➢ Vendor: Microsoft

➢ Exam Code: 70-483

➢ Exam Name: Microsoft Programming in C#

➢ Question 121 -- Question 150

QUESTION 121
You are creating an application that manages information about your company's products.
The application includes a class named Product and a method named Save.
The Save() method must be strongly typed. It must allow only types inherited from the Product class that use a constructor that accepts no parameters.
You need to implement the Save() method.
Which code segment should you use?

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

Answer: D

QUESTION 122
You are implementing a new method named ProcessData. The ProcessData() method calls a third-party component that performs a long-running operation.
The third-party component uses the IAsyncResult pattern to signal completion of the long- running operation.
You need to ensure that the calling code handles the long-running operation as a System.Threading.Tasks.Task object.
Which two actions should you perform?
(Each correct answer presents part of the solution. Choose two.)

A. Call the component by using the TaskFactory.FromAsync() method.
B. Create a TaskCompletionSource<T> object.
C. Apply the async modifier to the method signature.
D. Apply the following attribute to the method signature:
[MethodImpl(MethodImplOptions.Synchronized)]

Answer: AB

Explanation:

A: TaskFactory.FromAsync Method

Creates a Task that represents a pair of begin and end methods that conform to the Asynchronous Programming Model pattern. Overloaded.

Example:

TaskFactory.FromAsync Method (IAsyncResult, Action<IAsyncResult>) Creates a Task that executes an end method action when a specified IAsyncResult completes.

B: In many scenarios, it is useful to enable a Task<TResult> to represent an external asynchronous operation. TaskCompletionSource<TResult> is provided for this purpose. It enables the creation of a task that can be handed out to consumers, and those consumers can use the members of the task as they would any other. However, unlike most tasks, the state of a task created by a TaskCompletionSource is controlled explicitly by the methods on TaskCompletionSource. This enables the completion of the external asynchronous operation to be propagated to the underlying Task. The separation also ensures that consumers are not able to transition the state without access to the corresponding TaskCompletionSource.

Note:

* System.Threading.Tasks.Task

Represents an asynchronous operation.

QUESTION 123

Drag and Drop Question

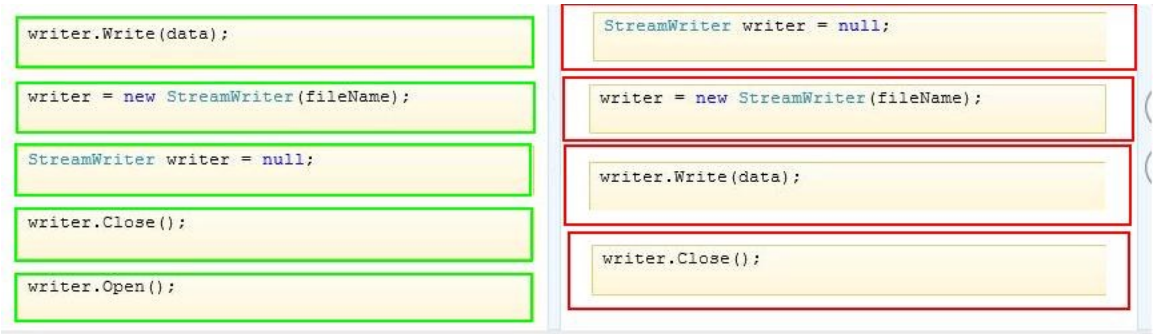
You are developing an application that will write data to a file. The application includes the following code segment. (Line numbers are included for reference only.)

You need to ensure that the WriteData() method will write data to a file.

Which four code segments should you insert in sequence at line 03?

(To answer, move the appropriate code segments from the list of code segments to the answer area and arrange them in the correct order.)

