1.

You are developing a C# application that has a requirement to validate some string input data by using the Regex class.

The application includes a method named ContainsHyperlink. The ContainsHyperlink() method will verify the presence of a URI and surrounding markup.

The following code segment defines the ContainsHyperlink() method. (Line numbers are included for reference only.)

```
01 bool ConstainsHyperLink(string inputData)
02 {
03    string regExPattern = "href\\s*=\\s*(?:\"(?<1>[^\"]*)\"|(?<1>\\S+))";
04
05    return evaluator.IsMatch(inputData);
06 }
```

The expression patterns used for each validation function are constant.

You need to ensure that the expression syntax is evaluated only once when the Regex object is initially instantiated.

Which code segment should you insert at line 04?

```
var evaluator = new Regex(regExPattern, RegexOptions.CultureInvariant);
```

A.
```
 var evaluator = new Regex(inputData);
```

B.
```
var assemblyName = "Validation";
var compilationInfo = new RegexCompilationInfo(inputData, RegexOptions.IgnoreCase,
"Href", assemblyName, true);
Regex.CompileToAssembly(new[] { compilationInfo }, new AssemblyName(assemblyName));
var evaluator = new Regex(regExPattern, RegexOptions.CultureInvariant);
```

C.
```
 var evaluator = new Regex(regExPattern, RegexOptions.Compiled );
```

D.

2.

You are developing an application by using C#.
You have the following requirements:
-> Support 32-bit and 64-bit system configurations.
-> Include pre-processor directives that are specific to the system configuration.
-> Deploy an application version that includes both system configurations to testers.
-> Ensure that stack traces include accurate line numbers.
You need to configure the project to avoid changing individual configuration settings every time you deploy the application to testers.
Which two actions should you perform? (Each correct answer presents part of the solution. Choose two.)

A. Update the platform target and conditional compilation symbols for each application configuration.
B. Create two application configurations based on the default Release configuration.
C. Optimize the application through address rebasing in the 64-bit configuration.
D. Create two application configurations based on the default Debug configuration.

3.

You are developing an application that will transmit large amounts of data between a client computer and a server.
You need to ensure the validity of the data by using a cryptographic hashing algorithm.
Which algorithm should you use?

A. HMACSHA256
B. RNGCryptoServiceProvider
C. DES
D. Aes
E. RSA
F. Rfc2898DeriveBytes

4.

You are testing an application. The application includes methods named CalculateInterest and LogLine. The CalculateInterest() method calculates loan interest. The LogLine() method sends diagnostic messages to a console window.
You have the following requirements:
-> The CalculateInterest() method must run for all build configurations.
-> The LogLine() method must be called only for debug builds.
You need to ensure that the methods run correctly.
How should you complete the relevant code? (To answer, drag the appropriate code segments to the correct locations in the answer area. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)
Select and Place:

`[Conditional("DEBUG")]`	`private static decimal CalculateInterest(decimal loanAmount, int loanTerm, decimal loanRat`
`[Conditional("RELEASE")]`	`{` `    decimal interestAmount = loanAmount * loanRate * loanTerm;`
`#if DEBUG`	
`#region DEBUG`	`    LogLine("Interest Amount : ", interestAmount.ToString("c"));`
`#endif`	`    return interestAmount;` `}`

`#endregion`	`public static void LogLine(string message, string detail)`
	`{`
	`    Console.WriteLine("Log: {0} - {1}", message, detail);`
	`}`

5.

You are developing an assembly that will be used by multiple applications.
You need to install the assembly in the Global Assembly Cache (GAC).
Which two actions can you perform to achieve this goal? Each correct answer presents a complete solution.
NOTE: Each correct selection is worth one point.

A. Use the Assembly Registration tool (regasm.exe) to register the assembly and to copy the assembly to the GAC.
B. Use the Strong Name tool (sn.exe) to copy the assembly into the GAC.
C. Use Microsoft Register Server (regsvr32.exe) to add the assembly to the GAC.
D. Use the Global Assembly Cache tool (gacutil.exe) to add the assembly to the GAC.
E. Use Windows Installer 2.0 to add the assembly to the GAC.

6.

You are debugging an application that calculates loan interest. The application includes the following code. (Line numbers are included for reference only.)

```
01 private static decimal CalculateInterest(decimal loanAmount, int loanTerm, decimal loanRate)
02 {
03
04    decimal interestAmount = loanAmount * loanRate * loanTerm;
05
06    return interestAmount;
07 }
```

You need to ensure that the debugger breaks execution within the CalculateInterest() method when the loanAmount variable is less than or equal to zero in all builds of the application.
What should you do?

