type identification (RTTI) allows the type of an object to be determined during program execution. RTTI is useful for many reasons .For example, we can discover precisely what type of object is being referred to by a base-class reference. Another use of RTTI is to test in advance whether a cast will succeed, preventing an invalid cast exception.

3. Select the Keyword which supports the run time type identification:

- a) is, as
- b) as, typeof
- c) Both is, as & as, typeof
- d) Only is, as

[View Answer](#)

Answer: c

Explanation: None.

- a) Determines the type of an object
- b) a simple deceleration
- c) Both Determines the type of an object & a simple deceleration
- d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: The given expression determines the type of an object using the ‘is’ operator .Here, expr is an expression that describes an object whose type is being tested against type. If the type of expr is the same as, or compatible with, type, then the outcome of this operation is true. Otherwise, it is false

- a) a is an A

This won’t display — a not derived from B

- b) a is an A

b is an A because it is derived from A

- c) b is an A because it is derived from A

This won’t display — a not derived from B

- d) “Both ““a is an A

This won’t display — a not derived from B”” & ““a is an A

b is an A because it is derived from A””

[View Answer](#)

Answer: a

Explanation: We have to include the line ‘This won’t display — a not derived from B’ this is because ‘a’ is object of class ‘A’ which itself is derived from class ‘B’. So, ‘a’ is a B

Output:

```
a is an A  
This won't display -- a not derived from B
```

---

6. Which operator among the following supports the operation of conversion at runtime without generating the exceptions?

- a) is
- b) as
- c) typeof
- d) all of the mentioned

[View Answer](#)

Answer: b

Explanation: By definition.

---

7. Which operator among the following is used to perform the operation of boxing, unboxing, reference and identity conversions?

- a) is
- b) as
- c) typeof
- d) all of the mentioned

[View Answer](#)

Answer: b

Explanation: use the as operator, which has this general form:

advertisement

```
expr as type
```

Here, expr is the expression being converted to type. If the conversion succeeds, then a reference to type is returned. Otherwise, a null reference is returned. The as operator can be used to perform only reference, boxing, unboxing, or identity conversions.

- 
- a) Run time error
  - b) The cast in b = (B) a is NOT allowed
  - c) The cast in b = (B) a is allowed
  - d) Compile time error

[View Answer](#)

Answer: b

Explanation: since a is not a B, the cast of a to B is invalid and is prevented by the if statement.

Output:

```
The cast in b = (B) a is NOT allowed
```

---

9. Which operator among the following supplies the information about characteristics of a typeof?

- a) is
- b) as
- c) typeof
- d) none of the mentioned

[View Answer](#)

Answer: c

Explanation: C# supplies the typeof operator. It retrieves a System.Type object for a given type. Using this object, we can determine the type's

characteristics.

---

- a) Is a class  
Is abstract
  - b) Is abstract
  - c) System.IO.StreamReader  
Is a class  
Is concrete
  - d) Both Is a class  
Is abstract & System.IO.StreamReader  
Is a class  
Is concrete
- [View Answer](#)

Answer: c

Explanation: This program obtains a Type object that describes StreamReader. It then displays the fullname, and determines if it is a class and whether it is abstract.

Output:

```
System.IO.StreamReader
Is a class
Is concrete
```

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## C# Questions & Answers – Introduction of Reflections

1. Which feature enables to obtain information about the use and capabilities of types at runtime?

- a) Runtime type ID
- b) Reflection
- c) Attributes
- d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: Reflection is the feature that enables you to obtain information about a type. The term reflection comes from the way the process works: A Type object mirrors the underlying type that it represents. Reflection is a powerful mechanism because it allows us to learn and use the capabilities of types that are known only at runtime.

2. Choose the namespace which consists of classes that are part of .NET Reflection API:

- a) System.Text
- b) System.Name
- c) System.Reflection
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: Many of the classes that support reflection are part of the .NET Reflection API, which is in the System.Reflection namespace.  
eg : using System.Reflection;

3. Choose the correct statement about System.Type namespace:

- a) Core of the reflection subsystem as it encapsulates a type
- b) Consists of many methods and properties that can be used to obtain information about a type at runtime
- c) Both Core of the reflection subsystem as it encapsulates a type & Consists of many methods and properties that can be used to obtain information about a type at runtime
- d) Only Consists of many methods and properties that can be used to obtain information about a type at runtime

[View Answer](#)

Answer: c

Explanation: System.Type is at the core of the reflection subsystem because it encapsulates a type. It contains many properties and methods that you will use to obtain information about a type at runtime.

4. Choose the class from which the namespace ‘System.Type’ is derived:

- a) System.Reflection
- b) System.Reflection.MemberInfo
- c) Both System.Reflection & System.Reflection.MemberInfo
- d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: Type is derived from an abstract class called System.Reflection.MemberInfo

5. What does the following property signify?

MemberTypes MemberType

- a) Helps in distinguishing kinds of members
- b) Property helps in determining if member is a field, method, property or event
- c) Both Helps in distinguishing kinds of members & Property helps in determining if member is a field, method, property or event
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: This property obtains the kind of the member. This value indicates if the member is a field, method, property, event, or constructor among others.

6. The property signifies “Obtains a Module object that represents the module (an executable file) in which the reflected type resides”. Choose the property which specifies the following statement:

- a) Type DeclaringType
- b) int MetadataToken
- c) Module Module
- d) Type ReflectedType

[View Answer](#)

Answer: c

Explanation: By definition.

7. Choose the method defined by MethodInfo:

- a) GetCustomAttributes()
- b) IsDefined()
- c) GetCustomAttributesData()
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: MethodInfo includes two abstract methods: GetCustomAttributes( ) and IsDefined( ). These both relate to attributes. The first obtains a list of the custom attributes associated with the invoking object. The second determines if an attribute is defined for the invoking object. The .NET Framework Version 4.0 adds a method called GetCustomAttributesData(), which returns information about custom attributes

- a) Returns an array of MethodInfo objects
- b) Returns a list of the public methods supported by the type by using GetMethods()
- c) Both Returns an array of MethodInfo objects & Returns a list of the public methods supported by the type by using GetMethods()
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: A list of the public methods supported by the type can be obtained by using GetMethods(). It returns an array of MethodInfo objects that describe the methods supported by the invoking type. MethodInfo is in the System.Reflection namespace.

- a) Calling a type using invoke()
- b) Any arguments that need to be passed to the method are specified in the array parameters
- c) The value returned by the invoked method is returned by Invoke()
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: Here, obj is a reference to the object on which the method is invoked. (For static methods, you can pass null to obj.) Any arguments that need to be passed to the method are specified in the array parameters. If no arguments are needed, parameters must be null. Also, parameters must contain exactly the same number of elements as the number of arguments.

- a) A property defined by MethodInfo
- b) Obtains a list of the type arguments bound to a closed constructed generic type
- c) The list may contain both type arguments and type parameters
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: The following method Obtains a list of the type arguments bound to a closed constructed generic type or the type parameters if the

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specified type is a generic type definition. For an open constructed type, the list may contain both type arguments and type parameters.

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## C# Questions & Answers – Collection Classes

---

1. Which among the following is not the ordered collection class?

- a) BitArray
- b) Queue
- c) Stack
- d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: None.

---

2. Which among the following is not an interface declared in System.Collection namespace?

- a) IDictionaryComparer
- b) IEnumerable
- c) IEnumerator
- d) Icomparer

[View Answer](#)

Answer: a

Explanation: None.

---

3. Which among the following is the correct way to find out the number of elements currently present in an ArrayListCollection called arr?

- a) arr.Capacity
- b) arr.Count
- c) arr.MaxValue
- d) arr.UpperBound

[View Answer](#)

Answer: b

Explanation: None.

---

a) Unsimilar elements like “Csharp”, 7,3,8 cannot be stored in the same stack collection.

b) Boolean values can never be stored in Stack collection

c) Perfectly workable code

d) All of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

---

5. Which is the correct statement about an ArrayList collection that implements the IEnumerable interface?

- a) To access members of ArrayList from the inner class, it is necessary to pass ArrayList class reference to it
- b) The inner class of ArrayList can access ArrayList class members
- c) The ArrayList class consist of inner class that implements the IEnumerator interface
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

---

d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: None.

- 
- d) All of the mentioned

[View Answer](#)

Answer: a

Explanation: None.

---

8. Which statements among the following are correct about the Collection Classes available in Framework Class Library?

- a) Elements of a collection cannot be transmitted over a network
- b) Elements stored in a collection can be modified only if all the elements are of similar types
- c) Elements stored in a Collection can be retrieved but cannot be modified
- d) Collection classes make use of efficient algorithms to manage the collection, hence improving the performance of the program

[View Answer](#)

Answer: d

Explanation: None.

---

9. Among the given collections which one is I/O index based?

- a) ArrayList
- b) List
- c) Stack
- d) Queue

[View Answer](#)

Answer: a

Explanation: None.

---

10. Which among the given statements are correct about the Stack collection?

- a) It can be used for evaluation of expressions
- b) It is used to maintain a FIFO list
- c) Top most element of the Stack collection can be accessed using the Peek()
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

---

[View Answer](#)

Answer: b

Explanation: None.

---

12. In which of the following collections is the I/O based on a key?

- a) BitArray
- b) SortedList
- c) Queue
- d) Stack

[View Answer](#)

Answer: b

Explanation: None.

---

13. The wrong statements about a HashTable collection are?

- a) It is a keyed collection
- b) It is a ordered collection
- c) It's not an indexed collection

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d) It implements a IDictionaryEnumerator interface in its inner class

[View Answer](#)

Answer: b

Explanation: None.

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## C# Question & Answers – Maths Class

---

3. What will be the output of the given code snippet?

```
1. class Program  
2. {  
3.     static void Main(string[] args)  
4.     {  
5.         double x = 4.772;  
6.         double y = 4.76;  
7.         double z = Math.Max(x, y);  
8.         Console.WriteLine(z);  
9.         Console.ReadLine();  
10.    }  
11. }
```

1. Which of these classes contains only floating point functions?

- a) Math
  - b) Process
  - c) System
  - d) Object
- [View Answer](#)

Answer: a

Explanation: Math class contains all the floating point functions that are used for geometry, trigonometry, as well as several general purpose methods. Example : sin(), cos(), exp(), sqrt() etc.

---

3. What will be the output of the given code snippet?

```
1. class Program  
2. {  
3.     static void Main(string[] args)  
4.     {  
5.         double x = 4.772;  
6.         double y = 4.76;  
7.         double z = Math.Max(x, y);  
8.         Console.WriteLine(z);  
9.         Console.ReadLine();  
10.    }  
11. }
```

- a) 2.0
- b) 4.0

c) 8

d) 8.0

[View Answer](#)

Answer: c

Explanation: None.

Output :

8

---

3. What will be the output of the given code snippet?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         double x = 4.772;
6.         double y = 4.76;
7.         double z = Math.Max(x, y);
8.         Console.WriteLine(z);
9.         Console.ReadLine();
10.    }
11. }
```

a) true

b) false

c) 4.772

d) 4.76

[View Answer](#)

Answer: c

Explanation: None.

Output :

4.772

---

3. What will be the output of the given code snippet?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         double x = 4.772;
6.         double y = 4.76;
7.         double z = Math.Max(x, y);
8.         Console.WriteLine(z);
```

```
9.         Console.ReadLine();  
10.    }  
11. }
```

4. What is the value of double consonant ‘E’ defined in Math class?

- a) approximately 3
- b) approximately 3.14
- c) approximately 2.72
- d) approximately 0

[View Answer](#)

Answer: c

Explanation: None.

---

3. What will be the output of the given code snippet?

```
1. class Program  
2. {  
3.     static void Main(string[] args)  
4.     {  
5.         double x = 4.772;  
6.         double y = 4.76;  
7.         double z = Math.Max(x, y);  
8.         Console.WriteLine(z);  
9.         Console.ReadLine();  
10.    }  
11. }
```

- a) 1 2 0 0
- b) 1 2 1 2
- c) 0 0 0 0
- d) Run time exception

[View Answer](#)

Answer: b

Explanation: None.

Output :

1 2 1 2

---

3. What will be the output of the given code snippet?

```
1. class Program  
2. {  
3.     static void Main(string[] args)  
4.     {  
5.         double x = 4.772;
```

```
6.     double y = 4.76;
7.     double z = Math.Max(x, y);
8.     Console.WriteLine(z);
9.     Console.ReadLine();
10.    }
11. }
```

- a) Run time error
- b) 64
- c) Compile time error
- d) 81

[View Answer](#)

Answer: b

Explanation: None.

Output :

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64

---

3. What will be the output of the given code snippet?

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         double x = 4.772;
6.         double y = 4.76;
7.         double z = Math.Max(x, y);
8.         Console.WriteLine(z);
9.         Console.ReadLine();
10.    }
11. }
```

- a) Compile time error
- b) 3.14
- c) 3
- d) 4

[View Answer](#)

Answer: c

Explanation: None.

Output :

3

---

3. What will be the output of the given code snippet?

```
1. class Program  
2. {  
3.     static void Main(string[] args)  
4.     {  
5.         double x = 4.772;  
6.         double y = 4.76;  
7.         double z = Math.Max(x, y);  
8.         Console.WriteLine(z);  
9.         Console.ReadLine();  
10.    }  
11. }
```

- a) 25
- b) 625
- c) Compile time error
- d) Run time error

[View Answer](#)

Answer: b

Explanation:  $y = 25$ ,  $z = 25 * 25 = 625$

Output :

625

3. What will be the output of the given code snippet?

```
1. class Program  
2. {  
3.     static void Main(string[] args)  
4.     {  
5.         double x = 4.772;  
6.         double y = 4.76;  
7.         double z = Math.Max(x, y);  
8.         Console.WriteLine(z);  
9.         Console.ReadLine();  
10.    }  
11. }
```

- a) Run time error
- b) 3
- c) 5
- d) Compile time error

[View Answer](#)

Answer: b

Explanation: Built in method of maths class Avg() id used

Output :

3

---

3. What will be the output of the given code snippet?

```
1. class Program  
2. {  
3.     static void Main(string[] args)  
4.     {  
5.         double x = 4.772;  
6.         double y = 4.76;  
7.         double z = Math.Max(x, y);  
8.         Console.WriteLine(z);  
9.         Console.ReadLine();  
10.    }  
11. }
```

- a) 4
- b) Compile time error
- c) 16
- d) 89

[View Answer](#)

Answer: c

Explanation: Built in method of maths class, Max() is used to select maximum value among 4 and 2 and then y is squared using Pow() of math class and the value is stored in z.

Output :

16

## C# Questions & Answers – Rounding Functions

---

1. Which among the given classes provides types of rounding functions?

- a) Math
- b) Process
- c) System
- d) Object

[View Answer](#)

Answer: a

Explanation: None.

---

2. Which of these methods is a rounding function of Math class?

- a) Max()
- b) Min()
- c) Abs()
- d) Round()

[View Answer](#)

Answer: d

Explanation: Round() rounds up a variable to nearest integer

---

3. Which of these classes contains only floating point functions?

- a) Math
- b) Process
- c) System
- d) Object

[View Answer](#)

Answer: a

Explanation: Math class contains all the floating point functions that are used for general purpose mathematics methods. Example : sin(), cos(), exp(), sqrt() etc.

---

4. Which of these method returns a smallest whole number greater than or equal to variable X?

- a) double Ciel(double X)
- b) double Floor(double X)
- c) double Max(double X)
- d) double Min(double X)

[View Answer](#)

Answer: a

Explanation: Ciel(double X) returns the smallest whole number greater than or equal to variable X.

---

5. Which of these methods return a largest whole number less than or equal to variable X?

- a) double Ciel(double X)
- b) double Floor(double X)
- c) double Max(double X)
- d) double Min(double X)

[View Answer](#)

Answer: b

Explanation: double Floor(double X) returns a largest whole number less than or equal to variable X.

---

6. Which of the following functions return absolute value of a variable?

- a) Abs()

- b) Absolute()
- c) absolutevariable()
- d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: Abs() returns the absolute value of a variable

---

- a) 1 2 0 0
- b) 1 2 1 2
- c) 0 0 0 0
- d) Run time exception

[View Answer](#)

Answer: b

Explanation: None.

Output:

1 2 1 2

---

- a) 0
- b) 3
- c) 3.0
- d) 3.1

[View Answer](#)

Answer: b

Explanation: None.

Output:

advertisement

3

---

- a) 0
- b) 3
- c) 3.0
- d) 4

[View Answer](#)

Answer: d

Explanation: Ceiling(double x) returns the smallest whole number greater than or equal to variable x.

Output:

4

---

- a) 0
- b) 3
- c) 3.0
- d) 4

[View Answer](#)

Answer: b

Explanation: double Floor(double X) returns the largest whole number less than or equal to variable X. Here, the smallest whole number less than 3.14 is 3.

Output:

3

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## C# Questions & Answers – Multithreaded Programming – 1

1. Select the type of multitasking methods that exist:

- a) process based
- b) thread based
- c) only process
- d) both process & thread based

[View Answer](#)

Answer: d

Explanation: There are two distinct types of multitasking: process-based and thread-based.

2. Choose the correct statement about process-based multitasking:

- a) A feature that allows our computer to run two or more programs concurrently
- b) A program that acts as a small unit of code that can be dispatched by the scheduler
- c) Only A program that acts as a small unit of code that can be dispatched by the scheduler
- d) Both A feature that allows our computer to run two or more programs concurrently & A program that acts as a small unit of code that can be dispatched by the scheduler

[View Answer](#)

Answer: d

Explanation: The process-based multitasking is the feature that allows your computer to run two or more programs concurrently. For example, process-based multitasking allows you to run a word processor at the same time you are using a spreadsheet or browsing the Internet. In process-based multitasking, a program is the smallest unit of code that can be dispatched by the scheduler.

3. Choose the statements which indicate the differences between the thread based multitasking and process based multitasking:

- a) Process-based multitasking handles the concurrent execution of programs
- b) Process-based multitasking handles the concurrent execution of pieces of the same program
- c) Thread-based multitasking handles the concurrent execution of programs
- d) Thread-based multitasking deals with the concurrent execution of pieces of the same program

[View Answer](#)

Answer: a

Explanation: The differences between process-based and thread-based multitasking can be summarized like this:Process-based multitasking handles the concurrent execution of programs. Thread-based multitasking deals with the concurrent execution of pieces of the same program.

4. What is the advantage of the multithreading program?

- a) Enables to utilize the idle and executing time present in most programs
- b) Enables to utilize the idle time present in most programs
- c) Both Enables to utilize the idle and executing time present in most programs & Enables to utilize the idle time present in most programs
- d) Only Enables to utilize the idle time present in most programs

[View Answer](#)

Answer: d

Explanation: The principal advantage of multithreading is that it enables us to write very efficient programs because it lets us utilize the idle time that is present in most programs.

5. Select the two type of threads mentioned in the concept of multithreading:

- a) foreground
- b) background
- c) only foreground
- d) both foreground & background

[View Answer](#)

Answer: d

Explanation: None.

6. Number of threads that exists for each of the processes that occurs in the program:

- a) at most 1
- b) atleast 1
- c) only 1
- d) both at most 1 & atleast 1

[View Answer](#)

Answer: d

Explanation: All processes have at least one thread for execution, which is usually called the main thread because it is the primary thread that is executed when our program begins. From the main thread, we can create other threads.

7. Choose the namespace which supports multithreading programming:

- a) System.net
- b) System.Linq
- c) System.Threading
- d) All of the mentioned

[View Answer](#)

Answer: c

Explanation: The classes that support multithreaded programming are defined in the System.Threading namespace. Thus, you will usually include this statement at the start of any multithreaded program.

- a) Defines a thread
- b) Declaration of a thread constructor
- c) Only Defines a thread
- d) Only Defines a thread & Declaration of a thread constructor

[View Answer](#)

Answer: d

Explanation: To create a thread, instantiate an object of type Thread, which is a class defined in System.Threading. The simplest Thread constructor is shown here:

```
public Thread(ThreadStart start)
```

Here, start specifies the method that will be called to begin execution of the thread. In other words, it specifies the thread's entry point.

9. Which of these classes is used to make a thread?

- a) String
- b) System
- c) Thread
- d) Runnable

[View Answer](#)

Answer: c

Explanation: The multithreading system is built upon the Thread class, which encapsulates a thread of execution. The Thread class is sealed, which means that it cannot be inherited. Thread defines several methods and properties that help manage threads.

10. On call of which type of method the new created thread will not start executing?

- a) Begin()
- b) Start()
- c) New()
- d) All of the mentioned

[View Answer](#)

Answer: b

Explanation: Once created, the new thread will not start running until you call its Start() method, which is defined by Thread.

---

11. Which of these methods of Thread class is used to Suspend a thread for a period of time?

- a) sleep()
- b) terminate()
- c) suspend()
- d) stop()

[View Answer](#)

Answer: a

Explanation: None.

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## C# Questions & Answers – Multithreaded Programming – 2

1. Which of these keywords are used to implement synchronization?

- a) synchronize
- b) syn
- c) synch
- d) synchronized

[View Answer](#)

Answer: d

Explanation: None.

2. Which keyword is used for using the synchronization features defined by the Monitor class?

- a) lock
- b) synchronized
- c) monitor
- d) locked

[View Answer](#)

Answer: a

Explanation: The C# keyword lock is really just shorthand for using the synchronization features defined by the Monitor class, which is defined in the System.Threading namespace.

3. What is synchronization in reference to a thread?

- a) It's a process of handling situations when two or more threads need access to a shared resource
- b) It's a process by which many threads are able to access the same shared resource simultaneously
- c) It's a process by which a method is able to access many different threads simultaneously
- d) It's a method that allows too many threads to access any information they require

[View Answer](#)

Answer: a

Explanation: When two or more threads need to access the same shared resource, they need some way to ensure that the resource will be used by only one thread at a time, the process by which this is achieved is called synchronization.

4. Which method is called when a thread is blocked from running temporarily?

- a) Pulse()
- b) PulseAll()
- c) Wait()
- d) Both Pulse() & Wait()

[View Answer](#)

Answer: c

Explanation: When a thread is temporarily blocked from running, it calls Wait(). This causes the thread to go to sleep and the lock for that object to be released, allowing another thread to acquire the lock.

5. What kind of exception is being thrown if Wait(), Pulse() or PulseAll() is called from code that is not within synchronized code?

- a) System I/O Exception
- b) DivideByZero Exception
- c) SynchronizationLockException
- d) All of the mentioned

[View Answer](#)

Answer: c

Explanation: A SynchronizationLockException will be thrown if Wait(), Pulse(), or PulseAll() is called from code that is not within synchronized code, such as a lock block.

6. What is mutex?

- a) a mutually exclusive synchronization object
- b) can be acquired by more than one thread at a time
- c) helps in sharing of resource which can be used by one thread
- d) all of the mentioned

[View Answer](#)

Answer: a

Explanation: A mutex is a mutually exclusive synchronization object. This means it can be acquired by one and only one thread at a time. The mutex is designed for those situations in which a shared resource can be used by only one thread at a time.

7. What is Semaphore?

- a) Grant more than one thread access to a shared resource at the same time
- b) Useful when a collection of resources is being synchronized
- c) Make use of a counter to control access to a shared resource
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: A semaphore is similar to a mutex except that it can grant more than one thread access to a shared resource at the same time. Thus, the semaphore is useful when a collection of resources is being synchronized. A semaphore controls access to a shared resource through the use of a counter. If the counter is greater than zero, then access is allowed. If it is zero, access is denied.

8. Which method is used to abort thread prior to its normal execution?

- a) sleep()
- b) terminate()
- c) suspend()
- d) Abort()

[View Answer](#)

Answer: d

Explanation: To terminate a thread prior to its normal conclusion, use Thread.Abort(). Its simplest form is shown here:

```
public void Abort()
```

Abort() causes a ThreadAbortException to be thrown to the thread on which Abort() is called. This exception causes the thread to terminate.

9. Which of these statements is incorrect?

- a) By multithreading CPU idle time is minimized, and we can take maximum use of it
- b) By multitasking CPU idle time is minimized, and we can take maximum use of it
- c) Two thread in Csharp can have same priority
- d) A thread can exist only in two states, running and blocked

[View Answer](#)

Answer: d

Explanation: Thread exist in several states, a thread can be running, suspended, blocked, terminated & ready to run.

10. What is multithreaded programming?

- a) It's a process in which two different processes run simultaneously
- b) It's a process in which two or more parts of same process run simultaneously
- c) It's a process in which many different process are able to access same information
- d) It's a process in which a single process can access information from many sources

[View Answer](#)

Answer: b

Explanation: Multithreaded programming a process in which two or more parts of same process run simultaneously.

## C# Question & Answers – Iterators

---

3. Choose the correct statements about part of given code defined above?

```
1. public System.Collections.IEnumerator GetEnumerator()  
2. {  
3.     foreach (char ch in chrs)  
4.         yield return ch;  
5. }
```

1. What is an iterator?

- a) a method
- b) an operator
- c) accessor
- d) all of the mentioned

[View Answer](#)

Answer: d

Explanation: An iterator is a method, operator, or accessor that returns the members of a set of objects, one member at a time, from start to finish.

---

3. Choose the correct statements about part of given code defined above?

```
1. public System.Collections.IEnumerator GetEnumerator()  
2. {  
3.     foreach (char ch in chrs)  
4.         yield return ch;  
5. }
```

- a) Run time error
- b) Compile time error
- c) Code runs successfully prints nothing
- d) Code runs successfully prints A, B, C, D

[View Answer](#)

Answer: d

Explanation: None.

Output:

A, B, C, D

---

3. Choose the correct statements about part of given code defined above?

```
1. public System.Collections.IEnumerator GetEnumerator()  
2. {  
3.     foreach (char ch in chrs)  
4.         yield return ch;  
5. }
```

- a) Definition of iterator for MyClass
- b) Implements the GetEnumerator() method defined by IEnumerable
- c) The yield return statement returns the next object in the collection, which in this case is the next character in chrs
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: This is the definition of the iterator for MyClass. The code implicitly implements the GetEnumerator() method defined by IEnumerable. At the body of the method. It contains a foreach loop that returns the elements in chrs. It does this through the use of a yield return statement. The yield return statement returns the next object in the collection, which in this case is the next character in chrs.

3. Choose the correct statements about part of given code defined above?

```
1. public System.Collections.IEnumerator GetEnumerator()  
2. {  
3.     foreach (char ch in chrs)  
4.     yield return ch;  
5. }
```

4. What does the yield return statement specify in above code snippet?

- a) returns the output
- b) returns the next object in the collection
- c) Both returns the output & returns the next object in the collection
- d) none of the mentioned

[View Answer](#)

Answer: b

Explanation: The yield return statement returns the next object in the collection, which in this case is the next character in chrs in above code.

3. Choose the correct statements about part of given code defined above?

```
1. public System.Collections.IEnumerator GetEnumerator()  
2. {  
3.     foreach (char ch in chrs)  
4.     yield return ch;  
5. }
```

- a) A B C D E F G H I J K L M N O P Q R S T U V
- b) Run time error
- c) U T S R Q P O N M L K J I H G F E D C B A
- d) Compile successfully prints nothing

[View Answer](#)

Answer: c

Explanation: None.

Output:

U T S R Q P O N M L K J I H G F E D C B A

3. Choose the correct statements about part of given code defined above?

```
1. public System.Collections.IEnumerator GetEnumerator()
```

```
2. {
3.     foreach (char ch in chrs)
4.     yield return ch;
5. }
```

- a) Code run successfully prints nothing
- b) A B C D E F G H I J K L M N O P Q R S T U V
- c) U T S R Q P O N M L
- d) Compile time error

[View Answer](#)

Answer: c

Explanation: The code to specify stoppage of the iterator using ‘yield break’ statement When this statement executes, the iterator signals that the end of the collection has been reached, which effectively stops the iterator.

Output:

U T S R Q P O N M L

---

3. Choose the correct statements about part of given code defined above?

```
1. public System.Collections.IEnumerator GetEnumerator()
2. {
3.     foreach (char ch in chrs)
4.     yield return ch;
5. }
```

- a) prints nothing code run successfully
- b) run time error
- c) code runs successfully prints even number between 1 to 20
- d) compile time error

[View Answer](#)

Answer: c

Explanation: None.

Output:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20

---

3. Choose the correct statements about part of given code defined above?

```
1. public System.Collections.IEnumerator GetEnumerator()
2. {
3.     foreach (char ch in chrs)
4.     yield return ch;
5. }
```

- a) Iterate the first 7 letters:

A B C D E F G

Iterate letters from F to L:

G H I J K L

- b) Iterate the first 7 letters:

A B C D E F G

Iterate letters from F to L:

H I J K L

c) Run time error

d) Compile time error

[View Answer](#)

Answer: b

Explanation: None.

Output:

```
Iterate the first 7 letters:  
A B C D E F G  
Iterate letters from F to L:  
H I J K L
```

---

3. Choose the correct statements about part of given code defined above?

1. public System.Collections.IEnumerator GetEnumerator()
2. {
3. foreach (char ch in chrs)
4. yield return ch;
5. }

a) Compile time error

b) Run time error

c) 65 66 67 68 69 70

d) Code run successfully prints nothing

[View Answer](#)

Answer: c

Explanation: None.

Output:

```
65 66 67 68 69 70
```

---

3. Choose the correct statements about part of given code defined above?

1. public System.Collections.IEnumerator GetEnumerator()
2. {
3. foreach (char ch in chrs)
4. yield return ch;
5. }

10. What are the advantages of the named iterator?

a) They allow to pass arguments to the iterator that control what elements are obtained

b) This form of iterators can be overloaded

c) Both They allow to pass arguments to the iterator that control what elements are obtained & This form of iterators can be overloaded

d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: By definition.

## C# Questions & Answers – Fundamentals of Namespaces

---

1. Which of the following is not a namespace in the .NET Framework Class Library?

- a) System.Process
- b) System.Security
- c) System.Threading
- d) System.xml

[View Answer](#)

Answer: a

Explanation: None.

---

2. Which is the correct statement about the namespaces in C#.NET?

- a) Nesting of namespaces is permitted, provided all the inner namespaces are declared in the same file
- b) A namespace cannot be tested
- c) There is no limit on the number of levels while nesting namespaces
- d) All of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

---

3. Which among the following does not belong to the C#.NET namespace?

- a) class
- b) struct
- c) enum
- d) data

[View Answer](#)

Answer: d

Explanation: None.

---

4. Which among the following is a correct statement about namespace used in C#.NET?

- a) Classes must belong to a namespace, whereas structures need not
- b) All elements of the namespace must belong to one file
- c) If not mentioned, a namespace takes the name of the current project
- d) All of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

---

a) College.Lib.Book b = new College.Lib.Book();

b.issue();

b) Book b = new Book();

b.issue();

c) using College.Lib;

Book b = new Book();

b.issue();

d) All of the mentioned

[View Answer](#)

Answer: b

Explanation: None.

---

6. Which among the following statements are not correct about a namespace used in C#.NET?

- a) Nested namespaces are allowed
- b) Importing outer namespaces imports inner namespace
- c) Nested namespaces are allowed
- d) Importing outer namespace does not import inner namespace

[View Answer](#)

Answer: b

Explanation: None.

---

7. Which among the following is a .NET namespace?

- a) System.Web
- b) System.Process
- c) System.Drawing2D
- d) System.Drawing3D

[View Answer](#)

Answer: a

Explanation: None.

---

[View Answer](#)

Answer: c

Explanation: None.

---

9. If ListBox is the class of System.Windows.Forms namespace. Then, correct way to create an object of ListBox class is?

- a) using System.Windows.Forms;  
ListBox I = new ListBox();
- b) System.Windows.Forms.ListBox I = new System.Windows.Forms.ListBox();
- c) using LBControl I = new System.Windows.Forms.ListBox;
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

---

10. Which among the following is the correct statement about the using statement used in C#.NET?

- a) A C#.NET source code file consists of any number of using statement
- b) By using ‘using’ statement it’s possible to create an alias for the namespace but not for the namespace element
- c) It is permitted to define a member at namespace level using alias
- d) Using statement can be placed anywhere in the C#.NET source code file

[View Answer](#)

Answer: c

Explanation: None.

## C# Questions & Answers – Fundamentals of Preprocessors

---

1. Choose the symbol which begins a preprocessor directive in C#.NET?

- a) #
- b) \*\*
- c) \*
- d) &

[View Answer](#)

Answer: a

Explanation:

```
#define, #elif, #else etc.
```

2. What is meant by preprocessor directive in C#.NET?

- a) a form of command which are interpreted by the compiler
- b) a form of macros like in c and c++ not exactly same to them, separately designed for C#.NET
- c) always begins with a '#' character occupies separate line of source of code
- d) all of the mentioned

[View Answer](#)

Answer: d

Explanation: Preprocessor directives are commands that are interpreted by the compiler and affect the output or behavior of the build process. The C# compiler does not have a separate preprocessor, like C and C++ we cannot use these directives to create macros. Preprocessing directives are top lines in our program that start with '#'. The '#' is followed by an identifier that is the directive name.

3. What is meant by preprocessor directive #define?

- a) defines a character sequence
- b) helps in determining existence and non existence of a symbol
- c) can be used to create function like macros as in C/C++
- d) all of the mentioned

[View Answer](#)

Answer: a

Explanation: The #define directive defines a character sequence called a symbol. The existence or nonexistence of a symbol can be determined by #if or #elif and is used to control compilation. #define which supports creation of function like macros in c/c++ does not support the same in C#.

4. Select the defined preprocessor in C#.NET?

- a) #define
- b) #elif
- c) #else
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

5. What does preprocessor directive #if and #endif explains?

- a) Enables compilation of sequence of code on condition basis
- b) Express results into true or false on evaluation of condition
- c) If expression following #if is true then code that is between #if and #endif is compiled otherwise skipped
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: The #if and #endif directives enable conditional compilation of a sequence of code based upon whether an expression involving one or more symbols evaluates to true. A symbol is true if it has been defined. It is false otherwise. If the expression following #if is true, the code that is between it and #endif is compiled. Otherwise, the intervening code is skipped. The #endif directive marks the end of an #if block.

---

- a) i  
pi not define
- b) pi not define  
ok
- c) i  
ok
- d) ok

[View Answer](#)

Answer: b

Explanation: The defined symbol 'pi' when compared as per 'if' condition, hence the outcome is false which results in skip of statement and hence executes statement after #else and finally the end statement after #endif.

Output: pi not define  
ok

---

- a) DEBUG is defined  
MYTEST is defined
- b) MYTEST is defined  
DEBUG and MYTEST are defined
- c) DEBUG and MYTEST are not defined  
MYTEST is defined
- d) DEBUG and MYTEST are defined

[View Answer](#)

Answer: d

Explanation: None.

---

- a) DEBUG is defined  
DEBUG and MYTEST are not defined
- b) DEBUG and MYTEST are not defined  
c) MYTEST is defined  
DEBUG and MYTEST are not defined
- d) DEBUG is defined

[View Answer](#)

Answer: b

Explanation: #undef lets to undefine a symbol such that by using the symbol as the expression in a #if directive, the expression will evaluate to false i.e the symbol will be undefined in nature.

Output: DEBUG and MYTEST are not defined

---

9. Which preprocessor directive among the following forces the compiler to stop the compilation?

- a) #warning
- b) #endregion
- c) #undef
- d) #error

[View Answer](#)

Answer: d

Explanation: The #error directive forces the compiler to stop compilation. It is used for debugging. The general form of the #error directive is #error error-message. When the #error directive is encountered, the error message is displayed.

---

10. Which among the following is not a preprocessor directive?

- a) #ifdef
- b) #pragma
- c) #Or
- d) #undef

[View Answer](#)

Answer: c

Explanation: None.

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## C# Questions & Answers – Method with Parameters

---

1. Which of these data types can be used for a method having a return statement in it?
- a) void
  - b) int
  - c) float
  - d) all of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

---

2. What is the process of defining more than one method in a class differentiated by parameters known as?
- a) Function overriding
  - b) Function overloading
  - c) Function doubling
  - d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: Function overloading is a process of defining more than one method in a class with same name differentiated by function signature ie return type or parameters type and number. Example – int volume(int length, int width) & int volume(int length, int width, int height) can be used to calculate volume.

---

3. Which of these methods is executed first before execution of any other thing that takes place in a program?
- a) main method
  - b) finalize method
  - c) static method
  - d) private method

[View Answer](#)

Answer: c

Explanation: If a static method is present in the program then it will be executed first, then main will be executed.

---

4. Which of these can be used to differentiate two or more methods having same name?
- a) Parameters data type
  - b) Number of parameters
  - c) Return type of method
  - d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

---

5. Which of these data types can be used for a method having a return statement in it?
- a) void
  - b) int
  - c) float
  - d) all of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

---

- a) 0

b) 1

c) 6

d) 25

[View Answer](#)

Answer: c

Explanation: None.

Output :

6

---

a) false

b) true

c) 0

d) 1

[View Answer](#)

Answer: b

Explanation: None.

Output :

true

---

a) false

b) true

c) 0

d) 1

[View Answer](#)

Answer: b

Explanation: None.

Output :

true

---

a) 0

b) 5

c) 25

d) 26

[View Answer](#)

Answer: b

Explanation: None.

Output :

5

---

a) 1

b) 2

c) Run time error

d) Compile time error

[View Answer](#)

Answer: b

Explanation: Both conditions for if statements are failed and hence statement after else is executed.

Output :

2

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## C# Questions & Answers – Fundamental of Networking

---

1. Which namespace is mostly preferred for the operation of networking in C#?

- a) System.Web
- b) System.in
- c) System.Net.Mail
- d) All of the mentioned

[View Answer](#)

Answer: c

Explanation: Networking support is contained in several namespaces defined by the .NET Framework. The primary namespace for networking is System.Net. It defines a large number of high-level, easy-to-use classes that support various types of operations common to the Internet. Several namespaces nested under System.Net are also provided. Example :System.Net.Mail.

---

2. Which of the following are the classes defined by the namespace System.Net:

- a) Cookie
- b) CookieContainer
- c) FileWebRequest
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

---

3. Which of the following are the interfaces defined by the namespace System.Net:

- a) IAuthenticationModule
- b) HttpWebRequest
- c) WebProxy
- d) HttpResponseHeader

[View Answer](#)

Answer: a

Explanation: c and d are namespaces and enumerations.

---

4. Which of the following are the classes that support the standard HTTP protocol

- a) HttpWebRequest
- b) HttpResponseHeader
- c) HttpRequestHeader
- d) HttpStatusCode

[View Answer](#)

Answer: a

Explanation: The derived classes that support the standard HTTP protocol are HttpWebRequest and HttpWebResponse.

---

5. Which of the following class/classes supports the task of uploading and downloading the file:

- a) WebRequest
- b) WebResponse
- c) WebClient
- d) All of the mentioned

[View Answer](#)

Answer: c

Explanation: If we only need to upload or download a file, then WebClient is often the best way to accomplish it.

---

6. How many ports of TCP/IP are reserved for specific protocols?

- a) 10
- b) 1024
- c) 2048
- d) 512

[View Answer](#)

Answer: b

Explanation: None.

---

7. How many bits are present in a single IP address?

- a) 8
- b) 16
- c) 32
- d) 64

[View Answer](#)

Answer: c

Explanation: None.

---

8. Which of the following is the full form of DNS?

- a) Data Network Service
- b) Data Name Service
- c) Domain Network Service
- d) Domain Name Service

[View Answer](#)

Answer: d

Explanation: None.

---

9. Which of the following classes is used to encapsulate IP address and DNS?

- a) DatagramPacket
- b) URL
- c) InetAddress
- d) ContentHandler

[View Answer](#)

Answer: c

Explanation: InetAddress class encapsulates both IP address and DNS. We can interact with this class by using the name of an IP host.

---

10. Which of the following are the protocols defined by .NET runtime:

- a) HTTP
- b) HTTPS
- c) File
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: The .NET runtime defines HTTP, HTTPS, file, and FTP protocols. Thus, if we specify a URI that uses HTTP prefix, we will automatically receive the HTTP-compatible class that supports it. If we specify a URI that uses FTP prefix, we will automatically receive the FTP-compatible class that supports it.

## C# Questions & Answers – Uri Class

---

3. What does the following form define?

Protocol://HostName/FilePath?Query

1. What does URL stand for?

- a) Uniform Resource Locator
- b) Uniform Resource Latch
- c) Universal Resource Locator
- d) Universal Resource Latch

[View Answer](#)

Answer: a

Explanation: None.

---

3. What does the following form define?

Protocol://HostName/FilePath?Query

2. Which of these exceptions is thrown by the URL class's constructors?

- a) `URLNotFound`
- b) `URLSourceNotFound`
- c) `MalformedURLException`
- d) `URLNotFoundException`

[View Answer](#)

Answer: c

Explanation: None.

---

3. What does the following form define?

Protocol://HostName/FilePath?Query

a) Protocol specifies the protocol being used, such as HTTP

b) HostName identifies a specific server, such as mhprofessional.com or www.google.com

c) FilePath specifies the path to a specific file

d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: By definition.

---

3. What does the following form define?

Protocol://HostName/FilePath?Query

4. Which of these classes is used to encapsulate IP address and DNS?

- a) `DatagramPacket`
- b) `URL`
- c) `InetAddress`
- d) `ContentHandler`

[View Answer](#)

Answer: c

Explanation: `InetAddress` class encapsulates both IP address and DNS, we can interact with this class by using the name of an IP host.

---

3. What does the following form define?

Protocol://HostName/FilePath?Query

5. Which of these is a standard for communicating multimedia content over email?

- a) http
- b) https
- c) Mime
- d) httpd

[View Answer](#)

Answer: c

Explanation: MIME is an internet standard for communicating multimedia content over email. The HTTP protocol uses and extends the notion of MIME headers to pass attribute pairs between HTTP client and server.

3. What does the following form define?

Protocol://HostName/FilePath?Query

- a) Creates a WebRequest object for the URI specified by the string passed by requestUriString
- b) The object returned will implement the protocol specified by the prefix of the URI
- c) The object will be an instance of the class that inherits WebRequest
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: Creates a WebRequest object for the URI specified by the string passed by requestUriString. The object returned will implement the protocol specified by the prefix of the URI. Thus, the object will be an instance of a class that inherits WebRequest. A NotSupportedException is thrown if the requested protocol is not available. A UriFormatException is thrown if the URI format is invalid.

3. What does the following form define?

Protocol://HostName/FilePath?Query

- a) html
- b) text
- c) html/text
- d) text/html

[View Answer](#)

Answer: d

Explanation: The following program obtains the hypertext contained at a specific website. The program displays the hypertext on the screen.

3. What does the following form define?

Protocol://HostName/FilePath?Query

- a) sanfoundry
- b) sanfoundry.com
- c) www.sanfoundry.com
- d) https://www.sanfoundry.com/csharpmcq

[View Answer](#)

Answer: d

Explanation: AbsoluteUri is used to know the full URL of an URL object.

Output:

<https://www.sanfoundry.com/csharpmcq>

3. What does the following form define?

Protocol://HostName/FilePath?Query

9. Which of these data members of `HttpResponse` class is used to store the response from a http server?

- a) status
- b) address
- c) statusResponse
- d) statusCode

[View Answer](#)

Answer: d

Explanation: When we send a request to http server it responds with a status code. This status code is stored in `statusCode` and the textual equivalent is stored in `reasonPhrase`.

---

3. What does the following form define?

Protocol://HostName/FilePath?Query

10. Which of these classes is used to access actual bits or content information of a URL?

- a) URL
- b) URLDecoder
- c) URLConnection
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: URL, URLDecoder and URLConnection – all these are used to access information stored in the URL.

## C# Questions & Answers – Network Errors Handling

---

1. What exception is thrown if the URI format is invalid?

- a) `URLNotFound`
- b) `URLSourceNotFound`
- c) `MalformedURLException`
- d) `UriFormatException`

[View Answer](#)

Answer: d

Explanation: None.

---

2. What exception is thrown if the protocol supported by URI prefix is invalid?

- a) `URLNotFound`
- b) `URLSourceNotFound`
- c) `UriFormatException`
- d) `NotSupportedException`

[View Answer](#)

Answer :d

Explanation: None.

---

3. What exception is thrown if the user does not have a proper authorization?

- a) `URLNotFound`
- b) `URLSourceNotFound`
- c) `System.Security.SecurityException`
- d) All of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

---

4. Choose the exceptions generated by the `Create()` method defined by `WebRequest`:

- a) `NotSupportedException`
- b) `UriFormatException`
- c) `System.Security.SecurityException`
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

---

5. Choose the exceptions generated by the `GetReponse()` method defined by `WebRequest`:

- a) `InvalidOperationException`
- b) `ProtocolViolationException`
- c) `WebException`
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: By definition.

---

6. Select the properties related to the network errors generated by `WebException`:

- a) `response`
- b) `get`

- c) set
- d) none of the mentioned

[View Answer](#)

Answer: a

Explanation: WebException has two properties that relate to network errors: Response and Status. We can obtain a reference to the WebResponse object inside an exception handler through the Response property. For the HTTP protocol, this object describes the error. It is defined like this:

```
public WebResponse Response { get; }
```

When an error occurs, we can use the Status property of WebException to find out what went wrong. It is defined like this:

```
public WebExceptionStatus Status {get; }
```

---

7. Which of these classes is used for operating on the request from the client to the server?

- a) http
- b) httpDecoder
- c) httpConnection
- d) httpd

[View Answer](#)

Answer: d

Explanation: None.

---

8. Choose the exceptions generated by the GetResponseStream() method defined by WebRequest:

- a) ProtocolViolationException
- b) ObjectDisposedException
- c) IOException
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

---

9. Which of these classes is used to create servers that listen to either local or remote client programs?

- a) httpServer
- b) ServerSockets
- c) MimeHeader
- d) HttpResponse

[View Answer](#)

Answer: b

Explanation: None.

---

10. Which of these methods gives the full URL of an URL object?

- a) fullHost()
- b) getHost()
- c) AbsoluteUri
- d) toExternalForm()

[View Answer](#)

Answer: c

Explanation: None.

## C# Questions & Answers – Type Interface

---

1. Why are generics used?

- a) Generics make code more fast
- b) Generics make code more optimised and readable
- c) Generics add stability to your code by making more of your bugs detectable at compile time
- d) Generics add stability to your code by making more of your bugs detectable at run time

[View Answer](#)

Answer: c

Explanation: Generics add stability to your code by making more of your bugs detectable at compile time.

---

2. Which of these type parameters is used for generic methods to return and accept any type of object?

- a) K
- b) N
- c) T
- d) V

[View Answer](#)

Answer: c

Explanation: T is used for type, A type variable can be any non-primitive type you specify: any class type, any interface type, any array type, or even another type variable.

---

3. Which of these is an correct way of defining generic method?

- a) name(T1, T2, ..., Tn) { /\* ... \*/ }
- b) public name { /\* ... \*/ }
- c) class name[T1, T2, ..., Tn] { /\* ... \*/ }
- d) name{T1, T2, ..., Tn} { /\* ... \*/ }

[View Answer](#)

Answer: b

Explanation: The syntax for a generic method includes a type parameter, inside angle brackets, and appears before the method's return type. For static generic methods, the type parameter section must appear before the method's return type.

---

- a) Compile time error
- b) Csharp
- c) 0
- d) Run time error

[View Answer](#)

Answer: b

Output :

Csharp

---

- a) 0
- b) 30
- c) Runtime Error
- d) Compile time Error

[View Answer](#)

Answer: b

Output : 30

---

- a) Generics class declaration

- b) Declaration of variable
- c) A simple class declaration
- d) Both Generics class declaration & Declaration of variable

[View Answer](#)

Answer: d

Explanation: class Gen This defines the generics declaration where ‘T’ is the name of type parameter. This parameter is used as a placeholder for the actual type that will be specified when a Gen object is created. Gen is a generic class . T is used to declare a variable called ‘ob’.

- a) C++
- b) 20
- c) C++  
20
- d) 0

[View Answer](#)

Answer: c

Output :

```
C++  
20
```

8. Select the type argument of open constructed type?

- a) Gen<int>
- b) Gen<T>
- c) Gen<>
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: A generic type, such as Gen, is an abstraction. In C# terminology, a construct such as Gen is called an open constructed type, because the type parameter T (rather than an actual type, such as int) is specified.

- d) all of the mentioned

[View Answer](#)

Answer: b

Explanation: None.

- a) Generics class declaration
- b) Declaration of variable
- c) Generic constructor declaration
- d) All of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

## C# Questions & Answers – Unsafe code & Pointers Basics

---

1. Fill up the blank :

Pointer variable is used to hold the \_\_\_\_\_ of the variable

- a) Value
- b) Address
- c) Value and Address
- d) Name of the variable

[View Answer](#)

Answer: b

Explanation: By definition.

---

2. Which among the given operators is referred to as ‘address of’ operator?

- a) \*
- b) ^
- c) &
- d) ~

[View Answer](#)

Answer: c

Explanation: The ‘&’ is a unary operator that returns the memory address of its operand.

For example,

```
int* ip;  
int num = 10;  
ip = &num;
```

puts into ip the memory address of the variable num. This address is the location of the variable in the computer’s internal memory.

---

3. Choose the correct statement among the given statements?

- a) Use of return statement is necessary in every function
- b) Return statement may not be followed by a parenthesis
- c) A program may contain more than one return statement
- d) Return statement may not return a value

[View Answer](#)

Answer: a

Explanation: None.

---

4. What is the size of a char pointer?

- a) 1 byte
- b) 2 byte
- c) 3 byte
- d) 4 byte

[View Answer](#)

Answer: b

Explanation: class UnsafeCode

```
{  
unsafe static void Main()  
{  
char ch;  
Console.WriteLine(sizeof(char));  
Console.ReadLine();  
}
```

}

The sizeof() method helps in calculating size of char pointer .

---

5. After incrementing a float pointer ptr by 1 it would be incremented by \_\_\_\_\_

- a) 1 byte
- b) 2 bytes
- c) 3 bytes
- d) 4 bytes

[View Answer](#)

Answer: d

Explanation: None.

---

6. Which of the following job is done by the instruction `++*p` for an integer pointer p?

- a) increment value contained at address p
- b) increment address contained in p
- c) Both increment value contained at address p and increment address contained in p
- d) neither increment value contained at address p nor increment address contained in p

[View Answer](#)

Answer: a

Explanation: class UnsafeCode

```
{  
unsafe static void Main()  
{  
int n = 10;  
int* p = &n;  
Console.WriteLine(*p);  
}  
}  
Output :
```

10 + 1 = 11.

---

- a) 6
- b) print garbage value
- c) print -6
- d) print address of b + a

[View Answer](#)

Answer: a

Explanation: The (\*) operator prints the value stored at address (&) of 'a'.

Output :

4 + 2 = 6

---

- a) The program will print 10
- b) Run time error
- c) Compile time error
- d) Output is the address contained in p

[View Answer](#)

Answer: c

Explanation: The program will result in compile time error because void pointer cannot point anywhere.

---

9. Which among the following is referred as an array of pointers?

- a) int \*p;

- b) int (\*p);
- c) int p[4];
- d) int\*[4] p;

[View Answer](#)

Answer: d

Explanation: None.

---

10. Among the given pointer which of following cannot be incremented?

- a) int
- b) char
- c) float
- d) void

[View Answer](#)

Answer: d

Explanation: None.

---

11. How many values can be returned from a function simultaneously using pointers?

- a) 1
- b) 2
- c) 3
- d) as many as user wants

[View Answer](#)

Answer: d

Explanation: None.

---

12. Consider an integer pointer . \*a.++\*a will increment \_\_\_\_\_ while \*a++ will increment \_\_\_\_\_

- a) value at a, address contained in a
- b) value at a,value at a
- c) address contained in a, address contained in a
- d) address contained in a, value at a

[View Answer](#)

Answer: a

Explanation: None.

- a) program will print garbage value
- b) program will print address of a
- c) program will print value of a1
- d) program will print address of a1

[View Answer](#)

Answer: c

Explanation: The address of variable a1 is stored in variable b1 by making a1 as a pointer to variable b1 .Later, variable b1 address is stored in pointer a and hence using pointer operation value of a1 is displayed in a.

Output : 10

- a) compile time error
- b) garbage value is printed
- c) program will print 1000
- d) program will print 100

[View Answer](#)

Answer: c

Explanation: None.

Output :1000

---

- a) compile time error
- b) garbage value
- c) program prints value at address 65535
- d) program prints 65535

[View Answer](#)

Answer: d

Explanation: None.

Output :

65535

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## C# Questions & Answers – Pointers Operation – 1

---

3. What will be the output of the code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int* ptrs = stackalloc int[3];
6.         ptrs[0] = 1;
7.         ptrs[1] = 2;
8.         ptrs[2] = 3;
9.         for (int i = 2; i >= 0; --i)
10.        {
11.            ptrs[i] = ptrs[i]* 3;
12.            ptrs[i] = ptrs[i] + 4;
13.            Console.WriteLine(ptrs[i]);
14.        }
15.        Console.ReadLine();
16.    }
17. }
```

a) 20 200

b) 40 200

c) 800 40

d) 40 800

[View Answer](#)

Answer: c

Explanation: None.

Output: 800 40

---

3. What will be the output of the code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int* ptrs = stackalloc int[3];
6.         ptrs[0] = 1;
7.         ptrs[1] = 2;
```

```
8.     ptrs[2] = 3;
9.     for (int i = 2; i >= 0; --i)
10.    {
11.        ptrs[i] = ptrs[i]* 3;
12.        ptrs[i] = ptrs[i] + 4;
13.        Console.WriteLine(ptrs[i]);
14.    }
15.    Console.ReadLine();
16. }
17. }
```

- a) 5 10
- b) 10 20
- c) Compile time error
- d) 5 10 20

[View Answer](#)

Answer: d

Explanation: None.

Output: 5 10 20

3. What will be the output of the code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int* ptrs = stackalloc int[3];
6.         ptrs[0] = 1;
7.         ptrs[1] = 2;
8.         ptrs[2] = 3;
9.         for (int i = 2; i >= 0; --i)
10.        {
11.            ptrs[i] = ptrs[i]* 3;
12.            ptrs[i] = ptrs[i] + 4;
13.            Console.WriteLine(ptrs[i]);
14.        }
15.        Console.ReadLine();
16.    }
17. }
```

- a) 20, 10, 7
- b) 13, 10, 7
- c) 6, 9, 3
- d) Compile time error

[View Answer](#)

Answer: b

Explanation: None.

Output: 13, 10, 7

---

3. What will be the output of the code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int* ptrs = stackalloc int[3];
6.         ptrs[0] = 1;
7.         ptrs[1] = 2;
8.         ptrs[2] = 3;
9.         for (int i = 2; i >= 0; --i)
10.        {
11.            ptrs[i] = ptrs[i]* 3;
12.            ptrs[i] = ptrs[i] + 4;
13.            Console.WriteLine(ptrs[i]);
14.        }
15.        Console.ReadLine();
16.    }
17. }
```

4. Among the given pointers which of following cannot be incremented?

- a) int
- b) char
- c) float
- d) void

[View Answer](#)

Answer: d

Explanation: None.

---

3. What will be the output of the code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
```

```
4.    {
5.        int* ptrs = stackalloc int[3];
6.        ptrs[0] = 1;
7.        ptrs[1] = 2;
8.        ptrs[2] = 3;
9.        for (int i = 2; i >= 0; --i)
10.    {
11.        ptrs[i] = ptrs[i]* 3;
12.        ptrs[i] = ptrs[i] + 4;
13.        Console.WriteLine(ptrs[i]);
14.    }
15.    Console.ReadLine();
16.}
17.}
```

5. A structure pointer points to \_\_\_\_\_

- a) first member of structure
- b) first two members of structure
- c) whole structure
- d) only to the last member of structure

[View Answer](#)

Answer: c

Explanation: None.

---

3. What will be the output of the code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int* ptrs = stackalloc int[3];
6.         ptrs[0] = 1;
7.         ptrs[1] = 2;
8.         ptrs[2] = 3;
9.         for (int i = 2; i >= 0; --i)
10.     {
11.         ptrs[i] = ptrs[i]* 3;
12.         ptrs[i] = ptrs[i] + 4;
13.         Console.WriteLine(ptrs[i]);
14.     }
15. }
```

```
14.         }
15.         Console.ReadLine();
16.     }
17. }
```

6. What will be the declaration of the variable ptr as the pointer to array of 6 floats?

- a) float \*ptr[6].
- b) float [6]\*ptr
- c) float(\*ptr)[6].
- d) float(\*ptr)(6).

[View Answer](#)

Answer: c

Explanation: None.

---

3. What will be the output of the code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int* ptrs = stackalloc int[3];
6.         ptrs[0] = 1;
7.         ptrs[1] = 2;
8.         ptrs[2] = 3;
9.         for (int i = 2; i >= 0; --i)
10.        {
11.            ptrs[i] = ptrs[i]* 3;
12.            ptrs[i] = ptrs[i] + 4;
13.            Console.WriteLine(ptrs[i]);
14.        }
15.        Console.ReadLine();
16.    }
17. }
```

- a) ACCEE
- b) FBCDE
- c) BBDDF
- d) BBCEE

[View Answer](#)

Answer: b

Explanation: None.

Output:FBCDE

---

3. What will be the output of the code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int* ptrs = stackalloc int[3];
6.         ptrs[0] = 1;
7.         ptrs[1] = 2;
8.         ptrs[2] = 3;
9.         for (int i = 2; i >= 0; --i)
10.        {
11.            ptrs[i] = ptrs[i]* 3;
12.            ptrs[i] = ptrs[i] + 4;
13.            Console.WriteLine(ptrs[i]);
14.        }
15.        Console.ReadLine();
16.    }
17. }
```

- a) p[10]:0, p[9]:9, p[8]:8.....p[1]:1
- b) p[10]:1, p[9]:2, p[8]:3.....p[1]:0
- c) p[1]:1, p[2]:2, p[3]:3.....p[10]:0
- d) Compile time error

[View Answer](#)

Answer: a

Explanation: None.

Output:Index pointer like array:

p[10]:0, p[9]:9, p[8]:8...p[1]:1

3. What will be the output of the code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int* ptrs = stackalloc int[3];
6.         ptrs[0] = 1;
7.         ptrs[1] = 2;
8.         ptrs[2] = 3;
9.         for (int i = 2; i >= 0; --i)
```

```
10.    {
11.        ptrs[i] = ptrs[i]* 3;
12.        ptrs[i] = ptrs[i] + 4;
13.        Console.WriteLine(ptrs[i]);
14.    }
15.    Console.ReadLine();
16.}
17.}
```

- a) test a is this
- b) compile time error
- c) tset a si siht
- d) run time error

[View Answer](#)

Answer: c

Explanation: Reversal of string using pointers.

Output:tset a si siht

---

3. What will be the output of the code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int* ptrs = stackalloc int[3];
6.         ptrs[0] = 1;
7.         ptrs[1] = 2;
8.         ptrs[2] = 3;
9.         for (int i = 2; i >= 0; --i)
10.        {
11.            ptrs[i] = ptrs[i]* 3;
12.            ptrs[i] = ptrs[i] + 4;
13.            Console.WriteLine(ptrs[i]);
14.        }
15.        Console.ReadLine();
16.    }
17.}
```

- a) 65 False
- b) 65 1
- c) A True
- d) A 1

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[View Answer](#)

Answer: c

Explanation: Convert.Tochar(\*p) = A

Convert.ToBoolean(1) = True

Output: A

True

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## C# Question & Answers – Pointers Operation – 2

---

3. What will be the output of given code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int[] nums = new int[10];
6.         fixed (int* p = &nums[0], p2 = nums)
7.         {
8.             if (p == p2)
9.                 Console.WriteLine("p and p2 point to same address.");
10.            Console.ReadLine();
11.        }
12.    }
13. }
```

- a) Compile time error
- b) Run time error
- c) 200
- d) 30

[View Answer](#)

Answer: c

Explanation: A pointer can point to an object of a structure type as long as the structure does not contain reference types. When we access a member of a structure through a pointer, we must use the arrow operator, which is `->`, rather than the dot(.) operator.

Output : 200

---

3. What will be the output of given code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int[] nums = new int[10];
6.         fixed (int* p = &nums[0], p2 = nums)
7.         {
8.             if (p == p2)
9.                 Console.WriteLine("p and p2 point to same address.");
10.            Console.ReadLine();
11.        }
12.    }
13. }
```

```
12.     }
13. }
```

- a) Compile time error
- b) 120
- c) Run time error
- d) 4

[View Answer](#)

Answer: b

Explanation: None.

Output :

120

3. What will be the output of given code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int[] nums = new int[10];
6.         fixed (int* p = &nums[0], p2 = nums)
7.         {
8.             if (p == p2)
9.                 Console.WriteLine("p and p2 point to same address.");
10.            Console.ReadLine();
11.        }
12.    }
13. }
```

- a) Run time error
- b) Compile time error
- c) p and p2 point to the same address
- d) Only b

[View Answer](#)

Answer: c

Explanation: None.

Output:

p and p2 point to same address

3. What will be the output of given code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
```

```
4.    {
5.        int[] nums = new int[10];
6.        fixed (int* p = &nums[0], p2 = nums)
7.        {
8.            if (p == p2)
9.                Console.WriteLine("p and p2 point to same address.");
10.           Console.ReadLine();
11.       }
12.   }
13. }
```

- a) Run time error
- b) 0
- c) Result has no value
- d) Compile time error

[View Answer](#)

Answer: c

Explanation: A nullable object can be used in expressions that are valid for its underlying type. When non-nullable and nullable types are mixed in an operation, the outcome is a nullable value.

Output:

```
result has no value
```

---

3. What will be the output of given code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int[] nums = new int[10];
6.         fixed (int* p = &nums[0], p2 = nums)
7.         {
8.             if (p == p2)
9.                 Console.WriteLine("p and p2 point to same address.");
10.            Console.ReadLine();
11.        }
12.    }
13. }
```

- a) Run time error
- b) 110
- c) Result has no value
- d) Compile time error

[View Answer](#)

Answer: b

Explanation: None.

Output: result has this value :

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110

---

3. What will be the output of given code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int[] nums = new int[10];
6.         fixed (int* p = &nums[0], p2 = nums)
7.         {
8.             if (p == p2)
9.                 Console.WriteLine("p and p2 point to same address.");
10.            Console.ReadLine();
11.        }
12.    }
13. }
```

6. Choose the statement which defines the Nullable type Correctly:

- a) A special version of a value type that is represented by a structure
- b) A nullable type can also store the value null
- c) Nullable types are objects of System.Nullable, where T must be a non nullable value type
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: A nullable type is a special version of the value type that is represented by a structure. In addition to the values defined by the underlying type, a nullable type can also store the value null. Thus, a nullable type has the same range and characteristics as its underlying type. It simply adds the ability to represent a value which indicates that a variable of that type is unassigned. Nullable types are objects of System.Nullable, where T must be a nonnullable value type.

---

3. What will be the output of given code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int[] nums = new int[10];
6.         fixed (int* p = &nums[0], p2 = nums)
```

```
7.         {
8.             if (p == p2)
9.                 Console.WriteLine("p and p2 point to same address.");
10.            Console.ReadLine();
11.        }
12.    }
13. }
```

7. What does the following code depicts?

- 1. System.Nullable count;
- 2. bool? done;
- a) Code 1 declares the objects of nullable of type Nullable defined in the System namespace
- b) Code 2 declares a nullable type in much shorter and in more commonly used way using ‘?’
- c) Both Code 1 declares the objects of nullable of type Nullable defined in the System namespace & Code 2 declares a nullable type in much shorter and in more commonly used way using ‘?’
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: None.

3. What will be the output of given code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int[] nums = new int[10];
6.         fixed (int* p = &nums[0], p2 = nums)
7.         {
8.             if (p == p2)
9.                 Console.WriteLine("p and p2 point to same address.");
10.            Console.ReadLine();
11.        }
12.    }
13. }
```

8. Which operator is commonly used to find the size of the type of C#?

- a) size()
- b) sizeof(type)
- c) both size() & sizeof(type)
- d) none of the mentioned

[View Answer](#)

Answer: b

Explanation: None.

3. What will be the output of given code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int[] nums = new int[10];
6.         fixed (int* p = &nums[0], p2 = nums)
7.         {
8.             if (p == p2)
9.                 Console.WriteLine("p and p2 point to same address.");
10.            Console.ReadLine();
11.        }
12.    }
13. }
```

- a) Run time error
- b) 80
- c) 96
- d) Compile time error

[View Answer](#)

Answer: c

Explanation: The purpose of a fixed-size buffer is to allow the creation of a struct in which the array of elements that make up the buffer are contained within the struct. By using a fixed-size buffer, we let the entire array to be contained within the struct. The overall size of FixedBankRecord is 96, which is the sum of its members.

Output :

96

3. What will be the output of given code snippet?

```
1. class UnsafeCode
2. {
3.     unsafe static void Main()
4.     {
5.         int[] nums = new int[10];
6.         fixed (int* p = &nums[0], p2 = nums)
7.         {
8.             if (p == p2)
9.                 Console.WriteLine("p and p2 point to same address.");
10.            Console.ReadLine();
11.        }
12.    }
13. }
```

11. }

12. }

13. }

- a) 3 2 1
- b) 1 2 3
- c) None of the mentioned
- d) Run time error

[View Answer](#)

Answer: a

Explanation: Allocates memory from the stack by using stackalloc. Here, ptrs is a pointer that receives the address of the memory that is large enough to hold size of number of objects of type ‘int’. Here, type ‘int’ is a non reference type. Finally, stackalloc can be used only in an unsafe context.

Output :

3 2 1

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## C# Questions & Answers – Accessor controls of class

---

1. Which among these access specifiers should be used for main() method?
- a) private
  - b) public
  - c) protected
  - d) none of the mentioned

[View Answer](#)

Answer: b

Explanation: main() method must be specified public as it called by Csharp run time system outside of the program, by default main is private in nature if no access specifier is used.

---

2. Which of these is used as default for a member of a class if no access specifier is used for it?
- a) private
  - b) public
  - c) protected internal
  - d) protected

[View Answer](#)

Answer: a

Explanation: None.

---

3. What is the process by which we can control what parts of a program can access the members of a class?
- a) Polymorphism
  - b) Abstraction
  - c) Encapsulation
  - d) Recursion

[View Answer](#)

Answer: c

Explanation: None.

---

4. Which of these base class are accessible to the derived class members?
- a) static
  - b) protected
  - c) private
  - d) shared

[View Answer](#)

Answer: b

Explanation: None.

---

- a) 3 3
- b) 2 3
- c) Run time error
- d) Compile time error

[View Answer](#)

Answer: d

Explanation: 'y' is defined privately which cannot be accessed outside its scope.

---

- a) 2 3
- b) 3 3
- c) Run time error

d) Compile time error

[View Answer](#)

Answer: b

Explanation: None.

---

a) 6, 9

b) 5, 9

c) 9, 10

d) 3, 2

[View Answer](#)

Answer: b

Explanation: Here,  $a = 2$ ,  $a + 1 = 2 + 1 = 3$ .

So,  $a = 2$ ,  $b = 3$ .

$x = 2 + 3 = 5$ .

$y = 5 + 3 = 8$ .

Similarly,  $a = 5$ ,  $b = a + 1 = 4$ .

$y = 5 + 4 = 9$ .

Output :

5, 9.

---

a) 7 7

b) 6 6

c) 7 9

d) 9 7

[View Answer](#)

Answer: c

Explanation: None.

Output :

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7, 9

---

9. Which of these access specifiers must be used for class so that it can be inherited by another subclass?

a) public

b) private

c) both public & private

d) none of the mentioned

[View Answer](#)

Answer: a

Explanation: None.

---

10. Which of the following statements are incorrect?

a) public members of class can be accessed by any code in the program

b) private members of class can only be accessed by other members of the class

c) private members of class can be inherited by a subclass, and become protected members in subclass

d) protected members of a class can be inherited by a subclass, and become private members of the subclass

[View Answer](#)

Answer: c

Explanation: private members of a class cannot be inherited by a subclass.

---

- a) 20, 40
- b) 40, 20
- c) 20, 10
- d) 10, 20

[View Answer](#)

Answer: c

Explanation: None.

Output :

20, 10

---

12. Accessibility modifiers defined in a class are?

- a) public, private, protected
- b) public, internal, protected internal.
- c) public, private, internal, protected internal.
- d) public, private, protected, internal, protected internal

[View Answer](#)

Answer: d

Explanation: None.

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## C# Questions & Answers – Introduction of String Formatting

---

1. What are strings in C#?

- a) a sequence of characters
- b) array of characters
- c) objects of built-in data type (d) a reference type

[View Answer](#)

Answer: c

Explanation: Generally, a string is defined as a sequence of characters but it is different in C#. In C++, the string is an array of characters. In case of C#, strings are objects of the built-in string data type. Thus, a string is a reference type.

---

2. Select the namespace in which string class is built?

- a) System.Text
- b) System.Net
- c) System.IO
- d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: None.

---

3. Select the interfaces defined by the string class?

- a) IComparable
- b) IComparable<string>
- c) ICloneable
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: None.

---

4. Choose the constructor type used to build strings from character array:

- a) public String(value)
- b) public String(char[ ] value, int startIndex, int length)
- c) public String(char[ ])
- d) all of the mentioned

[View Answer](#)

Answer: b

Explanation: public String(char[ ] value) – This form of constructor constructs a string that contains characters in value  
public String(char[ ] value, int startIndex, int length) - The second form uses length characters from value, beginning at the index specified by startIndex.

---

5. Select the operators used for checking the equality in strings:

- a) !=
- b) >
- c) <
- d) >=

[View Answer](#)

Answer: a

Explanation: None.

---

- a) Comparison is case and culture sensitive

- b) Two strings A and B are compared with each other
- c) Output is :>0 for (A > B), <0 for (A < B) else ‘0’ for(A=B)
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: Compares the string referred to by strA with strB. Returns greater than zero if strA is greater than strB, less than zero if strA is less than strB, and zero if strA and strB are equal. The comparison is case and culture-sensitive.

- a) Hello c Sharp
- b) HellocSharp
- c) Compile time error
- d) Hello

[View Answer](#)

Answer: a

Explanation: Here ‘+’ operator works as concatenation for strings.

Output :

Hello c Sharp

8. Which of these operators can be used to concatenate two or more String objects?

- a) +
- b) +=
- c) &
- d) ||

[View Answer](#)

Answer: a

Explanation: string s1 = “Hello”+ ” I ” + “Love” + ” ComputerScience “;  
Console.WriteLine(s1);

Output :

advertisement

Hello I Love ComputerScience.

- a) Comparison begins at strA[indexA] and strB[indexB] and runs for length of characters
- b) Returns output > 0 for strA > strB else < 0 for strA < strB else if strA = str B output is 0
- c) Comparison is culture sensitive and if ignore case is true, comparison ignores case differences
- d) All of the mentioned

[View Answer](#)

Answer: d

Explanation: Compares portions of the strings referred to by strA and strB. The comparison begins at strA[indexA] and strB[indexB] and runs for length characters. Returns greater than zero if strA is greater than strB, less than zero if strA is less than strB, and zero if strA and strB are equal. If ignoreCase is true, the comparison ignores case differences. Otherwise, case differences matter. The comparison is culture-sensitive.

- a) method returns a string
- b) string str1 is concatenated to the end of str0
- c) can be used to concatenate any number of strings
- d) all of the mentioned

[View Answer](#)

Answer: d

Explanation: This method returns a string that contains str1 concatenated to the end of str0. Another form of Concat(), shown here, concatenates three strings:

public static string Concat(string str0, string str1, string str2). Hence, any number of strings can be concatenated using this method.

---

11. Choose the base class for string() method :

- a) System.Array
- b) System.char
- c) System.String
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: String is an alias for the predefined “System.string” class from which most of the string() methods are derived.

---

12. Did method use to remove whitespace from the string?

- a) Split()
- b) Substring()
- c) Trim()
- d) TrimStart()

[View Answer](#)

Answer: c

Explanation: Perfectly removes a whitespace from string whereas TrimStart() removes a string of characters from the end of the string.

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## C# Questions & Answers – String Formatting – 1

```
1. class Program  
2. {  
3.     static void Main(string[] args)  
4.     {  
5.         char []chars = {'a', 'b', 'c'};  
6.         String s = new String(chars);  
7.         Console.WriteLine(s);  
8.         Console.ReadLine();  
9.     }  
10. }
```

- a) Equal  
Unequal  
b) Unequal  
Equal  
c) Equal  
Equal  
d) Unequal  
Unequal  
[View Answer](#)

Answer: d

Explanation: In the first comparison it is being checked if two strings are equal or not, but in the second comparison it is checked if two string references are equal or not. Also the length of the string and characters match is tested for the equality of strings.

Output :

Unequal  
Unequal

```
1. class Program  
2. {  
3.     static void Main(string[] args)  
4.     {  
5.         char []chars = {'a', 'b', 'c'};  
6.         String s = new String(chars);  
7.         Console.WriteLine(s);  
8.         Console.ReadLine();  
9.     }  
10. }
```

- a) Ixgo  
b) Ixig  
c) Ixigo

d) Ixg

[View Answer](#)

Answer: c

Explanation: Insert() the built in method inserts characters at specified position mentioned with index positions.

Output:

Ixigo

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         char []chars = {'a', 'b', 'c'};
6.         String s = new String(chars);
7.         Console.WriteLine(s);
8.         Console.ReadLine();
9.     }
10. }
```

a) a

b) b

c) c

d) abc

[View Answer](#)

Answer: d

Explanation: String(chars) is a constructor of class string, it initializes string s with the values stored in character array chars, So s contains “abc”.

Output :

abc

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         char []chars = {'a', 'b', 'c'};
6.         String s = new String(chars);
7.         Console.WriteLine(s);
8.         Console.ReadLine();
9.     }
10. }
```

a) 4 0

b) 3 0

c) 3 4

d) 4 3

[View Answer](#)

Answer: d

Explanation: None.

Output :

4 3

---

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         char []chars = {'a', 'b', 'c'};
6.         String s = new String(chars);
7.         Console.WriteLine(s);
8.         Console.ReadLine();
9.     }
10. }
```

a) True

b) False

c) String associated with obj1

d) Compile time error

[View Answer](#)

Answer: c

Explanation: ToString() is the method of class Object, since it is the superclass of every class, every object has this method. ToString() returns the string associated with the calling object.

Output :

ConsoleApplication19.A

---

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         char []chars = {'a', 'b', 'c'};
6.         String s = new String(chars);
7.         Console.WriteLine(s);
8.         Console.ReadLine();
9.     }
10. }
```

6. Which of these constructors is used to create an empty String object?

a) String()

- b) String(void)
- c) String(0)
- d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: None.

---

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         char []chars = {'a', 'b', 'c'};
6.         String s = new String(chars);
7.         Console.WriteLine(s);
8.         Console.ReadLine();
9.     }
10. }
```

7. Which of these method of class String is used to obtain length of String object?

- a) get()
- b) Sizeof()
- c) Lengthof()
- d) Length()

[View Answer](#)

Answer: d

Explanation: Method Length() of string class is used to get the length of the object which invoked the method Length().

---

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         char []chars = {'a', 'b', 'c'};
6.         String s = new String(chars);
7.         Console.WriteLine(s);
8.         Console.ReadLine();
9.     }
10. }
```

8. Choose the base class for string() method :

- a) System.Array
- b) System.char
- c) System.String
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: String is an alias for the predefined “System.string” class from which most of the string() methods are derived.

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         char []chars = {'a', 'b', 'c'};
6.         String s = new String(chars);
7.         Console.WriteLine(s);
8.         Console.ReadLine();
9.     }
10. }
```

a) True

b) False

c) 1

d) Run time error

[View Answer](#)

Answer: b

Explanation: StartsWith() method is case sensitive “hello” and “Hello” are treated differently, hence false is stored in var.

```
1. class Program
2. {
3.     static void Main(string[] args)
4.     {
5.         char []chars = {'a', 'b', 'c'};
6.         String s = new String(chars);
7.         Console.WriteLine(s);
8.         Console.ReadLine();
9.     }
10. }
```

10. What is the value returned by the function CompareTo() if the invoking string is less than the string compared?

a) zero

b) value less than zero

c) value greater than zero

d) none of the mentioned

[View Answer](#)

Answer: b

Explanation: CompareTo() function returns zero when both the strings are equal, it returns a value less than zero if the invoking string is less than the other string being compared and value greater than zero when invoking string is greater than the string compared to.

```
1. class Program  
2. {  
3.     static void Main(string[] args)  
4.     {  
5.         char []chars = {'a', 'b', 'c'};  
6.         String s = new String(chars);  
7.         Console.WriteLine(s);  
8.         Console.ReadLine();  
9.     }  
10. }
```

- a) True
- b) False
- c) 0
- d) Compile time error

[View Answer](#)

Answer: b

Explanation: Equals() compares the content of two strings. StringBuilder class supports many methods which are useful for manipulating dynamic strings.

Output :False

---

```
1. class Program  
2. {  
3.     static void Main(string[] args)  
4.     {  
5.         char []chars = {'a', 'b', 'c'};  
6.         String s = new String(chars);  
7.         Console.WriteLine(s);  
8.         Console.ReadLine();  
9.     }  
10. }
```

12. Which of these methods of class String is used to check whether a given string starts with a particular substring or not?

- a) StartsWith()
- b) EndsWith()
- c) Starts()
- d) Ends()

[View Answer](#)

Answer: a

Explanation: The StartsWith() determines whether a substring exists at the beginning of the string.

## C# Questions & Answers – String Formatting – 2

---

1. Which of these methods of class String is used to extract a substring from a String object?

- a) substring()
- b) Substring()
- c) SubString()
- d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: None.

---

- a) one
- b) two
- c) one two
- d) two one

[View Answer](#)

Answer: c

Explanation: Two strings can be concatenated using Concat() method.

Output:

```
one two
```

---

3. Which of these methods of class String is used to remove leading and trailing whitespaces?

- a) startsWith()
- b) TrimEnd()
- c) Trim()
- d) TrimStart()

[View Answer](#)

Answer: c

Explanation: Removes white space from the string.

---

- a) "Hello World "
- b) "HelloWorld"
- c) "Hello World"
- d) "Hello"

[View Answer](#)

Answer: c

Explanation: Trim() method is used to remove leading and trailing whitespaces in a string.

Output:

```
"Hello World"
```

---

- a) CSHAP
- b) CSHP
- c) CSHALP
- d) CSHP

[View Answer](#)

Answer: c

Explanation: Replace() method replaces all occurrences of a single character in invoking strings with another character. s1.Replace('H','L') replaces every occurrence of 'H' in CSHARP by 'L', giving CSHALP.

Output:

CSHALP

- 
- a) Hello
  - b) Hell
  - c) H
  - d) Hello World

[View Answer](#)

Answer: b

Explanation: None.

Output:

advertisement

Hell

---

- a) 9 5
- b) 4 9
- c) 9 0
- d) 9 4

[View Answer](#)

Answer: b

Explanation: None.

Output:

4 9

---

- a) true
- b) false
- c) 0
- d) 1

[View Answer](#)

Answer: b

Explanation: StartsWith() method is case sensitive “T” and “t” are treated differently, hence false is stored in a.

Output:

false

---

- a) zx
- b) xy
- c) zy
- d) yz

[View Answer](#)

Answer: c

Explanation: compareTo() function returns zero when both the strings are equal. It returns a value less than zero if the invoking string is less than the other string being compared and a value greater than zero if the invoking string is greater than the string compared to 4

Output:

zy

---

- a) a
- b) b
- c) ab
- d) abc

[View Answer](#)

Answer = d

Explanation: None.

Output:

abc

---

a) 3 5 7

b) 4 5 6

c) 3 9 6

d) 2 4 6

[View Answer](#)

Answer: c

Explanation: indexOf('l') and lastIndexOf('o') are pre-defined function which are used to get the index of first and last occurrence of the character pointed by l and o respectively in the given array.

Output:

3, 9, 6

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## C# Programming Examples

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## C# Program to Illustrate LeftShift Operations

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## C# Questions & Answers – Basic Operation on Strings

---

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0;i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

1. Which of the following string() method are used to compare two strings with each other?

- a) CopyTo()
- b) Copy()
- c) Compare()
- d) CompareTo()

[View Answer](#)

Answer: b

Explanation: Creates a new string by copying one string to another.

---

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0;i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

2. Choose the base class for string() method :

- a) System.Array
- b) System.char
- c) System.String
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: String is an alias for the predefined “System.string” class from which most of the string() methods are derived.

---

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0;i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

a) Csharp

b) CsharpP

c) Csharp

d) Cshrap

[View Answer](#)

Answer: c

Explanation: Insertion of character ‘a’ at position ‘3’ using insert() which returns a new string with a substring inserted at a specified location.  
Output:

Csharp

---

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0;i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

4. Which of the following statement is correct about a string in C#.NET?

a) The System.Array class is used to represent a string

b) A string has a zero-based index

c) A number cannot be represented in the form of a string

d) A string is mutable because it can be modified once it has been created

[View Answer](#)

Answer: b

Explanation: None.

---

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0;i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

a) Equal

Unequal

b) Unequal

Equal

c) Equal

Equal

d) Unequal

Unequal

[View Answer](#)

Answer: d

Explanation: In first comparison it is being checked either two strings are equal or not but in second comparison it is checked whether two references are equal or not.

Output:

```
Unequal
Unequal
```

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0;i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

a) HelloILoveComputerScience

b) Hello I Love ComputerScience

c) Compile time error

d) Hello

[View Answer](#)

Answer: b

Explanation: Here '+' defined operator works as concatenation for strings.

Output :

Hello I Love ComputerScience.

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0;i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

7. Correct way to find if contents of two strings are equal ?

- a) if(s1 == s2)
- b) if(s1 != s2)
- c) if(strcmp (s1 ,s2))
- d) if( s1 is s2)

[View Answer](#)

Answer: c

Explanation: “==” operator used to compare length of two strings and strcmp() is the inbuilt method derived from string class.

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0;i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

8. Which of the following statements are correct?

- a) String is value type
- b) String literals can contain any character literal including escape sequences
- c) The equality operators are defined to compare values of string objects as well as references
- d) All of the mentioned

[View Answer](#)

Answer: b

Explanation: None

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0;i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

9. Which of these operators can be used to concatenate two or more String objects?

- a) +
- b) +=
- c) &
- d) ||

[View Answer](#)

Answer: a

Explanation:

```
string s1 = "Hello"+ " I " + "Love" + " ComputerScience ";
Console.WriteLine(s1);
Hello I Love ComputerScience.
```

3. What is output for the following set of code:

```
1. static void Main(string[] args)
2. {
3.     string s1 = " Cshr ";
4.     string s2 = s1.Insert(3 , " a ");
5.     string s3 = s2.Insert(5 , " p ");
6.     for (int i = 0;i < s3.Length; i++)
7.         Console.WriteLine(s3[i]);
8.     Console.ReadLine();
9. }
```

10. The Method use to remove white space from string?

- a) Split()
- b) Substring()
- c) Trim()
- d) TrimStart()

[View Answer](#)

Answer: c

Explanation: Perfectly removes a whitespace from string whereas TrimStart() removes a string of characters from the end of the string.

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## C# Program to Illustrate Bitwise Operations

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## Object Oriented Programming Questions and Answers – IO Class

1. What is the use of IO class?
  - a) To handle all the input operations
  - b) To handle all the output operations
  - c) To handle all the input and output operations
  - d) To handle all the input and output to the standard input

[View Answer](#)

Answer: c

Explanation: The IO class provides functions that can be used to handle input and output operations. All the inputs from standard input and standard output, and also from the files can be handled. This gives flexibility to make the programs more user friendly.

2. IO class provides input and output through \_\_\_\_\_

- a) Data streams
- b) Serialization
- c) File system
- d) Data streams, serialization and file system

[View Answer](#)

Answer: d

Explanation: The IO classes are made such that those can support the input and output from any type of source or destination. The input can be taken from system file and standard input and also some special devices if conned. Same is case to show the output.

3. Which among the following class contains the methods to access character based console device?

- a) Console
- b) File
- c) Device
- d) Pipe

[View Answer](#)

Answer: a

Explanation: The Console class contains the methods to access the character based devices. The devices which can stream the data as character set. All those devices can be made use of by using the methods of class Console.

4. File class is \_\_\_\_\_

- a) An abstract of file representation only
- b) An abstract of path names only
- c) An abstract which can be used to represent path names or file
- d) An abstract which can represent a file in any format

[View Answer](#)

Answer: c

Explanation: The File class is made to operate with the files. The file can be of any type. All the input and output operations that have to be performed on a file can be done using File class object.

5. What is a FileDescriptor?

- a) A handle for machine specific structure of an open file
- b) A handle for program specific structure of an open file
- c) A handle for compiler specific structure of an open file
- d) A handle for representing device files structure

[View Answer](#)

Answer: a

Explanation: The machine specific structure of an open file have to be handled in some special ways. FileDescriptor class can handle those files.

The FileDescriptor can also handle open socket, another source, sink of bytes.

6. FileInputStream \_\_\_\_\_

- a) Gets the input stream from any device file
- b) Gets the input stream from any open socket
- c) Gets the input stream from any cache
- d) Gets the input stream from any open file only

[View Answer](#)

Answer: d

Explanation: The most specific answer is that the FileInputStream can only be used for the opened files. The class can work only for the file type. No socket or another source are allowed to be accessed.

7. What does FilePermission class do?

- a) This class is used to give permission rights to a file
- b) This class is used to restrict use of permissions
- c) This class is used to represent device access permissions
- d) This class is used to represent file access permissions

[View Answer](#)

Answer: d

Explanation: The FilePermission can't get access to the device access permissions. The Permission is given to a file when it is created or otherwise when a privileged user changes it. Then these permission rights can be accessed using the FilePermission class.

8. Which class among the following makes incorrect assumptions?

- a) LineNumberInputStream
- b) LineNumberReader
- c) LineReader
- d) LineBuffer

[View Answer](#)

Answer: a

Explanation: The LineNumberInputStream class makes false assumptions. The false assumption is that it assumes, all the byte data is a character. Which is actually not the case, instead the character have one byte memory space.

9. Reader class is \_\_\_\_\_

- a) Used to read from files
- b) Abstract class to read character streams
- c) Abstract class to input character streams
- d) Used to take input from standard input stream

[View Answer](#)

Answer: b

Explanation: The Reader class is an abstract class which can be used to read characters stream. It can't be used for any kind of input. It can just read the existing data.

10. Which class can handle IO class interrupt?

- a) ExceptionIO
- b) InteruptedIO
- c) InteruptedIOException
- d) IOInteruptException

[View Answer](#)

Answer: c

Explanation: The only class which handles the IO class interrupts is InteruptedIOException class. This class is specially provided to handle any case that involves the execution interrupt.

11. StringReader handles \_\_\_\_\_

- a) Any character stream
- b) A character stream whose source is an array
- c) A character stream whose source is character array
- d) A character stream whose source is String only

[View Answer](#)

Answer: d

Explanation: The StringReader can only work with the string type data. Even if a character array is given, it might produce some errors in code. Hence only the string values can be handled properly.

12. Which exception handler can be used when character encoding is not supported?

- a) UnsupportedException
- b) UnsupportedEncodingException
- c) SupportException
- d) EncodingException

[View Answer](#)

Answer: b

Explanation: The encoding that is unsupported in a system can be handled. The exception handler is UnSupportedEncodingException class. An object of this class can be created which will catch the exception and handle it.

13. PushBackReader allows the streams to be pushed back to the stream.

- a) True
- b) False

[View Answer](#)

Answer: a

Explanation: The PushBackReader allows the character streams handling. The main feature is that the stream can be pushed back to the stream. This is used in special cases of handling input stream.

14. RandomAccessFile can be used to \_\_\_\_\_

- a) Read from a random access file
- b) Write to a random access file
- c) Read and write to a random access file
- d) Restricts read and write to a random access file

[View Answer](#)

Answer: c

Explanation: The RandomAccessFile class instance can be created to handle input and output operations to a random access file. It first checks the permissions on the file and then any required operation can be done on a random access file. Comparatively faster than other files access.

15. Which among the following is a serialization descriptor for any class?

- a) StreamClass
- b) ObjectStreamClass
- c) ObjectStream
- d) StreamObjectClass

[View Answer](#)

Answer: b

Explanation: The ObjectStreamClass object can be created to handle serializations. The class is provided specially for the serializations. It is descriptor like we have a file descriptor to handle/access files.

**.Net Framework (10)**

1. The common language specification

- 1. describes the way components authored for the common language**
2. provides a standardized way for events to be triggered
3. provides a standardized way for UI to be constructed

2. All Dot Net Compatible languages are Type safe. Which property makes it type safe?

1. CLS
2. Strong DataTyping
- 3. CTS**
4. .Net Framework

3. What is an attribute?

1. Attribute is a property of a class or method
2. Attribute is a collection of styles and properties
- 3. Attribute is an additional information about a class, structure, method etc.**
4. Attribute is a kind of meta data

4. Where are shared assemblies stored?

- 1. Global Assembly Cache**
2. c:\Windows
3. None of above

5. System.Char represents a

1. 8 bit Unicode character.
- 2. 16 bit Unicode character.**
3. 32 bit Unicode character.
4. 64 bit Unicode character.

6. What is Reflection?

1. It is used for obtaining runtime type information of the object
2. It is used for creating runtime types
3. It is used for obtaining metadata information during runtime
- 4. All of the above**

7. Which of the following depicts a Satellite Assembly?

- 1. Assembly used to localize the application.**
2. Strongly names Assembly
3. Assembly created by Microsoft for .NET base Class Library.
4. Assembly created to share through satellite.

8. What Solution does .NET provide for the DLL HELL problem?

1. Garbage Collection.
2. Cyclical Reference.
- 3. Assembly Versioning.**
4. None Above.

9. When do u say assembly is not compatible

- 1. when major and minor changed**
  2. when build number changed
  3. when revision changed
  4. 2 and 3
  5. none of the above
10. Which among the following is true about **System.Byte** ?
1. Signed 8-bit integer ( its range is from -128 to +127 ).
  2. Signed 8-bit integer ( its range is from -127 to +128 ).
  3. Unsigned 8-bit integer ( its range is from 1 to 256 ).
  - 4. Unsigned 8-bit integer ( its range is from 0 to 255 ).**
  5. None of the above.

### **VB.Net (16)**

1. Structure is of \_\_\_\_\_ type.
  1. Simple
  - 2. Value**
  3. Reference
  4. Object
2. Which can help to prevent logic errors and data loss that can occur when the work is done between variables of different types?
  - 1. Option Strict**
  2. Option Restrict
  3. Option Limit
  4. Option
3. In vb.net, for declaring an event signature , what keyword must use?
  1. Signature
  2. ERef
  - 3. Event**
  4. Declare
4. To have one procedure handle the events for multiple controls, what clause can you use on the procedure?
  1. Handles
  2. InstallHandler
  - 3. AddHandler**
  4. AddHandle
5. In Vb.net, abstract class is specified using the keyword
  - 1. MustInherit**
  2. Abstract
  3. Inherit
  4. MustOverride
6. Select the invalid parameter in vb.net
  - 1.ByVal
  2. Optional ByVal
  - 3.ByRef
  - 4. Out**

7. What is the difference between Array and ArrayList Classes?

1. Array is a standard array whereas ArrayList is a collection of arrays
- 2. Array is a fixed array whereas ArrayList is a dynamic array**
3. Array can be resized whereas ArrayList can't be resized
4. Both are same

8. Current thread property of the Thread class returns -----

1. main thread
- 2. thread in which it is defined**
3. any active thread in the program
4. None of the above

9. AddressOf operator is used for referencing the delegates in VB.Net. True or False?

- 1. True**
2. False
3. No Address of operator in VB.Net

10. ParamArray arguments are passed by in a function?

1. Always by reference
- 2. Always by value**
3. both
4. none

11. What is the keyword to Increase the size of an Array with out losing its contents

1. Declare
2. Dim
3. Redim
- 4. Redim Preserve**

12. Under which of the following cases do we set the Option Strict to ‘Off’?

1. Early Binding
2. Data Binding
- 3. Late Binding**
4. None Above

13. Which Of the following exceptions will you receive when an attempt is made to dynamically access a method that does not exist?

- 1. MissingMethodException**
2. MethodDenyException
3. MethodNotFoundException
4. None Above

14. The Size property represents a size structure that gives what aspects of a control?

1. width
2. height
3. thickness
- 4. A and B**
5. A, B and C

15. In vb.net, constructor is always

- 1. sub new()**
2. constructor()
3. base class()
4. the class name itself

16. Every Windows Forms control inherits its events from:

- 1. System.Windows.Forms.Control**
2. System.Windows.Form.Control
3. System.Windows.Forms.Controls
4. System.Window.Form.Control
5. System.Windows.Control.Forms

## C# (9)

1. Which one will not combine with override

1. static
  2. new
  3. virtual
  4. 1 and 2
- 5. 1 and 2 and 3**

2. It is possible for a derived class to define a member that has the same name as the member in its base class. Which of the following keywords would you use If your intent is to hide the base class member?

1. virtual
  2. sealed
  3. ref
- 4. new**

3. ' finally ' block in the try..catch statement will execute

1. when there is an exception in the try..catch block
  2. when there is exception in the catch block only
  3. when there is no exception
- 4. irrespective of whether an exception occurs or not**

4. What is the output of following C# code ?