Answer:



QUESTION 125

Hotspot Question

You define a class by using the following code:

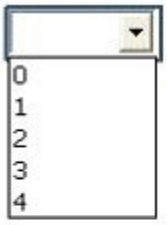
```
public class Department
{
  public int Id { get; set; }
  public string Name { get; set; }
  public string Manager { get; set; }
  public int BuildingId { get; set; }
}
```

You create a collection by using the following code:

```
Department[] departments =
{
  new Department
   { Id = 1, Name = "Accounting", Manager = "User1", BuildingId = 15 },
  new Department
   { Id = 2, Name = "Sales", Manager = "User2", BuildingId = 3 },
  new Department
   { Id = 3, Name = "IT", Manager = "User3" , BuildingId = 15},
  new Department
   { Id = 4, Name = "Marketing", Manager = "User4", BuildingId = 3}
};
var output =
  from d in departments
  group d by d.BuildingId into dp
  select new { sorted = dp.Key, Department = dp };
```

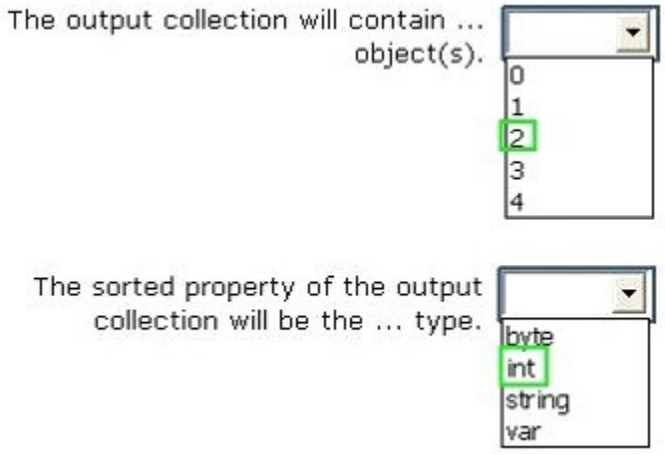
To answer, complete each statement according to the information presented in the code.

The output collection will contain ... object(s).

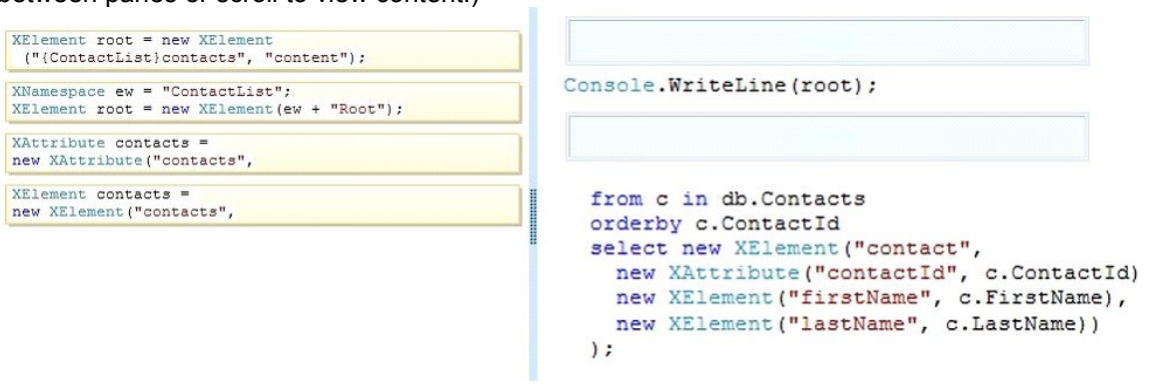


The sorted property of the output collection will be the ... type.

Answer:



QUESTION 126
Drag and Drop Question
You are developing an application that will populate an extensive XML tree from a Microsoft SQL Server 2008 R2 database table named Contacts.
You are creating the XML tree. The solution must meet the following requirements:
- Minimize memory requirements.
- Maximize data processing speed.
You open the database connection.
You need to create the XML tree.
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.)