A. Insert the following code segment at line 03:Trace.Assert(loanAmount > 0);
B. Insert the following code segment at line 03:Debug.Assert(loanAmount > 0);
C. Insert the following code segment at line 05:Debug.Write(loanAmount > 0);
D. Insert the following code segment at line 05:Trace.Write(loanAmount > 0);

8.

You are developing an application that accepts the input of dates from the user.
Users enter the date in their local format. The date entered by the user is stored in a string variable named inputDate. The valid date value must be placed in a
DateTime variable named validatedDate.
You need to validate the entered date and convert it to Coordinated Universal Time (UTC). The code must not cause an exception to be thrown.
Which code segment should you use?

○ A.
```
bool validDate = DateTime.TryParse(inputDate,
    CultureInfo.CurrentCulture, DateTimeStyles.AdjustToUniversal | DateTimeStyles.AssumeLocal,
    out validatedDate);
```

○ B.
```
bool validDate = DateTime.TryParse(inputDate,
    CultureInfo.CurrentCulture, DateTimeStyles.AssumeUniversal, out validatedDate);
```

○ C.
```
bool validDate = true;
try
{
    validatedDate = DateTime.Parse(inputDate);
}
catch
{
    validDate = false;
}
```

○ D.
```
validatedDate = DateTime.ParseExact(inputDate, "g",
    CultureInfo.CurrentCulture, DateTimeStyles.AdjustToUniversal | DateTimeStyles.AssumeUniversal);
```

A. Option A
B. Option B
C. Option C
D. Option D

9.

You are developing an application by using C#. The application will process several objects per second.
You need to create a performance counter to analyze the object processing.
Which three actions should you perform in sequence? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)
Select and Place:

Add the **CounterCreationData** objects to the collection by calling the **Add()** method of the collection.

Create a PerformanceCounterPermissionEntryCollection collection.

Call the **Create()** method of the **PerformanceCounterCategory** class and pass the collection to the method.

Get the CategoryName property of the PerformanceCounterPermissionEntry class.

Create a **CounterCreationDataCollection** collection. Then create the counters as **CounterCreationData** objects and set the necessary properties.

10.

11.

You are developing an application that will process orders. The debug and release versions of the application will display different logo images.
You need to ensure that the correct image path is set based on the build configuration.
Which code segment should you use?

```
#if (DEBUG)
  imgPath = "TempFolder/Images/";
#elif (RELEASE)
  imgPath = "DevFolder/Images/";
#endif
```

A.
```
if (DEBUG)
  imgPath = "TempFolder/Images/";
else
  imgPath = "DevFolder/Images/";
endif
```

B.
```
#if (DEBUG)
   imgPath = "TempFolder/Images/";
#else
   imgPath = "DevFolder/Images/";
#endif
```

C.
```
if(Debugger.IsAttached)
{
 imgPath = "TempFolder/Images/";
}
else
{
 imgPath = "DevFolder/Images/";
}
```

D.

12.

You are implementing a method named GetValidEmailAddresses. The GetValidEmailAddresses ()
method processes a list of string values that represent email addresses.
The GetValidEmailAddresses () method must return only email address that are in a valid format.
You need to implement the GetValidEmailAddresses() method.
Which two code segments can you use to achieve this goal? (Each correct answer presents a
complete solution. Choose two.)
NOTE: Each correct selection is worth one point.

```
private static List<String> GetValidEmailAddresses(string input, string pattern
{
    var regex = new Regex(pattern);
    var matches = regex.Matches(input);
    var validEmailAddresses = new List<String>();
    foreach(Match match in matches)
    {
        if(match.Success)
        {
            validEmailAddresses.Add(match.Value);
        }
    }
    return validEmailAddresses;
}
```

A.

```
private static List<String> GetValidEmailAddresses(string input, string pattern)
{
    var regex = new Regex(pattern);
    var matches = regex.Matches(input);
    var validEmailAddresses = new List<String>();
    foreach(Match match in matches)
    {
        if(!match.Success)
        {
            validEmailAddresses.Add(match.Value);
        }
    }
    return validEmailAddresses;
}
```

B.

```
private static List<String> GetValidEmailAddresses(string input, string pattern)
{
    var regex = new Regex(pattern);
    var matches = regex.Matches(input);
    return (from Match match in matches where match.Success select match.Value).ToList();
}
```

C.

```
private static List<String> GetValidEmailAddresses(string input, string pattern)
{
    var regex = new Regex(pattern);
    var matches = regex.Matches(input);
    return (from Match match in matches where match.Success select match.Success.ToString()).ToList();
}
```

D.

13.