```
class MainClass
{
    static int Main()
    {
        System.Console.WriteLine(1 + 2 + " Strings " + false + "!");
        return 0;
    }
}
```

1. Syntax Error
2. 3 Strings False!
- 3. 12 Strings False!**
4. 3 Strings False

5. What is the output of following C# code ?

```
using System;
class MainClass
{
```

```

        static void Main()
    {
        string str = null ;
        if( str == "" )
            Console.WriteLine( "True" );
        else
            Console.WriteLine( "False" );
    }
}

```

1. True
- 2. False**
3. Syntax error
4. NullReferenceException

6. Look at the statement below. What is a type of names?

```

foreach (string name in names)
{
    strNames+=name;
}

```

1. An one-dimensional array of strings
2. ArrayList.
3. string.
- 4. Both a and b are true.**

7. Which of the following namespace should you use to access the registry from C# code?

1. System.MarshalByRefObject
- 2. System.Environment**
3. Microsoft.Win32
4. System.LocalDataStoreSlot

8. Which operator is used for connecting a event with a procedure in c#?

- 1. +=**
2. =
3. both
4. none

9. What is the output of following C# code ?

```

class MainClass
{
    static void Main( )
    {
        System.Console.Write( (int)(Vibgyor.Red) );
    }
}

enum Vibgyor :byte
{
    Violet,
    Indigo,
    Blue,
    Green,
    Yellow,
}

```

```
    Orange=255,  
    Red  
}  
1.1.0  
2.256  
3. Syntax Error [ enumerator value 'Vibgyor.Red' is too large to fit in its type ].  
4. Syntax Error [ cannot cast 'Vibgyor.Red' to 'int' ]  
5. 1
```

## ASP.Net(11)

1. Which of the following is the standard column type in the DataGrid
  1. TemplateColumn
  - 2. BoundColumn**
  3. ButtonColumn
  4. HyperLinkColumn
2. Which property of the AdRotator control points to the file with the information required to work?
  1. admETHODS
  2. adcontrol
  - 3. advertisementfile**
  4. adlist.xml
3. Which is a key element of a Web application?
  - 1. Web form**
  2. Web component manager
  3. Web front builder
  4. Web query engine
4. This class provides an empty control. You can create a new control by assembling existing controls on the surface of this control.
  1. ContainerControl
  2. The Component class
  - 3. The UserControl class**
  4. The Control class
5. A web service class should include only functions that returns some value
  - 1. True**
  2. False
  3. None of the above
  4. Incorrect question
6. Which control provides no visible interface elements.
  1. Datalist
  2. Dropdownlist
  - 3. Repeater**
  4. Datagrid
7. ASP.NET has several built-in objects that are used to provide the required functionality in an ASP.NET application. They are:
  1. Request, Response
  2. Application, Session
  3. Server
  - 4. All of the Above**

8. What is the valid event handlers that occur when a user closes his browser

- 1. Session\_End**
2. Application\_End
3. Browser\_End
4. Browser\_Close

9. Which of the following statements indicates ASP.NET's advantage over ASP?

1. The user will be able to view the results of the script but cannot see the source code.
2. You can create a web page with dynamic content.
- 3. It can support strongly typed languages like VB and C#.**
4. None Above.

10. Which protocol is used by web services?

1. RMI
- 2. SOAP**
3. TCP/IP

11. Which one of the following is NOT a valid state management tool?

1. Application State
2. Hidden Form Fields
- 3. Query State**
4. Session State
5. Cookies

#### **ADO.Net(4)**

1. Which class is used to execute the SQL statement or stored procedure against a data source.

1. Data adapter class
2. connection class
3. Dataset class
- 4. Command class**

2. "Dataset will be always disconnected".

- 1. True**
2. False

3. What is used to fetch values from the data source to the DataSet and also update the data source with the values in the DataSet?

- 1. DataReader**
2. DataAdapter
3. DataManager
4. None of the above.

4. A relationship within a DataSet is represented by which one of the following?

1. DataTable object
2. DataColumn object
3. Foreign-key relationship
4. Primary-key relationship
- 5. DataRelation object**

1)

- . Which of the following statements are TRUE about the .NET CLR?
  1. It provides a language-neutral development & execution environment.
  2. It ensures that an application would not be able to access memory that it is not authorized to access.
  3. It provides services to run "managed" applications.
  4. The resources are garbage collected.
  5. It provides services to run "unmanaged" applications.

A. Only 1 and 2  
B. Only 1, 2 and 4  
C. 1, 2, 3, 4  
D. Only 4 and 5

Option C

2

- Which of the following statements is correct about Managed Code?
- A. Managed code is the code that is compiled by the JIT compilers.
  - B. Managed code is the code where resources are Garbage Collected.
  - C. Managed code is the code that runs on top of Windows.
  - D. Managed code is the code that is written to target the services of

the CLR.

Option D

3

Which of the following utilities can be used to compile managed assemblies into processor-specific native code?

- A. gacutil
- B. ngen
- C. sn
- D. ildasm

Option B

4

- . Which of the following are NOT true about .NET Framework?
  1. It provides a consistent object-oriented programming environment whether object code is stored and executed locally, executed locally but Internet-distributed, or executed remotely.
  2. It provides a code-execution environment that minimizes software deployment and versioning conflicts.
  3. It provides a code-execution environment that promotes safe execution of code, including code created by an unknown or semi-trusted third party.
  4. It provides different programming models for Windows-based applications and Web-based applications.
  5. It provides an event driven programming model for building Windows Device Drivers.

A. 1, 2

- B. 2, 4
- C. 4, 5
- D. 1, 2, 4

Option C

5

Code that targets the Common Language Runtime is known as

- A. Unmanaged
- B. Distributed
- C. Legacy
- D. Managed Code

Answer : D

6. What is need of Conversion of data type in C#?
- a) To store a value of one data type into a variable of another data type
  - b) To get desired data
  - c) To prevent situations of run time error during change or conversion of data type
  - d) None of the mentioned

Answer: c

7. Types of Data Conversion in C#?

- a) Implicit Conversion
- b) Explicit Conversion
- c) Implicit Conversion and Explicit Conversion
- d) None of the mentioned

Answer: b

8. Implicit Conversion follows the order of conversion as per compatibility of datatype as :

- a) float > char > int
- b) char > int > float
- c) int > char > float
- d) float > int > char

Answer: b

9. Subset of int datatype is :

- a) long , ulong, ushort
- b) long, ulong, uint
- c) long, float, double
- d) long, float, ushort

Answer: c

10. Type of Conversion in which compiler is unable to convert the datatype implicitly is ?

- a) ushort to long
- b) int to uint
- c) ushort to long
- d) byte to decimal

Answer:b

11. Explicit Conversion disadvantages are ?

- a) Makes program memory heavier
  - b) Results in loss of data
  - c) Potentially Unsafe
  - d) None of the mentioned
- Answer: b, c

12. Which reference modifier is used to define reference variable?

- a) &
- b) ref
- c) #
- d) \$

Answer :b.

13. What is output for following set of expression?

```
int a+= (float) b/= (long)c.
```

- a) float
- b) int
- c) long
- d) None of the mentioned

Answer :b

14. Select correct statement about ref keyword in C#?

- a) References can be called recursively
- b) The ref keyword causes arguments to be passed by reference
- c) When ref are used any changes made to parameters in method will be reselected in variable when control passed back to calling method
- d) All of above mentioned

Answer: b ,c

15. Select correct difference between = and == in C#.

- a) == operator used to assign values from one variable to another variable  
= operator used to compare value between two variables
- b) = operator used to assign values from one variable to another variable  
== operator used to compare value between two variables
- c) No difference between both operators
- d) None of the mentioned

Answer :b.

16. Select which is used to define the member of a class externally?

- a) :
- b) ::
- c) #
- d) none of the mentioned

Answer: b

17. The operator used to access member function of a class?

- a) :
- b) ::
- c) .
- d) #

Answer: c

18. What is most specified using class declaration ?

- a) type
- b) scope

- c) type & scope
  - d) None of mentioned
- Answer: c

19. Which of following statements about objects in C# is correct?

- a) Everything you use in C# is an object, including Windows Forms and controls
  - b) Objects have methods and events that allow them to perform actions
  - c) All objects created from a class will occupy equal number of bytes in memory
  - d) None of the mentioned
- Answer: a, b, c

20. A mechanism that binds together code and data in manipulates, and keeps both safe from outside interference and misuse. In short it isolates a particular code and

data from all other codes and data. A well-defined interface controls the access to

that particular code and data.

- a) Abstraction
- b) Polymorphism
- c) Inheritance
- d) Encapsulation

Answer: d

21

Which of the following statements is correct about the .NET Framework?

- A. .NET Framework uses DCOM for achieving language interoperability.
- B. .NET Framework is built on the DCOM technology.
- C. .NET Framework uses DCOM for making transition between managed and unmanaged code.
- D. .NET Framework uses DCOM for creating unmanaged applications.

Answer : C

22

Which of the following are parts of the .NET Framework?

- 1. The Common Language Runtime (CLR)
  - 2. The Framework Class Libraries (FCL)
  - 3. Microsoft Published Web Services
  - 4. Applications deployed on IIS
- 
- A. Only 1, 2, 3
  - B. Only 1, 2
  - C. Only 1, 2, 4
  - D. Only 4

Answer : B

23

Application Domain is useful when you need to unload loaded assembly.

- A. Yes Always
- B. No for security reasons
- C. Only if assembly is in current directory
- D. Only if assembly is in GAC

Answer : B

24

Which of the following is NOT a namespace in the .NET Framework Class Library?

- A. System.Process
- B. System.Security
- C. System.Threading
- D. System.Drawing
- E. System.Xml

Option A

25

Which of the following statements is correct about a namespace in C#.NET?

- A. Namespaces help us to control the visibility of the elements present in it.
- B. A namespace can contain a class but not another namespace.
- C. If not mentioned, then the name 'root' gets assigned to the namespace.
- D. It is necessary to use the using statement to be able to use an element of a namespace.

Option A

26. Correct way of declaration of object of following class is ?

class name

- a) name n = new name();
- b) n = name();
- c) name n = name();
- d) n = new name();

Answer: a

27. The data members of a class by default are ?

- a) protected,public
- b) private,public
- c) private
- d) public

Answer: c

28. What do the following code implies ?

csharp abc;

```

abc = new csharp();
    a) Object creation on class csharp
    b) Create an object of type csharp on heap or on stack depending on size of
object
    c) create a reference c on csharp and an object of type csharp on heap
    d) create an object of type csharp on stack
Answer: c

29. How many values does a function returns?
    a) 0
    b) 2
    c) 1
    d) any number of values
Answer: c

30. Correct statement about constructors in C#.NET is ?
    a) Constructor cannot be overloaded
    b) Constructor allocate space for object in memory
    c) Constructor are never called explicitly
    d) Constructor have same name as name of the class
Answer: d, c

31. Can the method add() be overloaded in the following ways in C#?
public int add() { }
public float add(){ }
    a) True
    b) False
    c) None of the mentioned.
Answer: b

32. Which of the following statements is correct about constructors in C#.NET?
    a) A constructor cannot be declared as private
    b) A constructor cannot be overloaded
    c) A constructor can be a static constructor
    d) None of the mentioned
Answer: c

33. What is return type of constructors?
    a) int
    b) float
    c) void
    d) None of the mentioned
Answer: d

34. Which of the following statements are correct?
    a) There is one garbage collector per program running in memory
    b) There is one common garbage collector for all programs
    c) To garbage collector an object set all references to it to null
    d) We have to specify run the garbage collector after executing VISUAL
STUDIO.NET
Answer :b, c.

35. Operator used to free the memory when memory is allocated ?
    a) new
    b) free

```

c) delete  
d) None of the mentioned  
Answer :c

36

//Which of the following is absolutely neccessary to use a class Point present in namespace Graph stored in library?

- A. Use fully qualified name of the Point class.
- B. Use using statement before using the Point class.
- C. Add Reference of the library before using the Point class.
- D. Use using statement before using the Point class.

.

Option C

37

Which of the followings are NOT a .NET namespace?

- 1. System.Web
  - 2. System.Process
  - 3. System.Data
  - 4. System.Drawing2D
  - 5. System.Drawing3D
- 
- A. 1, 3
  - B. 2, 4, 5
  - C. 3, 5
  - D. 1, 2, 3

Option B

38

Which of the following statements is correct about a namespace used in C#.NET?

- A. Nested namespaces are not allowed.
- B. Importing outer namespace imports inner namespace.
- C. Nested namespaces are allowed.
- D. If nested, the namespaces cannot be split across files.

Option C

39

Which of the following is an 8-byte Integer?

- A. Char
- B. Long
- C. Short
- D. Byte

Option B

40

Which of the following statements is correct?

- A. Information is never lost during narrowing conversions.
- B. The CInteger() function can be used to convert a Single to an Integer.
- C. Widening conversions take place automatically.
- D. Assigning an Integer to an Object type is known as Unboxing.

Option C

41. Accessibility modifier defined in a class are?

- a) public, private, protected
- b) public, internal, protected internal.
- c) public, private, internal, protected internal.
- d) public, private, protected, internal, protected internal

Answer :d

42. Choose statements which are true in nature:

- a) The base class member functions can access public member functions of derived class
- b) An object of a derived class cannot access private member of the base class
- c) Private members of base class cannot accessed by derived class member functions or objects of derived class
- d) None of the mentioned

Answer : b, c

43. Which of these access specifiers must be used for main() method?

- a) private
- b) public
- c) protected
- d) None of the mentioned

Answer :b

44. Keyword used to define call by reference parameter in C# .NET?

- a) &
- b) out
- c) ref
- d) &&

Answer :c

45. Which statement is/are correct?

- a) An argument passed to a ref parameter need not to be initialized first
- b) variables passed as out arguments need to be initialized prior to being passed
- c) to use a ref parameter only the calling method must explicitly use the ref keyword
- d) None of the mentioned

Answer :d

46. Which of the following statements is incorrect about delegate?

- A. Delegates are reference types.
- B. Delegates are object oriented.
- C. Delegates are type-safe.
- D. Only one method can be called using a delegate.

Option D

47. The declaration of a delegate must match the signature of the method that we intend to call using it.

5. Functions called using delegates are always late-bound.

- A. 1 and 2 only
- B. 1, 2 and 3 only
- C. 2, 3 and 4 only
- D. None of the above

Option D

48. Which of the following statements are correct about delegates?

- 1. Delegates are not type-safe.
- 2. Delegate is a user-defined type.
- 3. Only one method can be bound with one delegate object.
- 4. Delegates can be used to implement callback notification.

49. Delegates permit execution of a method on a secondary thread in an asynchronous manner.

- A. 1 and 2 only
- B. 1, 2 and 3 only
- C. 2, 4 and 5 only
- D. All of the above

Option C

50. Choose correct statement which support facts that why C# does not allow creation of empty structures?

- a) C#.NET supports creation of abstract user-defined data types using structures
- b) By having empty structures, it would mean that the new data types have no data associated with them which do not make any sense in C#.NET
- c) Basic reason to create structures is inability to represent real life objects using standard data types offered by the language
- d) All of the above mentioned

Answer: d

51. Choose correct statement about structures why they are defined as value types but not reference types?

- a) Since space required for structure variables is allocated on stack which is a form of memory that is automatically available when a variable to be used is in scope.
- b) Structures generally used to represent user defined data types that consists of small amount of data in them hence using stack for deceleration of such variables is not problem.
- c) All of the mentioned
- d) None of the mentioned

Answer: c

52. Choose correct statement about structures in C#.NET?

- a) Structures can be declared within a procedure

- b) Structs can implement an interface but they cannot inherit from another struct  
c) Struct members cannot be declared as protected  
d) A structure can be empty  
Answer: b, c
53. When does structure variable get destroyed?  
a) When no reference refers to it, it will get garbage collected  
b) Depends on either it is created using new or without new operator  
c) As variable goes out of the scope  
d) Depends on either we free its memory using free() or delete()  
Answer: c
54. Select correct statements among the following?  
a) A struct can contain properties  
b) A struct can contain constructors  
c) A struct can contain protected data members  
d) A struct cannot contain constants  
Answer: a, b
55. Choose correct statements about enum used in C#.NET?  
a) An enum variable cannot have a private access modifier  
b) An enum variable can be defined inside a class or a namespace  
c) An enum variable cannot have a protected access modifier  
d) An enum variable cannot have a public access modifier  
Answer: c
56. Which among the following cannot be used as a datatype for an enum in C#.NET?  
a) short  
b) double  
c) int  
d) float  
Answer: d, b
57. Correct statement about enum used in C#.NET is?  
a) An enum can be declared inside a class  
b) An object can be assigned to an enum variable  
c) An enum can be declared outside a class  
d) An enum can have Single, Double values  
Answer: a, c
58. Choose correct statement about enum used in C#.NET ?  
a) By default the first enumerator had a value equals to number of elements present in the list  
b) Values of enum elements cannot be populated from database  
c) The value of each successive enumerator is decreased by 1  
d) An enumerator had white space in its name  
Answer: b
59. Choose the correct differences which different enum from C#.NET than enum in C language?  
a) C is a strictly typed language also C#.NET is a strictly typed language  
b) In C language variables of enum types can be used interchangeably with integers using type casts while enum variables cannot be used as a normal integers

c) C is not a strictly typed language while C#.NET is a strictly typed language

- d) All of the mentioned

Answer: b, c

60. A type of class which does not have its own objects but acts as a base class for its subclass is known as?

- a) Static class  
b) Sealed class  
c) Abstract class  
d) None of the mentioned

Answer :c

61. If a class inheriting an abstract class does not define all of its function then it will be known as?

- a) abstract  
b) A simple class  
c) Static class  
d) None of the mentioned

Answer :a

62. Which of the following modifier is used when an abstract method is redefined by a derived class?

- a) Overloads  
b) Override  
c) Base  
d) Virtual

Answer :b

63. Choose the correct statements about write-only properties in C#.NET?

- a) Properties which can only be set  
b) Properties once set and hence values cannot be read back in nature  
c) Useful for usage in classes which store sensitive information like password of a user  
d) None of the above mentioned

Answer: a, b, c

64. Consider a class maths and we had a property called as sum. b is a reference to a

maths object and we want the statement b.sum = 10 to fail. Which is the correct solution to ensure this functionality?

- a) Declare sum property with both get and set accessors  
b) Declare sum property with only get accessor  
c) Declare sum property with get, set and normal accessors  
d) None of the mentioned

Answer: c

65. Consider a class maths and we had a property called as sum. b is a reference to a

maths object and we want the statement Console.WriteLine(b.sum) to fail. Which is the correct solution to ensure this functionality?

- a) Declare sum property with only get accessor

- b) Declare sum property with only set accessor
  - c) Declare sum property with both set and get accessor
  - d) Declare sum property with both set, get and normal accessor
- Answer: b

66. Select the correct statement about properties in C#.NET?
- a) A property can simultaneously be read or write only
  - b) A property can be either read only or write only
  - c) A write only property will have only get accessor
  - d) A read only property will have only get accessor
- Answer: b, d

67. Select the type of multitasking methods exists really:
- a) process based
  - b) thread based
  - c) only a
  - d) Both a & b
- Answer: d

68. Choose the correct statement about process-based multitasking:
- a) feature that allows our computer to run two or more programs concurrently
  - b) program acts as a small unit of code that can be dispatched by the scheduler
  - c) Only b
  - d) Both a & b
- Answer: d

69. Choose the statements which differs the thread based multitasking and process based multitasking from each other:
- a) Process-based multitasking handles the concurrent execution of programs
  - b) Process-based multitasking handles the concurrent execution of pieces of the same program
  - c) Thread-based multitasking handles the concurrent execution of programs
  - d) Thread-based multitasking deals with the concurrent execution of pieces of the same program
- Answer: a, d

70. What is the advantage of the multithreading programs?
- a) Enables to utilize the idle and executing time present in most programs
  - b) Enables to utilize the idle time present in most programs
  - c) Both a & b
  - d) Only b
- Answer: d

71. Select the two type of threads mentioned in the concept of multithreading:
- a) foreground
  - b) background
  - c) only a
  - d) Both a & b
- Answer: d

72. Number of threads exists there for each of the processes that occurs in the program:

- a) atmost 1
- b) atleast 1
- c) only 1
- d) Both b & c

Answer: a, c

73. Choose the namespace which supports the multithreading programming:

- a) System.net
- b) System.Linq
- c) System.Threading
- d) All of the mentioned

Answer: c

74. Which of these keywords are used to implement synchronization?

- a) synchronize
- b) syn
- c) synch
- d) synchronized

Answer: d

75. Which keyword is used for using the synchronization features defined by the Monitor class?

- a) lock
- b) synchronized
- c) Monitor
- d) locked

Answer: a

76. What is synchronization in reference to a thread?

a) Its a process of handling situations when two or more threads need access to a shared resource.

b) Its a process by which many thread are able to access same shared resource simultaneously

c) Its a process by which a method is able to access many different threads simultaneously

d) Its a method that allow to many threads to access any information they require

Answer: a

77. Which method is called when a thread is blocked from running temporarily?

- a) Pulse()
- b) PulseAll()
- c) Wait()
- d) Both b & c

Answer: c

78. What kind of exception is being thrown if Wait(), Pulse() or PulseAll() is called

from code that is not within synchronized code?

- a) System I/O Exception
- b) DivideByZero Exception
- c) SynchronizationLockException
- d) All of the mentioned

Answer: c

79. What is mutex?

- a) a mutually exclusive synchronization object
- b) can be acquired by more than one thread at a time
- c) helps in sharing of resource which can be used by one thread at only one a time
- d) All of the mentioned

Answer: a, c

80 ADO.NET provides the ability to create and process in-memory databases called:

- A. views
- B. relations
- C. tables
- D. datasets.

answer : D

81 What are major difference between classic ADO and ADO.NET?

- A. In ADO we have recordset and in ADO.NET we have dataset.
- B. In recordset we can only have one table. If we want to accommodate more than one tables. We need to do inner join and fill the recordset. Dataset can have multiple tables.
- C. All data persist in XML as compared to classic ADO where data persisted in Binary format also.
- D. All of the above

answer : D

82

BindingContext, CurrencyManager and PropertyManager are the classes of ----- namespace.

- A. System.Object
- B. System.Data
- C. System.Windows.Forms
- D. System.Windows

answer : D

83 The DataBindings property is an instance of -----

- A. ControlCollection
- B. CurrencyManager
- C. ControlBindingsCollection
- D. Control

answer : C

84 Under ADO.NET \_\_\_\_\_ object is used to populate DataSets

- A. DataReader
- B. DataAdapter
- C. Command
- D. None of the above

answer : B

- 85 Which methods provided by the dataset object to generate XML in ADO.Net?
- A. ReadXML
  - B. GetXML
  - C. Writexml
  - D. All of Above
- answer : D
- 86 The DataSet object is a \_\_\_\_\_ storage.
- A. connected
  - B. disconnected
  - C. polling
  - D. None
- answer : B
87. Choose the namespace in which Expression trees are encapsulated:
- a) System.Linq
  - b) System.Linq.Expressions
  - c) System.Text
  - d) System.Collections.Generic
- Answer: b
88. Which of given statements are valid about generics in .NET Framework?
- a) generics are useful in collection classes in .NET framework
  - b) generics delegates are not allowed in C#.NET
  - c) generics is a language feature
  - d) All of the mentioned
- Answer: c, a
89. Correct statement valid about generic procedures in C#.NET are?
- a) All procedures in a Generic class are generic
  - b) Generic procedures should take at least one type parameter
  - c) Only those procedures labeled as Generic are Generic
  - d) None of the mentioned
- Answer: b
90. Which among the given class represents System.Collections.Generic namespace?
- a) SortedDictionary
  - b) Sorted Array
  - c) Stack
  - d) Tree
- Answer: a, c
91. Among from the following ref keyword can be used with?
- a) static function/subroutine
  - b) static data
  - c) Instance function/subroutine
  - d) instance data
- Answer: a, c
92. To implement delegates the necessary condition for implementation is?
- a) class declaration
  - b) inheritance
  - c) run time polymorphism
  - d) exceptions
- Answer: a

93. Suppose a Generic class called as SortObjects is to made capable of sorting objects of any type(integer, single, byte etc).Hence, which following programming

construct is able to implement the comparision function?

- a) interface
- b) encapsulation
- c) delegate
- d) attribute

Answer: c

94. To generate a simple notification for an object on runtime the programming construct to be used for implementation this idea?

- a) namespace
- b) interface
- c) delegate
- d) attribute

Answer: c

95. Choose the incorrect statement about the delegate?

- a) delegate are of reference types
- b) delegates are object oriented
- c) delegates are type safe
- d) none of the mentioned

Answer: d

96. Correct statement about delegate declaration given below is ?

```
delegate void del(int i);
```

- a) On declaring the delegate a class called del is created
- b) the del class is derived from the MulticastDelegate class
- c) the del class will contain a one arguement constructor and an invoke() method
- d) none of the mentioned

Answer: a, b, c

97. Which is the incorrect statement about delegate?

- a) A single delegate can invoke more than one method
- b) delegates could be shared
- c) delegates are type safe wrappers for funtion pointers
- d) delegate is a value type

Answer: d

98. Choose statements which differentiate delegate in C#.NET than a conventional function pointer in other languages?

- a) delegate in C#.NET represent a new type in the Comman Type System
- b) delegate allow static as well as instance methods to be invoked
- c) delegate are type safe and secure
- d) none of the mentioned

Answer: d

99. Select the namespace on which the stream classes are defined?

- a) System.IO
- b) System.Input
- c) System.Output
- d) All of the mentioned

Answer: a

100. Choose the class on which all stream classes are defined?

- a) System.IO.stream
- b) Sytem.Input.stream
- c) System.Output.stream
- d) All of the mentioned

Answer: a

101. A method used to write a single byte to an output stream?

- a) void WriteByte(byte value)
- b) int Write(byte[] buffer ,int offset ,int count)
- c) write()
- d) None of the mentioned

Answer: a

102. Select the method which writes the contents of the stream to the physical device.

- a) fflush()
- b) void fflush()
- c) void Flush()
- d) flush()

Answer: c

//103. Which statement correctly defines about Interfaces in C#.NET?

- a) Interfaces cannot be inherited
- b) Interfaces consists of data static in nature and static methods
- c) Interfaces consists of only method declaration
- d) None of the mentioned

Answer: c

104. Which keyword used for correct implementation of an interface in C#.NET?

- a) interface
- b) Interface
- c) intf
- d) Intf

Answer: a

105. Select which among is NOT an exception?

- a) Stack Overflow
- b) Arithmetic Overflow or underflow
- c) Incorrect Arithmetic Expression
- d) All of the above mentioned

Answer :c

106. Select which among is NOT considered as .NET Exception class?

- a) Exception
- b) StackUnderflow Exception
- c) File Found Exception
- d) Divide By zero Exception

Answer :b, c

107. Select the statements which describes correctly usage of exception handling over conventional error handling approaches?

- a) As errors can be ignored but exceptions cannot be ignored
  - b) Exception handling allows separation of programs logic from error handling logic making software more reliable and maintainable
  - c) try catch finally structure allows guaranteed cleanup in event of errors under all circumstances
  - d) All of the above mentioned
- Answer :d

108. Select the correct statement about an Exception?

- a) It occurs during loading of program
- b) It occurs during Just-In-Time compilation
- c) It occurs at run time
- d) All of the above mentioned

Answer :c

109. Which of these keywords is not a part of exception handling?

- a) try
- b) finally
- c) thrown
- d) catch

Answer :c

# **DOT NET Interview Questions and Answers --**

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## **.NET Framework**

### 1. What is .NET Framework?

.NET Framework is a complete environment that allows developers to develop, run, and deploy the following applications:

- Console applications
- Windows Forms applications
- Windows Presentation Foundation (WPF) applications
- Web applications (ASP.NET applications)
- Web services
- Windows services
- Service-oriented applications using Windows Communication Foundation (WCF)
- Workflow-enabled applications using Windows Workflow Foundation (WF)

.NET Framework also enables a developer to create sharable components to be used in distributed computing architecture. .NET Framework supports the object-oriented programming model for multiple languages, such as Visual Basic, Visual C#, and Visual C++. .NET Framework supports multiple programming languages in a manner that allows language interoperability. This implies that each language can use the code written in some other language.

### 2. What are the main components of .NET Framework?

.NET Framework provides enormous advantages to software developers in comparison to the advantages provided by other platforms. Microsoft has united various modern as well as existing technologies of software development in .NET Framework. These technologies are used by developers to develop highly efficient applications for modern as well as future business needs. The following are the key components of .NET Framework:

- .NET Framework Class Library
- Common Language Runtime
- Dynamic Language Runtimes (DLR)
- Application Domains
- Runtime Host
- Common Type System
- Metadata and Self-Describing Components
- Cross-Language Interoperability
- .NET Framework Security
- Profiling
- Side-by-Side Execution

3. List the new features added in .NET Framework 4.0.

The following are the new features of .NET Framework 4.0:

- Improved Application Compatibility and Deployment Support
- Dynamic Language Runtime
- Managed Extensibility Framework
- Parallel Programming framework
- Improved Security Model
- Networking Improvements
- Improved Core ASP.NET Services
- Improvements in WPF 4
- Improved Entity Framework (EF) □ Integration between WCF and WF

4. What is an IL?

Intermediate Language is also known as MSIL (Microsoft Intermediate Language) or CIL (Common Intermediate Language). All .NET source code is compiled to IL. IL is then converted to machine code at the point where the software is installed, or at run-time by a Just-In-Time (JIT) compiler.

5. What is Manifest?

Assembly metadata is stored in Manifest. Manifest contains all the metadata needed to do the following things

- Version of assembly.
- Security identity.
- Scope of the assembly.
- Resolve references to resources and classes.

The assembly manifest can be stored in a PE file either (an .exe or) .dll with Microsoft intermediate language (MSIL code with Microsoft intermediate language (MSIL) code or in a stand-alone PE file, that contains only assembly manifest information.

## 6. What are code contracts?

Code contracts help you to express the code assumptions and statements stating the behavior of your code in a language-neutral way. The contracts are included in the form of pre-conditions, post-conditions and objectinvariants. The contracts help you to improve-testing by enabling run-time checking, static contract verification, and documentation generation.

The *System.Diagnostics.Contracts* namespace contains static classes that are used to express contracts in your code.

## 7. Name the classes that are introduced in the *System.Numerics* namespace.

The following two new classes are introduced in the *System.Numerics* namespace:

- *BigInteger* - Refers to a non-primitive integral type, which is used to hold a value of any size. It has no lower and upper limit, making it possible for you to perform arithmetic calculations with very large numbers, even with the numbers which cannot hold by double or long.
- *Complex* - Represents complex numbers and enables different arithmetic operations with complex numbers. A number represented in the form  $a + bi$ , where  $a$  is the real part, and  $b$  is the imaginary part, is a complex number.

## 8. What is managed extensibility framework?

Managed extensibility framework (MEF) is a new library that is introduced as a part of .NET 4.0 and Silverlight 4. It helps in extending your application by providing greater reuse of applications and components. MEF provides a way for host application to consume external extensions without any configuration requirement.

## 9. Explain memory-mapped files.

Memory-mapped files (MMFs) allow you map the content of a file to the logical address of an application. These files enable the multiple processes running on the same machine to share data with each Other. The *MemoryMappedFile.CreateFromFile()* method is used to obtain a *MemoryMappedFile* object that represents a persisted memory-mapped file from a file on disk.

These files are included in the *System.IO.MemoryMappedFiles* namespace. This namespace contains four classes and three enumerations to help you access and secure your file mappings.

## 10. What is Common Type System (CTS)?

CTS is the component of CLR through which .NET Framework provides support for multiple languages because it contains a type system that is common across all the languages. Two CTS-compliant languages do not require type conversion when calling the code written in one language from within the code written in another language. CTS provide a base set of data types for all the languages supported by .NET Framework. This means that the size of integer and long variables is same across all .NET-compliant programming languages. However, each language uses aliases for the base data types provided by CTS. For example, CTS

uses the data type system. int32 to represent a 4 byte integer value; however, Visual Basic uses the alias integer for the same; whereas, C# uses the alias int. This is done for the sake of clarity and simplicity.

11. Give a brief introduction on side-by-side execution. Can two applications, one using private assembly and the other using the shared assembly be stated as side-by-side executables?

Side-by-side execution enables you to run multiple versions of an application or component and CLR on the same computer at the same time. As versioning is applicable only to shared assemblies and not to private assemblies, two applications, one using a private assembly and other using a shared assembly, cannot be stated as side-by-side executables.

12. Which method do you use to enforce garbage collection in .NET?

The *System.GC.Collect()* method.

13. State the differences between the *Dispose()* and *Finalize()*.

CLR uses the Dispose and Finalize methods to perform garbage collection of run-time objects of .NET applications.

The *Finalize* method is called automatically by the runtime. CLR has a garbage collector (GC), which periodically checks for objects in heap that are no longer referenced by any object or program. It calls the *Finalize* method to free the memory used by such objects. The *Dispose* method is called by the programmer. *Dispose* is another method to release the memory used by an object. The *Dispose* method needs to be explicitly called in code to dereference an object from the heap. The *Dispose* method can be invoked only by the classes that implement the *IDisposable* interface.

14. What is code access security (CAS)?

Code access security (CAS) is part of the .NET security model that prevents unauthorized access of resources and operations, and restricts the code to perform particular tasks.

15. Differentiate between managed and unmanaged code?

Managed code is the code that is executed directly by the CLR instead of the operating system. The code compiler first compiles the managed code to intermediate language (IL) code, also called as MSIL code. This code doesn't depend on machine configurations and can be executed on different machines.

Unmanaged code is the code that is executed directly by the operating system outside the CLR environment. It is directly compiled to native machine code which depends on the machine configuration.

In the managed code, since the execution of the code is governed by CLR, the runtime provides different services, such as garbage collection, type checking, exception handling, and security support. These services help provide uniformity in platform and language-independent behavior of managed code applications. In the unmanaged code, the allocation of memory, type safety, and security is required to be taken care of by the developer. If the unmanaged code is not properly handled, it may result in memory leak. Examples of unmanaged code are ActiveX components and Win32 APIs that execute beyond the scope of native CLR.

16. What are tuples?

Tuple is a fixed-size collection that can have elements of either same or different data types. Similar to arrays, a user must have to specify the size of a tuple at the time of declaration. Tuples are allowed to hold up from 1 to 8 elements and if there are more than 8 elements, then the 8th element can be defined as another tuple. Tuples can be specified as parameter or return type of a method.

## 17. How can you turn-on and turn-off CAS?

YOU can use the Code Access Security Tool (Caspol.exe) to turn security on and off.

To turn off security, type the following command at the command prompt:

*caspol -security off*

To turn on security, type the following command at the command prompt:

*caspol -security on*

In the .NET Framework 4.0, for using Caspol.exe, you first need to set the *<LegacyCasPolicy>* element to *true*.

## 18. What is garbage collection? Explain the difference between garbage collections in .NET 4.0 and earlier versions.

Garbage collection prevents memory leaks during execution of programs. Garbage collector is a low-priority process that manages the allocation and deallocation of memory for your application. It checks for the unreferenced variables and objects. If GC finds any object that is no longer used by the application, it frees up the memory from that object.

GC has changed a bit with the introduction of .NET 4.0. In .NET 4.0, the *GC.Collect()* method contains the following overloaded methods:

```
GC.Collect(int)
GC.Collect(int, GCCollectionMode)
```

Another new feature introduced in .NET is to notify you when the *GC.Collect()* method is invoked and completed successfully by using different methods. The .NET 4.0 supports a new background garbage collection that replaces the concurrent garbage collection used in earlier versions. This concurrent GC allocates memory while running and uses current segment (which is 16 MB on a workstation) for that. After that, all threads are suspended. In case of background GC, a separate ephemeral GC - gen0 and gen1 can be started, while the full GC - gen0, 1, and 2 - is already running.

## 19. How does CAS works?

There are two key concepts of CAS security policy- code groups and permissions. A code group contains assemblies in it in a manner that each .NET assembly is related to a particular code group and some permissions are granted to each code group. For example, using the default security policy, a control downloaded from a Web site belongs to the Zone, Internet code group, which adheres to the permissions defined by the named permission set. (Normally, the named permission set represents a very restrictive range of permissions.)

Assembly execution involves the following steps:

1. Evidences are gathered about assembly.
2. Depending on the gathered evidences, the assembly is assigned to a code group.
3. Security rights are allocated to the assembly, depending on the code group.
4. Assembly runs as per the rights assigned to it.

20. What is Difference between NameSpace and Assembly?

Following are the differences between namespace and assembly:

- Assembly is physical grouping of logical units, Namespace, logically groups classes.
- Namespace can span multiple assembly.

21. Mention the execution process for managed code.

A piece of managed code is executed as follows:

- Choosing a language compiler
- Compiling the code to MSIL  Compiling MSIL to native code  Executing the code.

22. Is there a way to suppress the finalize process inside the garbage collector forcibly in .NET?

Use the *GC.SuppressFinalize()* method to suppress the finalize process inside the garbage collector forcibly in .NET.

23. How can you instantiate a tuple?

The following are two ways to instantiate a tuple:

- Using the *new* operator. For example,

```
Tuple<String, int> t = new Tuple<String, int> ("Hello", 2);
```

- Using the *Create* factory method available in the Tuple class. For example,

```
Tuple<int, int, int> t = Tuple.Create<int, int, int> (2, 4, 5);
```

24. Which is the root namespace for fundamental types in .NET Framework?

*System.Object* is the root namespace for fundamental types in .NET Framework.

25. What are the improvements made in CAS in .NET 4.0?

The CAS mechanism in .NET is used to control and configure the ability of managed code. Earlier, as this policy was applicable for only native applications, the security guarantee was limited. Therefore, developers used to look for alternating solutions, such as operating system-level solutions. This problem was solved in .NET Framework 4 by turning off the machine-wide security. The shared and hosted Web applications can now run more securely. The security policy in .NET Framework 4 has been simplified using the transparency model. This model allows you to run the Web applications without concerning about the CAS policies.

As a result of security policy changes in .NET Framework 4.0, you may encounter compilation warnings and runtime exceptions, if you try to use the obsolete CAS policy types and members either implicitly or explicitly. However, you can avoid the warnings and errors by using the `<NetFx40_LegacySecurityPolicy>` configuration element in the runtime settings schema to opt into the obsolete CAS policy behavior.

## 26. What is Microsoft Intermediate Language (MSIL)?

The .NET Framework is shipped with compilers of all .NET programming languages to develop programs. There are separate compilers for the Visual Basic, C#, and Visual C++ programming languages in .NET Framework. Each .NET compiler produces an intermediate code after compiling the source code. The intermediate code is common for all languages and is understandable only to .NET environment. This intermediate code is known as MSIL.

## 27. What is lazy initialization?

Lazy initialization is a process by which an object is not initialized until it is first called in your code. The .NET 4.0 introduces a new wrapper class, `System.Lazy<T>`, for executing the lazy initialization in your application. Lazy initialization helps you to reduce the wastage of resources and memory requirements to improve performance. It also supports thread-safety.

## 28. How many types of generations are there in a garbage collector?

Memory management in the CLR is divided into three generations that are build up by grouping memory segments. Generations enhance the garbage collection performance. The following are the three types of generations found in a garbage collector:

- Generation 0 - When an object is initialized, it is said to be in generation 0.
- Generation 1 - The objects that are under garbage collection process are considered to be in generation 1.
- Generation 2 - Whenever new objects are created and added to the memory, they are added to generation 0 and the old objects in generation 1 are considered to be in generation 2.

## 29. Explain covariance and contra-variance in .NET Framework 4.0. Give an example for each.

In .NET 4.0, the CLR supports covariance and contravariance of types in generic interfaces and delegates. Covariance enables you to cast a generic type to its base types, that is, you can assign a instance of type `IEnumerable<T1>` to a variable of type `IEnumerable<T2>` where, `T1` derives from `T2`. For example,

```
IEnumerable<string> str1= new List<string> ();
IEnumerable<object> str2= str1;
```

Contravariance allows you to assign a variable of `Action<base>` to a variable of type `Action<derived>`. For example,

```
IComparer<object> obj1 = GetComparer()
IComparer<string> obj2 = obj1;
```

.NET framework 4.0 uses some language keywords (`out` and `in`) to annotate covariance and contra-variance. `Out` is used for covariance, while `in` is used for contra-variance.

Variance can be applied only to reference types, generic interfaces, and generic delegates. These cannot be applied to value types and generic types.

### 30. How do you instantiate a complex number?

The following are the different ways to assign a value to a complex number:

By passing two *Double* values to its constructor. The first value represents the real, and the second value represents imaginary part of a complex number. For example,

```
Complex c1 = new Complex(5, 8); /* It represents (5, 8) */
```

By assigning a *Byte*, *SByte*, *Intl6*, *UIntl6*, *Int32*, *UInt32*, *Int64*, *UInt64*, *Single*, or *Double* value to a *Complex* object. The assigned value represents the real part of the complex number, and its imaginary part becomes 0. For example,

```
Complex c2 = 15.3; /* It represents (15.3, 0) */
```

By casting a *Decimal* or *BigInteger* value to a *Complex* object. For example,

```
Complex c3 = (Complex) 14.7; /* It represents (14.7, 0) */
```

Assigning the value returned by an operator to a *Complex* variable. For example,