Answer:

```
XElement root = new XElement
  ("{ContactList}contacts", "content");
XNamespace ew = "ContactList";
XElement root = new XElement(ew + "Root");
XAttribute contacts =
new XAttribute("contacts",
XElement contacts =
new XElement("contacts",
```

```
XNamespace ew = "ContactList";
XElement root = new XElement(ew + "Root");
Console.WriteLine(root);
XAttribute contacts =
new XAttribute("contacts",
  from c in db.Contacts
  orderby c.ContactId
  select new XElement("contact",
    new XAttribute("contactId", c.ContactId)
    new XElement("firstName", c.FirstName),
    new XElement("lastName", c.LastName))
  );
```

QUESTION 127

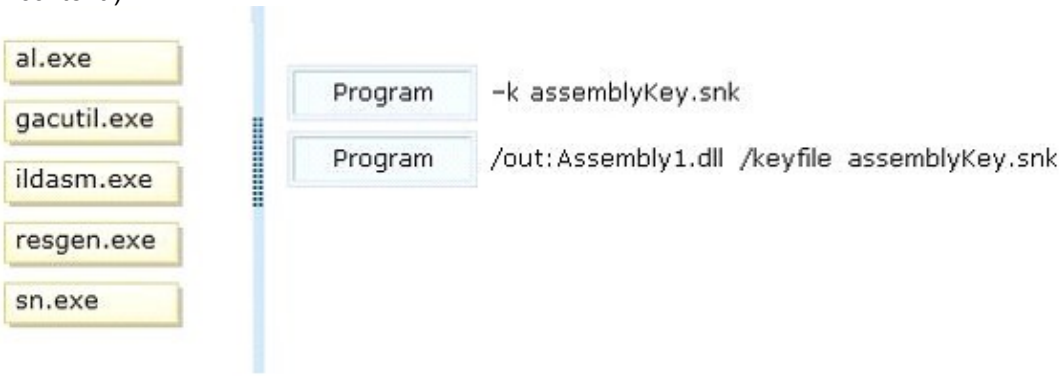
Drag and Drop Question

You create an assembly named Assembly1.dll.

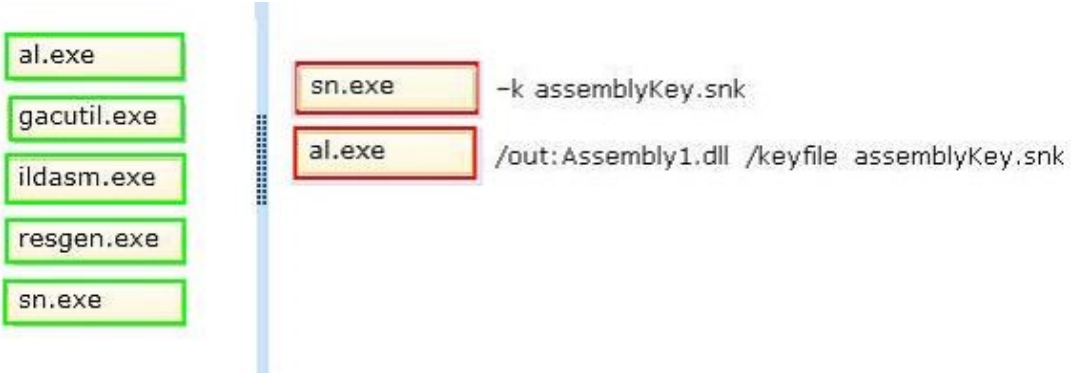
You need to ensure that Assembly1.dll can be deployed to the global assembly cache (GAC).

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.)



Answer:



QUESTION 128

You are developing an application that will read data from a text file and display the file contents.

You need to read data from the file, display it, and correctly release the file resources. Which code segment should you use?