You are developing a method named CreateCounters that will create performance counters for an application. The method includes the following code. (Line numbers are included for reference only.)

```
01 void CreateCounters()
02 {
03    if (!PerformanceCounterCategory.Exists("Contoso"))
04    {
05       var counters = new CounterCreationDataCollection();
06       var ccdCounter1 = new CounterCreationData
07       {
08          CounterName = "Counter1",
09          CounterType = PerformanceCounterType.AverageTimer32
11       };
12       counters.Add(ccdCounter1);
13       var ccdCounter2 = new CounterCreationData
14       {
15          CounterName = "Counter2",
16
17       };
18       counters.Add(ccdCounter2);
19       PerformanceCounterCategory.Create("Contoso", "Help string",
20          PerformanceCounterCategoryType.MultiInstance, counters);
21    }
22 }
```

You need to ensure that Counter2 is available for use in Windows Performance Monitor (PerfMon).
Which code segment should you insert at line 16?

A. CounterType = PerformanceCounterType.RawBase
B. CounterType = PerformanceCounterType.AverageBase
C. CounterType = PerformanceCounterType.SampleBase
D. CounterType = PerformanceCounterType.CounterMultiBase

14.

You are developing an application that will transmit large amounts of data between a client computer and a server.

You need to ensure the validity of the data by using a cryptographic hashing algorithm.
Which algorithm should you use?

A. ECDsa
B. RNGCryptoServiceProvider
C. Rfc2898DeriveBytes
D. HMACSHA512
E. RSA
F. ECDsa

15.

You are developing code for a class named Account. The Account class includes the following method:

```
public void Deposit(int dollars, int cents)
{
    int totalCents = cents + this.cents;
    int extraDollars = totalCents / 100;
    this.cents = totalCents - 100 * extraCents;
    this.dollars += dollars + extraDollars;
}
```

You need to ensure that overflow exceptions are thrown when there is an error.
Which type of block should you use?

A. checked
B. try
C. using
D. unchecked

16.

You are developing an application by using C#. The application will process several objects per second.
You need to create a performance counter to analyze the object processing.
Which three actions should you perform in sequence? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)
Select and Place:

Add the **PerformanceCounterPermissionEntry** objects to the collection by calling the **Add()** method of the collection.

Add the **CounterCreationData** objects to the collection by calling the **Add()** method of the collection.

Create a **CounterCreationDataCollection** collection. Then create the counters as **CounterCreationData** objects and set the necessary properties.

Create a **PerformanceCounterPermissionEntryCollection** collection.

Call the **Create()** method of the **PerformanceCounterCategory** class and pass the collection to the method.

Get the **CategoryName** property of the **PerformanceCounterPermissionEntry** class.

17.

You are developing an application that uses a .config file.
The relevant portion of the .config file is shown as follows:

```
<system.diagnostics>
  <trace autoflush="false" indentsize="0">
    <listeners>
      <add name="appListener"
        type="System.Diagnostics.EventLogTraceListener"
        initializeData="TraceListenerLog" />
    </listeners>
  </trace>
</system.diagnostics>
```

You need to ensure that diagnostic data for the application writes to the event tog by using the configuration specified in the .config file.
What should you include in the application code?

A
```
EventLog log = new EventLog();
log.WriteEntry("Trace data...");
```

B.
```
Debug.WriteLine("Trace data...");
```

C.
```
Console.SetOut(new StreamWriter("System.Diagnostics.EventLogTraceListener"));
Console.WriteLine("Trace data...");
```

D.
```
Trace.WriteLine("Trace data...");
```

A. Option A
B. Option B
C. Option C
D. Option D

19.

You are creating a C# application named Application1 that will process IoT data from 100,000 devices. Each IoT device can submit hundreds of data transactions per second.

Application1 runs on Windows Server.

You need to create a performance counter in Windows Server that will display the number of data transactions processed per second.

How should you complete the code? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

```
var countersDC = new
```
▼
CounterCreationData();
CounterCreationDataCollection();
PerformanceCounter();

```
var IOTDateRate = new
```
▼
CounterCreationData();
CounterCreationDataCollection();
PerformanceCounter();

```
IOTDateRate.CounterName = "Data Trans/Sec";

IOTDateRate.CounterHelp = "Data transactions per second";

IOTDateRate.CounterType = PerformanceCounterType.
```
CountPerTimeInterval64;
NumberOfItems64;
RateOfCountsPerSecond64;

```
countersDC.Add(IOTDateRate);

PerformanceCounterCategory.Create("Application1", "Application1 category for

IOT data", PerformanceCounterCategoryType.SingleInstance, countersDC);
```

20.

You have an assembly named Assembly1 that is written in C#. Assembly1 has a method named Method1.