```
Complex c4 = c1 + c2; /* It represents (20.3, 8) */
```

### 31. What is Common Language Specification (CLS)?

CLS is a set of basic rules, which must be followed by each .NET language to be a .NET-compliant language. It enables interoperability between two .NET-compliant languages. CLS is a subset of CTS; therefore, the languages supported by CLS can use each other's class libraries similar to their own. Application programming interfaces (APIs), which are designed by following the rules defined in CLS can be used by all .NET-compliant languages.

### 32. What is the role of the JIT compiler in .NET Framework?

The JIT compiler is an important element of CLR, which loads MSIL on target machines for execution. The MSIL is stored in .NET assemblies after the developer has compiled the code written in any .NET-compliant programming language, such as Visual Basic and C#.

JIT compiler translates the MSIL code of an assembly and uses the CPU architecture of the target machine to execute a .NET application. It also stores the resulting native code so that it is accessible for subsequent calls. If a code executing on a target machine calls a non-native method, the JIT compiler converts the MSIL of that method into native code. JIT compiler also enforces type-safety in runtime environment of .NET Framework. It checks for the values that are passed to parameters of any method.

For example, the JIT compiler detects any event, if a user tries to assign a 32-bit value to a parameter that can only accept 8-bit value.

### 33. What is difference between *System.String* and *System.StringBuilder* classes?

*String* and *StringBuilder* classes are used to store string values but the difference in them is that *String* is immutable (read only) by nature, because a value once assigned to a *String* object cannot be changed after its creation. When the value in the *String* object is modified, a new object is created, in memory, with a new value

assigned to the *String* object. On the other hand, the *StringBuilder* class is mutable, as it occupies the same space even if you change the value. The *StringBuilder* class is more efficient where you have to perform a large amount of string manipulation.

#### 34. Describe the roles of CLR in .NET Framework.

CLR provides an environment to execute .NET applications on target machines. CLR is also a common runtime environment for all .NET code irrespective of their programming language, as the compilers of respective language in .NET Framework convert every source code into a common language known as MSIL or IL (Intermediate Language).

CLR also provides various services to execute processes, such as memory management service and security services. CLR performs various tasks to manage the execution process of .NET applications.

The responsibilities of CLR are listed as follows:

- Automatic memory management
- Garbage Collection
- Code Access Security
- Code verification
- JIT compilation of .NET code

#### 35. What is the difference between int and int32.

There is no difference between *int* and *int32*. *System.Int32* is a .NET Class and *int* is an alias name for *System.Int32*.

## .NET Programming Concepts

### 1. Define variable and constant.

A variable can be defined as a meaningful name that is given to a data storage location in the computer memory that contains a value. Every variable associated with a data type determines what type of value can be stored in the variable, for example an integer, such as 100, a decimal, such as 30.05, or a character, such as 'A'.

You can declare variables by using the following syntax:

*<Data\_type> <variable\_name> ;*

A constant is similar to a variable except that the value, which you assign to a constant, cannot be changed, as in case of a variable. Constants must be initialized at the same time they are declared. You can declare constants by using the following syntax:

*const int interestRate = 10;*

### 2. What is a data type? How many types of data types are there in .NET ?

A data type is a data storage format that can contain a specific type or range of values. Whenever you declare variables, each variable must be assigned a specific data type. Some common data types include integers, floating point, characters, and strings. The following are the two types of data types available in .NET:

- **Value type** - Refers to the data type that contains the data. In other words, the exact value or the data is directly stored in this data type. It means that when you assign a value type variable to another variable, then it copies the value rather than copying the reference of that variable. When you create a value type variable, a single space in memory is allocated to store the value (stack memory). Primitive data types, such as int, float, and char are examples of value type variables.
- **Reference type** - Refers to a data type that can access data by reference. Reference is a value or an address that accesses a particular data by address, which is stored elsewhere in memory (heap memory). You can say that reference is the physical address of data, where the data is stored in memory or in the storage device. Some built-in reference types variables in .Net are string, array, and object.

3. Mention the two major categories that distinctly classify the variables of C# programs.

Variables that are defined in a C# program belong to two major categories: **value type** and **reference type**. The variables that are based on value type contain a value that is either allocated on a stack or allocated in-line in a structure. The variables that are based on reference types store the memory address of a variable, which in turn stores the value and are allocated on the heap. The variables that are based on value types have their own copy of data and therefore operations done on one variable do not affect other variables. The reference-type variables reflect the changes made in the referring variables.

Predict the output of the following code segment:

```
int x = 42;
int y = 12;
int w;
object o; o
= x;
w = y * (int)o; Console.WriteLine(w);

/* The output of the code is 504. */
```

4. Which statement is used to replace multiple if-else statements in code.

In Visual Basic, the **Select-Case** statement is used to replace multiple **If - Else** statements and in C#, the **switch-case** statement is used to replace multiple **if-else** statements.

5. What is the syntax to declare a namespace in .NET?

In .NET, the namespace keyword is used to declare a namespace in the code.

The syntax for declaring a namespace in C# is:

*namespace UserNameSpace;*

The syntax for declaring a namespace in VB is: *NameSpace*

*UserNameSpace*

6. What is the difference between constants and read-only variables that are used in programs?

Constants perform the same tasks as read-only variables with some differences. The differences between constants and read-only are

#### **Constants:**

1. Constants are dealt with at compile-time.
2. Constants supports value-type variables.
3. Constants should be used when it is very unlikely that the value will ever change.

#### **Read-only:**

1. Read-only variables are evaluated at runtime.
2. Read-only variables can hold reference type variables.
3. Read-only variables should be used when run-time calculation is required.

7. Differentiate between the *while* and *for* loop in C#.

The *while* and *for* loops are used to execute those units of code that need to be repeatedly executed, unless the result of the specified condition evaluates to false. The only difference between the two is in their syntax. The *for* loop is distinguished by setting an explicit loop variable.

8. What is an identifier?

Identifiers are nothing but names given to various entities uniquely identified in a program. The name of identifiers must differ in spelling or casing. For example, *MyProg* and *myProg* are two different identifiers. Programming languages, such as C# and Visual Basic, strictly restrict the programmers from using any keyword as identifiers. Programmers cannot develop a class whose name is *public*, because, *public* is a keyword used to specify the accessibility of data in programs.

9. What does a break statement do in the switch statement?

The *switch* statement is a selection control statement that is used to handle multiple choices and transfer control to the *case* statements within its body. The following code snippet shows an example of the use of the *switch* statement in C#:

```
switch(choice)
{   case 1:
    console.WriteLine("First");
    break;   case 2:
```

```
console.WriteLine("Second");
break; default:
console.WriteLine("Wrong choice");
break; }
```

In *switch* statements, the *break* statement is used at the end of a *case* statement. The *break* statement is mandatory in C# and it avoids the fall through of one *case* statement to another.

#### 10. Explain keywords with example.

Keywords are those words that are reserved to be used for a specific task. These words cannot be used as identifiers. You cannot use a keyword to define the name of a variable or method. Keywords are used in programs to use the features of object-oriented programming.

For example, the *abstract* keyword is used to implement abstraction and the *inherits* keyword is used to implement inheritance by deriving subclasses in C# and Visual Basic, respectively.

The *new* keyword is universally used in C# and Visual Basic to implement encapsulation by creating objects.

#### 11. Briefly explain the characteristics of value-type variables that are supported in the C# programming language.

The variables that are based on value types directly contain values. The characteristics of value-type variables that are supported in C# programming language are as follows:

- All value-type variables derive implicitly from the *System.ValueType* class
- You cannot derive any new type from a value type
- Value types have an implicit default constructor that initializes the default value of that type □ The value type consists of two main categories:
  - Structs - Summarizes small groups of related variables.
  - Enumerations - Consists of a set of named constants.

#### 12. Give the syntax of using the *while* loop in a C# program.

The syntax of using the *while* loop in C# is:

```
while(condition) //condition
{
    //statements
}
```

You can find an example of using the *while* loop in C#:

```
int i = 0; while(i
< 5)
{
    Console.WriteLine("{0} ", i);
    i++; }
```

The output of the preceding code is: 0 1 2 3 4 .

#### 13. What is a parameter? Explain the new types of parameters introduced in C# 4.0.

A parameter is a special kind of variable, which is used in a function to provide a piece of information or input to a caller function. These inputs are called arguments. In C#, the different types of parameters are as follows:

- **Value type** - Refers that you do not need to provide any keyword with a parameter.
- **Reference type** - Refers that you need to mention the *ref* keyword with a parameter.
- **Output type** - Refers that you need to mention the *out* keyword with a parameter.
- **Optional parameter** - Refers to the new parameter introduced in C# 4.0. It allows you to neglect the parameters that have some predefined default values. The example of optional parameter is as follows:  

```
public int Sum(int a, int b, int c = 0, int d = 0); /* c and d is optional */
Sum(10, 20); //10 + 20 + 0 + 0
Sum(10, 20, 30); //10 + 20 + 30 + 0 □ Sum(10, 20, 30, 40); //10 + 20 + 30 + 40
```
- **Named parameter** - Refers to the new parameter introduced in C# 4.0. Now you can provide arguments by name rather than position. The example of the named parameter is as follows:  

```
public void CreateAccount(string name, string address = "unknown", int age = 0);
CreateAccount("Sara", age: 30);
CreateAccount(address: "India", name: "Sara");
```

14. Briefly explain the characteristics of reference-type variables that are supported in the C# programming language.

The variables that are based on reference types store references to the actual data. The keywords that are used to declare reference types are:

1. **Class** - Refers to the primary building block for the programs, which is used to encapsulate variables and methods into a single unit.
2. **Interface** - Contains only the signatures of methods, properties, events, or indexers.
3. **Delegate** - Refers to a reference type that is used to encapsulate a named or anonymous method.

15. What are the different types of literals?

A literal is a textual representation of a particular value of a type.

The different types of literals in Visual Basic are:

- Boolean Literals - Refers to the True and False literals that map to the true and false state, respectively.  
□ Integer Literals - Refers to literals that can be decimal (base 10), hexadecimal (base 16), or octal (base 8).
- Floating-Point Literals - Refers to an integer literal followed by an optional decimal point. By default, a floating-point literal is of type Double.
- String Literals - Refers to a sequence of zero or more Unicode characters beginning and ending with an ASCII double-quote character.
- Character Literals - Represents a single Unicode character of the Char type.
- Date Literals - Represents time expressed as a value of the Date type.
- Nothing - Refers to a literal that does not have a type and is convertible to all types in the type system.

The different types of literals in C# are:

- Boolean literals - Refers to the True and False literals that map to the true and false states, respectively.

- Integer literals - Refers to literals that are used to write values of types int, uint, long, and ulong.
- Real literals - Refers to literals that are used to write values of types float, double, and decimal.
- Character literals - Represents a single character that usually consists of a character in quotes, such as 'a'.
- String literals - Refers to string literals, which can be of two types in C#:
  - A regular string literal consists of zero or more characters enclosed in double quotes, such as "hello".
  - A verbatim string literal consists of the @ character followed by a double-quote character, such as @"hello".
- The Null literal - Represents the null-type.

#### 16. What is the main difference between sub-procedure and function?

The sub-procedure is a block of multiple visual basic statements within Sub and End Sub statements. It is used to perform certain tasks, such as changing properties of objects, receiving or processing data, and displaying an output. You can define a sub-procedure anywhere in a program, such as in modules, structures, and classes.

We can also provide arguments in a sub-procedure; however, it does not return a new value.

The function is also a set of statements within the Function and End Function statements. It is similar to subprocedure and performs the same task. The main difference between a function and a sub-procedure is that subprocedures do not return a value while functions do.

#### 17. Determine the output of the code snippet.

```
int a = 29;
a--; a ==
++a;
Console.WriteLine("The value of a is: {0}", a);

/* The output of the code is -1. */
```

#### 18. Differentiate between Boxing and Unboxing.

When a value type is converted to an object type, the process is known as boxing; whereas, when an object type is converted to a value type, the process is known as unboxing.

Boxing and unboxing enable value types to be treated as objects. Boxing a value type packages it inside an instance of the Object reference type. This allows the value type to be stored on the garbage collected heap. Unboxing extracts the value type from the object. In this example, the integer variable *i* is boxed and assigned to object *obj*.

Example:

```
int i = 123;
object obj = i; /* This line boxes i. */
/* The object obj can then be unboxed and assigned to integer variable i: */
i = (int)obj; // unboxing
```

19. Give the syntax of using the *for* loop in C# code?

The syntax of using the *for* loop in C# code is given as follows:

```
for(initializer; condition; loop expression) {  
    //statements  
}
```

In the preceding syntax, initializer is the initial value of the variable, condition is the expression that is checked before the execution of the *for* loop, and loop expression either increments or decrements the loop counter.

The example of using the *for* loop in C# is shown in the following code snippet:

```
for(int i = 0; i < 5; i++)  
    Console.WriteLine("Hello");
```

In the preceding code snippet, the word Hello will be displayed for five times in the output window.

## Object-Oriented Programming

1. What is object-oriented programming (OOP)?

OOP is a technique to develop logical modules, such as classes that contain properties, methods, fields, and events. An object is created in the program to represent a class. Therefore, an object encapsulates all the features, such as data and behavior that are associated to a class. OOP allows developers to develop modular programs and assemble them as software. Objects are used to access data and behaviors of different software modules, such as classes, namespaces, and sharable assemblies. .NET Framework supports only OOP languages, such as Visual Basic .NET, Visual C#, and Visual C++.

2. What is a class?

A class describes all the attributes of objects, as well as the methods that implement the behavior of member objects. It is a comprehensive data type, which represents a blue print of objects. It is a template of object.

A class can be defined as the primary building block of OOP. It also serves as a template that describes the properties, state, and behaviors common to a particular group of objects.

A class contains data and behavior of an entity. For example, the aircraft class can contain data, such as model number, category, and color and behavior, such as duration of flight, speed, and number of passengers. A class inherits the data members and behaviors of other classes by extending from them.

3. What is an object?

They are instance of classes. It is a basic unit of a system. An object is an entity that has attributes, behavior, and identity. Attributes and behavior of an object are defined by the class definition.

4. What is the relationship between a class and an object?

A class acts as a blue-print that defines the properties, states, and behaviors that are common to a number of objects. An object is an instance of the class. For example, you have a class called *Vehicle* and *Car* is the object of that class. You can create any number of objects for the class named *Vehicle*, such as *Van*, *Truck*, and *Auto*.

The *new* operator is used to create an object of a class. When an object of a class is instantiated, the system allocates memory for every data member that is present in the class.

## 5. Explain the basic features of OOPs.

The following are the four basic features of OOP:

- **Abstraction** - Refers to the process of exposing only the relevant and essential data to the users without showing unnecessary information.
- **Polymorphism** - Allows you to use an entity in multiple forms.
- **Encapsulation** - Prevents the data from unwanted access by binding of code and data in a single unit called object.
- **Inheritance** - Promotes the reusability of code and eliminates the use of redundant code. It is the property through which a child class obtains all the features defined in its parent class. When a class inherits the common properties of another class, the class inheriting the properties is called a derived class and the class that allows inheritance of its common properties is called a base class.

## 6. What is the difference between arrays and collection?

### Array:

1. You need to specify the size of an array at the time of its declaration. It cannot be resized dynamically.
2. The members of an array should be of the same data type.

### Collection:

1. The size of a collection can be adjusted dynamically, as per the user's requirement. It does not have fixed size.
2. Collection can have elements of different types.
3. 7. What are collections and generics?
4. A collection can be defined as a group of related items that can be referred to as a single unit. The *System.Collections* namespace provides you with many classes and interfaces. Some of them are - *ArrayList*, *List*, *Stack*, *ICollection*, *IEnumerable*, and *IDictionary*. Generics provide the type-safety to your class at the compile time. While creating a data structure, you never need to specify the data type at the time of declaration. The *System.Collections.Generic* namespace contains all the generic collections.
5. 8. How can you prevent your class to be inherited further?
6. You can prevent a class from being inherited further by defining it with the *sealed* keyword.
7. 9. What is the index value of the first element in an array?
8. In an array, the index value of the first element is 0 (zero).
9. 10. Can you specify the accessibility modifier for methods inside the interface?
10. All the methods inside an interface are always *public*, by default. You cannot specify any other access modifier for them.
11. 11. Is it possible for a class to inherit the constructor of its base class?

12. No, a class cannot inherit the constructor of its base class.
13. 12. How is method overriding different from method overloading?
14. Overriding involves the creation of two or more methods with the same name and same signature in different classes (one of them should be parent class and other should be child).

Overloading is a concept of using a method at different places with same name and different signatures within the same class.

13. What is the difference between a class and a structure?

#### Class:

1. A class is a reference type.
2. While instantiating a class, CLR allocates memory for its instance in heap.
3. Classes support inheritance.
4. Variables of a class can be assigned as null.
5. Class can contain constructor/destructor.

#### Structure:

1. A structure is a value type.
2. In structure, memory is allocated on stack.
3. Structures do not support inheritance.
4. Structure members cannot have null values.
5. Structure does not require constructor/destructor and members can be initialized automatically.

14. What are similarities between a class and a structure.

Structures and classes are the two most important data structures that are used by programmers to build modular programs by using OOP languages, such as Visual Basic .NET, and Visual C#. The following are some of the similarities between a class and a structure:

- Access specifiers, such as *public*, *private*, and *protected*, are identically used in structures and classes to restrict the access of their data and methods outside their body.
- The access level for class members and struct members, including nested classes and structs, is private by default. Private nested types are not accessible from outside the containing type.
- Both can have constructors, methods, properties, fields, constants, enumerations, events, and event handlers.
- Both structures and classes can implement interfaces to use multiple-inheritance in code.
- Both structures and classes can have constructors with parameters. □ Both structures and classes can have delegates and events.

15. What is a multicast delegate?

Each delegate object holds reference to a single method. However, it is possible for a delegate object to hold references of and invoke multiple methods. Such delegate objects are called multicast delegates or combinable delegates.

16. Can you declare an overridden method to be static if the original method is not static?

No. Two virtual methods must have the same signature.

17. Why is the virtual keyword used in code?

The *virtual* keyword is used while defining a class to specify that the methods and the properties of that class can be overridden in derived classes.

18. Can you allow a class to be inherited, but prevent a method from being overridden in C#?

Yes. Just declare the class *public* and make the method *sealed*.

19. Define enumeration?

Enumeration is defined as a value type that consists of a set of named values. These values are constants and are called enumerators. An enumeration type is declared using the *enum* keyword. Each enumerator in an enumeration is associated with an underlying type that is set, by default, on the enumerator. The following is an example that creates an enumeration to store different varieties of fruits:

```
enum Fruits {Mango, Apple, orange, Guava};
```

In the preceding example, an enumeration *Fruits* is created, where number 0 is associated with *Mango*, number 1 with *Apple*, number 2 with *Orange*, and number 3 with *Guava*. You can access the enumerators of an enumeration by these values.

20. In which namespace, all .NET collection classes are contained?

The *System.Collections* namespace contains all the collection classes.

21. Is it a good practice to handle exceptions in code?

Yes, you must handle exceptions in code so that you can deal with any unexpected situations that occur when a program is running. For example, dividing a number by zero or passing a string value to a variable that holds an integer value would result in an exception.

22. Explain the concept of constructor?

Constructor is a special method of a class, which is called automatically when the instance of a class is created. It is created with the same name as the class and initializes all class members, whenever you access the class. The main features of a constructor are as follows:

- Constructors do not have any return type
- Constructors are always public
- It is not mandatory to declare a constructor; it is invoked automatically by .NET Framework.

23. Can you inherit private members of a class?

No, you cannot inherit *private* members of a class because *private* members are accessible only to that class and not outside that class.

24. Does .NET support multiple inheritance?

.NET does not support multiple inheritance directly because in .NET, a class cannot inherit from more than one class. .NET supports multiple inheritance through interfaces.

## 25. How has exception handling changed in .NET Framework 4.0?

In .NET 4.0, a new namespace, *System.Runtime.ExceptionServices*, has been introduced which contains the following classes for handling exceptions in a better and advanced manner:

- *HandleProcessCorruptedStateExceptionsAttribute* Class - Enables managed code to handle the corrupted state exceptions that occur in an operating system. These exceptions cannot be caught by specifying the *try...catch* block. To handle such exceptions, you can apply this attribute to the method that is assigned to handle these exceptions.
- *FirstChanceEventArgs* Class - Generates an event whenever a managed exception first occurs in your code, before the common language runtime begins searching for event handlers.

## 26. What is a delegate?

A delegate is similar to a class that is used for storing the reference to a method and invoking that method at runtime, as required. A delegate can hold the reference of only those methods whose signatures are same as that of the delegate. Some of the examples of delegates are type-safe functions, pointers, or callbacks.

## 27. What is the syntax to inherit from a class in C#?

When a class is derived from another class, then the members of the base class become the members of the derived class. The access modifier used while accessing members of the base class specifies the access status of the base class members inside the derived class.

The syntax to inherit a class from another class in C# is as follows:

```
class MyNewClass : MyBaseclass
```

## 28. State the features of an interface.

An interface is a template that contains only the signature of methods. The signature of a method consists of the numbers of parameters, the type of parameter (value, reference, or output), and the order of parameters. An interface has no implementation on its own because it contains only the definition of methods without any method body. An interface is defined using the *interface* keyword. Moreover, you cannot instantiate an interface. The various features of an interface are as follows:

- An interface is used to implement multiple inheritance in code. This feature of an interface is quite different from that of abstract classes because a class cannot derive the features of more than one class but can easily implement multiple interfaces.
- It defines a specific set of methods and their arguments.
- Variables in interface must be declared as *public*, *static*, and *final* while methods must be *public* and *abstract*.
- A class implementing an interface must implement all of its methods. □ An interface can derive from more than one interface.

## 29. Can you use the 'throws' clause to raise an exception?

No, the *throws* clause cannot be used to raise an exception. The *throw* statement signals the occurrence of an exception during the execution of a program. When the program encounters a *throw* statement, the method terminates and returns the error to the calling method.

### 30. Define an array.

An array is defined as a homogeneous collection of elements, stored at contiguous memory locations, which can be referred by the same variable name. All the elements of an array variable can be accessed by index values. An Index value specifies the position of a particular element in an array variable.

### 31. What are methods?

Methods are the building blocks of a class, in which they are linked together to share and process data to produce the result. In other words, a method is a block of code that contains a series of statements and represents the behavior of a class. While declaring a method you need to specify the access specifier, the return value, the name of the method, and the method parameters. All these combined together is called the signature of the method.

### 32. What is a namespace?

Namespace is considered as a container that contains functionally related group of classes and other types.

### 33. Do events have return type?

No, events do not have return type.

### 34. What is the function of the Try-Catch-Finally block?

The *try* block encloses those statements that can cause exception and the *catch* block handles the exception, if it occurs. Catch block contains the statements that have to be executed, when an exception occurs. The *finally* block always executes, irrespective of the fact whether or not an exception has occurred. The *finally* block is generally used to perform the cleanup process. If any exception occurs in the *try* block, the program control directly transfers to its corresponding *catch* block and later to the *finally* block. If no exception occurs inside the *try* block, then the program control transfers directly to the *finally* block.

### 35. How can you prevent a class from overriding in C# and Visual Basic?

You can prevent a class from overriding in C# by using the *sealed* keyword; whereas, the *NotInheritable* keyword is used to prevent a class from overriding in Visual Basic.

### 36. What are abstract classes? What are the distinct characteristics of an abstract class?

An abstract class is a class that cannot be instantiated and is always used as a base class. The following are the characteristics of an abstract class:

- You cannot instantiate an abstract class directly. This implies that you cannot create an object of the abstract class; it must be inherited.
- You can have abstract as well as non-abstract members in an abstract class.
- You must declare at least one abstract method in the abstract class.
- An abstract class is always public.

- An abstract class is declared using the *abstract* keyword.

The basic purpose of an abstract class is to provide a common definition of the base class that multiple derived classes can share.

37. Give a brief description of properties in C# and the advantages that are obtained by using them in programs.

In C#, a property is a way to expose an internal data element of a class in a simple and intuitive manner. In other words, it is a simple extension of data fields. You can create a property by defining an externally available name and then writing the *set* and *get* property accessors. The *get* property accessor is used to return the property value. The *set* property accessor is used to assign a new value to the property.

38. Explain different types of inheritance.

Inheritance in OOP is of four types:

- **Single inheritance** - Contains one base class and one derived class
- **Hierarchical inheritance** - Contains one base class and multiple derived classes of the same base class
- **Multilevel inheritance** - Contains a class derived from a derived class
- **Multiple inheritance** - Contains several base classes and a derived class

All .NET languages supports single, hierarchical, and multilevel inheritance. They do not support multiple inheritance because in these languages, a derived class cannot have more than one base class. However, you can implement multiple inheritance in .NET through interfaces.

39. You have defined a destructor in a class that you have developed by using the C# programming language, but the destructor never executed. Why did the destructor not execute?

The runtime environment automatically invokes the destructor of a class to release the resources that are occupied by variables and methods of an object. However, in C#, programmers cannot control the timing for invoking destructors, as Garbage Collector is only responsible for releasing the resources used by an object.

Garbage Collector automatically gets information about unreferenced objects from .NET's runtime environment and then invokes the *Finalize()* method.

Although, it is not preferable to force Garbage Collector to perform garbage collection and retrieve all inaccessible memory, programmers can use the *Collect()* method of the Garbage Collector class to forcefully execute Garbage Collector.

40. What is a hashtable?

*Hashtable* is a data structure that implements the *IDictionary* interface. It is used to store multiple items and each of these items is associated with a unique string key. Each item can be accessed using the key associated with it. In short, hashtable is an object holding the key-value pairs.

41. Can users define their own exceptions in code?

Yes, customized exceptions can be defined in code by deriving from the *System.Exception* class.

42. Is it possible to execute two catch blocks?

You are allowed to include more than one *catch* block in your program; however, it is not possible to execute them in one go. Whenever, an exception occurs in your program, the correct *catch* block is executed and the control goes to the *finally* block.

43. What do you mean by data encapsulation?

Data encapsulation is a concept of binding data and code in single unit called object and hiding all the implementation details of a class from the user. It prevents unauthorized access of data and restricts the user to use the necessary data only.

44. What is the difference between procedural and object-oriented programming?

Procedural programming is based upon the modular approach in which the larger programs are broken into procedures. Each procedure is a set of instructions that are executed one after another. On the other hand, OOP is based upon objects. An object consists of various elements, such as methods and variables.

Access modifiers are not used in procedural programming, which implies that the entire data can be accessed freely anywhere in the program. In OOP, you can specify the scope of a particular data by using access modifiers - *public*, *private*, *internal*, *protected*, and *protected internal*.

45. Explain the concept of destructor?

A destructor is a special method for a class and is invoked automatically when an object is finally destroyed. The name of the destructor is also same as that of the class but is followed by a prefix tilde (~).

A destructor is used to free the dynamic allocated memory and release the resources. You can, however, implement a custom method that allows you to control object destruction by calling the destructor.

The main features of a destructor are as follows:

- Destructors do not have any return type
- Similar to constructors, destructors are also always public  Destructors cannot be overloaded.

46. Can you declare a private class in a namespace?

The classes in a namespace are *internal*, by default. However, you can explicitly declare them as *public* only and not as *private*, *protected*, or *protected internal*. The nested classes can be declared as *private*, *protected*, or *protected internal*.

47. A structure in C# can implement one or more interfaces. Is it true or false?

Yes, it is true. Like classes, in C#, structures can implement one or more interfaces.

48. What is a static constructor?

Static constructors are introduced with C# to initialize the static data of a class. CLR calls the static constructor before the first instance is created.

The static constructor has the following features:

- No access specifier is required to define it.
- You cannot pass parameters in static constructor.
- A class can have only one static constructor.
- It can access only static members of the class.
- It is invoked only once, when the program execution begins.

49. What are the different ways a method can be overloaded?

The different ways to overload a method are given as follows:

- By changing the number of parameters used
- By changing the order of parameters
- By using different data types for the parameters

50. Differentiate between an abstract class and an interface.

### **Abstract Class:**

1. A class can extend only one abstract class
2. The members of abstract class can be private as well as protected. 3. Abstract classes should have subclasses
4. Any class can extend an abstract class.
5. Methods in abstract class can be abstract as well as concrete.
6. There can be a constructor for abstract class.
7. The class extending the abstract class may or may not implement any of its method.
8. An abstract class can implement methods.

### **Interface**

1. A class can implement several interfaces 2. An interface can only have public members.
3. Interfaces must have implementations by classes
4. Only an interface can extend another interface. 5. All methods in an interface should be abstract 6. Interface does not have constructor.
7. All methods of interface need to be implemented by a class implementing that interface.
8. Interfaces cannot contain body of any of its method.

51. What are queues and stacks?

Stacks refer to a list in which all items are accessed and processed on the Last-In-First-Out (LIFO) basis. In a stack, elements are inserted (push operation) and deleted (pop operation) from the same end called **top**.

Queues refer to a list in which insertion and deletion of an item is done on the First-In-First-Out (FIFO) basis. The items in a queue are inserted from the one end, called the **rear** end, and are deleted from the other end, called the **front** end of the queue.

## 52. Define an event.

Whenever an action takes place in a class, that class provides a notification to other classes or objects that are assigned to perform particular tasks. These notifications are called events. For example, when a button is clicked, the class generates an event called Click. An event can be declared with the help of the event keyword.

## 53. What are structures?

Structure is a heterogeneous collection of elements referenced by the same name. A structure is declared using the struct keyword. The following is an example that creates a structure to store an employee's information:

```
struct emp
{    fixed int
empID[15];    fixed char
name[30];    fixed char
addr[50];    fixed char
dept[15];    fixed char
desig[15];
}
```

The preceding example defines a structure *emp* and the members of this structure specify the information of an employee.

## 54. When do you really need to create an abstract class?

We define abstract classes when we define a template that needs to be followed by all the derived classes.

# Windows Controls

## 1. How can we auto size a button to fit its text?

The *Button* control has the *AutoSize* property, which can be set to *true* or *false*. If we set the value of the *AutoSize* property to *true*, then the button control automatically alters its size according to the content displayed on it.

## 2. How can we display an icon or a bitmap image on the Button control?

The *Button* class contains the *Image* property, which is used to set an image on the *Button* control. We can also set the alignment of the image by using the *ImageAlign* property of the *Button* class.

## 3. Which method is used to generate the click event of the Control class for the *Button* control in C#?

The *PerformClick()* method of the *Button* class is used to generate the Click event of the *System.Windows.Forms.Control* class.

## 4. A Windows Form will not show the Minimize, Maximize, and Close buttons, if the *ControlBox* property of the form is set to False. (True/False)

True.

## 5. How is anchoring different from docking?

Docking refers to attaching a control to either an edge (top, right, bottom, or left) or the client area of the parent control. On the other hand, anchoring is a process in which you need to specify the distance that each edge of your control maintains from the edges of the parent control.

## 6. How can you display a default value in the text box of an input box?

You can display a default value in the text box of an input box by using the *DefaultResponse* argument of the *InputBox()* function.

## 7. How will you pick a color from the *ColorDialog* box?

To pick a color from the color dialog box, you need to create an instance of the *ColorDialog* box and invoke to the *ShowDialog()* method. The code to display the color dialog box and set the *BackColor* property of the Label control similar to the color selected in the color dialog box control is:

```
private void button1_Click(object sender, EventArgs e)
{
    if (colorDialog1.ShowDialog() != DialogResult.Cancel)
    {
        label1.Text = "Here's my new color!";
        label1.BackColor = colorDialog1.Color;
    }
}
```

## 8. How can you get or set the time between Timer ticks?

There is an *Interval* property, which is responsible to get and set the time in milliseconds.

## 9. How can you programmatically position the cursor on a given line or on a character in the *RichTextBox* control in C#?

The *RichTextBox* control contains the *Lines* array property, which displays one item of an array in a separate line. Each line entry has a *Length* property, which can be used to accurately position the cursor at a character, as shown in the following code snippet:

```
private void GoToLineAndColumn(RichTextBox RTB, int Line, int Column)
{
    int offset = 0;
    for(int i = 0; i < Line -1 && i < RTB.Lines.Length; i++)
    {
        offset += RTB.Lines[i].Length + 1;
    }
    RTB.Focus();
    RTB.Select(offset + Column, 0);
}
```

## 10. What is the difference between the *WindowsDefaultLocation* and *WindowsDefaultBounds* properties?

The *WindowsDefaultLocation* property makes the form to start up at a location selected by the operating system, but with internally specified size. The *WindowsDefaultBounds* property delegates both size and starting position choices to the operating system.

## 11. Where does an *ImageList* control appear when you add it at the design time?

The *ImageList* control is a component; therefore, it appears in the component tray at the design time.

12. How can you programmatically prevent a Combobox from dropping, in .NET 4.0?

To avoid dropping of a Combobox, you need to override the *WndProc()* method and ignore *WM\_LBUTTONDOWN* and *WM\_LBUTTONDBLCLK* events.

13. What is the function of the *CheckState* property of the *CheckBox* control?

The *CheckState* property gets or sets the state of *CheckBox*.

If the *ThreeState* property is set to *false*, the *CheckState* property value can only be set to *CheckState.Indeterminate* in code and not by user interaction.

**Checked** - The *CheckBox* displays a check mark. The control appears sunken.

**Unchecked** - The *CheckBox* is empty. The control appears raised.

**Indeterminate** - The *CheckBox* displays a check mark and is shaded.

14. Write a code to select an item in the *ListView* control programmatically in C#?

To select an item from the *ListView* control, you can use the following code snippet:

```
//Make sure the listview has focus    listview1.Focus();  
listview1.Items[i].Selected = true;
```

15. Differentiate between a *TextBox* control and *RichTextBox* control.

The *TextBox* control is an input control, which allows a user to enter text to an application at runtime. By default, it allows only single line text; however, you can change its property to accept the multiline text as well as scroll bar also.

The *RichTextBox* control is similar to the *TextBox* control with the difference that it allows the user to format its text also. You can format the text in various ways, such as **bold**, **italic**, and **underlined** as well as change its color and font. You can save your *RichTextBox* value to a **RTF (Rich Text Format)** file and load value of RTF file to the *RichTextBox* control.

16. Describe the *ToolTip* control. How can you associate it with other controls?

The *ToolTip* control generates a small pop-up window with explanatory text for an element It is displayed when the user pauses the mouse for a certain period over an element/control. Tool tips provide a quick help to user to understand about that element. To associate a tool tip with other control, you need to implement the *SetToolTip()* method.

17. What does the *DialogResult* property of a *Button* control do?

The *DialogResult* property retrieves or sets a value that is returned to the parent form when the button is clicked.

18. How do you create a separator in the Menu Designer?

You can use hyphen (-) to create a separator.

19. Define the *TrackBar* control.

The *TrackBar* control, also known as the slider control, works as a navigator to display a large amount of information or for visual adjustment of numeric setting. There are two parts in a *TrackBar* control - thumb (also known as slider) and tick marks. The thumb part acts as a slider. You can adjust the thumb part using the *Value* property. The tick marks are visual indicators that are spaced at regular intervals.

20. How does an MDI form differ from a standard form?

An MDI form closely resembles a standard form with one major difference-the client area of an MDI form acts as a container for other forms. It means that an MDI form, also known as an MDI parent form, can display MDI child forms inside it.

21. Which method provides the functionality to display a dialog box at runtime?

The *ShowDialog()* method is used to display the dialog box at run time.

22. What does the *PerformStep()* method do?

The *PerformStep()* method increases the value of Progress bar according to the amount set by the *Step* property.

23. Write a method to get only the name of a file from the complete path string in C#.

Use a *FileInfo* class and instantiate its object with the full path as the constructor argument and then simply call the *FileInfo.Name* file and you will get just the name of the file.

24. What does the *OpenFile()* method of the *OpenFileDialog* control do?

The *OpenFile()* method opens the file selected by the user with read-only permission. The file is specified by the *FileName* property.

25. How do you retrieve the customized properties of a .NET application from the XML .config file?

Initialize an instance of the *AppSettingsReader* class. Call the *GetValue()* method of the *AppSettingsReader* class, passing in the name of the property and the type expected. Finally, assign the result to the appropriate variable.

26. What is the difference between a toolbar drop-down button and a toolbar split button?

The difference between a toolbar drop-down button and a toolbar split button is that a toolbar split button is a combination of two controls - a push button and a drop-down button; whereas, a toolbar drop-down button is a single control.

27. Which event of a *TextBox* control helps in restricting a text box from accepting numeric digits in .NET 4.0?

The *KeyPress* event of a text box is used to restrict it from accepting numeric digits or any other character.

28. How would you create an ellipse, which is a non- rectangular window?

Open a new Windows form, which is by default rectangular in design and then set the *TransparencyKey* property to the same value as *BackColor*, which will effectively make the background of the form transparent.

Then, set the *FormBorderStyle* property to *FormBorderStyle.None*, which removes the contour and contents of the form.

29. What does the *Checked* property of the *DateTimePicker* control do?

The *Checked* property holds either *true* or *false* value. It holds true, when the *Value* property hold a valid date-time value and is updatable; otherwise, false.

30. Name the classes used to handle standard menu in a *MenuStrip* control.

The two main classes used to handle standard menu in a *MenuStrip* control are:

- *MenuStrip* - Acts as a container for the menu structure of a form.
- *ToolStripMenuItem* - Supports the items in a menu system (including the menus, such as File and Edit).

31. How can you attach a horizontal scroll bar with the *ListBox* control?

You need to set the the *MultiColumn* property of the *ListBox* control to *True* to attach a horizontal scroll bar with it.

32. What is the difference between the *Add()* and *Insert()* methods of a *ListBox* control?

The *Add()* method simply adds an item into the list box; whereas, the *Insert()* method inserts an item at the specified index.

33. Consider a situation where you have added panels in a *StatusBar* control; however, they are not displayed at run time. What could be the reason for this?

To display panels in the *StatusBar* control, the *ShowPanels* property needs to be set to *true*.

34. What is the function of the *SizeMode* property of the *PictureBox* control?

The *SizeMode* property determines how the picture will be displayed in the *PictureBox* control. The following five enumerations are used to set the value of the *SizeMode* property:

1. **Normal** - Represents Standard picture box behavior (the upper-left corner of the image is placed at upper-left in the picture box)
2. **StretchImage** - Displays image according the *PictureBox* size
3. **AutoSize** - Increases or decreases the picture size automatically as per the actual size of the *PictureBox* control.
4. **CenterImage** - Displays the image in the center if it is smaller than the *PictureBox* control; otherwise, the center part of the image is placed in the *PictureBox* control and its outside edges are clipped
5. **Zoom** - Helps in stretching or shrinking the image so that it fits the *PictureBox* control, by maintaining the aspect ratio of the image

35. How can you prevent users of an application from editing the text in the *ComboBox* controls in .NET 4.0?

The *ComboBox* class contains the *DropDownStyle* property, which is used to define the display style of the items in the *ComboBox* control. The *DropDownStyle* property accepts a value from the *ComboBoxStyle* enumeration, which contains three members to define the styles for the items: *Simple*, *DropDownList*, and

*DropDown*. The *DropDownList* value of the *ComboBoxStyle* enumeration is selected to set a *ComboBox* control as non-editable by users, as shown in the following code snippets:

Code for VB:

```
ComboBox1.DropDownStyle = ComboBoxStyle.DropDownList
```

Code for C#:

```
ComboBox1.DropDownStyle = ComboBoxStyle.DropDownList;
```

36. Which class manages the event and layout of all *ToolStrip* elements?

The *ToolStripItem* class manages the event and layout of all elements that the *ToolStrip* control contains.

37. How can you place a border around a picture box?

The *PictureBox* control offers the *BorderStyle* property, which can be set to define the style of its border. This property can accept any of the three values from *Fixed3D*, *FixedSingle*, or *None*. These properties can be easily set through code or through the Properties window of the Visual Studio IDE.

38. How do we format numbers, dates, and currencies in a text box?

Each type has a *ToString()* method that can be used to format date, currencies, and numbers. You can also use the *String.Format()* method to format these things as well. To format dates, use the *ToString()* member of the *DateTime* type.

39. What is the use of the *Panel* control? Does it display at runtime?

*Panels* acts as a container to group other controls. It is an important control, when you want to show/hide a group of controls and relocate a number of controls simultaneously.

When you generate a new control at runtime, it works as a container control. As we know, it is a container control; therefore, it is not displayed at runtime.

40. Is it possible to add an image on the *RadioButton* control?

Yes, you can add an image on the *RadioButton* control by setting the *Image* property.

41. What is the use of a toolstrip container?

A toolstrip container is used to contain controls, such as *ToolStrip*, *MenuStrip*, and *StatusStrip*, so that these controls can be docked and moved at the run time.

42. Name the methods, available in .NET 4.0, that are used to add and delete items from a *ListBox* control?

The following methods can be used to add and delete items from a *ListBox* control. The *Items.Add()* and *Items.Insert()* methods are used to add items; whereas, the *Items.Remove()*, *Items.RemoveAt()*, and *Items.Clear()* methods are used to delete items from a *ListBox* control.

43. What is the importance of a *Button* control?

A *Button* control is an important Windows control, which provides the most common way of creating and handling an event in the code with the help of its Click event.

44. How can you unselect the selected items in a *ListView* control programmatically in .NET 4.0?

The syntax to unselect the selected items in the *ListView* control is shown in the following code snippets:

Code for VB:

```
Me.listView1.SelectedItems.Clear()
```

Code for C#:

```
this.listView1.SelectedItems.Clear();
```

45. How can you get the text of the *RichTextBox* control, including all rich text format strings in .NET 4.0?

The *Rtf* property of the *RichTextBox* control is used to set or get texts, including the RTF format code.

46. What is the use of a *Timer* control? Can a *Timer* control pause?

The *Timer* control is a mechanism to perform an iterative task at a specified time interval. You cannot pause it because it can only start and stop.

47. What is die difference between a *CheckBox* control and a *RadioButton* control?

A *CheckBox* control is square shaped; whereas, a *RadioButton* control is round in shape. Moreover, you can select more than one *CheckBox* control from a group of *CheckBox* controls; whereas, you can select only a single *RadioButton* control from a group of *RadioButton* controls.

48. Can you write a class without specifying a namespace? Which namespace does it belong to by default?

Yes, we can write a dass without specifying namespace and that class belongs to a global namespace that has no name.

49. What are the three states set in the *CheckState* property of *CheckBox*?

- Checked
- Unchecked
- Indeterminate

50. How can you display an icon at runtime on the *StatusStrip* control?

The following code snippet shows the code to display an icon at runtime on the *StatusStrip* control:

```
toolStripStatusLabel2.Image = Bitmap.FromFile("D:\\Indiabix\\Images\\1.bmp");
```

51. Can you add more than one item simultaneously in the *ListBox* control?

Yes, You can add more than one item simultaneously in the *ListBox* control by using the *AddRange()* method.

52. What is the difference between a *MenuStrip* control and a *ContextMenuStrip* control?

The difference between a *MenuStrip* control and a *ContextMenuStrip* control is that a *MenuStrip* control is associated with the Windows Form; whereas, a *ContextMenuStrip* control is associated with a control, which is added to the Windows Form.

53. What are the values that can be assigned to the *DialogResult* property of a *Button* control?

The *DialogResult* property of a Button control can be assigned a value from the *DialogResult* enumerations, which are as follows:

- Abort-Returns Abort
- Cancel-Returns Cancel
- Ignore-Returns Ignore
- No-Returns No
- None-Nothing is returned from the dialog box
- OK-Returns OK
- Retry-Returns Retry
- Yes-Returns Yes

54. Why do you require user-defined controls?

User-defined controls are particularly useful in situations where you need to enhance the functionality of an existing control.

55. Is it possible to enter more than one line in a *TextBox* control?

Yes, it is possible to enter more than one line in a *TextBox* control. To do this, you need to set the *Multiline* property of the *TextBox* control to *True*. You can set this property at design time as well as runtime. The syntax to set this property at runtime is as follows:

```
Textbox1.Multiline = true;
```

56. How can you enable a text box to change its characters format, so that users can enter password?

You can set the *PasswordChar* property of the *TextBox* class to *True* to enable it to accept passwords. The code to change the *PasswordChar* property of the *TextBox* class is given as follows:

```
textBox1.PasswordChar = '*';
```

57. What does the *TickFrequency* property of the *TrackBar* control do?

The *TickFrequency* property gets or sets a value that specifies the distance between ticks. By default, the distance between ticks is *1*.

58. Is it possible to associate a control with more than one *ContextMenu* control?

No, we cannot associate a control with more than one *ContextMenu* control.

59. What is the difference between the *Panel* and *GroupBox* control?

The *Panel* and *GroupBox* controls both can be used as a container for other controls, such as radio buttons and check box. The main differences between a *Panel* and a *GroupBox* control are as follows:

- *Panel* does not display captions, while *GroupBox* do
- *Panel* has scrollbar, while *GroupBox* does not

60. Does a *Timer* control appear at run time?

*Timer* is a component; therefore, it does not appear at run time.

61. What is the difference between a *ListBox* control and a *ComboBox* control?

With a *ListBox* control, the user can only make a selection from a list of items; whereas, with a *ComboBox* control, the user can make a selection from the list of items as well as can add custom entry and select the same.

62. What is the function of *MinDate* and *MaxDate* properties of the *MonthCalender* control?

The *MinDate* and *MaxDate* properties allow users to get and set the minimum and maximum allowable date.

63. Name the parent class for all Windows controls.

The Control class or *System.Windows.Forms.Control* class is the parent class for all Window controls.

64. What is the *MaskedTextBox* control? What does the *Mask* property do?

The *MaskedTextBox* control is an improvement of the *TextBox* control. It forces the user to provide the proper input, which is specified by the *Mask* property. In other words, it prevents the user to provide any invalid input to an application. The *Mask* property gets or sets the input type to the *MaskedTextBox* control. There are many built-in formats for the *Mask* property, such as phone no., short date, time, zip code, and custom.

65. How can you adjust the height of a combo box drop-down list?

You can control the height of a combo box drop-down list by setting the *MaxDropDownItems* property of the combo box. The *MaxDropDownItems* property sets the maximum number of entries that will be displayed by the drop-down list.

66. How can you enforce a text box to display characters in uppercase?

The *TextBox* class contains the *CharacterCasing* property, which is used to specify the case of the content for a text box. This property accepts a value from the *CharacterCasing* enumeration of .NET Framework. The members specified in the *CharacterCasing* enumeration are **Lower**, **Upper**, and **Normal**. You can select any one of these enumerations as a value for the *CharacterCasing* property of a specified text box, as shown in the following code snippet:

```
textBox1.CharacterCasing = CharacterCasing.Upper;
```

67. Is it possible to associate a control with more than one *ContextMenu*?

No, we cannot associate a control with more than one *ContextMenu*.

68. How can you check/uncheck all items in the *CheckedListBox* control in .NET 4.0?

To check all items in .NET, you can use the following code snippet:

Code for VB:

```
Dim i as Integer  
For i = 0 To myCheckedListBox.Items.Count - 1 myCheckedListBox.SetItemChecked(i,  
True)  
Next
```

Code for C#:

```
for( int i = 0; i < myCheckedListBox.Items.Count; i++ )  
{  
    myCheckedListBox.SetItemChecked(i, true); }
```

69. How can we disable the context menu for a *TextBox* control?

The *TextBox* class contains the *ContextMenuStrip* property. When we set this property to a dummy instance of the *ContextMenu* class, the *TextBox* control is unable to provide any context menu on the right-click of the mouse.

70. How can you move and resize a control on a Windows form?

You can make use of the *SetBounds()* method to move as well as resize the control on a Windows form.

71. What is use of the *DropDownStyle* property of the *ComboBox* control?

The *DropDownStyle* property changes the style of the *ComboBox* control. It consists of **Simple**, **DropDown**, and **DropDownList** as its values. When you select **Simple**, the list of items are displayed as a *ListBox* control. When you select **DropDown**, the list is displayed in a drop down style. When you select **DropDownList**, the list displayed in a drop down style and you cannot edit its text.

72. What is the difference between *pixels*, *points*, and *em's* when fonts are displayed?

A *pixel* is the lowest-resolution dot that the computer monitor supports. Its size depends on user's settings and the size of the monitor. A *point* is always 1/72 of an inch. An *em* is the number of pixels it takes to display the letter *M*.

## ADO.NET

1. What is the full form of ADO?

The full form of ADO is ActiveX Data Object.

2. Explain ADO.NET in brief.

ADO.NET is a very important feature of .NET Framework, which is used to work with data that is stored in structured data sources, such as databases and XML files. The following are some of the important features of ADO.NET:

- Contains a number of classes that provide you with various methods and attributes to manage the communication between your application and data source.
- Enables you to access different data sources, such as Microsoft SQL Server, and XML, as per your requirements.
- Provides a rich set of features, such as connection and commands that can be used to develop robust and highly efficient data services in .NET applications.
- Provides various data providers that are specific to databases produced by various vendors. For example, ADO.NET has a separate provider to access data from Oracle databases; whereas, another provider is used to access data from SQL databases.

### 3. What are major difference between classic ADO and ADO.NET?

Following are some major differences between both □ In ADO

we have recordset and in ADO.NET we have dataset.

- In recordset we can only have one table. If we want to accommodate more than one tables. We need to do inner join and fill the recordset. Dataset can have multiple tables.
- All data persist in XML as compared to classic ADO where data persisted in Binary format also.

### 4. What are the two fundamental objects in ADO.NET?

*DataReader* and *DataSet* are the two fundamental objects in ADO.NET.

### 5. What are the benefits of using of ADO.NET in .NET 4.0.

The following are the benefits of using ADO.NET in .NET 4.0 are as follows:

- **Language-Integrated Query (LINQ)** - Adds native data-querying capabilities to .NET languages by using a syntax similar to that of SQL. This means that LINQ simplifies querying by eliminating the need to use a separate query language. LINQ is an innovative technology that was introduced in .NET Framework 3.5.
- **LINQ to DataSet** - Allows you to implement LINQ queries for disconnected data stored in a dataset. LINQ to DataSet enables you to query data that is cached in a DataSet object. DataSet objects allow you to use a copy of the data stored in the tables of a database, without actually getting connected to the database.
- **LINQ to SQL** - Allows you to create queries for data stored in SQL server database in your .NET application. You can use the LINQ to SQL technology to translate a query into a SQL query and then use it to retrieve or manipulate data contained in tables of an SQL Server database. LINQ to SQL supports all the key functions that you like to perform while working with SQL, that is, you can insert, update, and delete information from a table.
- **SqlClient Support for SQL Server 2008** - Specifies that with the starting of .NET Framework version 3.5 Service Pack (SP) 1, .NET Framework Data Provider for SQL Server (*System.Data.SqlClient* namespace) includes all the new features that make it fully compatible with SQL Server 2008 Database Engine.

- **ADO.NET Data Platform** - Specifies that with the release of .NET Framework 3.5 Service Pack (SP) 1, an Entity Framework 3.5 was introduced that provides a set of Entity Data Model (EDM) functions. These functions are supported by all the data providers; thereby, reducing the amount of coding and maintenance in your application. In .NET Framework 4.0, many new functions, such as string, aggregate, mathematical, and date/time functions have been added.

6. Which namespaces are required to enable the use of databases in ASP.NET pages?

The following namespaces are required to enable the use of databases in ASP.NET pages:

- The *System.Data* namespace.
- The *System.Data.OleDb* namespace (to use any data provider, such as Access, Oracle, or SQL) □  
The *System.Data.SqlClient* namespace (specifically to use SQL as the data provider)

7. Explain the *DataAdapter.Update()* and *DataSetAcceptChanges()* methods.

The *DataAdapter.Update()* method calls any of the DML statements, such as the *UPDATE*, *INSERT*, or *DELETE* statements, as the case may be to update, insert, or delete a row in a *DataSet*. The *DataSet.Acceptchanges()* method reflects all the changes made to the row since the last time the *AcceptChanges()* method was called.

8. What is the meaning of object pooling?

Object pooling is a concept of storing a pool (group) of objects in memory that can be reused later as needed. Whenever, a new object is required to create, an object from the pool can be allocated for this request; thereby, minimizing the object creation. A pool can also refer to a group of connections and threads. Pooling, therefore, helps in minimizing the use of system resources, improves system scalability, and performance.

9. Which properties are used to bind a *DataGridView* control?

The *DataSource* property and the *DataMember* property are used to bind a *DataGridView* control.

10. What property must be set and what method must be called in your code to bind the data from some data source to the Repeater control?

You must set the *DataSource* property and call the *DataBind()* method.

11. Mention the namespace that is used to include .NET Data Provider for SQL server in .NET code.

The *System.Data.SqlClient* namespace.

12. What is the difference between OLEDB Provider and SqlClient?

With respect to usage, there is no difference between OLEDB Provider and SqlClient. The difference lies in their performance. SqlClient is explicitly used to connect your application to SQL server directly, OLEDB Provider is generic for various databases, such as Oracle and Access including SQL Server.

Therefore, there will be an overhead which leads to performance degradation.

13. Name the two properties of the *GridView* control that have to be specified to turn on sorting and paging.

The properties of the *GridView* control that need to be specified to turn on sorting and paging are as follows:

- The *AllowSorting* property of the *Gridview* control indicates whether sorting is enabled or not. You should set the *AllowSorting* property to *True* to enable sorting.
- The *AllowPaging* property of the *Gridview* control indicates whether paging is enabled or not. You should set the *AllowPaging* property to *True* to enable paging.

14. Mention different types of data providers available in .NET Framework.

- .NET Framework Data Provider for SQL Server - Provides access to Microsoft SQL Server 7.0 or later version. It uses the *System.Data.SqlClient* namespace.
- .NET Framework Data Provider for OLE DB - Provides access to databases exposed by using OLE DB. It uses the *System.Data.OleDb* namespace.
- .NET Framework Data Provider for ODBC - Provides access to databases exposed by using ODBC. It uses the *System.Data.Odbc* namespace.
- .NET Framework Data Provider for Oracle - Provides access to Oracle database 8.1.7 or later versions. It uses the *System.Data.OracleClient* namespace.

15. Which architecture does Datasets follow?

Datasets follow the disconnected data architecture.

16. What is the role of the *DataSet* object in ADO.NET?

One of the major component of ADO.NET is the *DataSet* object, which always remains disconnected from the database and reduces the load on the database.

17. What is a *DataReader* object?

The *DataReader* object helps in retrieving the data from a database in a forward-only, read-only mode. The base class for all the *DataReader* objects is the *DbDataReader* class.

The *DataReader* object is returned as a result of calling the *ExecuteReader()* method of the *Command* object. The *DataReader* object enables faster retrieval of data from databases and enhances the performance of .NET applications by providing rapid data access speed. However, it is less preferred as compared to the *DataAdapter* object because the *DataReader* object needs an Open connection till it completes reading all the rows of the specified table.

An Open connection to read data from large tables consumes most of the system resources. When multiple client applications simultaneously access a database by using the *DataReader* object, the performance of data retrieval and other related processes is substantially reduced. In such a case, the database might refuse connections to other .NET applications until other clients free the resources.

18. How can you identify whether or not any changes are made to the *DataSet* object since it was last loaded?

The *DataSet* object provides the following two methods to track down the changes:

- The *GetChanges()* method - Returns the *DataSet* object, which is changed since it was loaded or since the *AcceptChanges()* method was executed.
- The *HasChanges()* method - Indicates if any changes occurred since the *DataSet* object was loaded or after a call to the *AcceptChanges()* method was made.

If you want to revert all changes since the *DataSet* object was loaded, use the *RejectChanges()* method.

19. Which property is used to check whether a *DataReader* is closed or opened?

The *IsClosed* property is used to check whether a *DataReader* is closed or opened. This property returns a *true* value if a Data Reader is closed, otherwise a *false* value is returned.

20. Name the method that needs to be invoked on the *DataAdapter* control to fill the generated *DataSet* with data?

The *Fill()* method is used to fill the dataset with data.

21. What is the use of the *Connection* object?

The *Connection* object is used to connect your application to a specific data source by providing the required authentication information in connection string. The connection object is used according to the type of the data source. For example, the *OleDbConnection* object is used with an OLE-DB provider and the *SqlConnection* object is used with an MS SQL Server.

22. What is the use of the *CommandBuilder* class?

The *CommandBuilder* class is used to automatically update a database according to the changes made in a *DataSet*.

This class automatically registers itself as an event listener to the *RowUpdating* event. Whenever data inside a row changes, the object of the *CommandBuilder* class automatically generates an SQL statement and uses the *SelectCommand* property to commit the changes made in *DataSet*.

OLEDB provider in .NET Framework has the *OleDbCommandBuilder* class; whereas, the SQL provider has the *SqlCommandBuilder* class.

23. Explain the architecture of ADO.NET in brief.

AD0.NET consists of two fundamental components:

- The *DataSet*, which is disconnected from the data source and does not need to know where the data that it holds is retrieved from.
- The .net data provider, which allows you to connect your application to the data source and execute the SQL commands against it.

The data provider contains the *Connection*, *Command*, *DataReader*, and *DataAdapter* objects. The *Connection* object provides connectivity to the database. The *Command* object provides access to database commands to retrieve and manipulate data in a database. The *DataReader* object retrieves data from the database in the

readonly and forward-only mode. The *DataAdapter* object uses *Command* objects to execute SQL commands. The *DataAdapter* object loads the *DataSet* object with data and also updates changes that you have made to the data in the *DataSet* object back to the database.

24. Describe the disconnected architecture of ADO.NET's data access model.

ADO.NET maintains a disconnected database access model, which means, the application never remains connected constantly to the data source. Any changes and operations done on the data are saved in a local copy (dataset) that acts as a data source. Whenever, the connection to the server is re-established, these changes are sent back to the server, in which these changes are saved in the actual database or data source.

25. What are the usages of the *Command* object in ADO.NET?

The following are the usages of the *Command* object in AD0.NET:

The *Command* object in AD0.NET executes a command against the database and retrieves a *DataReader* or *DataSet* object.

- It also executes the *INSERT*, *UPDATE*, or *DELETE* command against the database.
- All the command objects are derived from the *DbCommand* class.
- The command object is represented by two classes: *SqlCommand* and *OleDbCommand*.
- The *Command* object provides three methods to execute commands on the database:
  - The *ExecuteNonQuery()* method executes the commands and does not return any value.
  - The *ExecuteScalar()* method returns a single value from a database query.
  - The *ExecuteReader()* method returns a result set by using the *DataReader* object.

26. What are the pre-requisites for connection pooling?

The prerequisites for connection pooling are as follows:

- There must be multiple processes to share the same connection describing the same parameters and security settings.
- The connection string must be identical.

27. What is connection pooling?

Connection pooling refers to the task of grouping database connections in cache to make them reusable because opening new connections every time to a database is a time-consuming process. Therefore, connection pooling enables you to reuse already existing and active database connections, whenever required, and increasing the performance of your application.

You can enable or disable connection pooling in your application by setting the pooling property to either true or false in connection string. By default, it is enabled in an application.

28. What are the various methods provided by the *DataSet* object to generate XML?

The various methods provided by the *DataSet* object to generate XML are:

- *ReadXml()* - Reads XML document into a *DataSet* object.
- *GetXml()* - Returns a string containing an XML document. □ *WriteXml()* - Writes an XML data to disk.

29. Out of Windows authentication and SQL Server authentication, which authentication technique is considered as a trusted authentication method?

The Windows authentication technique is considered as a trusted authentication method because the username and password are checked with the Windows credentials stored in the Active Directory.

The SQL Server Authentication technique is not trusted as all the values are verified by SQL Server only.

30. How would you connect to a database by using .NET?

The connection class is used to connect a .NET application with a database.

31. Which adapter should you use, if you want to get the data from an Access database?

*OleDbDataAdapter* is used to get the data from an Access database.

32. Which object is used to add a relationship between two *DataTable* objects?

The *DataRelation* object is used to add relationship between two *DataTable* objects.

33. What are different types of authentication techniques that are used in connection strings to connect .NET applications with Microsoft SQL Server?

.NET applications can use two different techniques to authenticate and connect with SQL Server. These techniques are as follows:

- The Windows Authentication option
- The SQL Server Authentication option

34. Explain the new features in ADO.NET Entity Framework 4.0.

ADO.NET Entity Framework 4.0 is introduced in .NET Framework 4.0 and includes the following new features:

- **Persistence Ignorance** - Facilitates you to define your own Plain Old CLR Objects (POCO) which are independent of any specific persistence technology.
- **Deferred or Lazy Loading** - Specifies that related entities can be loaded automatically whenever required. You can enable lazy loading in your application by setting the *DeferredLoadingEnabled* property to true.
- **Self-Tracking Entities** - Refers to the entities that are able to track their own changes. These changes can be passed across process boundaries and saved to the database.
- **Model-First Development** - Allows you to create your own EDM and then generate relational model (database) from that EDM with matching tables and relations.
- **Built-in Functions** - Enables you to use built-in SQL Server functions directly in your queries.

- **Model-Defined Functions** - Enables you to use the functions that are defined in conceptual schema definition language (CSDL).

35. What is the difference between the *Clone()* and *Copy()* methods of the *DataSet* class?

The *Clone()* method copies only the structure of a *DataSet*. The copied structure includes all the relation, constraint, and *DataTable* schemas used by the *DataSet*. The *Clone()* method does not copy the data, which is stored in the *DataSet*.

The *Copy()* method copies the structure as well as the data stored in the *DataSet*.

36. What is the use of *DataView*?

User-defined view of a table is contained in a *DataView*. A complete table or a small section of table depending on some criteria can be presented by an object of the *DataView* class. You can use this class to sort and find data within *DataTable*.

The *DataView* class has the following methods:

- *Find()* - Finds a row in a *DataView* by using sort key value.
- *FindRows()* - Uses the sort key value to match it with the columns of *DataRowView* objects. It returns an array of all the corresponding objects of *DataRowView* whose columns match with the sort key value.
- *AddNew()* - Adds a new row to the *DataView* object.
- *Delete()* - Deletes the specified row from the *DataView* object according to the specified index.

37. What are the parameters that control most of connection pooling behaviors?

The parameters that control most of connection pooling behaviors are as follows:

- Connect Timeout
- Max Pool Size
- Min Pool Size
- Pooling

38. How can you add or remove rows from the *DataTable* object of *DataSet*?

The *DataRowCollection* class defines the collection of rows for the *DataTable* object in a *DataSet*. The *DataTable* class provides the *NewRow()* method to add a new *DataRow* to *DataTable*. The *NewRow* method creates a new row, which implements the same schema as applied to the *DataTable*. The following are the methods provided by the *DataRowCollection* object:

- *Add()* - Adds a new row to *DataRowCollection*.
- *Remove()* - Removes a *DataRow* object from *DataRowCollection*.
- *RemoveAt()* - Removes a row whose location is specified by an index number.

39. Explain in brief DataAdapter class in ADO.NET.

The *DataAdapter* class retrieves data from the database, stores data in a dataset, and reflects the changes made in the dataset to the database. The *DataAdapter* class acts as an intermediary for all the communication between

the database and the *DataSet* object. The *DataAdapter* Class is used to fill a *DataTable* or *DataSet* Object with data from the database using the *Fill()* method. The *DataAdapter* class applies the changes made in dataset to the database by calling the *Update()* method.

The *DataAdapter* class provides four properties that represent the database command:

*SelectCommand*, *InsertCommand*, *DeleteCommand*, and *UpdateCommand*.

## Language-Integrated Query (LINQ)

### 1. What is Language Integrated Query (LINQ)?

LINQ is a programming model that is the composition of general-purpose standard query operators that allow you to work with data, regardless of the data source in any .NET based programming language. It is the name given to a set of technologies based on the integration of query capabilities into any .NET language.

### 2. What are LINQ query expressions?

A LINQ query, also known as a query expression, consists of a combination of query clauses that identify the data sources for the query. It includes instructions for sorting, filtering, grouping, or joining to apply to the source data. The LINQ query expressions syntax is similar to the SQL syntax. It specifies what information should be retrieved from the data source.

### 3. Write the basic steps to execute a LINQ query.

The following are the three basic steps to execute a LINQ query:

- Obtain the data source (The data source can be either an SQL database or an XML file)
- Create a query
- Execute the query

### 4. Write the basic syntax of a LINQ query in Visual Basic as well as in C#.

In Visual Basic, the basic syntax of a LINQ query starts with the **From** clause and ends with the **Select** or **Group By** clause. In addition, you can use the **Where**, **Order By**, and **Order By Descending** clauses to perform additional functions, such as filtering data and generating the data in a specific order.

In C#, the basic syntax of a LINQ query starts with the **From** clause and ends with the **Select or group by clause**. In addition, you can use the **where**, **orderby**, and **Orderby descending** clauses to perform additional functions, such as filtering data and generating the data in a specific order.

### 5. In which statement the LINQ query is executed?

A LINQ query is executed in the **For Each** statement in Visual Basic and in the **foreach** statement in C#.

### 6. In LINQ, lambda expressions underlie many of the standard query operators. Is it True or False?

It is true.

## 7. What is PLINQ?

PLINQ stands for Parallel Language Integrated Query. It is the parallel implementation of LINQ, in which a query can be executed by using multiple processors. PLINQ ensures the scalability of software on parallel processors in the execution environment. It is used where data grows rapidly, such as in telecom industry or where data is heterogeneous.

PLINQ also supports all the operators of LINQ. In addition, you can query 'collections' by using PLINQ. It can also run several LINQ queries simultaneously and makes use of the processors on the system. Apart from this, PLINQ uses parallel execution, which helps in running the queries quickly. Parallel execution provides a major performance improvement to PLINQ over certain types of legacy code, which takes too much time to execute.

## 8. What are the different Visual Basic features that support LINQ?

Visual Basic includes the following features that support LINQ:

- **Anonymous types** - Enables you to create a new type based on a query result.
- **Implicitly typed variables** - Enables the compiler to infer and assign a type when you declare and initialize a variable.
- **Extension method** - Enables you to extend an existing type with your own methods without modifying the type itself.

## 9. What is the function of the DISTINCT clause in a LINQ query?

The **DISTINCT** clause returns the result set without the duplicate values.

## 10. What is the DataContext class and how is it related to LINQ?

After you add a LINQ to SQL Classes item to a project and open the O/R Designer, the empty design surface represents an empty *DataContext* class ready to be configured. The *DataContext* class is a LINQ to SQL class that acts as a conduit between a SQL Server database and the LINQ to SQL entity classes mapped to that database. This class contains the connection string information and the methods for connecting to a database and manipulating the data in the database. It is configured with connection information provided by the first item that is dragged onto the design surface.

## 11. What is the difference between the Take and Skip clauses?

The **Take** clause returns a specified number of elements. For example, you can use the **Take** clause to return two values from an array of numbers. The **Skip** clause skips the specified number of elements in the query and returns the rest. For example, you can use the **Skip** clause to skip the first four strings in an array of strings and return the remaining array of string.

## 12. What is Object Relational Designer (O/R Designer)?

The O/R Designer provides a visual design surface to create LINQ to SQL entity classes and associations (relationships) that are based on objects in a database.

## 13. Which interface implements the standard query operators in LINQ?

The standard query operators implement the *IEnumerable<T>* or the *IQueryable<T>* interface in C# and the *IEnumerable(Of T)* or the *IQueryable(Of T)* interface in Visual Basic.

#### 14. What are standard query operators in LINQ?

The standard query operators in LINQ are the extension methods that form the LINQ pattern. These operators form an API that enables querying of any .NET array or collection. It operates on sequences and allows you to perform operations, such as determining if a value exists in the sequence and performing an aggregated function, such as a summation over a sequence.

#### 15. On what parameter does the *GroupBy* clause group the data?

The **GroupBy** clause groups the elements that share a common attribute.

#### 16. What is a *LinqDataSource* control?

The *LinqDataSource* control enables you to use LINQ in an ASP.NET Web page by setting the properties in the markup text. You can use the control retrieve or modify data. It is similar to the *SqIDataSource* and *ObjectDataSource* controls in the sense that it can be used to declaratively bind other ASP.NET controls on a page to a data source. The difference is that instead of binding directly to a database or to a generic class, the *LinqDataSource* control is designed to bind a LINQ enabled data model.

#### 17. How can you open the O/R Designer?

You can open the O/R Designer by adding a new LINQ to SQL Classes item to a project.

#### 18. The standard query operators are themselves a set of extension methods that provide the LINQ query functionality for any type that implements the *IEnumerable<T>* interface in Visual Basic. Is it True or False?

False, as it implements the *IEnumerable(T)* interface in Visual Basic and the *IEnumerable<T>* interface is implemented in C#.

#### 19. What are lambda expressions in LINQ?

A lambda expression is a function without a name that calculates and returns a single value. All lambda expressions use the lambda operator  $=>$ , which reads as goes to. The left side of the lambda operator specifies the input parameters and the right side holds the expression or statement block.

#### 20. Before you query a DataSet object by using LINQ to DataSet, you must first populate the dataset. How can you do this?

You can load the data into the dataset by using different methods, such as:

- Using the *DataAdapter* class
- Using LINQ to SQL

#### 21. What are the different implementations of LINQ?

The different implementations of LINQ are:

- **LINQ to SQL** - Refers to a component of .NET Framework version 3.5 that provides a run-time infrastructure to manage relational data as objects.
- **LINQ to DataSet** - Refers to a component that makes it easier and faster to query over data cached in a DataSet object.
- **LINQ to XML** - Provides an in-memory XML programming interface.
- **LINQ to Objects** - Refers to the use of LINQ queries with any *IEnumerable* or *IEnumerable(T)* collection directly, without the use of an intermediate LINQ provider or API, such as LINQ to SQL or LINQ to XML.

22. Which command-line tool generates code and mapping for the LINQ to SQL component of .NET Framework?

The **SqlMetal.exe** command-line tool generates code and map the LINQ to SQL component.

23. Name the control that exposes the LINQ features to Web developers through the ASP.NET data-source control architecture.

The *LinqDataSource* control exposes the LINQ features to Web developers through the ASP.NET data-source control architecture.

24. What is the difference between the Select clause and *SelectMany()* method in LINQ?

Both the Select clause and *SelectMany()* method are used to produce a result value from a source of values. The difference lies in the result set. The Select clause is used to produce one result value for every source value. The result value is a collection that has the same number of elements from the query. In contrast, the *SelectMany()* method produces a single result that contains a concatenated collection from the query.

25. Which extension method do you need to run a parallel query in PLINQ?

The **AsParallel** extension method is required to run a parallel query in PLINQ.

## Dynamic Programming

1. What is Dynamic Language Runtime (DLR)?

DLR is a runtime environment that allows you to integrate dynamic languages with the Common Language Runtime (CLR) by adding a set of services, such as expression trees, call site caching, and dynamic object interoperability to the CLR.

The *System.Dynamic* and *System.Runtime.CompilerServices* namespaces are used to hold the classes for DLR. It also provides dynamic features to statically-typed languages, such as C# and Visual Basic to enable their interoperation with dynamic languages.

2. What are the advantages of DLR?

The various advantages provided by DLR are:

- Allows you to easily implement the dynamic languages to the .NET Framework.

- Provides dynamic features to statically-typed languages. The statically-typed .NET Framework languages, such as C# and Visual Basic can create dynamic objects and use them together with statically-typed objects.
- Implements sharing of libraries and objects, which means that the objects and libraries implemented in one language can be used by other languages using DLR. The DLR also enables interoperation between statically-typed and dynamic languages.
- Enables fast execution of dynamic operations by supporting advance caching.

### 3. Give a brief introduction to Binders.

Binders are used by DLR to communicate with not the .NET Framework but also with various other services, such as Silverlight and COM. These services represent language-specific semantics and specify how a particular operation can be performed at the call site.

Call sites refer to the area in the code where logical and mathematical operations, such as **a + b** or **a.b()** are performed on dynamic objects.

### 4. Explain the different services provided by DLR to CLR.

The services provided by DLR to CLR are used for supporting dynamic languages. These services include the following:

- **Expression Trees** - Refers to the representation of code in a data structure similar to a tree. However, expression trees in DLR are the advanced version of the expression trees that were introduced with LINQ in .NET 3.5. Therefore, DLR has extended the functionalities of Language Integrated Query (LINQ) expression trees, such as control flow, assignment, and other language-modeling nodes to a dynamic language. These expression trees define the semantics of a language in form of an **abstract syntax tree (AST)**. AST enables the DLR to dynamically generate code, which the CLR executes at runtime.
- **Call Site Caching** - Enables the DLR to store the information of the operations and characteristics of the variables, such as their data type. The call site caching services also enables to check whether such operations have been performed previously to retrieve all the information about the variable. The place where DLR stores these values is called a **call site**.
- **Dynamic Object Interoperability** - Enables the DLR to provide a set of classes and interfaces that represent dynamic objects and operations. These classes and interfaces can be used to create classes for dynamic libraries, which can be used in static and dynamic type languages.

### 5. Name the binders provided by .NET Framework 4.0.

.NET Framework 4.0 provides the following binders:

- **Object Binder** - Enables to communicate with .NET objects.
- **JavaScript Binder** - Enables to communicate with JavaScript in Silverlight.
- **Python Binder** - Enables to communicate with IronPython.
- **Ruby Binder** - Enables to communicate with IronRuby. □ **COM Binder** - Enables to communicate with COM.

### 6. Explain *ExpandoObject* and *DynamicObject* classes.

The *ExpandoObject* class refers to a class whose members can be explicitly added and removed at runtime. In other words, the *ExpandoObject* class allows dynamic binding of the objects, which enables you to use standard syntax, similar to the *dynobj.Method* method instead of using more complex syntax, such as *dynobj.getAttribute("Method")*.

The *DynamicObject* class enables you to define the dynamic behavior for an object at run time. This class cannot be instantiated directly; therefore, to implement the dynamic behavior, you must inherit from the *DynamicObject* class and override the necessary methods. It allows you to define the specific operations that can be performed on dynamic objects as well the methods to perform those operations.

## 7. What is the difference between dynamic and var data types?

The difference between the var and dynamic data types is that the var data type is strongly type checked at the compile time; whereas, the dynamic data type is type checked by the compiler only at run time. After declaring a var data type, you cannot explicitly change its type throughout the execution of the program; however, a variable of the dynamic data type can be changed during runtime. Another major difference between the two is that dynamic type can also be used as the return type for methods, for which var cannot be used.

## 8. Which class is used for converting the data types?

The *System.Convert* class provides a complete set of methods for converting the data types.

# XML

## 1. What is Extensible Markup Language (XML).

XML is a simple and flexible markup language in the text format. Nowadays, it is widely used to exchange a large variety of data over the Internet. XML consists of data as text in well-defined customized layouts by using self-defining tags. These user-defined tags are user friendly because they contain the name given by the user and make the information easily understandable to a user. These user-friendly features made XML to be widely used as a standard data-interchange format. The World Wide Web Consortium (W3C) frequently develops new standard for XML usage by different software vendors and solution providers. XML plays a very significant role with respect to .NET Framework 4.0. .NET Framework 4.0 provides us with a namespace called *System.Xml*, which includes classes that are used to work with XML.

## 2. What is the version information in XML?

"Version" tag shows which version of XML is used.

## 3. If XML does not have closing tag will it work?

No, every tag in XML, which is opened, should have a closing tag.

## 4. Is XML case sensitive?

Yes, XML is case sensitive.

5. Explain the difference between XML and HTML. ☐ XML describes data while HTML describes how the data should be displayed. Therefore, HTML is about displaying information while XML is about describing information.

- XML supports user-defined tags while HTML provides pre-defined tags.
- XML is a case-sensitive language while HTML language is not case-sensitive.
- In XML, all tags must be closed; while in HTML, it is not necessary to close each tag.

6. What is XML DOM?

The DOM stands for Document Object Model, which describes the logical formation of documents and provides the way to access and manipulate a document. It supplies an Application Programming Interface (API) to XML documents. It is built around the object-oriented design; therefore, it is known as DOM. The DOM model considers an XML document as a composition of objects and every object consists of properties and behaviors that can be manipulated by the DOM methods. The DOM allows creating and building XML documents, navigating the structure of documents, and managing the elements and their data. You can use the DOM methods and objects with any language, such as C#, VB, JavaScript, and VBScript.

7. Which namespaces in .NET are used for XML?

The *System.xml.dll* is the real physical file, which contains the XML implementation. Some of the other namespaces that allow .NET to use XML are as follows:

- *System.Xml*
- *System.Xml.Schema*
- *System.Xml.XPath*
- *System.Xml.Xsl*

8. Explain different types of XML Application Programming Interface (API).

The following are two main types of XML parsers:

- Tree-based API - Compiles an XML document into a tree structure and loads it into memory. You can traverse and change the tree structure. The DOM is an example of a tree-based API.
- Event-based API - Provides the report to an application about the parsing events by a set of built-in callback functions. An example of the event-based API is SAX.

9. Explain the *XmlReader* class.

The *XmlReader* class is used to read XML data in a fast, forward-only, and non-cached manner. To work with *XmlReader* class in .NET, you need to import the following namespace:

In C#:

*using System.Xml;*

In VB:

*Imports System.Xml*

10. Describe the *XmlWriter* class.

The *XmlWriter* class is used to write XML to a stream, a file, or a Textwriter object. This class works in a forward-only, non-cached manner. You can configure the *XmlWriter* object up to a large extent. With this object, you can specify a few things, such as whether to indent content or not, the amount to indent, what quote character to use in attribute values, and whether or not namespaces are supported.

## 11. What is XPath?

XPath stands for XML Path. It is a language used to access different parts of an XML document, such as elements and attributes.

## 12. What is an XML attribute?

An XML attribute contains additional information regarding that particular element. The XML attributes use the name-value pair. For example, the element student has an attribute called id and the value of this attribute is set to s01, as shown in the following code snippet:

```
<Student ID="s01">  
...  
</Student>
```

## 13. The XML elements cannot be empty. Is it true?

No, it is not true.

## 14. Describe the role that XSL can play while dynamically generating HTML pages from a relational database.

The SQLXML 3.0 and advanced versions provide the facility of mapping the SQL queries output with XSLT templates. It uses XSLT to present the records that are retrieved from databases on Web pages (HTML pages).

An application can use XSLT to modify the output that is retrieved from data sources and display the output by XSL templates. The XSLT displays data without affecting the database query and the code of application.

## 15. What are the advantages of DOM?

The following are the advantages of DOM:

- DOM stores the entire XML document into memory before processing. Therefore, the XML structure can be easily modified and values can be added, changed, and removed.
- DOM enables to traverse the XML structure in any direction. It means that you can access any node of the XML structure by traversing through the XML structure.

## 16. Give an example of a DOM-enabled XML parser.

The XML parser is MSXML, which is fully DOM-enabled.

## 17. What is an XML schema?

An XML schema provides the definition of an XML document. This implies that an XML schema defines the following in an XML document:

- The elements that can appear in an XML document.
- The attributes that can appear in an XML document.
- The elements that are child elements.
- The order of child elements.
- The number of child elements.
- Whether an element is empty or it includes some text. ☐ The data types for elements and attributes.

18. State the advantages of XML schemas over DTD.

Microsoft developed a language known as the XML Schema Definition (XSD) to describe the schema to an XML document. The following are the advantages of XML schemas over DTDs: ☐ XSD keeps much better control over types of data than the DTD.

- DTD does not allow creating customized data types while the XSD provides full support to create customized data types.
- XSD allows you to specify restrictions on data. It means that you can define the type of data that should be stored in an element, for example numbers or alphabets.
- The XSD is quite easy to learn and to understand because its syntax is same as that of the XML document.

19. Using XSLT, how would you extract the value of a specific attribute from an element in an XML document?

The components necessary for the above mentioned operation are as follows:

- The template element - Matches the correct XML element.
- The value-of element - Selects the attribute value.
- The optional apply-templates element - Allows continuous processing of the document

20. Which classes are supported to make an XML DOM?

The following are the different classes in the *System.Xml* namespace that make up the XML DOM:

- The *XmlNode* class
- The  *XmlDocument* Class
- The *XmlElement* Class
- The *XmlAttribute* Class
- The *XmlText* class
- The *XmlComment* class
- The *XmlNodeList* Class

21. Which class is used to encode and decode XML names and contains different methods to convert between CLR types and XSD types.

The *XmlConvert* Class.

22. What is the DTD?

The DTD is Document Type Definition that describes the formation of the content of an XML document. The DTD manages the data to store in a consistent format. It defines the XML elements and attributes about how they should be present in XML documents and what relation they should have with other elements and attributes. The DTD also allows you to mention whether an XML element is optional or not. If the XML documents are not according to the DTD rules, they are not considered valid.

23. Is it true that the XML's goal is to replace HTML?

No, it is not true. Both are necessary in their respective fields.

24. What is XSLT?

XSLT is Extensible Stylesheet Language Transformations that is a part of XML, which is a mechanism to transform an XML document into another XML or HTML document.

25. Describe the rules and regulations that must be followed while creating a well-formed XML document.

The following are the rules and regulations that are necessary to follow while creating a well-formed XML document:

- Every start tag must end with an end tag.
- A root element should be included for enclosing other child elements.
- XML tags are case-sensitive; therefore, start and end tags must be of same spelling and the casing should also be the same.
- XML's empty tags are necessary to close with a forward slash (/).
- XML's attributes values are necessary to enclose within double quotation marks.
- XML tags must be properly nested. It means starting tags should be closed in the reverse order in which they present.

26. What are the naming conventions required for XML elements tags?

The following are the naming conventions that need to be followed for XML elements tags:

- Element names should contain only characters, numbers, hyphens, and periods.
- Element names cannot begin with a number or punctuation character.
- Element names must not start with the word xml (or XML, or Xml).
- Element names cannot consist spaces.
- Element names can be used any words except xml, XML, or Xml because no words are reserved in XML.

27. The XML preserves white spaces. Is it true?

Yes, it is true.

28. Explain the XML elements.

The elements are the central units of an XML document that explain and identify data. The elements are represented by the tags. You can also make your own tags, which make XML a user-friendly language. By creating custom meaningful elements, you can improve readability of the document. XML elements can be nested and the nested elements are known as child elements.

# ASP.NET

## 1. What is ASP?

Active Server Pages (ASP), also known as Classic ASP, is a Microsoft's server-side technology, which helps in creating dynamic and user-friendly Web pages. It uses different scripting languages to create dynamic Web pages, which can be run on any type of browser. The Web pages are built by using either VBScript or JavaScript and these Web pages have access to the same services as Windows application, including ADO (ActiveX Data Objects) for database access, SMTP (Simple Mail Transfer Protocol) for e-mail, and the entire COM (Component Object Model) structure used in the Windows environment. ASP is implemented through a dynamic-link library (asp.dll) that is called by the IIS server when a Web page is requested from the server.

## 2. What is ASP.NET?

ASP.NET is a specification developed by Microsoft to create dynamic Web applications, Web sites, and Web services. It is a part of .NET Framework. You can create ASP.NET applications in most of the .NET compatible languages, such as Visual Basic, C#, and J#. The ASP.NET compiles the Web pages and provides much better performance than scripting languages, such as VBScript. The Web Forms support to create powerful forms-based Web pages. You can use ASP.NET Web server controls to create interactive Web applications. With the help of Web server controls, you can easily create a Web application.

## 3. What is the basic difference between ASP and ASP.NET?

The basic difference between ASP and ASP.NET is that ASP is interpreted; whereas, ASP.NET is compiled. This implies that since ASP uses VBScript; therefore, when an ASP page is executed, it is interpreted. On the other hand, ASP.NET uses .NET languages, such as C# and VB.NET, which are compiled to Microsoft Intermediate Language (MSIL).

## 4. In which event are the controls fully loaded?

Page load event guarantees that all controls are fully loaded. Controls are also accessed in *Page\_Init* events but you will see that view state is not fully loaded during this event

## 5. How can we identify that the Page is Post Back?

Page object has an "*IsPostBack*" property, which can be checked to know that is the page posted back.

## 6. What is the lifespan for items stored in ViewState?

The items stored in *ViewState* live until the lifetime of the current page expires including the postbacks to the same page.

## 7. How information about the user's locale can be accessed?

The information regarding a user's locale can be accessed by using the *System.Web.UI.Page.Culture* property.

## 8. What is the difference between SQL notification and SQL invalidation?

The SQL cache notification generates notifications when the data of a database changes, on which your cache item depends. The SQL cache invalidation makes a cached item invalid when the data stored in a SQL server database changes.

9. Which is the parent class of the Web server control?

The *System.Web.UI.Control* class is the parent class for all Web server controls.

10. Can you set which type of comparison you want to perform by the *CompareValidator* control?

Yes, by setting the *Operator* property of the *CompareValidator* control.

11. What is the behavior of a Web browser when it receives an invalid element?

The behavior of a Web browser when it receives an invalid element depends on the browser that you use to browse your application. Most of the browsers ignore the invalid element; whereas, some of them display the invalid elements on the page.

12. What are the advantages of the code-behind feature?

The code-behind feature of ASP.NET offers a number of advantages:

- Makes code easy to understand and debug by separating application logic from HTML tags
- Provides the isolation of effort between graphic designers and software engineers
- Removes the problems of browser incompatibility by providing code files to exist on the Web server and supporting Web pages to be compiled on demand.
- 13. How do you sign out from forms authentication?
  - The *FormsAuthentication.Signout()* method is used to sign out from the forms authentication.
- 14. What is AutoPostBack?
  - If you want a control to postback automatically when an event is raised, you need to set the *AutoPostBack* property of the control to *True*.
- 15. What is the function of the ViewState property?
  - The ASP.NET 4.0 introduced a new property called *ViewStateMode* for the *Control* class. Now you can enable the view state to an individual control even if the view state for an ASP.NET page is disabled.
- 16. Why do you use the *App\_Code* folder in ASP.NET?
  - The *App\_Code* folder is automatically present in the project. It stores the files, such as classes, typed data set, text files, and reports. If this folder is not available in the application, you can add this folder. One of the important features of the *App\_Code* folder is that only one dll is created for the complete folder, irrespective of how many files it contains.
- 17. Define a multilingual Web site.
  - A multilingual Web site serves content in a number of languages. It contains multiple copies for its content and other resources, such as date and time, in different languages.
- 18. What is an ASP.NET Web Form?
  - ASP.NET Web forms are designed to use controls and features that are almost as powerful as the ones used with Windows forms, and so they are called as Web forms. The Web form uses a server-side object model that allows you to create functional controls, which are executed on the server and are rendered as HTML on the client. The attribute, *runat="server"*, associated with a server control indicates that the Web form must be processed on the server.

19. What is the difference between a default skin and a named skin?

The default skin is applied to all the Web server controls in a Web form, which are of similar type, and it does not provide a Skin ID attribute. The named skin provides a Skin ID attribute and users have to set the Skin ID property to apply it.

20. What is IIS? Why is it used?

Internet Information Services (IIS) is created by Microsoft to provide Internet-based services to ASP.NET Web applications. It makes your computer to work as a Web server and provides the functionality to develop and deploy Web applications on the server. IIS handles the request and response cycle on the Web server. It also offers the services of SMTP and FrontPage server extensions. The SMTP is used to send emails and use FrontPage server extensions to get the dynamic features of IIS, such as form handler.

21. What is Query String? What are its advantages and limitations?

The Query String helps in sending the page information to the server.

The Query String has the following advantages:

- Every browser works with Query Strings.
- It does not require server resources and so does not exert any kind of burden on the server.

The following are the limitations of Query String:

- Information must be within the limit because URL does not support many characters. □ Information is clearly visible to the user, which leads to security threats.

22. What is actually returned from server to the browser when a browser requests an .aspx file and the file is displayed?

When a browser requests an *.aspx* file then the server returns a response, which is rendered into a HTML string.

23. How can you display all validation messages in one control?

The *ValidationSummary* control displays all validation messages in one control.

24. Which two new properties are added in ASP.NET 4.0 Page class?

The two new properties added in the Page class are *MetaKeyword* and *MetaDescription*.

25. What is tracing? Where is it used?

Tracing displays the details about how the code was executed. It refers to collecting information about the application while it is running. Tracing information can help you to troubleshoot an application. It enables you to record information in various log files about the errors that might occur at run time. You can analyze these log files to find the cause of the errors.

In .NET, we have objects called Trace Listeners. A listener is an object that gets the trace output and stores it to different places, such as a window, a file on your locale drive, or a SQL Server.

The *System.Diagnostics* namespace contains the predefined interfaces, classes, and structures that are used for tracing. It supplies two classes, Trace and Debug, which allow you to write errors and logs related to the application execution. Trace listeners are objects that collect the output of tracing processes.

26. What is the difference between authentication and authorization?

Authentication verifies the identity of a user and authorization is a process where you can check whether or not the identity has access rights to the system. In other words, you can say that authentication is a procedure of getting some credentials from the users and verify the user's identity against those credentials. Authorization is a procedure of granting access of particular resources to an authenticated user. You should note that authentication always takes place before authorization.

27. How can you register a custom server control to a Web page?

You can register a custom server control to a Web page using the *@Register* directive.

28. Which ASP.NET objects encapsulate the state of the client and the browser?

The *Session* object encapsulates the state of the client and browser.

29. Differentiate globalization and localization.

The globalization is a technique to identify the specific part of a Web application that is different for different languages and make separate that portion from the core of the Web application. The localization is a procedure of configuring a Web application to be supported for a specific language or locale.

30. What is *ViewState*?

The *ViewState* is a feature used by ASP.NET Web page to store the value of a page and its controls just before posting the page. Once the page is posted, the first task by the page processing is to restore the *ViewState* to get the values of the controls.

31. Which method is used to force all the validation controls to run?

The *Page.Validate()* method is used to force all the validation controls to run and to perform validation.

32. Which method has been introduced in ASP.NET 4.0 to redirect a page permanently?

The *RedirectPermanent()* method added in ASP.NET 4.0 to redirect a page permanently. The following code snippet is an example of the *RedirectPermanent()* method:

```
RedirectPermanent("/path/Aboutus.aspx");
```

33. How can you send an email message from an ASP.NET Web page?

You can use the *System.Net.Mail.MailMessage* and the *System.Net.Mail.SmtpMail* classes to send an email in your Web pages. In order to send an email through your mail server, you need to create an object of the *SmtpClient* class and set the server name, port, and credentials.

34. What is the difference between the *Response.Write()* and *Response.Output.Write()* methods?

The *Response.Write()* method allows you to write the normal output; whereas, the *Response.Output.Write()* method allows you to write the formatted output.

35. What does the Orientation property do in a Menu control?

Orientation property of the Menu control sets the horizontal or vertical display of a menu on a Web page. By default, the orientation is vertical.

36. Differentiate between client-side and server-side validations in Web pages.

Client-side validations take place at the client end with the help of JavaScript and VBScript before the Web page is sent to the server. On the other hand, server-side validations take place at the server end.

37. How does a content page differ from a master page?

A content page does not have complete HTML source code; whereas a master page has complete HTML source code inside its source file.

38. Suppose you want an ASP.NET function (client side) executed on the MouseOver event of a button. Where do you add an event handler?

The event handler is added to the *Add()* method of the *Attributes* property.

39. What is the default timeout for a Cookie?

The default time duration for a Cookie is 30 minutes.

40. What are HTTP handlers in ASP.NET?

HTTP handlers, as the name suggests, are used to handle user requests for Web application resources. They are the backbone of the request-response model of Web applications. There is a specific event handler to handle the request for each user request type and send back the corresponding response object.

Each user request to the IIS Web server flows through the HTTP pipeline, which refers to a series of components (HTTP modules and HTTP handlers) to process the request. HTTP modules act as filters to process the request as it passes through the HTTP pipeline. The request, after passing through the HTTP modules, is assigned to an HTTP handler that determines the response of the server to the user request. The response then passes through the HTTP modules once again and is then sent back to the user.

You can define HTTP handlers in the *<httpHandlers>* element of a configuration file. The *<add>* element tag is used to add new handlers and the *<remove>* element tag is used to remove existing handlers. To create an HTTP handler, you need to define a class that implements the *IHttpHandler* interface.

41. What are the events that happen when a client requests an ASP.NET page from IIS server?

The following events happen when a client requests an ASP.NET page from the IIS server:

1. User requests for an application resource.
2. The integrated request-processing pipeline receives the first user request.
3. *Response* objects are created for each user request.
4. An object of the *HttpApplication* class is created and allocated to the *Request* object.
5. The *HttpApplication* class processes the user request.

42. Explain file-based dependency and key-based dependency.

In file-based dependency, you have to depend on a file that is saved in a disk. In key-based dependency, you have to depend on another cached item.

43. How can you implement the postback property of an ASP.NET control?

You need to set the *AutoPostBack* property to *True* to implement the *PostBack* property of controls.

44. Explain how Cookies work. Give an example of Cookie abuse.

The server tells the browser to put some files in a cookie, and the client then sends all the cookies for the domain in each request. An example of cookie abuse is large cookies affecting the network traffic.

45. Explain login controls.

Login controls are built-in controls in ASP.Net for providing a login solution to ASP.NET application. The login controls use the membership system to authenticate a user credentials for a Web site.

There are many controls in login controls.

- *ChangePassword* control - Allows users to change their password.
- *CreateUserWizard* control - Provides an interface to the user to register for that Web site.
- *Login* control - Provides an interface for user authentication. It consists of a set of controls, such as *TextBox*, *Label*, *Button*, *CheckBox*, *HyperLink*.
- *LoginView* control - Displays appropriate information to different users according to the user's status.
- *LoginStatus* control - Shows a login link to users, who are not authenticated and logout link, who are authenticated
- *LoginName* control - Displays a user name, if the user logs in.
- *PasswordRecovery* control - Allows users to get back the password through an e-mail, if they forget.

46. What is the use of *PlaceHolder* control? Can we see it at runtime?

The *PlaceHolder* control acts as a container for those controls that are dynamically generated at runtime. We cannot see it at runtime because it does not produce any visible output. It used only as a container.

47. What setting must be added in the configuration file to deny a particular user from accessing the secured resources?

To deny a particular user form accessing the secured resources, the *web.config* file must contain the following code:

```
<authorization>
<deny users="username" /> </authorization>
```

48. What are the event handlers that can be included in the Global.asax file?

The *Global.asax* file contains some of the following important event handlers:

- *Application\_Error*
- *Application\_Start*
- *Application\_End*
- *Session\_Start*
- *Session\_End*

49. What is the difference between page-level caching and fragment caching?

In the page-level caching, an entire Web page is cached; whereas, in the fragment caching, a part of the Web page, such as a user control added to the Web page, is cached.

50. Make a list of all templates of the *Repeater* control.

The Repeater control contains the following templates:

- *ItemTemplate*
- *AlternatingItemTemplate*
- *SeparatorTemplate*
- *HeaderTemplate*
- *FooterTemplate*

51. Describe the complete lifecycle of a Web page.

When we execute a Web page, it passes from the following stages, which are collectively known as Web page lifecycle:

- **Page request** - During this stage, ASP.NET makes sure the page either parsed or compiled and a cached version of the page can be sent in response
- **Start** - During this stage sets the Request and Response page properties and the page check the page request is either a postback or a new request
- **Page Initialization** - During this stage, the page initialize and the control's Unique Id property are set
- **Load** - During this stage, if the request is postback, the control properties are loaded without loading the view state and control state otherwise loads the view state
- **Validation** - During this stage, the controls are validated
- **Postback event handling** - During this stage, if the request is a postback, handles the event
- **Rendering** - During this stage, the page invokes the Render method to each control for return the output
- **Unload** - During this stage, when the page is completely rendered and sent to the client, the page is unloaded.

52. How can you assign page specific attributes in an ASP.NET application?

The *@Page* directive is responsible for this.

53. Which method is used to post a Web page to another Web page?

The *Response.Redirect* method is used to post a page to another page, as shown in the following code snippet:  
`Response.Redirect("DestinationPageName.aspx");`

54. What is a Cookie? Where is it used in ASP.NET?

Cookie is a lightweight executable program, which the server posts to client machines. Cookies store the identity of a user at the first visit of the Web site and validate them later on the next visits for their authenticity. The values of a cookie can be transferred between the user's request and the server's response.

55. What are Custom User Controls in ASP.NET?

The custom user controls are the controls that are defined by developers. These controls are a mixture of custom behavior and predefined behavior. These controls work similar to other Web server controls.

56. What does the *.WebPart* file do?

The *.WebPart* file explains the settings of a Web Parts control that can be included to a specified zone on a Web page.

57. How can you enable impersonation in the *web.config* file?

To enable impersonation in the *web.config* file, you need to include the *<identity>* element in the *web.config* file and set the *impersonate* attribute to true as shown in the following code snippet: `<identity impersonate = "true" />`

58. How can you identify that the page is PostBack?

The Page object uses the *IsPostBack* property to check whether the page is posted back or not. If the page is postback, this property is set to true.

59. In which database is the information, such as membership, role management, profile, and Web parts personalization, stored?

The *aspnetdb* database stores all information.

60. What is State Management? How many ways are there to maintain a state in .NET?

State management is used to store information requests. The state management is used to trace the information or data that affect the state of the applications.

There are two ways to maintain a state in .NET, Client-Based state management and Server-Based state management.

The following techniques can be used to implement the Client-Based state management:

- View State
- Hidden Fields
- Cookies

- Query Strings
- Control State

The following techniques can be used to implement Server-Based state management:

- Application State
- Session State
- Profile Properties

61. What do you understand by aggregate dependency?

Aggregate dependency allows multiple dependencies to be aggregated for content that depends on more than one resource. In such type of dependency, you need to depend on the sum of all the defined dependencies to remove a data item from the cache.

62. How can you ensure that no one has tampered with *ViewState* in a Web page?

To ensure that no one has tampered with *ViewState* in a Web page, set the *EnableViewStateMac* property to *True*.

63. What is the difference between adding items into cache through the *Add()* method and through the *Insert()* method?

Both methods work in a similar way except that the *Cache.Add()* function returns an object that represents the item you added in the cache. The *Cache.Insert()* function can replace an existing item in the cache, which is not possible using the *Cache.Add()* method.

64. Explain the cookie less session and its working.

ASP.NET manages the session state in the same process that processes the request and does not create a cookie. It is known as a cookie less session. If cookies are not available, a session is tracked by adding a session identifier to the URL. The cookie less session is enabled using the following code snippet: `<sessionState cookieless="true" />`

65. What is a round trip?

The trip of a Web page from the client to the server and then back to the client is known as a round trip.

66. What are the major built-in objects in ASP.NET?

The major built-in objects in ASP.NET are as follows:

- *Application*
- *Request*
- *Response*
- *Server*
- *Session*
- *Context*
- *Trace*

- 67. Where should the data validations be performed-at the client side or at the server side and why?
- Data validations should be done primarily at the client side and the server-side validation should be avoided because it makes server task overloaded. If the client-side validation is not available, you can use server-side validation. When a user sends a request to the server, the validation controls are invoked to check the user input one by one.
- 68. Why do we need nested master pages in a Web site?
- When we have several hierarchical levels in a Web site, then we use nested master pages in the Web site.
- 69. How can you dynamically add user controls to a page?
- User controls can be dynamically loaded by adding a Web User Control page in the application and adding the control on this page.
- 70. What is the *appSettings* Section in the *web.config* file?
- The *web.config* file sets the configuration for a Web project. The *appSettings* block in configuration file sets the user-defined values for the whole application.

For example, in the following code snippet, the specified *ConnectionString* section is used throughout the project for database connection:

```
<configuration>
<appSettings>
<add key="ConnectionString" value="server=indiabixserver; pwd=dbpassword; database=indiabix"
/>
</appSettings>
...

```

71. What type of code, client-side or server-side, is found in a code-behind file of a Web page?
  - A code-behind file contains the server-side code, which means that the code contained in a code-behind file is executed at the server.
72. To which class a Web form belongs to in the .NET Framework class hierarchy?
  - A Web form belongs to the *System.Web.UI.Page* class.
73. What does the "*EnableViewState*" property do? Why do we want it On or Off?
  - The *EnableViewState* property enables the *ViewState* property on the page. It is set to On to allow the page to save the users input between postback requests of a Web page; that is, between the *Request* and corresponding *Response* objects. When this property is set to Off, the page does not store the users input during postback.
74. Which event determines that all the controls are completely loaded into memory?
  - The *Page\_Load* event determines that all the controls on the page are fully loaded. You can also access the controls in the *Page\_Init* event; however, the *ViewState* property does not load completely during this event.
75. What is the function of the *CustomValidator* control?
  - It provides the customize validation code to perform both client-side and server-side validation.

76. What is Role-based security?

- In the Role-based security, you can assign a role to every user and grant the privilege according to that role. A role is a group of principal that restricts a user's privileges. Therefore, all the organization and applications use role-based security model to determine whether a user has enough privileges to perform a requested task.

77. Which data type does the *RangeValidator* control support?

- The data types supported by the *RangeValidator* control are Integer, Double, String, Currency, and Date.

78. What are the HTML server controls in ASP.NET?

- HTML server controls are similar to the standard HTML elements, which are normally used in HTML pages. They expose properties and events that can be used programmatically. To make these controls programmatically accessible, you need to specify that the HTML controls act as a server control by adding the *runat="server"* attribute.

79. Why a *SiteMapPath* control is referred to as breadcrumb or eyebrow navigation control?

- The *SiteMapPath* control displays a hierarchical path to the root Web page of the Web site. Therefore, it is known as the breadcrumb or eyebrow navigation control.

80. Where is the *ViewState* information stored?

- The *ViewState* information is stored in the HTML hidden fields.
- 81. Which namespaces are necessary to create a localized application?
- The *System.Globalization* and *System.Resources* namespaces are essential to develop a localized application.
- 82. What is the difference between an *HtmlInputCheckBox* control and an *HtmlInputRadioButton* control?
- You can select more than one *HtmlInputCheckBox* control from a group of *HtmlInputCheckBox* controls; whereas, you can select only a single *HtmlInputRadioButton* control from a group of *HtmlInputRadioButton* controls.

83. What is the difference between HTML and Web server controls?

- HTML controls are client-side controls; therefore, all the validations for HTML controls are performed at the client side. On the other hand, Web server controls are server-side controls; therefore, all the validations for Web server controls are performed at the server side.

□

□

84. Explain the *AdRotator* Control.

- The *AdRotator* is an ASP.NET control that is used to provide advertisements to Web pages. The *AdRotator* control associates with one or many advertisements, which randomly displays one by one at a time when the Web page is refreshed. The *AdRotator* control advertisements are associated with links; therefore, when you click on an advertisement, it redirects you to other pages.

The *AdRotator* control is associated with a data source, which is normally an xml file or a database table. A data source contains all the information, such as advertisement graphics reference, link, and alternate text. Therefore, when you use the *AdRotator* control, you should first create a data source and then associate it with the *AdRotator* control.

85. What do you understand by the culture?

The culture denotes a combination of a language and optionally a region or a country. The contents of a Web page of a multilingual Web site are changed according to the culture defined in the operating system of the user accessing the Web page.

86. What is the difference between absolute expiration and sliding-time expiration?

The absolute expiration expires a cached item after the provided expiration time. The sliding time does not expire the cached items because it increments the specified time.

87. What is the code-behind feature in ASP.NET?

The code-behind feature of ASP.NET enables you to divide an ASP.NET page into two files - one consisting of the presentation data, and the second, which is also called the code-behind file, consisting of all the business logic. The presentation data contains the interface elements, such as HTML controls and Web server controls, and the code-behind contains the event-handling process to handle the events that are fired by these controls. The file that contains the presentation data has the .aspx extension. The code behind file has either the .cs extension (if you are using the programming language C#) or the .vb (if you are using the programming language Visual Basic .NET) extension.

88. How can you check if all the validation controls on a Web page are valid and proper?

You can determine that all the validation controls on a Web page are properly working by writing code in the source file of the Web page using a scripting language, such as VBScript or JavaScript. To do this task, you have to loop across validators collection of pages and check the *IsValid* property of each validation control on the Web page to check whether or not the validation test is successful.

89. Explain the validation controls. How many validation controls in ASP.NET 4.0?

Validation controls are responsible to validate the data of an input control. Whenever you provide any input to an application, it performs the validation and displays an error message to user, in case the validation fails.

ASP.NET 4.0 contains the following six types of validation controls:

- *CompareValidator* - Performs a comparison between the values contained in two controls.
- *CustomValidator* - Writes your own method to perform extra validation.
- *RangeValidator*- Checks value according to the range of value.
- *RegularExpressionValidator* - Ensures that input is according to the specified pattern or not.
- *RequiredFieldValidator* - Checks either a control is empty or not.
- *ValidationSummary* - Displays a summary of all validation error in a central location.

90. What is difference between a Label control and a Literal control?

The Label control's final html code has an HTML tag; whereas, the Literal control's final html code contains only text, which is not surrounded by any HTML tag.

91. How many types of Cookies are available in ASP.NET?

There are two types of Cookies available in ASP.NET:

- **Session Cookie** - Resides on the client machine for a single session until the user does not log out.
- **Persistent Cookie** - Resides on a user's machine for a period specified for its expiry, such as 10 days, one month, and never.

The user can set this period manually.

92. What is the use of the *Global.asax* file?

The *Global.asax* file executes application-level events and sets application-level variables.

93. What are the Culture and UICulture values?

The Culture value determines the functions, such as Date and Currency, which are used to format data and numbers in a Web page. The UICulture value determines the resources, such as strings or images, which are loaded for a Web page in a Web application.

94. What is the difference between ASP session and ASP.NET session?

ASP does not support cookie-less sessions; whereas, ASP.NET does. In addition, the ASP.NET session can span across multiple servers.

95. Which control will you use to ensure that the values in two different controls match?

You should use the *CompareValidator* control to ensure that the values in two different controls match.

96. What is the difference between a page theme and a global theme?

A page theme is stored inside a subfolder of the *App\_Themes* folder of a project and applied to individual Web pages of that project. Global themes are stored inside the Themes folder on a Web server and apply to all the Web applications on the Web server.

97. What do you mean by a neutral culture?

When you specify a language but do not specify the associated country through a culture, the culture is called as a neutral culture.

98. What is the use of the *<sessionState>* tag in the *web.config* file?

The *<sessionState>* tag is used to configure the session state features. To change the default timeout, which is 20 minutes, you have to add the following code snippet to the *web.config* file of an application: *<sessionState timeout="40"/>*

99. Can you post and access view state in another application?

Yes, you can post and access a view state in other applications. However, while posting a view state in another application, the *PreviousPage* property returns null.

100. Which method do you use to kill explicitly a users session?

The *Session.Abandon()* method kills the user session explicitly.

101. Which class is inherited when an ASP.NET server control is added to a Web form?

The *System.Web.UI.WebControls* class is inherited when an ASP.NET server control is added to a Web form.

102. What events are fired when a page loads?

The following events fire when a page loads:

- *Init()* - Fires when the page is initializing.
- *LoadViewState()* - Fires when the view state is loading.
- *LoadpostData()* - Fires when the postback data is processing.
- *Load()* - Fires when the page is loading.
- *PreRender()* - Fires at the brief moment before the page is displayed to the user as HTML. □
- *Unload()* - Fires when the page is destroying the instances of server controls.

103. Write three common properties of all validation controls.

Three common properties of validation controls are as follows:

- *ControlToValidate* - Provides a control to validate
- *ErrorMessage* - Displays an error message
- *IsValid* - Specifies if the control's validation has succeeded or not
- *Text* - Displays a text for validation control before validation

104. What are navigation controls? How many navigation controls are there in ASP.NET 4.0?

Navigation controls help you to navigate in a Web application easily. These controls store all the links in a hierarchical or drop-down structure; thereby facilitating easy navigation in a Web application.

There are three navigation controls in ASP.Net 4.0.

- *SiteMapPath*
- *Menu*
- *TreeView*

105. What happens if an ASP.NET server control with event-handling routines is missing from its definition?

The compilation of the application fails.

106. What are server-side comments?

Server-side comments are included in an ASP.NET page for the purpose of documentations as shown in the following code snippet:

```
<%--This is an example of server-side comments --%>
```

The server-side comments begin with `<%--` and end with `--%>`.

107. How can we provide the WebParts control functionality to a server control?

We can provide the *WebParts* controls functionality to a server control by setting the *CreateWebPart* property of *WebPartManger*.

108. How do you prevent a validation control from validating data at the client end?

You can prohibit a validation control to validate data at the client side by setting the *EnableClientScript* property to *False*.

109. What is cross-page posting in ASP.NET?

The *Server.Transfer()* method is used to post data from one page to another. In this case, the URL remains the same. However, in cross page posting, data is collected from different Web pages and is displayed on a single page. To do so, you need to set the *PostBackUrl* property of the control, which specifies the target page. In the target page, you can access the *PreviousPage* property. For this, you need to use the *@PreviousPageType* directive. You can access the controls of previous page by using the *FindControl()* method.

110. Which ASP.NET configuration options are supported in the ASP.NET implementation on the shared Web hosting platform?

There are many ASP.NET configuration choices, which are not able to configure at the site, application, or child directory level on the shared hosting environment. Some options can produce security, performance, and stability problem to the server and therefore cannot be changed.

The following settings are the only ones that can be changed in the *web.config* file(s) of your Web site:

- browserCaps
- clientTarget
- pages
- customErrors
- globalization
- authorization
- authentication
  
- webControls
- webServices

111. Explain the Application and Session objects in ASP.NET.

Application state is used to store data corresponding to all the variables of an ASP.NET Web application. The data in an application state is stored once and read several times. Application state uses the

*HttpApplicationState* class to store and share the data throughout the application. You can access the information stored in an application state by using the *HttpApplication* class property. Data stored in the application state is accessible to all the pages of the application and is the same for all the users accessing the application. The *HttpApplicationState* class provides a lock method, which you can use to ensure that only one user is able to access and modify the data of an application at any instant of time.

Each client accessing a Web application maintains a distinct session with the Web server, and there is also some specific information associated with each of these sessions. Session state is defined in the `<sessionState>` element of the *web.config* file. It also stores the data specific to a user session in session variables. Different session variables are created for each user session. In addition, session variables can be accessed from any page of the application. When a user accesses a page, a session ID for the user is created. The session ID is transferred between the server and the client over the HTTP protocol using cookies.

112. How will you differentiate a submaster page from a top-level master page?

Similar to a content page, a submaster page also does not have complete HTML source code; whereas, a toplevel master page has complete HTML source code inside its source file.

113. What are Web server controls in ASP.NET?

The ASP.NET Web server controls are objects on the ASP.NET pages that run when the Web page is requested. Many Web server controls, such as button and text box, are similar to the HTML controls. In addition to the HTML controls, there are many controls, which include complex behavior, such as the controls used to connect to data sources and display data.

114. What is the difference between a *HyperLink* control and a *LinkButton* control?

A *HyperLink* control does not have the *Click* and *Command* events; whereas, the *LinkButton* control has these events, which can be handled in the code-behind file of the Web page.

115. What are the various ways of authentication techniques in ASP.NET?

There are various techniques in ASP.NET to authenticate a user. You can use one of the following ways of authentication to select a built-in authentication provider:

- **Windows Authentication** - This mode works as the default authentication technique. It can work with any form of Microsoft Internet Information Services (IIS) authentication, such as Basic, Integrated Windows authentication (NTLM/Kerberos), Digest, and certificates. The syntax of Windows authentication mode is given as follows: `<authentication mode="windows" />`
- **Forms Authentication** - You can specify this mode as a default authentication mode by using the following code snippet: `<authentication mode="Forms" />`
- **Passport** - This mode works with Microsoft Passport authentication, as shown in the following code snippet: `<authentication mode = "Passport" />`

116. What are the different ways to send data across pages in ASP.NET?

The following two ways are used to send data across pages in ASP.NET:

- Session
- Public properties

117. What does the *WebpartListUserControlPath* property of a *DeclarativeCatalogPart* control do?

The *WebpartListUserControlPath* property sets the route of the user defined control to a *DeclarativeCatalogPart* control.

118. What do you mean by the Web Part controls in ASP.NET?

The Web Part controls are the integrated controls, which are used to create a Web site. These controls allow the users to change the content, outlook, and state of Web pages in a Web browser.

119. What type of the *CatalogPart* control enables users to restore the Web Parts that have been removed earlier by the user?

The *PageCatalogPart* control.

120. What is the use of web.config? What is the difference between machine.config and web.config?

ASP.NET configuration files are XML-based text files for application-level settings and are saved with the name web.config. These files are present in multiple directories on an ASP.NET Web application server. The *web.config* file sets the configuration settings to the directory it is placed in and to all the virtual sub folders under it. The settings in sub directories can optionally override or change the settings specified in the base directory.

The difference between the *web.config* and *machine.config* files is given as follows:

- <*WinDir*>\Microsoft.NET\Framework\<version>\config\machine.config provides default configuration settings for the entire machine. ASP.NET configures IIS to prohibit the browser directly from accessing the web.config files to make sure that their values cannot be public. Attempts to access those files cause ASP.NET to return the 403: Access Forbidden error.
- ASP.NET uses these *web.config* configuration files at runtime to compute hierarchically a sole collection of settings for every URL target request. These settings compute only once and cached across further requests. ASP.NET automatically checks for changing file settings and do not validate the cache if any of the configuration changes made.

121. Explain the concept of states in ASP.NET.

State is quite an innovative concept in Web development because it eliminates the drawback of losing state data due to reloading of a Web page. By using states in a Web application, you can preserve the state of the application either at the server or client end. The state of a Web application helps you to store the runtime changes that have been made to the Web application. For example, as already described earlier, a change in the data source of the Web application might be initiated by a user when he/she selects and saves some products in the shopping cart.

If you are not using states, these changes are discarded and are not saved. You may think that the whole concept of storing states is optional. However, under certain circumstances, using states with applications is imperative. For example, it is necessary to store states for Web applications, such as an e-commerce shopping site or an Intranet site of a company, to keep track of the requests of the users for the items they have selected on the shopping site or the days requested for vacation on the Intranet site.

122. Can we validate a DropDownList by *RequiredFieldValidator*?

Yes, we can validate a DropDownList by *RequiredFieldValidator*. To perform this validation, we have to set the *InitialValue* property of *RequiredFieldValidator* control.

123. List the features of the Chart control.

The following are the features of the Chart control:

- Bounds a chart with any data source.
- Simple manipulation of chart data, such as copying, merging, grouping, sorting, searching, and filtering.
- Support many statistical and financial formulas for data analysis.
- Provide advanced chart outlook, such as 2-D, 3-D, lighting, and perspective.
- Support events and customizations.
- Includes interactivity with Microsoft AJAX.
- Supports AJAX Content Delivery Network (CDN).

## Web Services

1. What are Windows services?

Windows services, previously known as NT services, are applications that are installed on the system as system services. In other words, Windows services are applications that run in the background with the Windows operating system. The primary use of Windows services is to reduce the consumption of memory required for performing backend operations. Let's take an example to understand this easily. Suppose you want to perform a variety of functions, such as monitor the performance of your computer or application, check the status of an application, and manage various devices, such as printers.

In such a case, you can use Windows services to reduce memory consumption. In addition, Windows services can run on your system even if you have not logged on to your computer. In addition, these services do not have any user interface.

2. Can you share a process between Windows services?

Yes, you can share a process between Windows services.

3. In .NET, which is the parent class to create all Windows services?

The *ServiceBase* class is the parent class to create all Windows services.

4. Which class in .NET is used to install a Windows service?

The *ServiceInstaller* class, also known as the project installer class, is used to install a Windows service.

5. While installing a Windows service, an *EventLogInstaller* class is automatically created to install the event log related to the particular service. Is it true?

Yes, it is true.

6. Which property of the *ServiceBase* class can be used to specify whether a service can be paused and resumed?

The *CanPauseAndContinue* property provides such type of service.

7. Describe the services that UDDI provides to Web applications.

UDDI provides the following types of services to a Web application:

- XML Schema for business descriptions - Includes information about the service publisher (contact name, address, and so on) and specifications on the Web service
- Web registry of Web services - Includes business, service, and binding information for the Web service

8. Write the file extension for a Web service.

A Web service file extension is *.asm* file. For example, *service1.asmx* is a Web service file.

9. Which method is used to uninstall the Windows services?

The *Uninstall()* method is used to uninstall the Windows services.

10. What is the use of the *mustUnderstand* attribute in the Header element of a SOAP message?

The *mustUnderstand* attribute indicates that a header entry is either required or optional for the recipient to process further.

11. Explain the WSDL.

WSDL is a short form for Web Services Description Language, which is used to describe a Web service in terms of the messages that it creates and accepts. The WSDL document is an XML file that contains the interface schema for the Web service. It identifies the methods that are used during the exchange between a Web service consumer and a Web service provider. The following are the elements contained in the WSDL document:

- **Types** - Describe the variations of data types that are used to exchange messages between the user and the provider.
- **Message** - Describes the actual message or method call.
- **portType** - Describes the set of operations and each related message.
- **binding** - Describes the protocol details.
- **service** - Used to make groups a set of related ports together.

12. What advantage UDDI has over DISCO?

The UDDI directory has an advantage over a DISCO file, as it provides a single location where a client can find the Web services offered by different organizations.

13. How can you ensure that only authorized users access your Web service?

You should use the *<authorization>* element to ensure that only authorized users access your Web service. This element allows or denies access to your Web service according to their role.

14. Describe the *EventLog* class.

The *EventLog* class is used to access the Windows event logs from Windows services. Using *EventLog*, you can also customize Windows event logs that record information about important software and hardware events, such as the events of the .NET controls, keyboard, or other hardware devices.

The *EventLog* class allows you to read or write to event logs, delete logs, and create as well as delete event sources. You can use the *EventLog* class to create event logs while creating an event source. An event source can be used to write to only one event log at a particular time. However, it is possible to associate one event log to multiple sources.

15. How can you prevent your Web services from unauthorized access?

The following are the ways to prevent your Web service from unauthorized access:

- Using encryption and message-based security.
- Using authentication and access controls for the Web service.

16. Explain the concept of Web services in brief.

A Web service may be defined as an independent and self-sustained unit of a software application that is hosted on the Web and implement specific functionalities to execute the business logic. A Web service provides so many functionalities, such as generating pay slips for employees, computing tax, broadcasting weather report, and providing updated news. The Web service allows application to share information or exchange data with other applications across different operating systems and hardware.

Therefore, the work of a Web service is to unite software by exchanging data irrespective of their operating systems, supported hardware, and programming language used in their development. The Web services transfer data in the XML format and use Simple Object Access Protocol (SOAP) to communicate. It is an XML based protocol. The Web services use Web Services Description Language (WSDL) and Universal Description, Discovery, and Integration (UDDI) to describe itself.

17. What advantages have Web services over Component Object Model (COM) and Distributed Component Object Model (DCOM)?

The advantages of Web services over COM and DCOM are as follows:

- Web services are simple to use and can be implemented on varied platforms.
- Web services are loosely coupled; as a result, their interfaces and methods can be extended.
- Web services do not carry any state information with them so that multiple requests can be processed simultaneously.

18. Mention the namespace that you must import in code to build a Web service.

*System.Web.Services* is the elementary namespace, which must be imported to develop code of a Web service.

19. What does the *portType* element of a WSDL document contain?

The *portType* element contains the operations exposed by the Web service, and the messages involved in the communication between the Web service and its consumers.

## 20. What is DISCO?

DISCO is a technology developed by Microsoft to publish and discover Web services. It discovers URLs of all XML Web services located on a Web server and creates a list of these Web services in a file called as a DISCO file.

## 21. Which two methods are used to discover the URL of Web services?

The two methods to discover the URL of Web services are Web service discovery tool (*Disco.exe*) and *UDDI*.

## 22. Which step is necessary to perform before a Web service can be consumed?

It is necessary to build a proxy class by using the *wsdl.exe* utility before a Web service can be consumed.

## 23. Which property of the *WebMethod* attribute allows you to maintain the state of objects across sessions in a Web method?

The *WebMethod* attribute's *EnableSession* property enables you to enable session state for a Web method.

## 24. Write the names of public properties defined in the *WebService* class.

There are many properties defined in the *WebServices* class:

- *Application* - Obtains the application object for the current HTTP request
- *Context* - Obtains the *HttpContext* object for the current request, which encapsulates all HTTP-specific context used by the HTTP server to process Web requests
- *Server* - Obtains the *HttpServerUtility* object for the current request
- *Session* - Obtains the *HttpSessionState* object for the current request
- *SoapVersion* - Obtains the version of the SOAP protocol used to make the SOAP request to a Web service
- *User* - Obtains the Server User Object. This property can be used to authenticate whether a user is authorized to execute the request.
- 25. What do you understand by SOAP encoding?  
The Serialization of the types, such as integers and strings, inside a SOAP message is called encoding. The SOAP objects use XML elements and attributes to serialized data, for example, *encodingStyle* is an attribute of the *Envelop* element, which is used to specify the encoding rules for a SOAP object.
- 26. What is the use of a *.disco* file?  
A client application uses a *.disco* file to locate or discover the documents that contain the description of a Web service. The *.disco* file contains links to other resources, which describe essential features, such as capabilities of a Web service. The links contained in a *.disco* file can refer to other discovery documents or XSD schemas. The description about the services and capabilities of a Web service is written in Web services Description Language (WSDL). A *.disco* file can also contain the information about other XML Web services that reside on the same or a different Web server.
- 27. Mention the name of the directory where it is necessary to locate the proxy file to use a Web service.  
The proxy file must be stored in the */bin* directory. This directory is situated under the root directory of the application.
- 28. Does a Web service have state?  
The Web services do not have any technique to maintain state. However, it can access ASP.NET objects, such as application and session if they extend from the *WebService* base class.

- 29. Which namespace must be included in a code that enables a XML Web service to write events in an event log file?
- The *System.Diagnostics* is the namespace, which must be included in a code to enable a Web service for writing events in an event log file.
- 30. Which tool installs the DLL on your local computer and installs the Windows service in a transactional manner?
- The *Installutil.exe* tool.

# Windows Workflow Foundation

## 1. What is Windows Workflow Foundation (WF)?

Windows Workflow Foundation (WF) is a technology that was first introduced in .NET Framework 3.0. WF consists of a programming model, a workflow runtime engine, workflow designer, a rules engine, and tools to quickly build workflow-based applications on Windows. WF facilitates the separation between the business process code and the actual implementation code.

## 2. What are the components of WF 4.0?

WF consists of several components that work together to create desired workflow. The components of WF are given as follows:

- Workflows and activities
- Base activity library
- Custom activities □ Host process
- Activity data mode!
- Runtime engine □ Runtime services

## 3. What is a workflow?

A workflow is a collection of actions (called activities) that presents the model of a process. A workflow provides a way to describe the order of the execution of a long running process and relationships between different activities. Multiple instances of a workflow may be active at any given moment in an application.

## 4. What are the different types of workflow in WF?

In WF 4.0, the following two types of workflows are used:

- **Flowchart workflows** - Helps you to create workflows using the common flowchart elements. In WF, the Flowchart activity is generally used to implement a non-sequential workflow, and occasionally it implements sequential workflows in case the *FlowDecision* nodes are not used. The Flowchart activity contains a collection of flow nodes, which inherit from the *FlowNode* class. The following types of nodes or elements can be a part of a flowchart:
  - **FlowStep** - Executes activities of a flowchart in a sequence.
  - **FlowDecision** - Shows the execution on the basis of a Boolean condition. It is similar to the If construct.

- **FlowSwitch** - Shows the execution on the basis of an exclusive switch. It is similar to the Switch construct.
- **Procedural workflows** - Helps you to create workflows using basic and sequential execution standards. In WF, procedural workflows use flow control constructs, such as While, Switch, ForEach, and If, to execute activities. These flow control constructs are similar to those found in procedural languages. Procedural workflows can also contain other flow control activities, such as Flowchart and Sequence.

## 5. What are the four workflow principles?

According to Microsoft, there are four major principles that explain the behavior and working of workflows. Developers can use these principles while developing workflow-based applications. The four principles are as follows:

- Workflows help in coordinating the work performed by people and software.
- Workflows are long-running and stateful.
- Workflows are based on extensible models.
- Workflows remain transparent and dynamic throughout their lifecycle.

## 6. What is a base activity library?

The base activity library is a collection of activities used to create workflows.

## 7. What are XOML files?

WF provides developers a declarative way to create workflows by using extensible Application Markup Language (XAML). The files used to store such workflow markups are known as extensible Object Markup Language (XOML) files.

## 8. Can you integrate workflow applications with some other application, such as Windows Forms applications and Web applications?

Yes.

## 9. What is the difference between a system workflow and a human workflow?

A system workflow is a workflow that is developed to automate interactions among applications. Such workflow is usually static and predictable. On the other hand, a human workflow is a workflow that coordinates interactions of applications with people. As human workflows involve both software and people, they need to be more flexible than system workflows.

## 10. How can you implement a condition in a workflow?

You can implement a condition by using either of the following ways:

- **By creating a rule condition** - Specifies that you can implement conditions either directly in code or by using a tool, called the **Rule Condition Editor**. Rule conditions are stored in a separate Extensible Markup Language (XML) file. When a rule condition occurs in a workflow, the expression in a condition is evaluated and a Boolean value is returned.

- **By creating a code condition** - Refers to defining a condition directly in code. A code condition can be created by writing a method in the code. The method contains code for the condition and returns a **Boolean** value.

11. What is the function of the Rule Condition Editor dialog box in WF?

You can create and modify declarative rule conditions by using the **Rule Condition Editor** dialog box.

12. Explain the concept of Bookmarks in WF 4.0.

In WF 4.0, a bookmark is a mechanism that enables an activity to wait for an input without interrupting a workflow thread. When an activity signals that it is waiting for the input from a user, it can create a bookmark. A bookmark is created by using the *BookmarkOptions* class. This class provides the following bookmark types:

- **None** - Represents a bookmark that can be resumed exactly once. This is the default bookmark type.
- **MultipleResume** - Refers to a bookmark that you can resume multiple times.
- **NonBlocking** - Refers to a bookmark that does not block the functioning of the workflow.

13. What is a host process?

A host process is an executable program that hosts a workflow. It may be a Windows Forms application, a Web application, or a Web service application. You can use Web services in the host process or remoting to enable other applications to communicate with the workflow.

14. What are runtime services?

Runtime services consist of predefined and user-defined classes that are available to the workflow runtime engine during execution to customize the behavior of workflow runtime. Some of the runtime services available in WF 4.0 are as follows:

- **Scheduling services** - Enable creating and scheduling new workflow instances for execution.
- **Work batch services** - Enable behavior to maintain a stable and consistent execution environment.
- **Persistence services** - Enable you to save or restore the state of a running workflow for later use. You can restart the saved workflow anytime in future, even after weeks of inactivity.
- **Tracking services** - Enable you to monitor the state of the workflows. This is particularly useful when you have multiple workflows active at the same time (for example, in a shopping cart application).
- **Timer service** - Manages the timing required by the DelayActivity activity.
- **Transactions services** - Provide the transaction support needed for data integrity.
- **Data exchange services** - Manage custom communication services.
- **Threading services** - Administer physical threads used to execute workflow instances.

15. Which component of WF architecture is responsible to execute each workflow instance?

WF runtime engine is responsible to execute each workflow instance.

16. Which option do you need to select for the Condition property, if you want to create a code condition?

You can select the **Code Condition** option to create a code condition.

17. Explain Custom Activities.

In addition to the standard activities available within the base activity library, you can create new activities to meet specific business needs. Creating custom activities may be required to support a particular application that you want to integrate with WF. Custom activities are generally created through attributes and inheritance. You can create two types of custom activities, base and composite. You can create basic custom activity by inheriting the Activity class and custom composite activity by inheriting the *compositeActivity* class or a derived type.

#### 18. What is a dynamic update?

Dynamic update is a powerful feature of WF that describes the ability of WF to modify the execution path of a running workflow. This feature is used in circumstances that call for extraneous behavior that was not modeled by the original workflow developer.

#### 19. What is a runtime engine?

A runtime engine of WF provides the basic functionality to execute and manage the workflow lifetime. It runs within the host process and is responsible for executing each workflow instance. A host process can interact with multiple runtime engines at a time, where each engine executes multiple workflow instances. The host process interacts with runtime engine by using any of the following classes:

- **WorkflowInvoker** - Invokes a workflow as its method.
- **WorkflowApplication** - Controls the execution of a single workflow instance explicitly.
- **WorkflowServiceHost** - Hosts the workflows and allows sending and receiving messages among various instances of workflows.

#### 20. What is an activity?

In Windows Workflow Foundation 4.0, an activity is the basic unit of composition and execution of a workflow. Each activity in a workflow consists of its own variables and arguments and is a subclass of the Activity class. These activities provide facilities for flow control, exception handling, data persistency, loading or unloading workflows, tracking, and transaction flow.

#### 21. Explain why workflows are based on Extensible Models.

Workflows serve the purpose of automating business processes. Now, since each type of business has a wide range of problems; therefore, a workflow platform needs to be extensible. WF provides you with a set of base activities, such as IfElse, Code, and Delay, to build a workflow. You can extend these activities or build new activities to meet your requirements. Besides activities, you can also extend services, such as tracking, management, and persistence, provided by the runtime engine.

#### 22. Write the steps that are involved in the sequential workflow, by default.

By default, a sequential workflow has only two steps:

- **Start**
- **Finish**

# ASP.NET AJAX

## 1. What is ASP.NET AJAX?

ASP.NET AJAX, mostly called AJAX, is a set of extensions of ASP.NET. It is developed by Microsoft to implement AJAX functionalities in Web applications. ASP.NET AJAX provides a set of components that enable the developers to develop applications that can update only a specified portion of data without refreshing the entire page. The ASP.NET AJAX works with the AJAX Library that uses object-oriented programming (OOP) to develop rich Web applications that communicate with the server using asynchronous postback.

## 2. What is the difference between synchronous postback and asynchronous postback?

The difference between synchronous and asynchronous postback is as follows:

- Asynchronous postback renders only the required part of the page; whereas, synchronous postback renders the entire page for any postback.
- Asynchronous postback executes only one postback at a time, that is, if you have two buttons doing asynchronous postback, the actions will be performed one by one; whereas, synchronous postback executes all the actions at once.
- Asynchronous postback only modifies the update panel that raises the postback; whereas, synchronous postback modifies the entire page.

## 3. What technologies are being used in AJAX?

AJAX uses four technologies, which are as follows:

- JavaScript
- XMLHttpRequest
- Document Object Model (DOM)
- Extensible HTML (XHTML) and Cascading Style Sheets (CSS)

## 4. Why do we use the *XMLHttpRequest* object in AJAX?

The *XMLHttpRequest* object is used by JavaScript to transfer XML and other text data between client and server. The *XMLHttpRequest* object allows a client-side script to perform an HTTP request. AJAX applications use the *XMLHttpRequest* object so that the browser can communicate to the server without requiring a postback of the entire page. In earlier versions of Internet Explorer, MSXML ActiveX component is liable to provide this functionality; whereas, Internet Explorer 7 and other browsers, such as Mozilla Firefox, *XMLHttpRequest* is not liable to.

## 5. How can we get the state of the requested process?

*XMLHttpRequest* get the current state of the request operation by using the *readyState* property. This property checks the state of the object to determine if any action should be taken. The *readyState* property uses numeric values to represent the state.

## 6. What are the different controls of ASP.NET AJAX?

ASP.NET AJAX includes the following controls:

- *ScriptManager*
- *ScriptManagerProxy*
- *UpdatePanel*
- *UpdateProgress*
- *Timer*

## 7. What are the new features included in the Microsoft AJAX library?

The Microsoft AJAX library is a client-based JavaScript library that is compatible with all modern browsers and offers a lot of functionality as compared to JavaScript. This library is released with new features and fully supports ASP.NET 4.0'. The new features included in the Microsoft AJAX library are as follows:

- **Imperative syntax** - Supports simple imperative syntax that is used to create and manage controls.
- **Script loader** - Retrieves all scripts that are needed by one or more client component or control automatically and executes the scripts in the order in which they are received.
- **Client data access** - Supports to access client data and display by client data control and client template.
- **Client datacontext** - Supports read and write permission to data from a database.
- **The AdoNetDataContext class** - Enables you to easily interact with an ADO.NET Data Services service.
- **jQuery integration** - Helps to access the elements in your Web pages, work with client-side events, enable visual effects, and make it easier to use AJAX in your applications.

## 8. Explain the Step property of the *NumericUpDownExtender* control.

The *Step* property sets the steps for numeric increment and decrement. The default value is *1*.

## 9. What are the new features of ASP.NET AJAX 4.0?

ASP.NET 4.0 AJAX includes several new features that provide more functionality to a user. These features are as follows:

- Support for live data binding.
- Support for client-side template rendering.
- Support for declarative instantiation of client components.
- Support for using the observer pattern on JavaScript objects and arrays.
- Support for invoking ADO.NET data services and data contexts.  Support for the *DataView* control.

## 10. Why do we use the *UpdateProgress* control in AJAX?

The *UpdateProgress* control is somewhat related to the *UpdatePanel* control. The *UpdateProgress* control enables you to design a user-friendly interface when a Web page consists of a number of *UpdatePanel* controls for partial-page rendering.

The *UpdateProgress* control makes you aware of the status information about the partial-page updates in the *UpdatePanel* control.

## 11. What is JSON?

JSON is an abbreviation of JavaScript Object Notation. It is a safe and reliable data interchange format in JavaScript, which is easy to understand not only for the users but also for the machines.

## 12. How many validation controls are available in ASP.NET AJAX 4.0?

The following validation controls are available in ASP.NET AJAX 4.0:

- *FilteredTextBoxExtender* - Enables you to apply filtering to a text box.
- *MaskedEditExtender* and *MaskedEditValidator* - Restricts a user to enter only a certain pattern of characters in the *TextBox* by applying a mask to the input.
- *ValidatorCalloutExtender* - Attaches to the ASP.NET validators so that the error messages are not displayed as a simple text but as a balloon-style ToolTip.
- *NoBot* - Prevents the spam/bot from filling the input forms automatically and uses the Completely Automated Public Turing test to tell Computers and Humans Apart (CAPTCHA), which is a type of challenge-response test to ensure that the response is not generated by the computer.
- *PasswordStrengthExtender* - Measures the strength of the password text entered within the text box by validating with the different strength specified parameters

## 13. Explain the limitations of AJAX.

The following are the limitations of AJAX:

- It is difficult to bookmark a particular state of the application.
- Function provided in the code-behind file do not work because the dynamic pages cannot register themselves on browsers history engine automatically.
- If JavaScript is disabled, then AJAX is not able to perform any work.
- Response time may be slow because different controls of a page are loaded at different time.

## 14. What are the differences between AJAX and JavaScript?

The differences between AJAX and JavaScript are given as follows:

- AJAX sends request to the server and does not wait for the response. It performs other operations on the page during that time. JavaScript make a request to the server and waits for response.
- AJAX does not require the page to refresh for downloading the whole page while JavaScript manages and controls a Web page after being downloaded.
- AJAX minimizes the overload on the server since the script needs to request once while JavaScript posts a request that updates the script every time.

## 15. Explain the *UpdatePanel* control.

The *UpdatePanel* control specifies the portions of a Web page that can be updated together. As the *UpdatePanel* control refreshes only a selected part of the Web page instead of refreshing the entire page with a postback, you get more flexibility to create rich and client-centric Web applications.

Refreshing a selected part of the Web page is referred as partial-page update. You can add one or more *UpdatePanel* control in the Web page, which automatically participates in partial-page update without custom client script. The *UpdatePanel* control uses the *UpdatePanel* class to support the partial-page rendering.

## 16. What does the *DynamicPopulateExtender* control do?

The *DynamicPopulateExtender* control populates the contents of a control dynamically. It enables you to send an asynchronous call to the server that dynamically populates the contents of a control. The *DynamicPopulateExtender* control replaces the contents of a control with the result of a Web service or page method call.

17. What does the *MinimumPrefixLength* property of the *AutoCompleteExtender* control do?

The *MinimumPrefixLength* property sets the minimum number of characters that must be entered before getting suggestions from the Web service.

18. What is the importance of client-side libraries?

Client-side libraries contain built-in code to make asynchronous calls over XMLHTTP. These libraries automatically handle browser compatibility issues. These libraries are based on a programming model similar to ASP.NET.

19. Can we call server-side code from JavaScript?

Yes, page methods and Web services are the two techniques to call the server-side code from JavaScript.

20. What are the components of the ASP.NET AJAX architecture?

You can divide the ASP.NET AJAX architecture into two components - AJAX client architecture and AJAX server architecture.

21. Describe AJAX Control Extender Toolkit.

AJAX Control Toolkit is a set of extenders that are used to extend the functionalities of the ASP.NET controls. The extenders use a block of JavaScript code to add new and enhanced capabilities to the ASP.NET controls. AJAX Control Toolkit is a free download available on the Microsoft site. You need to install this toolkit on your system before using extenders.

22. Explain the need of the *Timer* control in AJAX.

The *Timer* control is used with an *UpdatePanel* control to allow partial-page updates at a specified interval. It is mostly used when a periodically partial-page update for one or more *UpdatePanel* controls is required without refreshing the entire page.

The *Timer* control is a server control that sets a JavaScript component in the Web page. The *interval* property of the *Timer* control specifies time in milliseconds. Similar to the *UpdatePanel* control, the *Timer* control also requires an instance of the *ScriptManager* control in the Web page.

When the *Timer* control initiates a postback, the *Tick* event is raised on the server for which you can provide an event handler to perform the actions when the page is submitted to the server. The *Tick* event occurs when the time specified in the *interval* property has elapsed and the page is posted on the server. You can add one or more Timer controls on a Web page. Usually the entire page requires only a single *Timer* control; however, you can use multiple *Timer* controls, if the *UpdatePanel* controls are being updated at different intervals.

23. List the different states of *XMLHttpRequest* with their description.

The different states of the *XMLHttpRequest* object are as follows:

- **Uninitialized** - Refers to the state when the object has not been initialized.
- **Open** - Refers to the state when the object has been created; however, the send function has not been invoked.
- **Sent** -Refers to the state when the send function is invoked; however, the status and headers are not available.
- **Receiving** - Refers to the state when the process is receiving data.
- **Loaded** - Refers to the state when the procedure is completed and the entire data is available.

24. Can we nest the *UpdatePanel* controls?

Yes, we can nest the *UpdatePanel* control.

25. What is the role of the *ScriptManagerProxy* control?

A Web page cannot contain more than one *ScriptManager* control. You can use the *ScriptManagerProxy* control to add scripts to other pages; however to perform such an operation, you need to work with a master page that contains the *ScriptManager* control. If you have only few pages that need to register to a script or a Web service, then you should remove these pages from the *ScriptManager* control and add them as individual pages by using the *ScriptManagerProxy* control. If you include the scripts on the master page by the *ScriptManager* control, then the items get downloaded on each page that extends the master page, even if they are not necessary.

26. What is the work of the *ConformOnFormSubmit* property in the *ConfirmButtonExtender* control?

The *ConformOnFormSubmit* property determines whether or not the confirm dialog box should wait when the form is submitted for display.

27. What is the syntax to create AJAX objects?

AJAX uses the following syntax to create an object:

```
var myobject = new AjaxObject("page path");
```

The page path is the URL of the Web page containing the object that you want to call. The URL must be of the same domain as the Web page.

28. Is there any difference between HTML and XHTML?

Extensible HTML (XHTML) is a markup language that provides the mixture expressions of HTML and XML. XHTML is a flexible markup language that enables automated processing by standard XML tools, which was difficult in HTML.

29. What are the requirements to run ASP.NET AJAX applications on a server?

AJAX is a built-in functionality of .NET Framework 4.0. Therefore, you can run an AJAX application by just installing Microsoft Visual Studio 2010. However, to use extenders in your applications, you are required to install AJAX Control Toolkit and copy the *AjaxControlToolkit.dll* file to the Bin directory of your application.

30. Describe the situations in which AJAX should not be used.

You should not use AJAX if:

- You want the page to show in a search engine, such as Google, because WebCrawler does not execute JavaScript code.
- The browser does not support JavaScript. □ You want to create a secure application.

31. What is the use of the *ScriptManager* control in AJAX?

The *ScriptManager* control is a core control that performs a key role in implementing the ASP.NET AJAX functionality. It helps to use JavaScript for the Microsoft AJAX Library. It should be noted that AJAX Library on a Web page can only be used if the Web page contains the *ScriptManager* control. This control makes use of the *ScriptManager* class to maintain the AJAX script libraries and script files. It allows for partial page rendering, Web service calls, and use of ASP.NET AJAX Client Library by rendering the AJAX Library scripts to the browser.

32. How can you find out that an AJAX request has been completed?

You can find out that an AJAX request has been completed by using the *readyState* property. If the value of this property equals to four, it means that the request has been completed and the data is available.

33. Is it possible to use multiple *ScriptManager* controls on a Web page?

No, it is not possible.

34. What are the new controls introduced in ASP.NET AJAX Control Toolkit?

The following controls are introduced with the new version of AJAX Control Toolkit:

- *SeaDragonExtender* control - Refers to the control that is used to deeply zoom the images. You can zoom in or out the image or the particular portion of the image by using the mouse. You can also create a menu over the Seadragon control. This control is helpful when you want to analyze the image closely.
- *AsyncFileUploadExtender* control - Refers to the control that provides the facility to upload and save the files on the server asynchronously. You can check the outcome either at the server or client side.

35. Briefly describe ASP.NET AJAX Framework.

ASP.NET AJAX Framework provides a platform where developers can develop such type of applications that use the AJAX concept. The AJAX provides the collection of technologies to create dynamic pages at the client side. The JavaScript requests are responsible to retrieve data from the server or send data to the server. Even some processing at server also requires handling requests, such as searching and storing of data. These tasks are achieved more easily using the AJAX Framework.

AJAX Framework is completely devoted to process requests. The objective of the AJAX engine is to reduce the delays that the user notices while performing a postback to the server. AJAX Framework allows JavaScript functions to send requests to server at the client side. On the other side, it allows the server to process the client's request, searches data, and responds the result to the browser.

36. Is the *AjaxControlToolkit.dll* file installed in the Global Assembly Cache?

No, you have to copy this file to the *Bin* folder of your application.

### 37. What are the different ways to pass parameters to the server?

We can pass parameters to the server using either the GET or POST method. The following code snippets show the example of both the methods:

- Get: `XmlHttpRequest.Open("GET", "file1.txt", true);` □ Post: `XmlHttpRequest.Open("POST", "file2.txt", true);`

### 38. What are the extender controls?

The extender controls uses a block of JavaScript code to add new and enhanced capabilities to ASP.NET. The developers can use a set of sample extender controls through a separate download - AJAX Control Toolkit (ACT).

### 39. Describe the *AccordionExtender* control.

The *AccordionExtender* control is similar to the *CollapsiblePanelExtender* control. It allows you to group multiple collapsible panels in a single control. At the same time, it also manages the collapsed and expanded state of each panel; therefore, expanding one panel at a time. In other words, the *AccordionExtender* control does not support expanding two or more panels simultaneously. Instead, the header templates of all the panels are always visible so that you can click on any of them to display the hidden contents. By default, the *AccordionExtender* control opens with one panel as expanded.

## Application Deployment

### 1. What is deployment?

Deployment refers to the distribution of an application among various end-users. It is a process that makes software available for use by just installing it on the client computer.

### 2. List different ways of deployment that are supported by .NET Framework 4.0.

- Windows Installer
- ClickOnce □ XCOPY
- Copy Web Site □ Publish Web Site tool

### 3. What is XCOPY?

XCOPY enables you to deploy an application by copying the application directory and all subdirectories to the target computer and then executing the application on the client. The application starts executing on the target computer by using its assembly file, which is a self-description file that contains all the information about the application. The XCOPY deployment does not make any impact on the target system while configuring the components and registering entries, and is therefore known as zero-impact installation.

### 4. Does XCOPY copy the hidden and system files?

No. By default, **XCOPY** excludes the hidden and system files. However, you can include the hidden and system files using the **/h** switch.

#### 5. Why do you use Windows Installer?

The Windows Installer deployment technique allows you to deploy Windows-based and Web applications by creating a Windows Installer Package. The installer package has an extension of **.msi** and it contains the application, any dependent files, registry entries, and the rest. The installer package can then be distributed to various end-users by simply copying it on the target computers.

The end-users can then run the installer package to install the application anywhere in their computers. The installation takes place using the installation wizard; therefore, the users can easily install the application on their system. Once your application is installed on the target computer, end-users can open the application from the installed location.

#### 6. Can you deploy an ASP.NET Web application project using the Copy Web Site option?

No. The Copy Web Site option can only be used to deploy the Web sites.

#### 7. How can you determine whether you should deploy the application or publish the application?

If you want to host the application on a shared hosting environment, you should use publishing; whereas, if you want to create a Web application that is downloaded from a Web site, you should deploy the application to create a **setup.exe** file.

#### 8. How can you deploy an ASP.NET Web application?

You can deploy an ASP.NET Web application using either the Windows Installer deployment or ClickOnce deployment technique.

#### 9. What is Application Cache?

When a ClickOnce application is installed locally or hosted online, it is stored in the ClickOnce application cache of the client computer. The ClickOnce application cache is a set of hidden directories placed under the Local Settings directory of the current user's Documents and Settings folder. The application cache contains all the application files, assemblies, configuration files, application and user settings, and data directory. In case the ClickOnce applications are hosted online, the size of the ClickOnce application cache gets limited to a specified amount; whereas, the installed applications do not restrict to the cache size limitation. The cache storage quota is responsible to determine the size of the application cache.

#### 10. What are the enhancements in ClickOnce deployment in .NET 4.0?

In .NET 4.0, the ClickOnce deployment technology is enhanced with the following features:

- **Support for .NET Framework 4.0 version** - Creates applications by using Visual Studio 2010 that can target .NET Framework 4.0 and its new features.
- **Support for multiple versions of the .NET Framework** - Creates applications that are compatible with multiple versions of the .NET Framework. You can specify the target framework for an application as .NET Framework 3.5 or .NET Framework 4 while creating the application.

- **Enhanced logging feature** - Stores logging information that includes various parameters passed to the ClickOnce runtime, the browser settings, and ClickOnce security options.
- **Custom Installer and User Interface** - Allows you to create a custom graphical user interface for installing and updating the .exe applications. In addition, the custom installer can have custom dialog boxes for security and maintenance operations.

11. What is the difference between deploying and publishing an application?

In deployment, you can create a new setup and deployment project. In this project, you can add the project output and create a setup.exe file. After creating an executable file, you need to login into the server and execute the setup.exe file to install the application. On the other hand, in publishing, you need to right-click the application in the Solution Explorer and select Publish to publish the application. Then, you specify a location where the application is to be published. The users can then install the application from the location where you have published it and run locally even when the computer is offline.

12. What do you mean by Merge Module projects?

Merge Module projects are used to package the files and components that are shared between multiple applications. The Merge Module project file contains the *.msm* extension. The *.msm* file includes files, resources, registry entries, and setup logic. This file is merged with a Windows installer (*.msi*) file to correctly install the shared files. If a single merge module is used by more than one application, then you need to add that merge module in the package only once.

13. What is the need of Copy Web Site?

Copy Web Site is a tool used to deploy the Web site by copying its content files. The Copy Web Site tool also checks whether or not the latest version of a file is present at the destination. If files of the most recent version are found at the destination, then the Copy Web Site tool does not superimpose the older version of files. The Copy Web Site deployment tool consists of the following main entities:

- **Project source** - Specifies the source directory, which contains the contents and references of a Web site at development time. In simple words, you can say that the project source specifies the site that you currently have opened in Visual Studio 2010. The Copy Web Site tool picks all the files for deployment from this location.
- **Project destination** - Specifies the destination folder where you have to deploy the application. This destination directory can be placed on remote computers or servers, which allow you to copy the Web site contents using the Front Page Server Extensions, FTP, or HTTP protocol implementations for content transfer.
- **Synchronizing two Web sites** - Synchronizes two Web sites by copying each other's files. Synchronization checks the files on the local and remote sites and ensures that all files on both sites are up to date.

14. What is the use of the Copy Project command?

The Copy Project command copies only the files required to run the project and pastes it on the target server. It does not deploy the complete project; therefore, IIS directory settings are not automatically configured.

15. Can Windows applications and the Web applications be deployed using the same template of Setup and Deployment project?

No. the Windows applications use the Setup Project template; whereas, the Web applications use the Web Setup Project template. After the deployment, their installation takes place in the similar way.

## 16. Explain the .NET Framework deployment features.

In a general context, .NET Framework includes the following deployment features:

- **No-impact applications** - Provides application isolation and removes DLL conflicts.
- **Private components by default** - Enables the components to deploy to the application directory and to be visible only to the containing application.
- **Side-by-side versioning** - Enables you to select one of the multiple versions.
- **XCOPY deployment and replication** - Refers to the self-descriptive application that is deployed without the need to store registry entries.
- **On-the-fly updates** - Allows for the updating of the DLLs of the remote computers.
- **Integration with the Microsoft Windows Installer** - Makes the features, such as advertising, publishing, repairing, and install-on-demand available during deployment of an application.
- **Enterprise deployment** - Eases the task of software distribution.
- **Downloading and caching** - Specifies that the downloads are kept smaller and the components are isolated for application use.
- **Partially trusted code** - Enables code-based identification.

# .NET Assemblies

## 1. What is an assembly?

Assemblies are the basic building blocks required for any application to function in the .NET realm. They are partially compiled code libraries that form the fundamental unit of deployment, versioning, activation scoping, reuse, and security. Typically, assemblies provide a collection of types and resources that work together to form a logical unit of functionality. They are the smallest deployable units of code in .NET. Compared to the executable files assemblies are far more reliable, more secure, and easy to manage. An assembly contains a lot more than the Microsoft Intermediate Language (MSIL) code that is compiled and run by the Common Language Runtime (CLR). In other words, you can say that an assembly is a set of one or more modules and classes compiled in MSIL, and metadata that describes the assembly itself, as well as the functionalities of the assembly classes.

## 2. Name the different components of an assembly.

An assembly is a logical unit that is made up of the following four different types of components:

- Assembly manifest
- MSIL source code
- Type metadata
- Resources

## 3. What are the different types of assemblies? Explain them in detail.

The following are the two types of assemblies:

- **Private Assembly** - Refers to the assembly that is used by a single application. Private assemblies are kept in a local folder in which the client application has been installed.
- **Public or Shared Assembly** - Refers to the assembly that is allowed to be shared by multiple applications. A shared assembly must reside in Global Assembly Cache (GAC) with a strong name assigned to it.

For example, imagine that you have created a DLL containing information about your business logic. This DLL can be used by your client application. In order to run the client application, the DLL must be included in the same folder in which the client application has been installed. This makes the assembly private to your application. Now suppose that the DLL needs to be reused in different applications. Therefore, instead of copying the DLL in every client application folder, it can be placed in the global assembly cache using the GAC tool. These assemblies are called shared assemblies.

4. Can one DLL file contain the compiled code of more than one .NET language?

No, a DLL file can contain the compiled code of only one programming language.

5. What is the maximum number of classes that can be contained in a DLL file?

There is no limit to the maximum number of classes that can be contained in a DLL file.

6. What is a satellite assembly?

Satellite assemblies are assemblies that are used to deploy language and culture specific resources for an application. In an application, a separate product ID is assigned to each language and a satellite assembly is installed in a language specific sub-directory.

7. Is versioning applicable to private assemblies?

No, versioning is not applicable to private assemblies as these assemblies reside in their individual folders. Versioning can be applied to GAC only.

8. What is metadata?

An assembly metadata describes every data type and member defined in the code. It stores the description of an assembly, such as name, version, culture, public key of an assembly along with the types exported, other assemblies dependent on this assembly, and security permissions needed to run the application. In addition, it stores the description of types, such as the name, visibility, base class, interfaces implemented, and members, such as methods, fields, properties, events, and nested types.

It also stores attributes. Metadata is stored in binary format. Therefore, metadata of an assembly is sharable among applications that execute on various platforms. It can also be exported to other applications to give information about the services and various features of an application.

9. What is Assembly Manifest?

Assemblies maintain all their information in a special unit called the manifest. Every assembly has a manifest.

The followings are the contents of an Assembly Manifest:

- **Assembly name** - Represents a text string that specifies the assembly's name.
- **Version number** - Represents a major and minor version number, as well as a revision and build number. The CL.R makes use of these numbers to enforce version policy.
- **Culture** - Represents information of the culture or language, which the assembly supports. An assembly is a container of only resources containing culture- or language-specific information.
- **Strong name information** - Represents the public key from the publisher, if a strong name is assigned to an assembly.
- **List of all files in the assembly** - Represents a hash of each file contained in the assembly and a file name.
- **Type reference information** - Represents the information used at the runtime to map a type reference to the file that contains its declaration and implementation.
- **Information on referenced assemblies** - Represents a list of other assemblies that are statically referenced by the assembly. Each reference includes the names of dependent assemblies, assembly metadata (version, culture, operating system, and so on), and public key, if the assembly is strong named.

10. What is the value of the Copy Local property when you add an assembly in the GAC?

False.

11. What is Native Image Generator?

The Native Image Generator (*Ngen.exe*) is a tool that creates a native image from an assembly and stores that image to native image cache on the computer. Whenever, an assembly is run, this native image is automatically used to compile the original assembly. In this way, this tool improves the performance of the managed application by loading and executing an assembly faster.

Note that native images are files that consist of compiled processor-specific machine code. The *Ngen.exe* tool installs these files on to the local computer.

12. Name the MSIL Disassembler utility that parses any .NET Framework assembly and shows the information in human readable format

The *Ildasm.exe* utility.

13. What is the significance of the Strong Name tool?

The Strong Name utility (*sn.exe*) helps in creating unique public-private key pair files that are called strong name files and signing assemblies with them. It also allows key management, signature generation, and signature verification.

14. How can different versions of private assemblies be used in the same application without a re-build?

You can use different versions of private assemblies in the same application without a re-build by specifying the assembly version in the *AssemblyInfo.cs* or *AssemblyInfo.vb* file.

15. What is Global Assembly Cache (GAC) ?

GAC is a central repository (cache) in a system in which assemblies are registered to share among various applications that execute on local or remote machines. .NET Framework provides the GAC tool (*gacutil.exe* utility), which is used to view and change the content of GAC of a system. Adding new assemblies to GAC and removing assemblies from GAC are some of the tasks that can be performed by using the *gacutil.exe* utility. GAC can contain multiple versions of the same .NET assembly. CLR checks GAC for a requested assembly before using information of configuration files.

The *gacutil.exe /i <assembly name>* - is the command that is used to install an assembly in GAC. Users use the Command Prompt of Visual Studio to install an assembly in GAC by using this command.

You can see all the assemblies installed in the GAC using the GAC viewer, which is located at the *<WinDrive>:<WinDir>\assembly directory*, where *<WinDir>* is windows in Windows XP or windows in Windows Vista or WinNT in Windows 2000. Apart from the list of assemblies, the assembly viewer also shows relevant information, such as the global assembly name, version, culture, and the public key token.

16. Where is the information regarding the version of the assembly stored?

Information for the version of assembly is stored inside the assembly manifest.

17. Discuss the concept of strong names.

Whenever, an assembly is deployed in GAC to make it shared, a strong name needs to be assigned to it for its unique identification. A strong name contains an assembly's complete identity - the assembly name, version number, and culture information of an assembly. A public key and a digital signature, generated over the assembly, are also contained in a strong name. A strong name makes an assembly identical in GAC.

18. What is the difference between .EXE and .DLL files?

## EXE

1. It is an **executable file**, which can be run independently.
2. EXE is an out-process component, which means that it runs in a separate process.
3. It cannot be reused in an application.
4. It has a main function.

## DLL

1. It is **Dynamic Link Library** that is used as a part of EXE or other DLLs. It cannot be run independently.
2. It runs in the application process memory, so it is called as in-process component.
3. It can be reused in an application.
4. It does not have a main function.

19. Which utility allows you to reference an assembly in an application?

An assembly can be referenced by using the *gacutil.exe* utility with the */r* option. The */r* option requires a reference type, a reference ID, and a description.

20. The AssemblyInfo.cs file stores the assembly configuration information and other information, such as the assembly name, version, company name, and trademark information. (True/False).

True.

## Cloud Computing

### 1. What is cloud computing?

The **cloud computing** is the computing which is completely based on the Internet. It can also be defined as the next stage in the evolution of the Internet. The cloud computing uses the cloud (Internet) that provides the way to deliver the services whenever and wherever the user of the cloud needs. Companies use the cloud computing to fulfill the needs of their customers, partners, and providers. The cloud computing includes vendors, partners, and business leaders as the three major contributors. The vendors are the one who provide applications and their related technology, infrastructure, hardware, and integration.

The partners are those who offer cloud services demand and provide support service to the customers. The business leaders are the ones who use or evaluate the cloud service provided by the partners. The cloud computing enables the companies to treat their resources as a pool and not as independent resources.

### 2. What is a cloud?

A **cloud** is a combination of hardware, networks, storage, services, and interfaces that helps in delivering computing as a service. It has broadly three users which are end user, business management user, and cloud service provider. The end user is the one who uses the services provided by the cloud. The business management user in the cloud takes the responsibility of the data and the services provided by the cloud. The cloud service provider is the one who takes care or is responsible for the maintenance of the IT assets of the cloud. The cloud acts as a common center for its users to fulfill their computing needs.

### 3. What are the basic characteristics of cloud computing?

The four basic characteristics of cloud computing are given as follows:

- Elasticity and scalability.
- Self-service provisioning and automatic de-provisioning.
- Standardized interfaces.
- Billing self-service based usage model.

### 4. What is a Cloud Service?

A cloud service is a service that is used to build cloud applications. This service provides the facility of using the cloud application without installing it on the computer. It reduces the maintenance and support of the application as compared to those applications that are not developed using the cloud service. The different kinds of users can use the application from the cloud service, which may be public or private application.

### 5. What are main features of cloud services?

Some important features of the cloud service are given as follows:

- Accessing and managing the commercial software.
- Centralizing the activities of management of software in the Web environment.
- Developing applications that are capable of managing several clients.
- Centralizing the updating feature of software that eliminates the need of downloading the upgrades.

## 6. How many types of deployment models are used in cloud?

There are 4 types of deployment models used in cloud:

1. Public cloud
2. Private cloud
3. Community cloud
4. Hybrid cloud

## 7. What is the AppFabric component?

The **AppFabric** component is used to create access control and distribute messages across clouds and enterprises. It has a service-oriented architecture, and can be considered as the backbone of the **Windows Azure** platform. It provides connectivity and messaging among distributed applications. It also has the capabilities of integrating the applications and the business processes between cloud services and also between cloud services and global applications.

The **AppFabric** component provides a development environment that is integrated with Visual Studio 2010. The **Windows Communication Foundation (WCF)** services built in VS 2010 can be published on cloud from the Visual Studio design environment.

The two important services of AppFabric are as follows:

- **Access Control Service (ACS)** - Allows rules-driven and claims-based access control for distributed applications. These claims-based rules and authorization roles can be defined in the cloud for accessing on-premise and cloud services. The claim can be a user or application attribute, which the service application expects, such as e-mail address, phone number, password, and role, for appropriate access control. When any application wants to use the Web service, it sends the required claims to ACS for requesting a token. ACS converts the input claims into output claims by following the rules of mapping. These rules are created during the configuration of ACS. The ACS issues a token containing the output claims for the consumer application. This application uses this token in the request header and sends to the Web service. This service validates the claims in the token and gives suitable access to the user.
- **Service bus** - Provides messaging between cross-enterprise and cross-cloud scenarios. It provides publish/subscribe, point-to-point, and queues message patterns for exchange of messages across distributed applications in the cloud. It integrates with the Access Control service to establish secure relay and communication.

## 8. Why does an organization need to manage the workloads?

The workload can be defined as an independent service or a set of code that can be executed. It can be everything from a data-intensive workload to storage or a transaction processing workload and does not rely upon the outside elements. The workload can be considered as a small or complete application.

The organization manages workloads because of the following reasons:

- To know how their applications are running.
- To know what functions they are performing.
- To know the charges of the individual department according to the use of the service.

9. Which services are provided by Window Azure operating system?

Windows Azure provides three core services which are given as follows:

- Compute
- Storage
- Management

10. Explain hybrid and community cloud.

The **hybrid** cloud consists of multiple service providers. This model integrates various cloud services for Hybrid Web hosting. It is basically a combination of private and public cloud features. It is used by the company when a company has requirements for both the private and public clouds. Consider an example when an organization wants to implement the **SaaS (Software as a Service)** application throughout the company. The implementation requires security that can be provided by the private cloud used inside the firewall. The additional security can be provided by the VPN on requirement. Now, the organization has both the private and public cloud features.

The **community** cloud provides a number of benefits, such as privacy and security. This model, which is quite expensive, is used when the organizations having common goals and requirements are ready to share the benefits of the cloud service.

11. Explain public and private cloud.

The **public** cloud (or external cloud) is freely available for access. You can use a public cloud to collect data of the purchasing of items from a Web site on the Internet. You can also use public cloud for the reasons, which are given as follows:

- Helps when an application is to be used by a large number of people, such as an e-mail application, on the Internet.
- Helps when you want to test the application and also needs to develop the application code.
- Helps when you want to implement the security for the application.
- Helps when you want to increase the computing capacity.
- Helps when you are working on the projects in collaboration.
- Helps when you are developing the project on an ad-hoc basis by using PaaS.

The **private** cloud allows the usage of services by a single client on a private network. The benefits of this model are data security, corporate governance, and reliability concerns. The private cloud is used by the organization when it has a huge, well-run data center having a lot of spare capacity. It is also used when an organization is providing IT services to its clients and the data of organization is highly important. It is best suited when the requirements are critical.

The characteristics of this model are given as follows:

- Provides capability to internal users and allows provision of services.
- Automates the tasks of management and provides the billing of consumption of a particular service.
- Offers a well-managed environment.
- Enables the optimization of computational resources, such as servers.
- Manages the workload of the hardware.
- Offers self-service based provisioning of hardware resources and software.

12. Give a brief introduction of Windows Azure operating system.

The **Windows Azure** operating system is used for running cloud services on the Windows Azure platform, as it includes necessary features for hosting your services in the cloud. It also provides runtime environment that consists of Web server, computational services, basic storage, queues, management services, and load balancers. The operating system provides development Fabric for development and testing of services before their deployment on the Windows Azure in the cloud.

13. What are the advantages of cloud services?

Some of the advantages of cloud service are given as follows:

- Helps in the utilization of investment in the corporate sector; and therefore, is cost saving.

- Helps in the developing scalable and robust applications. Previously, the scaling took months, but now, scaling takes less time.
- Helps in saving time in terms of deployment and maintenance.

### Question 1.

Abhishek wants to determine if an assembly is strongly named. Given the scenario above, what are four things that Abhishek looks for in the manifest?

- A) The filename, filename extension, version, and public key
- B) The filename, version, culture, and public key
- C) The GUID, public key, version, and culture
- D) The private key, public key, version, and culture

ANS- (B)

### Question 2.

In the Virtual Execution Engine of the Common Language Runtime, which operation occurs first?

- A) JIT compilation
- B) Verify
- C) Exception management
- D) Class load

ANS- (D)

### Question 3.

By default, when Assembly A is deployed that has external references to Assembly B, which one of the following assemblies does it use?

- A) The Assembly B that is registered in the host's registry
- B) The Assembly B with which it was compiled
- C) The Assembly B that is in the Global Assembly Cache
- D) The Assembly B in the same directory it is in

ANS- (D)

### Question 4.

Which one of the following statements is true about garbage collection?

- A) It is invoked when generation 0 does not have room for the newly created object.
- B) It only occurs when the Collect method is explicitly invoked in the System.GC class.
- C) It is invoked every time a constructor is called.
- D) It is invoked when the Dispose method is explicitly called.

ANS- (A)

### Question 5.

Nilesh wants to select a family of operating systems that are shipped ready to load and run a .NET Portable Executable file. Given the above scenario, which one of the following Microsoft operating systems (OSs) should Nilesh select?

- A) All Windows OSs in the Windows NT, Windows 2000, and Windows XP families and above.

- B) All Windows OSs in the Windows XP family and above.
- C) All Windows OSs in the Windows 9x, Windows NT, and Windows XP families and above.
- D) All Windows OSs in the Windows .NET Enterprise Servers family and above.

ANS- (A)

#### Question 6.

Nitin wants to create an application that downloads and begins execution quickly. His application has many methods that may not all be used by every client. Referring to the scenario above, which one of the following is the best strategy?

- A) To create an application consisting of several small external assemblies
- B) To create an application consisting of one assembly with multiple managed modules
- C) To create an application consisting of one assembly
- D) To create the application using Microsoft Visual C++ with managed extensions

ANS- (B)

#### Question 7.

Nitin wants to create an application that downloads and begins execution quickly. His application has many methods that may not all be used by every client. Referring to the scenario above, which one of the following is the best strategy?

- A) To create an application consisting of one assembly with multiple managed modules
- B) To create an application consisting of one assembly
- C) To create an application consisting of several small external assemblies
- D)

ANS- (A)

#### Question 8.

Where is the metadata for a .NET Assembly contained?

- A) Assembly metadata is contained in .exe, .dll, .netmodule, and resource files.
- B) Assembly metadata is contained in .exe and .dll files only.
- C) All metadata is contained in the manifest, located in a section of the PE file.
- D) Assembly metadata is contained in .exe, .dll, and .netmodule files only.

ANS- (D)

#### Question 9.

How do you deterministically release unmanaged resources held by a reference object?

- A) Use a Dispose method.
- B) Let the garbage collector release the resources automatically.
- C) Use a destructor.
- D) Use a Finalize method.

ANS- (A)

### Question 10.

What is true about readonly variable in C# code?

- A) It is the same as a constant
- B) Its value can be assigned only once
- C) You can never assign a value to it
- D) There is no concept of readonly variable, we should use const keyword

ANS- (B)

### Question 11.

Ameya wants to apply the Common Type System (CTS) visibility rule for a method so that it is callable only from derived types and the type to which it belongs. Given the above scenario, which one of the following is the correct modifier?

- A) Public
- B) Private
- C) Family (referred to as "protected" in many languages)
- D) Assembly (referred to as "internal" in many languages)

ANS- (C)

### Question 12.

Abhishek wants to deploy his .NET application using the XCOPY method. Given the above scenario, which one of the following .NET assembly types does Abhishek deploy?

- A) dynamic assemblies
- B) private assemblies
- C) shared assemblies
- D) static assemblies

ANS- (B)

### Question 13.

bool data type in C# is

- A) An object type
- B) A value type
- C) A reference type
- D) A class type

ANS- (B)

### Question 14.

Mayura wants to populate a select dropdown combo box with data in a data store. Mayura wants a fast, forward only, read-only database connection using ADO.NET. Given the above scenario, which one of the following objects should Mayura use?

- A) A Command object
- B) A Recordset object
- C) A DataAdapter object
- D) A DataReader object

ANS- (A)

#### Question 15.

An long in C# is

- A) 16 bit unsigned integer
- B) 32 bit signed integer
- C) 64 bit integer
- D) 8 bit unsigned integer

ANS- (C)

#### Question 16.

An int in C# is

- A) 16 bit unsigned integer
- B) 32 bit signed integer
- C) 64 bit integer
- D) 8 bit unsigned integer

ANS- (B)

#### Question 17.

Which one of the following types of inheritance does the Common Type System support?

- A) Multiple inheritance only when the base types are each written in different languages
- B) Single inheritance with language interoperability
- C) Single inheritance from base types written in the same language
- D) Multiple inheritance with language interoperability

ANS- (B)

#### Question 18.

A char in C# is

- A) 8 bit
- B) 16 bit
- C) 32 bit
- D) 20 bit

ANS- (B)

#### Question 19.

Mayura registers a strongly named assembly in the Global Assembly Cache (GAC). She does this so that a hash is performed on the assembly file containing the manifest with the public key and verifies it against the hash of the manifest created with the private key at build time. Given the scenario above, when is this comparison performed?

- A) It is performed each time a runtime host loads the CLR.
- B) It is performed each time the CLR loads the assembly.
- C) It is performed when the JIT compiler in the CLR compiles the assembly.
- D) It is performed when the assembly is registered with the GAC.

ANS- (B)

### Question 20.

String is an

- A) An object type
- B) A value type
- C) A reference type
- D) A class type

ANS- (C)

### Question 21.

Which one of the following components in the Common Language Runtime's Virtual Execution Engine can be turned off?

- A) Verifier
- B) Code Manager
- C) Class Loader
- D) Garbage collection

ANS- (A)

### Question 22.

Which of the following are predefined value types in C#?

- A) int
- B) object
- C) string
- D) none of the above

ANS- (A)

### Question 23.

All types in C# implicitly derive from

- A) System.Object class
- B) System class
- C) System.CSharp class
- D) System.DotNet class

ANS- (A)

#### Question 24.

Which one of the following is a benefit of the Common Language Runtime (CLR)?

- A) It enforces deterministic garbage collection.
- B) It allows assemblies in different application domains to access each other's memory directly.
- C) It prevents different versions of an assembly from executing in the same process.
- D) It manages exception handling across languages.

ANS- (A)

#### Question 25.

Which namespace of the .NET Framework do you use to create metadata dynamically at runtime?

- A) System.Activator
- B) System.Runtime
- C) System.Management
- D) System.Reflection.Emit

ANS- (D)

#### Question 26.

What is managed code?

- A) Code managed outside the IL
- B) Code which can not be managed by the IL
- C) Code written in VB.NET
- D) Code to be compiled by IL

ANS- (C)

#### Question 27.

The Common Language Runtime (CLR) just in time (JIT) compilers compiles which item on an as-needed basis?

- A) Class
- B) Method
- C) Assembly
- D) Managed Module

ANS- (B)

#### Question 28.

What is similar in concept to IL?

- A) Java Byte Code
- B) C++ Libraries
- C) Machine Language
- D) Assembly

ANS- (A)

#### Question 29.

What is CTS?

- A) Common Translation system
- B) Csharp Type System
- C) Common Type System
- D) Constants Translation Specification

ANS- (C)

#### Question 30.

What is JIT?

- A) Java Internal Translator
- B) Just in Time
- C) Just in Translation
- D) Just Interpret in Time

ANS- (B)

#### Question 31.

What is CLS?

- A) Common Language Specification
- B) Common Library System
- C) Csharp Language Specification
- D) Code Location Specification

ANS- (A)

#### Question 32.

Following are not the features of .NET

- A) Language Interoperability
- B) Garbage Collection
- C) Multiple Inheritance
- D) None of the above

ANS- (C)

#### Question 33.

What is CLR?

- A) Common Library Reorganization
- B) Csharp Language Re-specification
- C) Csharp Language Runtime
- D) Common Language Runtime

ANS- (D)

Question 34.

What is IL?

- A) Interchangeable Library
- B) Interoperable Languages
- C) Intermediate Language
- D) Interchangeable languages

ANS- (C)

Question 35.

Which of the following is an exclusive feature of C#?

- A) Object Oriented
- B) IL
- C) XML documentation
- D) Operator overloading

ANS- (C)

Question 36.

Which is the first level of compilation in the .NET languages?

- A) CLR
- B) IL
- C) Platform-specific code
- D) Assembly code

ANS- (B)

Question 37.

What is an assembly?

- A) A logical unit containing complied code
- B) A collection of C# compilers
- C) .NET debugger
- D) .DLL file

ANS- (A)

### Question 38.

IL code compiles to

- A) Platform-specific Executable code
- B) Byte Code
- C) .NET Code
- D) Binary Code

ANS- (A)

### Question 39.

All the .NET languages have the following in common

- A) Syntax
- B) Keywords
- C) Base Class Library
- D) Language data types

ANS- (C)

### Question 40.

From command line, a C# program can be compiled using

- A) csc.exe
- B) csharp.exe
- C) al.exe
- D) cl.exe

ANS- (A)

### Question 41.

The C# code files have an extension

- A) csharp
- B) .cs
- C) .csc
- D) .c#

ANS- (B)

### Question 42.

There must be at least the following function in a C# program

- A) main()
- B) Main()
- C) Enter()
- D) Entry()

ANS- (B)

### Question 43.

To write a line of text to the console window, we make the following call

- A) Console.WriteLine()
- B) console.writeline()
- C) System.WriteLine()
- D) System.println()

ANS- (A)

### Question 44.

To read user input from the console, the following statement is used

- A) Console.ReadLine()
- B) Console.Input()
- C) System.In()
- D) Console.in()

ANS- (A)

### Question 45.

A attribute in C# is enclosed between

- A) <>
- B) [ ]
- C) { }
- D) ( )

ANS- (B)

### Question 46.

A attribute in VB.NET is enclosed between

- A) <>
- B) [ ]
- C) { }
- D) ( )

ANS- (A)

### Question 47.

We declare an integer variable 'x' in C# as

- A) x integer;
- B) integer x;
- C) None of the above
- D) int x;

ANS- (C)

### Question 48.

Which of the following is the correct way to instantiate an object in C#:

- A) objThis = System.CreateObject( ThisClass);
- B) objThis = new ThisClass();
- C) objThis = (ThisClass)Class.forName(ThisClass).CreateInstance();
- D) objThis = ClassFactory.CreateInstance(ThisClass);

ANS- (B)

### Question 49.

Namespaces are used to.

- A) Separate assemblies
- B) Create a unique name for an assembly
- C) Avoid name clashes between data types
- D) Required for deploying the assembly

ANS- (C)

### Question 50.

What is a multicast delegate?

- A) a delegate having multiple handlers assigned to it
- B) a delegate called multiple times
- C) a delegate which has multiple implementations
- D) none of the above

ANS- (A)

### Question 51.

Events in C# are implemented using:

- A) Specialized DLLs
- B) Pointers
- C) Delegates
- D) Mouse button clicks

ANS- (C)

### Question 52.

Reference types are stored in :

- A) the Heap
- B) the stack
- C) the file
- D) the database

ANS- (A)

### Question 53.

Any process can be divided into multiple

- A) programs
- B) Threads
- C) Application domains
- D) CLRs

ANS- (C)

### Question 54.

"Reflection" is used to

- A) Get assembly metadata using code
- B) Debug C# programs
- C) Compile C# programs
- D) Run C# programs

ANS- (A)

### Question 55.

Assemblies are of the following types

- A) Public
- B) Private
- C) Friendly
- D) Global

ANS- (B)

### Question 56.

Manifest is an area where:

- A) the assembly code is compiled
- B) Debug information is stored
- C) Assembly metadata is stored
- D) Jmp\_CorExeMain instruction is placed

ANS- (C)

### Question 57.

The following method is used to force the garbage collector :

- A) Garbage.Collect
- B) System.GC.Collect()
- C) Gc.Clea.Up()
- D) Garbage collector cannot be forced

ANS- (B)

### Question 58.

- Side by Side execution is termed as
- A) Two app-domains within single CLR
  - B) Two CLRs within same process
  - C) Two threads within same app-domain
  - D) None of the above

ANS- (B)

### Question 59.

What namespace must be used in order to use the DOM for XML support?

- A) System.Data.Xml
- B) System.Xml
- C) System.Xml.DOM
- D) System.DOM

ANS- (B)

### Question 60.

You need to be able to retrieve data from a DataSet object that has four DataTable objects. There are currently UniqueConstraint and ForeignKeyConstraint object on the DataTable objects to enforce the data rules. You find that you can retrieve data from the individual DataTable objects, but you are not able to retrieve data from the combination of DataTable objects in a parent/child manner. What should you do to be able to retrieve the data in a parent/child manner?

- A) Set the EnforceParentChild parameter of the DataSet to True.
- B) Set the EnforceRelation parameter of the Relations collection to True.
- C) Add DataRelation objects to the Relations collection to make the DataSet present the data in a parent/child manner.
- D) Add a primary key and a foreign key to each of the DataTable objects that should present the data in a parent/child manner.

ANS- (C)

### Question 61.

You need to retrieve data from a Microsoft SQL Server 2000. Currently you are using an OleDbConnection object to connect to the database server. You need to be able to retrieve the data from the database server in XML format. Which approach would be the most efficient? Select all that apply. Each answer constitutes part of the whole answer.

- A) Change to the SQL .NET provider.
- B) Use the XmlDocument.Load() method to create the XML document.
- C) Use the DOM to create the XML document.
- D) None.

ANS- (A)

### Question 62.

You need to retrieve data from a Microsoft SQL Server 2000. Currently you are using an OleDbConnection object to connect to the database server. You need to be able to retrieve the data from the database server in XML format. Which approach would be the most efficient? Select all that apply. Each answer constitutes part of the whole answer.

- A) Use the XmlDocument.Load() method to create the XML document.
- B) Use the ExecuteXmlReader() method of the XxxCommand object.
- C) Use the DOM to create the XML document.
- D) Use the XmlDocument.Load() method to create the XML document.

ANS- (B)

### Question 63.

Which of the following classes supports XML schemas?

- A) XmlReader
- B) XmlDocument
- C) XmlValidatingReader
- D) XmlNodeReader

ANS- (C)

### Question 64.

What is the correct way of creating a DataTable in a DataSet?

- A) DataTable dtOrders = new DataTable("Orders");
- B) DataTable dtOrders = DataTable("Orders");
- C) DataTable dtOrders;
- D) ds.Tables.Add("Orders");

ANS- (D)

### Question 65.

Where do you add Constraint objects?

- A) To the Constraint collection of the DataTable object
- B) To the Constraint collection of the DataColumns object.
- C) To the Constraint collection of the DataSet object.
- D) To the Constraint collection of the DataRelation object.

ANS- (A)

### Question 66.

XML Transformations can be used to create a form letter.

- A) True
- B) False

ANS- (B)

### Question 67.

Applications running in different App Domains can not communicate with each other:

- A) True
- B) False

ANS- (B)

### Question 68.

You can explicitly call the garbage collector

- A) True
- B) False

ANS- (A)

### Question 69.

All the variables local to a method in C# must be initialized before they can be used

- A) True
- B) False

ANS- (A)

### Question 70.

All .NET code has to be CLS compliant

- A) True
- B) False

ANS- (B)

**Written Examination Question Paper**  
**DAC - Feb 2006**  
**Module Name: Microsoft .NET**

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Date: June 20, 2006

Duration: 1 Hour

Max. Marks: 100

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**Each Question carries 2 Marks .**

Q.1) Shared Assemblies are installed at:

- A. System Assembly Cache  
C. Machine Assembly Cache
- B. Global Assembly Cache  
D. Windows Assembly Cache

Q.2) What are delegates?

- A. Value Pointer      B. Function Pointer      C. Pass By Reference      D. Pass By Value

Q.3) "XYZ" company wants to revamp his website. One of the important changes "XYZ" wants is to display Ad banners. As a developer you want to initialize the banner image paths when the first user accesses the application. So what will you do?

- A. Add code in application\_onstart event of global.asax file  
B. Add code in application\_begin request event of global.asax file  
C. Add code to session\_onstart event of global.asax  
D. Add code in page.load event handler in the startup page of the application

Q.4) Which of the following is a value type, and not a reference type?

- A. Array      B. delegate      C. enum      D. class

Q.5) What is the difference between Overriding and Overloading?

- A. Overriding, same name with different return type and overloading same name with different argument  
B. Overriding is dynamic, overloading is static  
C. Overriding, same signature with different definition, overloading has different signature  
D. All the above

Q.6) Pick the command line that would result in the C# compiler generating an XML documentation file:

- A. csc /doc:HelloWorld.xml HelloWorld.cs  
B. csc /doc /docfile:HelloWorld.xml HelloWorld.c  
C. csc /doc /out:HelloWorld.xml HelloWorld.cs  
D. csc /xml HelloWorld.cs

Q.7) Which of the following is not a method of System.Object?

- A. GetType      B. ToString      C. Equals      D. Clone

Q.8) When creating a C# Class Library project, what is the name of the supplementary file that Visual Studio.NET creates that contains General Information about the assembly?

- A. AssemblyInfo.xml      B. AssemblyInfo.cs  
C. AssemblyInformation.cs      D. AssemblyAttributes.cs

Q.9) What is a formatter?

- A. Object      B. Class      C. Method      D. None

Q.10) All types derive from a single base type called:

- A. System.Base      B. System.Object      C. System.Root      D. System.Type

Q.11) A reference to a reference-type instance requires how many bytes?

- A. 2 bytes      B. 4 bytes      C. 8 bytes      D. 16 bytes

Q.12) In C#, which of the following is not a valid C# jump statement?

- A. Jump      B. goto      C. return      D. throw

Q.13) When an integral literal is valid for several possible integral types, the default type chosen goes in which order?

- A. uint, int, ulong, long
- B. long, ulong, int, uint
- C. ulong, long, uint, int
- D. int, uint, long, ulong

Q.14) What is the comment syntax for C#'s XML-based documentation?

- A. /\* and \*/
- B. //#
- C. ///
- D. /\*

Q.15) Which of the following is the C# escape character for Null?

- A. \n
- B. \0
- C. \f
- D. \v

Q.16) What is the exception that is thrown when there is an attempt to dynamically access a method that does not exist?

- A. MissingMethodException
- B. TypeLoadException
- C. MethodLoadException
- D. MethodAccessException

Q.17) Which of the following is the correct way to disable session state in an ASP.NET page?

- A. <%@ Page SessionState="false" %>
- B. <%@ Page UseSessionState="false" %>
- C. <%@ Page DisableSessionState="true" %>
- D. <%@ Page EnableSessionState="false" %>

Q.18) What is the term used to describe the process the Runtime uses to find an assembly?

- A. Locating
- B. Probing
- C. Searching
- D. Resolving

Q.19) Which keyword is used in C# to prevent a class from being inherited by another class?

- A. override
- B. protected
- C. sealed
- D. NotInheritable

Q.20) Which C# statement is actually a shortcut for calling the Enter and Exit methods of the Monitor class?

- A. MissingMethodException
- B. TypeLoadException
- C. MethodLoadException
- D. MethodAccessException

Q.21) In C#, what character is used to indicate a verbatim string literal?

- A. @
- B. !
- C. "
- D. #

Q.22) C# types are defined in \_\_\_, organized by \_\_\_, compiled into \_\_\_, and then grouped into \_\_\_\_.

- A. files, modules, namespaces, assemblies
- B. files, namespaces, assemblies, modules
- C. files, assemblies, namespaces, modules
- D. files, namespaces, modules, assemblies

Q.23) Which C# statement is actually a shortcut for calling the Enter and Exit methods of the Monitor class?

- A. mutex
- B. lock
- C. semaphore
- D. thread

Q.24) Which interface allows a collection to be navigated using the foreach statement?

- A. INavigator
- B. ICollection
- C. IEnumerator
- D. IEnumerable

Q.25) You work as software developer at XYZ Ltd. You need to develop Win Form that provides online help for users. You want the help functionality to be available when users press the F1 key.

Help text will be displayed in a pop-up window for the text box that has focus.

To implement this functionality, you need to call a method of the HelpProvider control and pass the text box and the help text.

What should you do?

- A. SetShowHelp
- B. SetHelpString
- C. SetHelpKeyword
- D. ToString

Q.26) You are a developer for a XYZ Ltd. that provides free software over the Internet. You are developing an e-mail application that users all over the world can download.

The application displays text strings in the user interface. At run time, these text strings must appear in the language that is appropriate to the locale setting of the computer running the application. You have

resources to develop versions of the application for only four different cultures. You must ensure that your application will also be usable by people of other cultures.

How should you prepare the application for deployment?

- A.Package a different assembly for each culture.
- B.Package a different executable file for each culture.
- C.Package a main assembly for source code and the default culture.
  - Package satellite assemblies for the other cultures.
- D.Package a main assembly for source code.
  - Package satellite assemblies for each culture.

Q.27) You use Visual Studio .NET to create a Windows-based application that will track XYZ sales. The application's main object is named XYZ. The XYZ class is created by the following definition:

```
public class XYZ
```

```
{  
.  
}
```

You write code that sets properties for the XYZ class. This code must be executed as soon as an instance of the XYZ class is created. Now you need to create a procedure in which you can place your code.

Which code segment should you use?

- A.public XYZ()
- B. public void XYZ ()
- C. public bool XYZ ()
- D. public New()
- E. public XYZ New()
- F. public XYZ XYZ()

Q.28) You develop a Windows-based application by using Visual Studio .NET. The application includes a form named XYZForm and a class named Contact. XYZForm includes a button named cmdCreateContact. You must ensure that your application creates an instance of Contact when a user clicks this button. You want to write the most efficient code possible.

Which code segment should you use?

- A.Contact contact = new Object();
- B.Contact contact = new Contact;
- C.Object contact = new Contact;
- D.Contact contact = new Object;

Q.29) You are creating an ASP.NET page for XYZ. You create a DataGrid control that displays past purchases made by the user. The DataGrid control is populated from an existing database when the page is created. The page contains TextBox controls that allow users to update their personal information, such as address and telephone number. You need to ensure that the page is refreshed as quickly as possible when users update their contact information.

What should you do?

- A.Set the Enable property of the DataGrid control to false.
- B.Set the EnableViewState property of the DataGrid to false.
- C.Write code in the Page.Load event handler that populates the DataGrid control only when the IsPostBack property of the page is false.
- D.Write in the Page.Load event handler that populates the DataGrid control only when the IsPostBack property of the page is true.

Q.30) You create an ASP.NET application for XYZ Ltd. The company uses Microsoft Windows authentication. All users are in the XYZ domain.

You want to configure the application to use the following authorization rules:

- Anonymous users must not be allowed to access the application.
- All employees except Martin and Peter must be allowed to access the application.

Which code segment should you use to configure the application?

- A. <authorization>

```
<deny users="XYZ\Martin, XYZ\Peter">  
<allow users="*"/>  
<deny users="?">  
</authorization>
```
- B. <authorization>

```
<allow users="*"/>  
<deny users="XYZ\Martin, XYZ\Peter">
```

```

<deny users=""?>
</authorization>
C.<authorization>
    <deny users="XYZ\Martin, XYZ\Peter">
        <deny users=""?>
        <allow users=""*>
    </authorization>
D.<authorization>
    <allow users="XYZ\Martin, XYZ\Peter">
        <allow users=""*>
    </authorization>

```

Q.31) How many parameters u can pass to stored procedure written in SQL Server 2000?

- A.32              B. 64              C. 512              D. 1024

Q.32) How can you implement late binding in .NET?

- A.By using P/Invoke Technique  
 B.Register the assembly as COM component and add a reference to this component  
 C.By using Reflection  
 D.None of the above

Q.33) How can you prevent your .NET projects outputs (dll or exe) from being disassembled?

- A.Digitally sign the project output  
 B.Obfuscate the project output  
 C.Implement Code Access Security feature of the .NET framework  
 D.Deploy the application in the GAC

Q.34) What is Boxing?

- A.The conversion of a value type to an object instance  
 B.The conversion of an object instance to a value type.  
 C.The conversion of a value type to reference type.  
 D.The conversion of a reference type to a value type

Q.35) Which of the following is Executes the Command and returns a Single Value?

- A.ExecuteNonQuery( )              B. ExecuteScalar( ).              C. ExecuteReader( ).  
 D. ExecuteXmlReader( )              E. All of Above

Q.36) In case of interfaces which of the following holds good

- A.Not possible to declare fields  
 B.You can create a property but not define it  
 C.Interfaces serve as base classes from which you can create derived classes  
 D.All the above are correct  
 E.only 2 and 3 are correct

Q.37) Which of the following is true for a special member of the class namely ‘this’

- A.this cannot be used in a static method  
 B.this cannot be used in a class A to access a member of class B  
 C.The this member can never be declared: it is automatically implied when you create a class  
 D.All the above are correct  
 E.None of above

Q.38) What is true about the SingleCall Server Activation Mode?

- A.This is the mode where one server object is used by all clients  
 B.This mode creates a new instance of the server object for every client connection  
 C.This mode is used to share data between clients  
 D.In this mode the server object will not be destroyed at the end of the method call

Q.39) In .net remoting architecture there are two activation modes for server-activated objects, Singleton and SingleCall state the difference??

- A.Singleton do have a default lifetime associated with them whereas Single Call does not  
B.There are no such server-activated objects  
C.SingleCall object cant be reused where as singleton object can be reused  
D.None of Above
- Q.40) The Object.Finalize() method called by Garbage Collector uses following keywords in definition  
A.Protected      B. Overrides      C. Private      D. Overridable      E. A & B      F. C & D
- Q.41) Which of the following is true for Shared Methods in VB.NET  
A.Across all instances of class  
B.Can access any instance variable from any objects  
C.Is defined using Sharable keyword.  
D.None of above
- Q.42) The DragDrop event always ends with following event  
A.MouseUp      B. MouseDown      C. DragDrop      D. None of above
- Q.43) How many Maximum Parameters a stored Procedure can have in sql server 2000  
A.32      B. 64      C. 256      D. 2100
- Q.44) DataReader is connected architecture  
A.True      B. False
- Q.45) Can an Asp.net application be run without Global.asax & Global.resx file?  
A.No      B. Yes  
C.Without Global.asax but with Global.resx      D. Without Global.resx but with Global.asax
- Q.46) Can You Edit in Repeater Control?  
A.No      B. Yes
- Q.47) what methods are fired during the page load?  
A.Init(),Load(),Unload(),PreRender()  
B.Load(),Init(),PreRender(),Unload()  
C.Init(),Load(),PreRender(),UnLoad()  
D.Init(),Load(),UnLoad(),PreRender()
- Q.48) Which of the following class declarations create a new exception named ValidationException?  
A.[Exception()]  
    public class ValidationException {}  
B. public exception ValidationException;  
C. <Exception()>  
    public class ValidationException {}  
D. public class ValidationException : IException {}  
E. public class ValidationException : System.Exception {}
- Q.49) What is output of following code?
- ```
public void A() {  
    int x;  
    x = 8;  
    x *= 4 + 8 / 2;  
}
```
- A. 20      B. 36      C. 48      D. 64      E. 96
- Q.50) Which of the following statements describes a difference between an ArrayList and an array in C#?  
A. Indexes in an ArrayList are one based and zero based in an Array.  
B. ArrayLists can be multidimensional; Arrays cannot.

- C. Arrays provide methods to set their capacity equal to the actual number of elements in them; ArrayLists do not.
- D. ArrayLists can contain only one object type; Arrays can contain multiple object types.
- E. ArrayLists can automatically grow; Arrays cannot.

----- All the Best -----

| Question ID | Answer |
|-------------|--------|
| 1           | B      |
| 2           | B      |
| 3           | A      |
| 4           | C      |
| 5           | C      |
| 6           | A      |
| 7           | D      |
| 8           | B      |
| 9           | A      |
| 10          | B      |
| 11          | B      |
| 12          | A      |
| 13          | D      |
| 14          | C      |
| 15          | B      |
| 16          | A      |
| 17          | D      |
| 18          | B      |
| 19          | C      |
| 20          | A      |
| 21          | A      |
| 22          | D      |
| 23          | B      |
| 24          | D      |
| 25          | B      |
| 26          | C      |
| 27          | A      |
| 28          | B      |
| 29          | D      |
| 30          | C      |
| 31          | D      |
| 32          | C      |
| 33          | B      |
| 34          | A      |
| 35          | B      |

|    |     |
|----|-----|
| 38 | B   |
| 39 | A   |
| 40 | E   |
| 41 | A   |
| 42 | C   |
| 43 | D   |
| 44 | B   |
| 45 | B   |
| 46 | A   |
| 47 | C   |
| 48 | E   |
| 49 | D   |
| 50 | C,E |

### Question 1.

\_\_\_\_\_ is an extension of ASP.net page file.

- A) .WebForm1
- B) .asp
- C) .asax
- D) .aspx

ANS- (D)

### Question 2.

The \_\_\_\_\_ validation control display list of all the validation errors occurring in all controls is created and displayed on the page

- A) RequiredFieldValidator
- B) RequiredExpressionValidator
- C) RangeValidator
- D) ValidationSummary

ANS- (D)

### Question 3.

Ad rotator control required \_\_\_\_\_ type of the file in which each advertisements has described

- A) xml
- B) txt
- C) inc
- D) Xhtml

ANS- (A)

### Question 4.

The Compare Validator compare \_\_\_\_\_ type of data

- A) String
- B) currency
- C) Datetime
- D) All of the above

ANS- (D)

### Question 5.

The \_\_\_\_\_ method of server object is used to transfer execution from the current page to another page to another page and returns the execution to the current page

- A) Server.Transfer()
- B) Server.MapPath()
- C) Server.Execute()
- D) Server.UrlEncode()

ANS- (C)

**Question 6.**

The calendra control responds to \_\_\_\_\_ event

- A) click
- B) text changed
- C) month changes
- D) navigate

ANS- (C)

**Question 7.**

Setting the text box to \_\_\_\_\_ allow the user to enter many lines of data

- A) many lines
- B) more lines
- C) multi lines
- D) password

ANS- (C)

**Question 8.**

To Enter secured text ,the \_\_\_\_\_ property of a text box can be set to password

- A) TextBox1.type
- B) TextBox1.style
- C) TextBox1.TextMode
- D) TextBox1.Mode

ANS- (C)

**Question 9.**

The \_\_\_\_\_ property of chekbox can slow down the application

- A) cheked
- B) text aligned
- C) autopost back
- D) text

ANS- (C)

**Question 10.**

\_\_\_\_\_ is the configuration file for your web application.

- A) machine.config
- B) web.config
- C) assemblyinfo.cs
- D) webapplication.vsdisco

ANS- (B)

### Question 11.

In comparevalidator ,the operator are taken from the \_\_\_\_\_.

- A) validation datatype
- B) validationcompareoperator
- C) validationoperators
- D) none

ANS- (B)

### Question 12.

The \_\_\_\_\_ property of the comparevalidator control specifies the ID of the servecontrol to use for comparing values.

- A) controlToValidate
- B) comparewith
- C) controltocompare
- D) valuetocompare

ANS- (C)

### Question 13.

The Global.asax File is stored in the \_\_\_\_\_ directory of the application.

- A) inetpub\wwwroot
- B) root directory
- C) sub directories
- D) none

ANS- (B)

### Question 14.

You can include server side comments begin with \_\_\_\_\_ and end with \_\_\_\_\_.

- A) <--,-->
- B) <#--,-->
- C) <%--,--%>
- D) In asp.net you cant include server side comments

ANS- (C)

### Question 15.

Application\_OnBeginrequest fires when.

- A) fired every time a page request begins (ideally when page is loaded)
- B) fired when the first asp.net page in the current application directory is called
- C) fired every time when newsession begins

D) fired when session ends

ANS- (A)

Question 16.

\_\_\_\_\_ is an XML/HTTP based protocol.

- A) FTP
- B) TCP/IP
- C) SMTP
- D) SOAP

ANS- (D)

Question 17.

All web controls are derived from \_\_\_\_\_ class.

- A) web control
- B) page
- C) controls
- D) none of the above

ANS- (A)

Question 18.

The \_\_\_\_\_ control store the changes made to the controls on the form.

- A) \_ViewSTATE CONTROL
- B) textbox control
- C) state control
- D) hidden control

ANS- (A)

Question 19.

The ASP.NET HTML controls exists in the \_\_\_\_\_ namespace.

- A) system.web
- B) System.web.UI
- C) System.web.UI.HTMLcontrols
- D) System.web.UI.Webcontrols

ANS- (C)

Question 20.

\_\_\_\_\_ event fired when the last session of application ends.

- A) Application\_OnEndRequest
- B) Session\_OnEnd

C) Application\_OnEnd

D) none of the above

ANS- (C)

#### Question 21.

The \_\_\_\_\_ method of the server object is used by server and acts as an interface between the virtual/relatives directories on the web server & the physical directories on the server

A) Server.URLEncode()

B) Server.MapPath()

C) Server.HTMLEncode

D) Server.Transfer()

ANS- (C)

#### Question 22.

When a .aspx page is requested from the web server, the out put will be rendered to browser in following format.

A) HTML

B) C#

C) XML

D) WML

ANS- (A)

#### Question 23.

Which is the executable unit, which gets created when we build an ASP.Net application?

A) .EXE

B) .DLL

C) .COM

D) .ASPX

ANS- (B)

#### Question 24.

The best way to delimit ASP.Net code from HTML code in your pages is by using \_\_\_\_\_ tags.

A) <Body>

B) <Head>

C) <Script>

D) <Code>

ANS- (C)

### Question 25.

The code will be processed on web server when the runat attribute of the < Script > tag has the following value.

- A) Desktop
- B) Client
- C) Server
- D) ASP.NET

ANS- (C)

### Question 26.

The Asp.net server control, which provides an alternative way of displaying text on web page, is

- A) <asp:label>
- B) <asp:listitem>
- C) <asp:button>
- D) <span>

ANS- (A)

### Question 27.

The first event to be triggered in an aspx page is \_\_\_\_\_

- A) Page\_Load()
- B) Page\_Init()
- C) Page\_click()
- D) Page\_render()

ANS- (B)

### Question 28.

Postback occurs in which of the following forms

- A) Winforms
- B) HTMLForms
- C) DOTNETForms
- D) Webforms

ANS- (D)

### Question 29.

What namespace does the Web page belong in the .NET Framework class hierarchy?

- A) System.web.UI.Page
- B) System.Windows.Page
- C) System.Web.page
- D) System.UI.Page

ANS- (A)

**Question 30.**

How do you register a user control?

- A) Add Tag prefix, Tag name
- B) Add Source, Tag prefix
- C) Add Src, Tagprefix, Tagname
- D) None

ANS- (C)

**Question 31.**

Can a dll run as stand alone application ?

- A) No
- B) Yes
- C) Sometimes we can make it by introducing some code
- D) null

ANS- (A)

**Question 32.**

Custom Controls are derived from which of the classes

- A) System.Web.UI.WebControls
- B) System.Web.UI.HtmlControls
- C) System.Web.UI.WebControls.WebControl
- D) None

ANS- (A)

**Question 33.**

What is the transport protocol used to call a webservice

- A) HTTP
- B) SOAP
- C) TCP
- D) SMTP

ANS- (A)

**Question 34.**

What is the extension of a web user control file?

- A) .asmx
- B) .ascx
- C) .aspx
- D) .ashx

ANS- (B)

**Question 35.**

What is the default session out time.

- A) 20 Sec
- B) 20 Min
- C) 1 hr
- D) Never

ANS- (B)

**Question 36.**

Which of the following is true ?

- A) IsPostBack is a method of System.UI.Web.Page class
- B) IsPostBack is a method of System.Web.UI.Page class
- C) IsPostBack is a readonly property of System.Web.UI.Page class
- D) None

ANS- (C)

**Question 37.**

The number of forms that can be added to a aspx page is

- A) 2
- B) 3
- C) 1
- D) More than 3

ANS- (C)

**Question 38.**

How do you manage states in asp.net application

- A) Session Objects
- B) Viewstate
- C) Cookies
- D) All of the above

ANS- (D)

**Question 39.**

Select the caching type supported by ASP.Net

- A) Output Caching
- B) DataCaching
- C) Both a & b
- D) None of the above

ANS- (C)

**Question 40.**

Where is the default Session data is stored in ASP.Net

- A) InProcess
- B) StateServer
- C) SQL Server
- D) All of the above

ANS- (A)

**Question 41.**

Select the validation control used for “PatternMatching”

- A) FieldValidator
- B) RegularExpressionValidator
- C) RangeValidator
- D) PatternValidator

ANS- (B)

**Question 42.**

Who can access Session state variables

- A) All Users of an application
- B) A Single session
- C) All users within a single tunnel
- D) None

ANS- (B)

**Question 43.**

Session Object classes are defined in which of the following namespace?

- A) System.Web.UI
- B) System.Web.SessionState
- C) System.Web
- D) None

ANS- (B)

**Question 44.**

What is the default authentication mode for IIS

- A) Windows
- B) Anonymous
- C) Basic Authentication
- D) None

ANS- (A)

**Question 45.**

Select the control, which does not have any visible interface

- A) Datalist
- B) DropDownList
- C) Repeater
- D) Datagrid

ANS- (C)

**Question 46.**

What does Response.End will do?

- A) It will stop the server process
- B) It will stop the client process
- C) None of the above
- D) None

ANS- (A)

**Question 47.**

Which control supports paging

- A) Repeater
- B) Datagrid
- C) Both
- D) None

ANS- (B)

**Question 48.**

What is the purpose of code behind?

- A) To separate different sections of a page in to different files
- B) To merge HTML layout and code in to One file
- C) To separate HTML Layout and code to different file
- D) To ignore HTML usage

ANS- (C)

**Question 49.**

What is a satellite assembly?

- A) Any DLL file used by an EXE file.
- B) An Assembly containing localized resources for another assembly
- C) None of the above
- D) null

ANS- (B)

**Question 50.**

Which of the following is not a member of Response Object?

- A) Clear
- B) Write
- C) Execute
- D) Flush

ANS- (C)

**Question 51.**

Which method do you invoke on the DataAdapter control to load your generated dataset with data?

- A) Load
- B) Fill
- C) GetAll
- D) None

ANS- (B)

**Question 52.**

How to open more than one datareader at a time

- A) Use different datareader variable
- B) Use different datareader and connection variable
- C) Use Different Connection
- D) Can not be done

ANS- (B)

**Question 53.**

Select the Interface which provides Fast, connected forward-only access to data

- A) IdataRecord
- B) Idatabase
- C) IDataReader
- D) Irecorder

ANS- (C)

**Question 54.**

How do we Delete, Update, Select data in a Dataset

- A) Using xxxDataAdapter
- B) Using xxxDataReader
- C) Using xxxCommand
- D) None

ANS- (A)

**Question 55.**

What is the Full Form of WSDL

- A) Web System Description Language
- B) Web Services Detail Language
- C) Web Service Description Language
- D) None

ANS- (C)

**Question 56.**

Which of the following extension does a webservice file will have

- A) .asmx
- B) .aspx
- C) .ascx
- D) .resx

ANS- (A)

**Question 57.**

What is a strong name?

- A) Public Key
- B) Private Key
- C) Combination Of Public, Private key and digital signature
- D) None

ANS- (C)

**Question 58.**

What is the purpose of Reflection?

- A) For Reading metadata at runtime
- B) For knowing version of assembly
- C) For finding path of an assembly
- D) None

ANS- (A)

**Question 59.**

What is a diffgram?

- A) The one which renders the dataset object contents to XML
- B) Finds the difference in two objects
- C) Finds the difference in two files

D) None of the above

ANS- (A)

**Question 60.**

Which of the following are not a member of Server Object

- A) Execute
- B) Transfer
- C) Open
- D) HTMLDecode

ANS- (C)

**Question 61.**

What is the Server.MachineName does

- A) Gets the Server's Machine Name
- B) Gets the Referred Web site name on the server
- C) Gets the Client Machine Name
- D) None

ANS- ()

**Question 62.**

What is the significance of Response.AddHeaders()

- A) Adds HTTP Headers to output stream
- B) Adds Tag to rendered Page
- C) Add Headers to the web site
- D) None of the above

ANS- (A)

**Question 63.**

Which namespace allows us to formauthentication?

- A) System.Web.Ui.Forms.Security
- B) System.Web.Security
- C) System.Web.Configuration
- D) System.Web.Services

ANS- (B)

**Question 64.**

When is the user controls code is executed.

- A) After the webform loads
- B) After the page\_init event of webform

C) Before Page\_init event of web form

D) None

ANS- (B)

**Question 65.**

The extension of the custom control is \_\_\_\_\_ -

A) .asmx

B) .aspx

C) .asax

D) .ascx

ANS- (D)

**Question 66.**

Every custom control that is inherited from the \_\_\_\_\_ class

A) ctrl

B) control

C) controls

D) none of the above

ANS- (B)

**Question 67.**

The \_\_\_\_\_ interface has no methods it used by ASP.NET to create unique IDS

A) InamingContainer

B) Inaming

C) IUniqueID

D) None of the above

ANS- (A)

**Question 68.**

The custom control page should contain \_\_\_\_\_ directives

A) @page

B) @Register

C) @Control

D) @WebService

ANS- (C)

**Question 69.**

The class control is present in \_\_\_\_\_ namespace

A) System

- B) System.Web
- C) System.Web.UI
- D) System.Web.UI.Controls

ANS- (C)

#### Question 70.

By including \_\_\_\_\_ directive in a page allows you to layout custom server controls or user controls

- A) @Control
- B) @Register
- C) @WebService
- D) @Page

ANS- (B)

#### Question 71.

The \_\_\_\_\_ config file sets the configuration for a directory and sub directories below it

- A) Machine.config
- B) web.config
- C) assemblyinfo.cs
- D) vsdisco.config

ANS- (B)

#### Question 72.

The ASP.NET configuration files are written in \_\_\_\_\_ format

- A) HTML
- B) DHTML
- C) XHTML
- D) XML

ANS- (D)

#### Question 73.

The \_\_\_\_\_ tag adds an assembly reference to use during compilation of dynamic resource

- A) <assemblies><add...></assemblies>
- B) <compilers><add...></compilers>
- C) <authentication></authentication>
- D) <assemblie><include..></assemblies>

ANS- (A)

#### Question 74.

The process of location errors in code is known as \_\_\_\_\_.

- A) Tracing
- B) Compiling
- C) Caching
- D) Debuging

ANS- (A)

#### Question 75.

At the \_\_\_\_\_ level tracing you can use the intrinsic controls like trace to write custom debugging statements and its appear at the end of client output

- A) Application level tracing
- B) System level tracing
- C) Page level tracing
- D) None of the above

ANS- (C)

#### Question 76.

Entire application trace information can also be viewed by pointing the browser to the \_\_\_\_\_ file in the application root directory

- A) Trace.axd
- B) Trace.asd
- C) Trace.axsd
- D) Trace.aspx

ANS- (A)

#### Question 77.

\_\_\_\_\_ is technique used to increase performance by keeping frequently accessed data in memory.

- A) Tracing
- B) Caching
- C) Debuging
- D) All of the above

ANS- (B)

#### Question 78.

The client browser and the web browser communicate using Tcp/Ip protocol

- A) True
- B) False

ANS- (B)

**Question 79.**

An Application variable can be accessed by all pages in the application

- A) True
- B) False

ANS- (A)

**Question 80.**

The base directory is called the virtual directory and the directory in which you store the applicationfile is called virtual root

- A) True
- B) False

ANS- (B)

**Question 81.**

Global.asax can be viewed in browser

- A) True
- B) False

ANS- (B)

**Question 82.**

Autopostback property of checkbox can be set to true if the changing of the checkbox status has to be informed to the server

- A) True
- B) False

ANS- (A)

**Question 83.**

Multiple directives can be used in a single .aspx page

- A) True
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ANS- (A)

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- B) False

ANS- (B)

**Question 91.**

.vsdisco is an xml file containing URLs that links to resources with information related to dynamic discovery of web services

- A) True
- B) False

ANS- (A)

**Question 92.**

In DownLevel Browsers validation is performed on server side only

- A) True
- B) False

ANS- (A)

**Question 93.**

You can include any html tags or even response.write in the application\_onStart()

- A) True
- B) False

ANS- (B)

**Question 94.**

There can be more than one machine.config file in a system

- A) True
- B) False

ANS- (B)

**Question 95.**

A web service can call another web service

- A) True
- B) False

ANS- (A)

**Question 96.**

Acuston controls are also known as pagelets

- A) True
- B) False

ANS- (A)

**Question 97.**

If the configuration setting are changed they get automatically detected by the system

- A) True
- B) False

ANS- (A)

**Question 98.**

Window based authentication as the default authentication mode

- A) True
- B) False

ANS- (B)

**Question 99.**

ASP.NET provide us the Flexibility to write custom error pages and redirect the client browser to these error pages when any specific error occurs

- A) True
- B) False

ANS- (A)

**Question 100.**

In web .config credentials tag takes one more attribute called as PWDFormat that specifies how the password is supposed to be encrypted.

- A) True
- B) False

ANS- (B)

### Question 1.

The Property of the radio button controls restricts the user to select one option from the given set of options.

- A) Group name
- B) Group id
- C) id
- D) text

ANS- (A)

### Question 2.

The page object has property called \_\_\_\_\_ that returns true if all the validation tests are successful

- A) Valid
- B) IsvalidData
- C) IsValid
- D) IsPostBack

ANS- (C)

### Question 3.

\_\_\_\_\_ is an extension of ASP.net page file.

- A) .WebForm1
- B) .asp
- C) .asax
- D) .aspx

ANS- (D)

### Question 4.

The \_\_\_\_\_ validation control displays a list of all the validation errors occurring in all controls is created and displayed on the page

- A) RequiredFieldValidator
- B) RequiredExpressionValidator
- C) RangeValidator
- D) ValidationSummary

ANS- (D)

### Question 5.

AdRotator control requires \_\_\_\_\_ type of the file in which each advertisement is described

- A) .xml
- B) .txt
- C) .inc

D) .Xhtml

ANS- (A)

#### Question 6.

The Compare Validator compare \_\_\_\_\_ type of data

- A) String
- B) Currency
- C) Datetime
- D) All of the above

ANS- (D)

#### Question 7.

The \_\_\_\_\_ method of server object is used to transfer execution from the current page to another page to another page and returns the execution to the current page

- A) Server.Transfer()
- B) Server.MapPath()
- C) Server.Execute()
- D) Server.UrlEncode()

ANS- (C)

#### Question 8.

\_\_\_\_\_ validation control can be used to provide validation in case the provided controls are not enough to validate the inputs.

- A) custom validator control
- B) regularField validator control
- C) range validator control
- D) compare validator control.

ANS- (A)

#### Question 9.

It is possible to check whether an .aspx page is posted back to the server with the help of the

- A) web.PostBack
- B) page.PostBack
- C) page.IsPostBack
- D) web.IsPostBack

ANS- (C)

#### Question 10.

To Enter secured text ,the \_\_\_\_\_ property of a text box can be set to password

- A) TextBox1.type
- B) TextBox1.style
- C) TextBox1.TextMode
- D) TextBox1.Mode

ANS- (C)

#### Question 11.

The \_\_\_\_\_ property of checkbox can slow down the application

- A) cheked
- B) text alligned
- C) autopost back
- D) text

ANS- (C)

#### Question 12.

The event handlers of application and session objects are stored in a file called

- A) global.asax
- B) global.asa
- C) global.aspx
- D) None of the above

ANS- (A)

#### Question 13.

The \_\_\_\_\_ Control is used when a field must not be left blank

- A) RequiredFieldvalidator
- B) rangeValidator
- C) CompareValidator
- D) CustomValidator

ANS- (A)

#### Question 14.

\_\_\_\_\_ file contains set of attributes that contain general information the assembly

- A) machine.config
- B) assemblyinfo.cs
- C) webapplication.vsdisco
- D) web.config

ANS- (B)

### Question 15.

In comparevalidator ,the operator are taken from the \_\_\_\_\_

- A) validation datatype
- B) validationcompareoperator
- C) validationoperators
- D) None

ANS- (B)

### Question 16.

The \_\_\_\_\_ property of the comparevalidator control specifies the ID of the servecontrol to use for comparing values

- A) controlToValidate
- B) comparewith
- C) controltocompare
- D) valuetocompare

ANS- (C)

### Question 17.

The Global.asax File is stored in the \_\_\_\_\_ directory of the application

- A) inetpub\wwwroot
- B) root directory
- C) sub directories
- D) None

ANS- (B)

### Question 18.

Application\_OnBeginrequest fires when

- A) fired every time a page request begins (ideally when page is loaded)
- B) fired when the first asp.net page in the current application directory is called
- C) fired every time when newsession begins
- D) fired when session ends

ANS- (A)

### Question 19.

\_\_\_\_\_ is an XML/HTTP based protocol

- A) FTP
- B) TCP/IP
- C) SMTP
- D) SOAP

ANS- (D)

#### Question 20.

All web controls are derived from \_\_\_\_\_ class.

- A) web control
- B) page
- C) controls
- D) None of the above

ANS- (A)

#### Question 21.

The \_\_\_\_\_ control store the changes made to the controls on the form

- A) \_ViewSTATE CONTROL
- B) textbox control
- C) textcontrol control
- D) state control

ANS- (A)

#### Question 22.

Server object has \_\_\_\_\_ Property.

- A) ScriptTimeout
- B) Application
- C) ExpiresAbsolute
- D) Session

ANS- (A)

#### Question 23.

\_\_\_\_\_ event fired when the last session of application ends.

- A) Application\_OnEndRequest
- B) Session\_OnEnd
- C) Application\_OnEnd
- D) None of the above

ANS- (C)

#### Question 24.

Which of the following languages can be used to write server side scripting in ASP.NET?

- A) C#
- B) C
- C) Visual Basic
- D) JavaScript

ANS- (A)

### Question 25.

The Following are the minimum requirement to run Asp.net pages

- A) Java Virtual Machine
- B) Common Language Runtime
- C) Windows explorer
- D) None

ANS- (C)

### Question 26.

When a .aspx page is requested from the web server, the output will be rendered to browser in following format.

- A) HTML
- B) C#
- C) XML
- D) WML

ANS- (A)

### Question 27.

Which is the executable unit, which gets created when we build an ASP.Net application?

- A) .EXE
- B) .DLL
- C) .COM
- D) .ASPX

ANS- (B)

### Question 28.

The Asp.net server control, which provides an alternative way of displaying text on web page, is

- A) <asp:label>
- B) <asp:listitem>
- C) <asp:button>
- D) <span>

ANS- (A)

### Question 29.

Postback occurs in which of the following forms

- A) Winforms
- B) HTMLForms
- C) DOTNETForms

D) Webforms

ANS- (D)

**Question 30.**

What namespace does the Web page belong in the .NET Framework class hierarchy?

- A) System.web.UI.Page
- B) System.Windows.Page
- C) System.Web.page
- D) System.UI.Page

ANS- (A)

**Question 31.**

How many configuration files can an ASP.NET projects have?

- A) One
- B) Two
- C) More Than Two
- D) None

ANS- (A)

**Question 32.**

Which of these namespaces used for FileAccess

- A) System.IO
- B) System.IO.IsolatedStorage
- C) System.DirectoryServices
- D) All of these

ANS- (A)

**Question 33.**

To add a custom control to a Web form we have to register with

- A) TagPrefix
- B) Name space of the dll that is referenced
- C) Assemblyname
- D) All of the above

ANS- (A)

**Question 34.**

What is the default session out time

- A) 20 Sec
- B) 20 Min

- C) 1 hr
  - D) Never
- ANS- (B)

### Question 35.

Which of the following is true ?

- A) IsPostBack is a method of System.UI.Web.Page class
- B) IsPostBack is a method of System.Web.UI.Page class
- C) IsPostBack is a readonly property of System.Web.UI.Page class
- D) None

ANS- (C)

### Question 36.

The number of forms that can be added to a aspx page is

- A) 2
- B) 3
- C) 1
- D) More than 3

ANS- (C)

### Question 37.

What is the difference between user control and custom control

- A) Both can use as drag and drop tool
- B) Both are same
- C) Both can use different application
- D) One Custom Control can be use in different project but not the same with User control

ANS- (D)

### Question 38.

Which property of the session object is used to set the local identifier?

- A) SessionId
- B) LCID
- C) Item
- D) Key

ANS- (B)

### Question 39.

Where is the default Session data is stored in ASP.Net

- A) InProcess

- B) StateServer
- C) SQL Server
- D) All of the above

ANS- (A)

#### Question 40.

How do you disable client side validation?

- A) Set the language property to C#
- B) Set the Runat property to server
- C) Set the ClientTarget property to Downlevel
- D) Set the inherits property to code

ANS- (C)

#### Question 41.

Select the validation control used for “PatternMatching”

- A) FieldValidator
- B) RegularExpressionValidator
- C) RangeValidator
- D) PatternValidator

ANS- (B)

#### Question 42.

How do you trace the application\_End event on runtime?

- A) By Debugging
- B) By Tracing
- C) Can not be done
- D) NULL

ANS- (C)

#### Question 43.

Who can access Session state variables

- A) All Users of an application
- B) A Single session
- C) All users within a single tunnel
- D) None

ANS- (B)

#### Question 44.

What is the default authentication mode for IIS

- A) Windows
- B) Anonymous
- C) Basic Authentication
- D) None

ANS- (A)

#### Question 45.

Select the control, which does not have any visible interface

- A) Datalist
- B) DropDownList
- C) Repeater
- D) Datagrid

ANS- (C)

#### Question 46.

How do you explicitly kill a user's session?

- A) Session.Close
- B) Session.Discard
- C) Session.Abandon
- D) Session.End

ANS- (C)

#### Question 47.

Which control supports paging

- A) Repeater
- B) Datagrid
- C) Both
- D) None

ANS- (B)

#### Question 48.

What is the purpose of code behind?

- A) To separate different sections of a page in to different files
- B) To merge HTML layout and code in to One file
- C) To separate HTML Layout and code to different file
- D) To ignore HTML usage

ANS- (C)

#### Question 49.

What is a satellite assembly?

- A) Any DLL file used by an EXE file.
- B) An Assembly containing localized resources for another assembly.
- C) None of the above
- D) NULL

ANS- (B)

Question 50.

Which of the following is not a member of ADODBCCommand object

- A) ExecuteReader
- B) ExecuteScalar
- C) ExecuteStream
- D) CommandText

ANS- (C)

Question 51.

Which method do you invoke on the DataAdapter control to load your generated dataset with data?

- A) Load
- B) Fill
- C) GetAll
- D) None

ANS- (B)

Question 52.

Select the Interface which provides Fast, connected forward-only access to data

- A) IdataRecord
- B) Idatabase
- C) IDataReader
- D) Irecorder

ANS- (C)

Question 53.

How do we Delete, Update, Select data in a Dataset

- A) Using xxxDataAdapter
- B) Using xxxDataReader
- C) Using xxxCommand
- D) None

ANS- (A)

#### Question 54.

What is the Full Form of WSDL

- A) Web System Description Language
- B) Web Services Detail Language
- C) Web Service Description Language
- D) None

ANS- (C)

#### Question 55.

What is the difference between Server.Transfer & Response.Redirect

- A) No Difference
- B) Server.Transfer needs a roundtrip, Response.Redirect does not
- C) Response.Redirect needs roundtrip, Server.Transfer does not
- D) Server.Transfer can transfer user between two applications

ANS- (C)

#### Question 56.

Which Language can Support SOAP

- A) VB
- B) JAVA
- C) COBOL
- D) All of the above

ANS- (B)

#### Question 57.

What is the size of the session ID

- A) 32 bit long string
- B) 32 bit long double
- C) 32 bit long character
- D) 32 bit long integer

ANS- (A)

#### Question 58.

Which of the following extension does a webservice file will have

- A) .asmx
- B) .aspx
- C) .ascx
- D) .resx

ANS- (A)

### Question 59.

What is a diffgram?

- A) The one which renders the dataset object contents to XML
- B) Finds the difference in two objects
- C) Finds the difference in two files
- D) None of the above

ANS- (A)

### Question 60.

Which of the following are not a member of Server Object

- A) Execute
- B) Transfer
- C) Open
- D) HTMLDecode

ANS- (C)

### Question 61.

What is the Server.MachineName does

- A) Gets the Server's Machine Name
- B) Gets the Referred Web site name on the server
- C) Gets the Client Machine Name
- D) None

ANS- (A)

### Question 62.

Whats is the significance of Response.ClearHeaders()

- A) Clears all Headers from the buffer stream
- B) Clears all the section value from rendered HTML File
- C) Clears the content of the Rendered page
- D) None of the above

ANS- (A)

### Question 63.

When is the user controls code is executed

- A) After the webform loads
- B) After the page\_init event of webform
- C) Before Page\_init event of web form
- D) None

ANS- (B)

#### Question 64.

What section of the config.Web file is used for storing a list of authorized users?

- A) 1
- B) 3
- C) 4
- D) None

ANS- (B)

#### Question 65.

UDDI stands for \_\_\_\_\_

- A) Universal Description Discovery and Integration
- B) Unique Description Discovery and Integration
- C) Universal Data Discovery and Integration
- D) Universal Discovery Data Information

ANS- (A)

#### Question 66.

We can create a proxy file for the web service by using \_\_\_\_\_ tool

- A) webservice.exe
- B) webserviceutil.exe
- C) WSDL.exe
- D) ILDASM.exe

ANS- (C)

#### Question 67.

Every custom control that is inherited from the \_\_\_\_\_ class

- A) ctrl
- B) control
- C) controls
- D) None of the above

ANS- (B)

#### Question 68.

The \_\_\_\_\_ interface has no methods it used by ASP.NET to create unique IDS

- A) InamingContainer
- B) Inaming
- C) IUniqueID
- D) None of the above

ANS- (A)

### Question 69.

The custom control page should contain \_\_\_\_\_ directives

- A) @page
- B) @Register
- C) @Control
- D) @WebService

ANS- (C)

### Question 70.

The class control is present in \_\_\_\_\_ namespace

- A) System
- B) System.Web
- C) System.Web.UI
- D) System.Web.UI.Controls

ANS- (C)

### Question 71.

By including \_\_\_\_\_ directive in a page allows you to layout custom server controls or user controls

- A) @Control
- B) @Register
- C) @WebService
- D) @Page

ANS- (B)

### Question 73.

The \_\_\_\_\_ config file sets the configuration for a directory and sub directories below it

- A) Machine.config
- B) web.config
- C) assemblyinfo.cs
- D) vsdisco.config

ANS- (B)

### Question 74.

The process of validating the username and password to check if it is valid or not is known as

- A) validation
- B) authorization
- C) authentication
- D) compilation

ANS- (C)

**Question 75.**

The ASP.NET configuration files are written in \_\_\_\_\_ format

- A) HTML
- B) DHTML
- C) XHTML
- D) XML

ANS- (D)

**Question 76.**

The \_\_\_\_\_ tag adds an assembly reference to use during compilation of dynamic resource

- A) <assemblies><add...></assemblies>
- B) <compilers><add...></compilers>
- C) <authentication></authentication>
- D) <assemblie><include..></assemblies>

ANS- (A)

**Question 77.**

The process of location errors in code is known as \_\_\_\_\_.

- A) Tracing
- B) Compiling
- C) Caching
- D) Debuging

ANS- (A)

**Question 78.**

At the \_\_\_\_\_ level tracing you can use the intrinsic controls like trace to write custom debugging statements and its appear at the end of client output.

- A) Application level tracing
- B) System level tracing
- C) Page level tracing
- D) None of the above

ANS- (C)

**Question 79.**

Trace output can be sort by specifying \_\_\_\_\_ attribute of page directive

- A) Trace

- B) TraceMode
  - C) OutputBy
  - D) Language
- ANS- (B)

#### Question 80.

Entire application trace information can also be viewed by pointing the browser to the \_\_\_\_\_ file in the application root directory

- A) Trace.axd
- B) Trace.asd
- C) Trace.axsd
- D) Trace.aspx

ANS- (A)

#### Question 81.

The client browser and the web browser communicate using Tcp/Ip protocol

- A) True
- B) False

ANS- (B)

#### Question 82.

The base directory is called the virtual directory and the directory in which you store the applicationfile is called virtual root

- A) True
- B) False

ANS- (B)

#### Question 83.

More than one @page directive can be set per .aspx page.

- A) True
- B) False

ANS- (B)

#### Question 84.

Multiple directives can be used in a single .aspx page

- A) True
- B) False

ANS- (A)

### Question 85.

The HTMLEncode method is used to apply HTML encoding to specify string.

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### Question 89.

link buttons are used to mainly when you need to navigate between pages

- A) True
- B) False

ANS- (A)

### Question 90.

If you want to retrieve particular key of cookie dictionary then you have to pass cookie name.

- A) True
- B) False

ANS- (A)

### Question 91.

When display property of requiredFieldvalidator control is set to dynamic no space is reserved on the page for displaying the error message

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In DownLevel Browsers validation is performed on server side only

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### Question 95.

There can be more than one machine.config file in a system

- A) True
- B) False

ANS- (B)

### Question 96.

Acuston controls are also known as pagelets

- A) True
- B) False

ANS- (A)

### Question 97.

The custom controls that we create can be made to maintain state automatically

A) True

B) False

ANS- (A)

### Question 98.

If the configuration setting are changed they get automatically detected by the system

A) True

B) False

ANS- (A)

### Question 99.

There can be only one machine.config file per application

A) True

B) False

ANS- (B)

### Question 100.

Window based authentication as the default authentication mode

A) True

B) False

ANS- (B)