A.
```
string inputLine;
using (StreamReader reader = new StreamReader("data.txt"))
{
  while ((inputLine = reader.ReadLine()) != null)
  {
    Console.WriteLine(inputLine);
  }
}
```

B.
```
string inputLine;
StreamReader reader = null;
using (reader = new StreamReader("data.txt")) ;
while ((inputLine = reader.ReadLine()) != null)
{
  Console.WriteLine(inputLine);
}
```

C.
```
string inputLine;
StreamReader reader = new StreamReader("data.txt");
while ((inputLine = reader.ReadLine()) != null)
{
  Console.WriteLine(inputLine);
}
```

D.
```
string inputLine;
StreamReader reader = null;
try
{
  reader = new StreamReader("data.txt");
  while ((inputLine = reader.ReadLine()) != null)
  {
    Console.WriteLine(inputLine);
  }
  reader.Close();
  reader.Dispose();
}
finally
{
}
```

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

Answer: A

QUESTION 129
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

Answer: A

QUESTION 130
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

Answer: BC
Explanation:
The AssemblyName object contains information about an assembly, which you can use to bind to that assembly. An assembly's identity consists of the following:
Simple name.
Version number.
Cryptographic key pair.
Supported culture.
B: AssemblyCultureAttribute
Specifies which culture the assembly supports.
The attribute is used by compilers to distinguish between a main assembly and a satellite assembly. A main assembly contains code and the neutral culture's resources. A satellite assembly contains only resources for a particular culture, as in [assembly:AssemblyCultureAttribute("de")]
C: AssemblyVersionAttribute
Specifies the version of the assembly being attributed. The assembly version number is part of an assembly's identity and plays a key part in binding to the assembly and in version policy.

QUESTION 131
You are developing an application that includes a method named SendMessage.
You need to ensure that the SendMessage() method is called with the required parameters.
Which two code segments can you use to achieve this goal? (Each correct answer presents a complete solution. Choose two.)

A.
```
static void Main(string[] args)
{
  dynamic message = new { From = "Jon Morris", To = "Mary North", Content = "Hello World" };
  SendMessage(message);
}
private static void SendMessage(Object msg)
{
  Console.WriteLine(msg.From);
  Console.WriteLine(msg.To);
  Console.WriteLine(msg.Content);
}
```

B.
```
static void Main(string[] args)
{
  var message = new Object();
  message.From = "Jon Morris";
  message.To = "Mary North";
  message.Content = "Hello World";
  SendMessage(message);
}
private static void SendMessage(dynamic msg)
{
  Console.WriteLine(msg.From);
  Console.WriteLine(msg.To);
  Console.WriteLine(msg.Content);
}
```

C.
```
static void Main(string[] args)
{
  var message = new { From = "Jon Morris", To = "Mary North", Content = "Hello World" };
  SendMessage(message);
}
private static void SendMessage(dynamic msg)
{
  Console.WriteLine(msg.From);
  Console.WriteLine(msg.To);
  Console.WriteLine(msg.Content);
}
```

D.
```
static void Main(string[] args)
{
  dynamic message = new ExpandoObject();
  message.From = "Jon Morris";
  message.To = "Mary North";
  message.Content = "Hello World";
  SendMessage(message);
}
private static void SendMessage(dynamic msg)
{
  Console.WriteLine(msg.From);
  Console.WriteLine(msg.To);
  Console.WriteLine(msg.Content);
}
```

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

Answer: CD
Explanation:
D: ExpandoObject
Represents an object whose members can be dynamically added and removed at run time. / The ExpandoObject class enables you to add and delete members of its instances at run time and also to set and get values of these members. This class supports dynamic binding, which enables you to use standard syntax like sampleObject.sampleMember instead of more complex syntax like

sampleObject.GetAttribute("sampleMember"). / You can pass instances of the ExpandoObject class as parameters. Note that these instances are treated as dynamic objects in C# and late-bound objects in Visual Basic. This means that you do not have IntelliSense for object members and you do not receive compiler errors when you call non-existent members. If you call a member that does not exist, an exception occurs.

Note:

* Visual C# 2010 introduces a new type, dynamic. The type is a static type, but an object of type dynamic bypasses static type checking. In most cases, it functions like it has type object. At compile time, an element that is typed as dynamic is assumed to support any operation. Therefore, you do not have to be concerned about whether the object gets its value from a COM API, from a dynamic language such as IronPython, from the HTML Document Object Model (DOM), from reflection, or from somewhere else in the program. However, if the code is not valid, errors are caught at run time.