You add a new method named Method2 to Assembly1. Method2 is a newer version of Method1 and must be used by applications in the future.

You need to ensure that if a developer builds a project that uses Method1, the developer is notified that Method1 is deprecated.

What should you do?

A. Set an #if DEPRECATED preprocessor directive above Method1. Set a #endif preprocessor directive after Method1.

B. Set a #pragma warning disable preprocessor inside of Method1.

C. Mark Method1 with an ObsoleteAttribute attribute.

D. Mark Method1 with a Conditional attribute that is set to WARNING.

E. Set a #warning preprocessor directive inside of Method1.

21.

You are creating a console application named App1.

App1 retrieves data from the Internet by using JavaScript Object Notation (JSON).

You are developing the following code segment (line numbers are included for reference only):

```
01 public bool ValidateJson(string json, Dictionary<string, object> result
02 {
03
04    try
05    {
06       result = serializer.Deserialize<Dictionary<string, object>>(json);
07       return true;
08    }
09    catch
10    {
11       return false;
12    }
13 }
```

You need to ensure that the code validates the JSON string.

Which code should you insert at line 03?

A. DataContractSerializer serializer = new DataContractSerializer();
B. var serializer = new DataContractSerializer();
C. XmlSerlalizer serializer = new XmlSerlalizer();
D. var serializer = new JavaScriptSerializer();

22.

You are implementing a method named ProcessReports that performs a long-running task. The ProcessReports() method has the following method signature: public void ProcessReports(List<decimal> values,CancellationTokenSource cts, CancellationToken ct) If the calling code requests cancellation, the method must perform the following actions: -> Cancel the long-running task. Set the task status to TaskStatus.Canceled.

.

You need to ensure that the ProcessReports() method performs the required actions. Which code segment should you use in the method body?

A. if (ct.IsCancellationRequested)return;
B. ct.ThrowIfCancellationRequested() ;
C. cts.Cancel();
D. throw new AggregateException();

23.

You are developing an application that will be deployed to multiple computers. You set the assembly name.
You need to create a unique identity for the application assembly.
Which two assembly identity attributes should you include in the source code? (Each correct answer presents part of the solution. Choose two.)

A. AssemblyTitleAttribute
B. AssemblyCultureAttribute
C. AssemblyVersionAttribute
D. AssemblyKeyNameAttribute
E. AssemblyFileVersion
F. AssemblyProductAttribute
G. AssemblyDelaySignAttribute
H. AssemblyCompanyAttribute

24.

An application uses X509 certificates for data encryption and decryption. The application stores certificates in the Personal certificates collection of the Current
User store. On each computer, each certificate subject is unique.
The application includes a method named LoadCertificate. The LoadCertificate() method includes the following code. (Line numbers are included for reference only.)

```
01 X509Certificate2 LoadCertificate(string searchValue)
02 {
03     var store = new X509Store(StoreName.My, StoreLocation.CurrentUser);
04     store.Open(OpenFlags.ReadOnly | OpenFlags.OpenExistingOnly);
05     var certs = store.Certificates.Find(
06
07       searchValue, false);
08       ...
09 }
```

The LoadCertificate() method must load only certificates for which the subject exactly matches the searchValue parameter value.
You need to ensure that the LoadCertificate() method loads the correct certificates.
Which code segment should you insert at line 06?

A. X509FindType.FindBySubjectName,

B. X509FindType.FindBySubjectKeyIdentifier,

C. X509FindType.FindByIssuerName,

D. X509FindType.FindBySubjectDistinguishedName,

25.

You are developing a class named Scorecard. The following code implements the Scorecard class. (Line numbers are included for reference only.)

```
01 public class Scorecard
02 {
03    private Dictionary<string, int> players = new Dictionary<string, int>();
04    public void Add(string name, int score)
05    {
06      players.Add(name, score);
07    }
08
09 }
```

You create the following unit test method to test the Scorecard class implementation:

```
[TestMethod]
public void UnitTest1()
{
    Scorecard scorecard = new Scorecard();
    scorecard.Add("Player1", 10);
    scorecard.Add("Player2", 15);
    int expectedScore = 15;
    int actualScore = scorecard["Player2"];
    Assert.AreEqual(expectedScore, actualScore);
}
```

You need to ensure that the unit test will pass.
What should you do?

A. Insert the following code segment at line 08:

```
public int this[string name]
{
  get
  {
    return players[name];
  }
}
```

B. Insert the following code segment at line 08:

```
public Dictionary<string, int> Players
{
  get
  {
    return players;
  }
}
```

C. Replace line 03 with the following code segment:

```
public Dictionary<string, int> Players = new Dictionary<string, int>();
```

D. Insert the following code segment at line 08:

```
public int score(string name)
{
  return players[name];
}
```

26.

