Vendor: Microsoft

Exam Code: 70-483

Exam Name: Microsoft Programming in C#

Questions and Answers No.: 141-150 (231Q&As)

QUESTION 141

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 142
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 143
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 144
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 145
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 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.)
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?

```
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 }
```

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.)
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?

```
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 }
```

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: C
Explanation:
Debug.Writeline() statements will not be included in the Release compilation by default, whereas Trace.Writeline statements will be included.