QUESTION 132

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

```
01class Bar
02{
03  pub lic string barColor { get; set; }
04  public string barName { get; set; }
05  private static IEnumerable<Bar> GetBars(string sqlConnectionString)
06  {
07    var bars = new List<Bar>();
08    SqlConnection fooSqlConn = new SqlConnection();
09    using (fooSqlConn)
10    {
11      SqlCommand fooSqlCmd = new SqlCommand
        ("Select sqlName,sqlColor from Animals", fooSqlConn);
12      fooSqlConn.Open();
13      using (SqlDataReader fooSqlReader = fooSqlCmd.ExecuteReader())
14      {
15
16        {
17          var bar = new Bar();
18          bar.barName = (String)fooSqlReader["sqlName"];
19          bar.barColor = (String)fooSqlReader["sqlColor"];
20          bars.Add(bar);
21        }
22      }
23    }
24    return bars;
25  }
26}
```

You need to identify the missing line of code at line 15. Which line of code should you identify?

A. using (fooSqlConn.BeginTransaction())
B. while (fooSqlReader.Read())
C. while (fooSqlReader.NextResult())
D. while (fooSqlReader.GetBoolean(0))

Answer: B

QUESTION 133
You are developing an application that uses multiple asynchronous tasks to optimize performance. The application will be deployed in a distributed environment.
You need to retrieve the result of an asynchronous task that retrieves data from a web service. The data will later be parsed by a separate task.
Which code segment should you use?

A.
```
protected async void StartTask()
{
  string result = await GetData();
  ...
}
public Task<string> GetData()
{
  ...
}
```

B.
```
protected async void StartTask()
{
  string result = await GetData();
  ...
}
public async Task<string> GetData()
{
  ...
}
```

C.
```
protected async void StartTask()
{
  string result = GetData();
  ...
}
public Task<string> GetData()
{
  ...
}
```

D.
```
protected async void StartTask()
{
  string result = async GetData();
  ...
}
public await Task<string> GetData()
{
  ...
}
```

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

D. Option D

Answer: B

QUESTION 134

You are developing an application that includes methods named ConvertAmount and TransferFunds.

You need to ensure that the precision and range of the value in the amount variable is not lost when the TransferFunds() method is called.

Which code segment should you use?

A.
```
private static void ConvertAmount(float amount)
{
  TransferFunds(amount);
}
private static void TransferFunds(int funds)
{
  ...
  Console.WriteLine(funds);
}
```

B.
```
private static void ConvertAmount(float amount)
{
  TransferFunds((int)funds);
}
private static void TransferFunds(float funds)
{
  ...
}
```

C.
```
private static void ConvertAmount(float amount)
{
  TransferFunds(amount);
}
private static void TransferFunds(float funds)
{
  ...
}
```

D.
```
private static void ConvertAmount(float amount)
{
  TransferFunds(Double.Parse(amount));
}
private static void TransferFunds(double funds)
{
  ...
  Console.WriteLine(funds);
}
```

A. Option A

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

Answer: C
Explanation:
Simply use float for the TransferFunds parameter.
Note:
* The float keyword signifies a simple type that stores 32-bit floating-point values.
* The double keyword signifies a simple type that stores 64-bit floating-point values

QUESTION 135
You are developing an application. The application calls a method that returns an array of integers named customerIds.
You define an integer variable named customerIdToRemove and assign a value to it.
You declare an array named filteredCustomerIds.
You have the following requirements.
- Remove duplicate integers from the customerIds array.
- Sort the array in order from the highest value to the lowest value.
- Remove the integer value stored in the customerIdToRemove variable from the customerIds array.
You need to create a LINQ query to meet the requirements.
Which code segment should you use?