You are developing a method named GenerateHash that will create the hash value for a file. The method includes the following code. (Line numbers are included for reference only.)

```
01 public byte[] GenerateHash(string filename, string hashAlgorithm)
02 {
03    var signatureAlgo = HashAlgorithm.Create(hashAlgorithm);
04    var fileBuffer = System.IO.File.ReadAllBytes(filename);
05
06 }
```

You need to return the cryptographic hash of the bytes contained in the fileBuffer variable.
Which code segment should you insert at line 05?

A.
```
var outputBuffer = new byte[fileBuffer.Length];
signatureAlgo.TransformBlock(fileBuffer, 0, fileBuffer.Length, outputBuffer, 0);
signatureAlgo.TransformFinalBlock(fileBuffer, fileBuffer.Length - 1, fileBuffer.Length);
return outputBuffer;
```

B.
```
signatureAlgo.ComputeHash(fileBuffer);
return signatureAlgo.GetHashCode();
```

C.
```
var outputBuffer = new byte[fileBuffer.Length];
signatureAlgo.TransformBlock(fileBuffer, 0, fileBuffer.Length, outputBuffer, 0);
return outputBuffer;
```

D.
```
return signatureAlgo.ComputeHash(fileBuffer);
```

27.

You have the following code (line numbers are included for reference only):

```
01 public class Program
02 {
03    private static System.Diagnostics.Stopwatch _execTimer =
04     new System.Diagnostics.Stopwatch();
05    public static void Delay(int delay)
06    {
07       Thread.Sleep(delay);
08    }
09    public static void LogLongExec(string msg)
10    {
11       if (_execTimer.Elapsed.Seconds >= 5)
12       throw new Exception(
13        string.Format("Execution is too long > {0} > {1}",
14        msg, _execTimer.Elapsed.TotalMilliseconds));
15    }
16    public static void Main()
17    {
18       _execTimer.Start();
19       try
20       {
21          Delay(10);
22          LogLongExec("Delay(10)");
23          Delay(5000);
24          LogLongExec("Delay(5000)");
25       }
26       catch (Exception ex)
27       {
28
29       }
30    }
31 }
```

You need to ensure that if an exception occurs, the exception will be logged.

Which code should you insert at line 28?

A.
```
System.Diagnostics.TraceSource trace = new TraceSource("./Trace.log");
trace.TraceEvent(TraceEventType.Error, ex.HResult, ex.Message);
```

B.
```
using (System.Diagnostics.XmlWriterTraceListener log1 =
  new XmlWriterTraceListener("./Error.log"))
{
   log1.TraceEvent(
     new TraceEventCache(), ex.Message, TraceEventType.Error, ex.HResult);
   log1.Flush();
}
```

C.
```
System.Diagnostics.EventInstance errorEvent =
  new System.Diagnostics.EventInstance(ex.HResult, 1, EventLogEntryType.Error);
System.Diagnostics.EventLog.WriteEvent("MyAppErrors", errorEvent, ex.Message);
```

D.
```
EventLog logEntry = new EventLog();
logEntry.Source = "Application";
logEntry.WriteEntry(ex.Message, EventLogEntryType.Error);
```

A. Option A
B. Option B
C. Option C
D. Option D

28.

You write the following method (line numbers are included for reference only):

```
01 public static List<string> TestIfWebSite(string url)
02 {
03     const string pattern = @"http://(www\.)?([^\.]+)\.com";
04     List<string> result = new List<string>();
05
06     MatchCollection myMatches = Regex.Matches(url, pattern);
07 ...
08     return result;
09 }
```

You need to ensure that the method extracts a list of URLs that match the following pattern:
@http://(www\.)?([^\.]+)\.com;
Which code should you insert at line 07?

A   result = (List<string>) myMatches.SyncRoot;

B.   result = (from System.Text.RegularExpressions.Match m in myMatches
          where m.Value.Contains(pattern)
          select m.Value).ToList<string>();

C.   foreach (Match currentMatch in myMatches)
          result.Add(currentMatch.Groups.ToString());

D.   foreach (Match currentMatch in myMatches)
          result.Add(currentMatch.Value);

A. Option A
B. Option B
C. Option C
D. Option D

29.

You are creating a class library that will be used in a web application.
You need to ensure that the class library assembly is strongly named.
What should you do?

A. Use the gacutil.exe command-line tool.
B. Use the xsd.exe command-line tool.
C. Use the aspnet_regiis.exe command-line tool.
D. Use assembly attributes.

30.

You have an application that will send confidential information to a Web server.
You need to ensure that the data is encrypted when it is sent across the network.
Which class should you use?