A.
```
int[] filteredCustomerIds = customerIds.Distinct().OrderByDescending(x => x).ToArray();
```

B.
```
int[] filteredCustomerIds = customerIds.Where(value => value !=
  customerIdToRemove).OrderByDescending(x => x).ToArray();
```

C.
```
int[] filteredCustomerIds = customerIds.Distinct().Where(value => value !=
  customerIdToRemove).OrderByDescending(x => x).ToArray();
```

D.
```
int[] filteredCustomerIds = customerIds.Where(value => value !=
  customerIdToRemove).OrderBy(x => x).ToArray();
```

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

Answer: C

QUESTION 136
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.XmlWriterTraceListener listener =
 new XmlWriterTraceListener("./Error.log");
listener.WriteLine(ex.Message);
listener.Flush();
listener.Close();
```

B.
```
System.Diagnostics.XmlWriterTraceListener loggingListener =
 new XmlWriterTraceListener("./Trace.log");
loggingListener.Flush();
loggingListener.Close();
```

C.
```
System.Diagnostics.Trace.WriteLine(ex.Message, "Error.log");
```

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

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

Answer: A
Explanation:
* XmlWriterTraceListener
Directs tracing or debugging output as XML-encoded data to a TextWriter or to a Stream, such as a FileStream.

QUESTION 137
You are developing an application that includes methods named EvaluateLoan, ProcessLoan, and FundLoan. The application defines build configurations named TRIAL, BASIC, and ADVANCED.
You have the following requirements:
- The TRIAL build configuration must run only the EvaluateLoan() method.
- The BASIC build configuration must run all three methods.
- The ADVANCED build configuration must run only the EvaluateLoan() and ProcessLoan() methods.
You need to meet the requirements. Which code segment should you use?

A.
```
#if TRIAL
#warning EvaluateLoan();
#error ProcessLoan();
#error FundLoan();
#elif ADVANCED
#warning EvaluateLoan();
#warning ProcessLoan();
#warning FundLoan();
#else
#warning EvaluateLoan();
#warning ProcessLoan();
#error FundLoan();
#endif
```

B.
```
#if TRIAL
  EvaluateLoan();
#elif ADVANCED
  EvaluateLoan();
  ProcessLoan();
  FundLoan();
#else
  EvaluateLoan();
  ProcessLoan();
#endif
```

C.
```
#if TRIAL
  EvaluateLoan();
#elif BASIC
  EvaluateLoan();
  ProcessLoan();
  FundLoan();
#else
  EvaluateLoan();
  ProcessLoan();
#endif
```

D.
```
#if TRIAL
  EvaluateLoan();
#elif BASIC
  EvaluateLoan();
  ProcessLoan();
#error FundLoan();
#else
  EvaluateLoan();
  ProcessLoan();
  FundLoan();
#endif
```

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

D. Option D

Answer: C

QUESTION 138
You have an application that accesses a Web server named Server1.
You need to download an image named imagel.jpg from Server1 and store the image locally as Filel.jpg.
Which code should you use?

A.
```
WebRequest request = HttpWebRequest.Create("http://server1/image1.jpg");
StreamWriter writer = new StreamWriter(request.GetResponse().GetResponseStream());
writer.WriteLine("C:\\file1.jpg");
writer.Dispose();
```

B.
```
WebClient client = new WebClient();
StreamWriter writer = new StreamWriter("C:\\file1.jpg");
writer.Write(client.DownloadData("http://server1/image1.jpg"));
writer.Dispose();
client.Dispose();
```

C.
```
WebClient client = new WebClient();
client.DownloadFile("http://server1/image1.jpg", "C:\\file1.jpg");
client.Dispose();
```

D.
```
WebRequest request = HttpWebRequest.Create("http://server1/image1.jpg");
StreamWriter writer = new StreamWriter(request.GetResponse().GetResponseStream());
writer.Write("C:\\file1.jpg");
writer.Dispose();
```

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

Answer: C

QUESTION 139
You are developing a game that allows players to collect from 0 through 1000 coins.
You are creating a method that will be used in the game.
The method includes the following code. (Line numbers are included for reference only.)
```
01 public string FormatCoins(string name, int coins)
02 {
04 }
```
The method must meet the following requirements:
- Return a string that includes the player name and the number of coins.
- Display the number of coins without leading zeros if the number is 1 or greater.
- Display the number of coins as a single 0 if the number is 0.

You need to ensure that the method meets the requirements.
Which code segment should you insert at line 03?

A.
```
return String.Format("Player {0}, collected {1} coins", name, coins.ToString("###0"));
```

B.
```
return String.Format("Player {0} collected {1:000#} coins.", name, coins);
```

C.
```
return String.Format("Player {name} collected {coins.ToString('000')} coins");
```

D.
```
return String.Format("Player {1} collected {2:D3} coins.", name, coins);
```

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

Answer: D

QUESTION 140
You are creating a class named Game.
The Game class must meet the following requirements:
- Include a member that represents the score for a Game instance.
- Allow external code to assign a value to the score member.
- Restrict the range of values that can be assigned to the score member.

You need to implement the score member to meet the requirements.
In which form should you implement the score member?

A. protected field
B. public static field
C. public static property
D. public property

Answer: D

QUESTION 141
You need to create a method that can be called by using a varying number of parameters.
What should you use?

A. derived classes
B. interface
C. enumeration
D. method overloading

Answer: D
Explanation:
Member overloading means creating two or more members on the same type that differ only in the number or type of parameters but have the same name. Overloading is one of the most important techniques for improving usability, productivity, and readability of reusable libraries. Overloading on the number of parameters makes it possible to provide simpler versions of constructors and methods. Overloading on the parameter type makes it possible to use the same member name for members performing identical operations on a selected set of different types.

QUESTION 142

You are developing an application that includes a class named BookTracker for tracking library books. The application includes the following code segment. (Line numbers are included for reference only.)