A. CryptoStream
B. AuthenticatedStream
C. PipeStream
D. NegotiateStream

31.

You are developing a class named EmployeeRoster. The following code implements the EmployeeRoster
class. (Line numbers are included for reference only.)

```
01 public class EmployeeRoster
02 {
03    private Dictionary<string, int> employees = new Dictionary<string, int>();
04    public void Add(string name, int salary)
05    {
06       employees.Add(name, salary);
07    }
08
09 }
```

You create the following unit test method to test the EmployeeRoster class implementation:

```
public void UnitTest1()
{

   EmployeeRoster employeeRoster = new EmployeeRoster();
   employeeRoster.Add("David Jones", 50000);
   employeeRoster.Add("Phyllis Harris", 75000);
   int expectedSalary = 75000;
   int actualSalary = employeeRoster["Phyllis Harris"];
   Assert.AreEqual(expectedSalary, actualSalary);
}
```

You need to ensure that the unit test will pass.

What should you do?

Insert the following code segment at line 08:

```
public Dictionary<string, int> Employees
{
  get
  {
    return employees;
  }
}
```

A.

Insert the following code segment at line 08:

```
public int this[string name]
{
  get
  {
    return employees[name];
  }
}
```

B.

Replace line 03 with the following code segment:

```
public Dictionary<string, int> Employees = new Dictionary<string, int>();
```

C.

Insert the following code segment at line 08:

```
public int salary(string name)
{
  return employees[name];
}
```

D.

32.

You are developing an application that produces an executable named MyApp.exe and an assembly named MyApp.dll.
The application will be sold to several customers.
You need to ensure that enough debugging information is available for MyApp.exe, so that if the application throws an error in a customer's environment, you can debug the error in your own development environment.
What should you do?

A. Digitally sign MyApp.dll.
B. Produce program database (PDB) information when you compile the code.
C. Compile MyApp.exe by using the /unsafe compiler option.
D. Initializes a new instance of the AssemblyDelaySignAttribute class in the MyApp.dll constructor.

33.

You have a C# application named App1 that invokes a method in an external assembly named Assembly1. Assembly1 is written in C++ and is natively compile by using a debug build.
When you debug App1, you do not see any debug information for Assembly1.
You need to ensure that when you debug App1, you see the debug information for Assembly1.
What should you do?

A. On the Debugging page of the configuration properties for the C++ project, set the Debugger Type to Native Only.
B. On the Debugging page of the configuration properties for the C++ project, set the Debugger Type to Mixed.
C. On the Debug page of the project properties for App1, click Enable native code debugging.
D. In the project properties for App1, set the working directory to the same directory as Assembly1.

34.

You are creating an application that reads from a database.
You need to use different databases during the development phase and the testing phase
by using conditional compilation techniques.
What should you do?

A. Configure the assembly metadata to use the pre-existing public key for the assembly
identity by using the AssemblySignatureKeyAttribute attribute.
B. Disable the strong-name bypass feature of Microsoft .NET Framework in the registry.
C. Configure the Define DEBUG constant setting in Microsoft Visual Studio.
D. Decorate the code by using the [assembly:AssemblyDelaySignAttribute(true)] attribute.

35.

You are developing an application that will process personnel records.
The application must encrypt highly sensitive data.
You need to ensure that the application uses the strongest available encryption.
Which class should you use?

A. System.Security.Cryptography.DES
B. System.Security.Cryptography.Aes
C. System.Security.Cryptography.TripleDES
D. System.Security.Cryptography.RC2

36.

You are creating a console application named App1.

App1 will validate user input for order entries.

You are developing the following code segment (line numbers are included for reference only):

```
01 Console.Write("Enter unit price: ");
02 string price = Console.ReadLine();
03
04    Console.WriteLine("Valid price");
05 else
06    Console.WriteLine("Invalid price")
```

You need to complete the code segment.

The solution must ensure that prices are positive and have two decimal places.

Which code should you insert at line 03?

A.   if (!Regex.IsMatch(price, @"^(-)?\d+(\.\d\d)?$"))

B.   if (Regex.IsMatch(price, @"^(-)?\d+(\.\d\d)?$"))

C.   Regex reg = new Regex(@"^\d+(\.\d\d)?$");
      if (reg.IsMatch(price))

D.   Regex reg = new Regex(@"^(-)?\d+(\.\d\d)?$");
      if (reg.IsMatch(price))
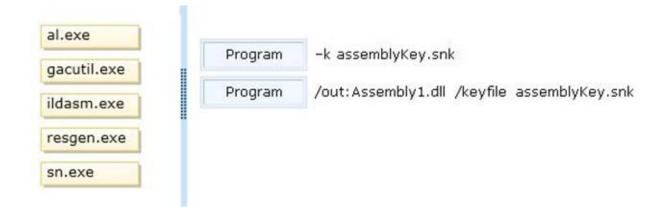
A. Option A
B. Option B
C. Option C
D. Option D

37.

You create an assembly named Assembly1.dll.
You need to ensure that Assembly1.dll can be deployed to the global assembly cache (GAC).
Which commands should you run? (To answer, drag the appropriate programs to the correct locations. Each program may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)
Select and Place:

| al.exe |
| gacutil.exe |
| ildasm.exe |
| resgen.exe |
| sn.exe |

| Program | -k assemblyKey.snk |
| Program | /out:Assembly1.dll /keyfile assemblyKey.snk |

38.

You write the following method (line numbers are included for reference only):

```
01 public static List<string> TestIfWebSite(string url)
02 {
03     const string pattern = @"http://(www\.)?([^\.]+)\.com";
04     List<string> result = new List<string>();
05
06     MatchCollection myMatches = Regex.Matches(url, pattern);
07 ...
08     return result;
09 }
```

You need to ensure that the method extracts a list of URLs that match the following pattern:
@http://(www\.)?([^\.]+)\.com;
Which code should you insert at line 07?

A. ```
    foreach (Match currentMatch in myMatches)
        result.Add(currentMatch.Groups.ToString());
    ```

B.  ```
    result = (List<string>) myMatches.GetEnumerator();
    ```

C. ```
    foreach (Match currentMatch in myMatches)
        result.Add(currentMatch.Value);
    ```

D.  ```
    result = (List<string>) myMatches.SyncRoot;
    ```

39.

You are developing an application by using C#. The application will write events to an event log. You plan to deploy the application to a server.

You create an event source named MySource and a custom log named MyLog on the server.

You need to write events to the custom log.

Which code segment should you use?

A.
```
public void WriteToEventLog(string message)
{
    EventLog eventLog = new EventLog() { Source = "Application" };
    eventLog.WriteEntry(message);
}
```

B.
```
public void WriteToEventLog(string message)
{
    EventLog eventLog = new EventLog() { Source = "MyLog", EnableRaisingEvents = true };
    EventInstance eventInstance = new EventInstance(0, 1);
    eventLog.WriteEvent(eventInstance, message);
}
```

C.
```
public void WriteToEventLog(string message, EventLogEntryType eventLogEntryType)
{
    EventLog eventLog = new EventLog() { Source = "MyLog" };
    eventLog.WriteEntry(message, eventLogEntryType);
}
```

D.
```
public void WriteToEventLog(string message, EventLogEntryType eventLogEntryType)
{
    EventLog eventLog = new EventLog() { Source = "MySource", EnableRaisingEvents = true };
    eventLog.WriteEntry(message, eventLogEntryType);
}
```

40.

You plan to store passwords in a Windows Azure SQL Database database.

You need to ensure that the passwords are stored in the database by using a hash algorithm,

Which cryptographic algorithm should you use?

A. ECDSA
B. RSA-768
C. AES-256
D. SHA-256

41.

You need to write a console application that meets the following requirements:
-> If the application is compiled in Debug mode, the console output must display Entering debug mode.
-> If the application is compiled in Release mode, the console output must display Entering release mode.
Which code should you use?

A.
```
#if (TRACE)
   Console.WriteLine("Entering debug mode");
#else
   Console.WriteLine("Entering release mode");
#endif
```

B.
```
#if (DEBUG)
   Console.WriteLine("Entering debug mode");
#else
   Console.WriteLine("Entering release mode");
#endif
```

C.
```
if(System.Diagnostics.Debugger.IsAttached)
   Console.WriteLine("Entering debug mode");
else
   Console.WriteLine("Entering release mode");
```

D.
```
#region DEBUG
   Console.WriteLine("Entering debug mode");
#endregion
#region RELEASE
   Console.WriteLine("Entering release mode");
#endregion
```

42.

You are developing a method named GetHash that will return a hash value for a file. The method includes the following code. (Line numbers are included for reference only.)

```
01 public byte[] GetHash(string filename, string algorithmType)
02 {
03    var hasher = HashAlgorithm.Create(algorithmType);
04    var fileBytes = System.IO.File.ReadAllBytes(filename);
05
06 }
```

You need to return the cryptographic hash of the bytes contained in the fileBytes variable.
Which code segment should you insert at line 05?