```
01 public delegate void AddBookCallback(int i);
02 public class BookTracker
03 {
04   List<Book> books = new List<Book>();
05   public void AddBook(string name, AddBookCallback callback)
06   {
07     books.Add(new Book(name));
08     callback(books.Count);
09   }
10 }
11
12 public class Book
13 {
14
15   BookTracker tracker = new BookTracker();
16   public void Add(string name)
17   {
18
19   }
20 }
```

You need to add a book to the BookTracker instance.
What should you do?

A. Insert the following code segment at line 18:

```
tracker.AddBook(name, delegate(int i)
  {
    ...
  });
```

B. Insert the following code segment at line 11:

```
delegatevoidAddBookDelegate(stringname, AddBookCallback callback);
```

Insert the following code segment at line 18:

```
AddBookDelegateadder = (i, callback) =>
  {
    ...
  };
```

C. Insert the following code segment at line 11:

```
delegatevoidAddBookDelegate(BookTracker bookTracker);
```

Insert the following code segment at line 18:

```
AddBookDelegateaddDelegate = (bookTracker) =>
  {
    ...
  };
addDelegate(tracker);
```

D. Insert the following code segment at line 14:

```
private static void PrintBookCount(int i)
{
  ...
}
```

Insert the following code segment at line 18:

```
AddBookCallback callback = PrintBookCount;
```

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

Answer: A

QUESTION 143
You are developing an application in C#.
The application uses exception handling on a method that is used to execute mathematical calculations by using integer numbers.
You write the following catch blocks for the method (line numbers are included for reference only):

```
01
02 catch(ArithmeticException e) {Console.WriteLine("Arithmetic error");}
03
04 catch(ArgumentException e) {Console.WriteLine("Bad Argument");}
05
06 catch(Exception e) {Console.WriteLine("General error");}
07
```

You need to add the following code to the method:

```
catch(DivideByZeroException e) {Console.WriteLine("Divide by zero");}
```

At which line should you insert the code?

A. 01
B. 03
C. 05
D. 07

Answer: A

QUESTION 144
You are implementing a method named ProcessData that performs a long-running task. The ProcessData() method has the following method signature:

```
public void ProcessData(List<decimal> values, CancellationTokenSource source, CancellationToken token)
```

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 ProcessData() method performs the required actions.
Which code segment should you use in the method body?

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

Answer: C

QUESTION 145
Hotspot Question
You have the following code:

```
[DataContract(Name="Indvidual")]
  public class Individual
  {
    private string m_FirstName;
    private string m_LastName;

    [DataMember]
    public string FirstName
    {
      get { return m_FirstName; }
      set { m_FirstName = value; }
    }

    [DataMember(EmitDefaultValue=false)]
    public string LastName
    {
      get { return m_LastName; }
      set { m_LastName = value; }
    }


    public Individual()
    {
    }

   public Individual(string firstName, string lastName)
    {
      m_FirstName = firstName;
      m_LastName = lastName;
    }

  }
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

	Yes	No
LastName will be serialized after firstName.	○	○
The namespace used in the serialized XML will be Individual.	○	○
The lastName node will always appear in the serialized XML.	○	○

Answer:

	Yes	No
LastName will be serialized after firstName.	○	○
The namespace used in the serialized XML will be Individual.	○	○
The lastName node will always appear in the serialized XML.	○	○

QUESTION 146
You are troubleshooting an application that uses a class named FullName. The class is decorated with the DataContractAttribute attribute. The application includes the following code. (Line numbers are included for reference only.)

```
01 class Program
02 {
03   MemoryStream WriteName(Name name)
04   {
05     var ms = new MemoryStream();
06     var binary = XmlDictionaryWriter.CreateBinaryWriter(ms);
07     var ser = new DataContractSerializer(typeof(FullName));
08     ser.WriteObject(binary, name);
09
10     return ms;
11   }
12 }
```

You need to ensure that the entire FullName object is serialized to the memory stream object.
Which code segment should you insert at line 09?

A. binary.WriteEndElement();
B. binary.NriteEndDocument();
C. ms.Close() ;
D. binary.Flush();

Answer: A
Explanation:
* DataContractSerializer.WriteEndObject Method (XmlDictionaryWriter) Writes the closing XML element using an XmlDictionaryWriter.
* Note on line 07: DataContractSerializer.WriteObject Method Writes all the object data (starting XML element, content, and closing element) to an XML document or stream.
XmlDictionaryWriter

QUESTION 147
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?

A. Insert the following code segment at line 08:

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

B. Insert the following code segment at line 08:

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

C. Replace line 03 with the following code segment:

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

D. Insert the following code segment at line 08:

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

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

Answer: B

QUESTION 148
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);
```

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

Answer: D

QUESTION 149
You are troubleshooting an application that uses a class named FullName. The class is decorated with the DataContractAttribute attribute. The application includes the following code. (Line numbers are included for reference only.)

```
01 class Program
02 {
03   MemoryStream WriteName(Name name)
04   {
05     var ms = new MemoryStream();
06     var binary = XmlDictionaryWriter.CreateBinaryWriter(ms);
07     var ser = new DataContractSerializer(typeof(FullName));
08     ser.WriteObject(binary, name);
09
10     return ms;
11   }
12 }
```

You need to ensure that the entire FullName object is serialized to the memory stream object.
Which code segment should you insert at line 09?

A. binary.WriteEndDocument();
B. binary.WriteEndDocumentAsync();
C. binary.WriteEndElementAsync();
D. binary.Flush();

Answer: A
Explanation:
* DataContractSerializer.WriteEndObject Method (XmlDictionaryWriter) Writes the closing XML element using an XmlDictionaryWriter.
* Note on line 07: DataContractSerializer.WriteObject Method Writes all the object data (starting XML element, content, and closing element) to an XML document or stream.
XmlDictionaryWriter

QUESTION 150
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 log by using the configuration specified in the .config file.
What should you include in the application code?

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

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

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

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

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

Answer: A