A.
```
var outputBuffer = new byte[fileBytes.Length];
hasher.TransformBlock(fileBytes, 0, fileBytes.Length, outputBuffer, 0);
hasher.TransformFinalBlock(fileBytes, fileBytes.Length - 1, fileBytes.Length);
return outputBuffer;
```

B.
```
hasher.ComputeHash(fileBytes);
return hasher.GetHashCode();
```

C.
```
var outputBuffer = new byte[fileBytes.Length];
hasher.TransformBlock(fileBytes, 0, fileBytes.Length, outputBuffer, 0);
return outputBuffer;
```

D.
```
hasher.ComputeHash(fileBytes);
return hasher.Hash;
```

43.

You are creating a class library that will be used in a web application.
You need to ensure that the class library assembly is strongly named.
What should you do?

A. Use assembly attributes.
B. Use the EdmGen.exe command-line tool.
C. Set the configuration mode to Release when building the application.
D. Use the gacutil.exe command-line tool.

43.

You are creating an application that reads from a database.
You need to use different databases during the development phase and the
testing phase by using conditional compilation techniques.
What should you do?

A. Configure the Define TRACE constant setting in Microsoft Visual Studio.
B. Decorate the code by using the [DebuggerDisplay("Mydebug")] attribute.
C. Configure the Define DEBUG constant setting in Microsoft Visual Studio.
D. Disable the strong-name bypass feature of Microsoft .NET Framework in
the registry.

44.

You are developing a method named CreateCounters that will create performance counters for an application.

The method includes the following code. (Line numbers are included for reference only.)

```
01 void CreateCounters()
02 {
03    if (!PerformanceCounterCategory.Exists("Contoso"))
04    {
05       var counters = new CounterCreationDataCollection();
06       var ccdCounter1 = new CounterCreationData
07       {
08          CounterName = "Counter1",
09          CounterType = PerformanceCounterType.SampleFraction
11       };
12       counters.Add(ccdCounter1);
13       var ccdCounter2 = new CounterCreationData
14       {
15          CounterName = "Counter2",
16
17       };
18       counters.Add(ccdCounter2);
19       PerformanceCounterCategory.Create("Contoso", "Help string",
20        PerformanceCounterCategoryType.MultiInstance, counters);
21    }
22 }
```

You need to ensure that Counter2 is available for use in Windows Performance Monitor (PerfMon).
Which code segment should you insert at line 16?

A. CounterType = PerformanceCounterType.RawBase
B. CounterType = PerformanceCounterType.AverageBase
C. CounterType = PerformanceCounterType.SampleBase
D. CounterType = PerformanceCounterType.CounterMultiBase

45.

You write the following method (line numbers are included for reference only):

```
01 public static List<string> TestIfWebSite(string url)
02 {
03     const string pattern = @"http://(www\.)?([^\.]+)\.com";
04     List<string> result = new List<string>();
05
06     MatchCollection myMatches = Regex.Matches(url, pattern);
07 ...
08     return result;
09 }
```

You need to ensure that the method extracts a list of URLs that match the following pattern:
@http://(www\.)?([^\.]+)\.com;
Which code should you insert at line 07?

C A.
```
result = (List < string >) myMatches.GetEnumerator();
```

C B.
```
result = (List < string >) myMatches.SyncRoot;
```

C C.
```
result = ( from  System.Text.RegularExpressions. Match   m  in  myMatches
          select m.Value).ToList< string >();
```

C D.
```
result = ( from  System.Text.RegularExpressions. Match  m  in  myMatches
           where  !m.Success
           select m.Value).ToList< string >();
```

46.

You are creating an application that reads from a database.
You need to use different databases during the development phase and the testing phase by using conditional compilation techniques.
What should you do?

A. Configure the Define TRACE constant setting in Microsoft Visual Studio.
B. Specify the /define compiler option.
C. Run the Assembly Linker tool from the Windows Software Development Kit (Windows SDK).
D. Decorate the code by using the [assembly:AssemblyDelaySignAttribute(true)] attribute.

47.

You are creating a console application named Appl.

App1 retrieves data from the Internet by using JavaScript Object Notation (JSON).

You are developing the following code segment (line numbers are included for reference only):

```
01 public bool ValidateJson(string json, Dictionary<string, object> result)
02 {
03
04   try
05   {
06     result = serializer.Deserialize<Dictionary<string, object>>(json);
07     return true;
08   }
09   catch
10   {
11     return false;
12   }
13 }
```

You need to ensure that the code validates the JSON string.

Which code should you insert at line 03?

A. `XmlSerializer serializer = new XmlSerializer();`

B. `var serializer = new JavaScriptSerializer();`

C. `DataContractSerializer serializer = new DataContractSerializer();`

D. `NetDataContractSerializer serializer = new NetDataContractSerializer();`