

Microsoft Passguide 70-483 Exam Questions & Answers

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Microsoft 70-483 Exam Questions & Answers

Exam Name: Programming in C#

For Full Set of Questions please visit: <http://www.passguide.com/70-483.html>

Passguide

QUESTION 1

collection of Order objects.

The collection must meet the following requirements:

- Use strongly typed members.
- Process Order objects in first-in-first-out order.
- Store values for each Order object.
- Use zero-based indices.

You need to use a collection type that meets the requirements.

Which collection type should you use?

- A. Queue <T>
- B. SortedList
- C. LinkedList<T>
- D. HashTable
- E. Array <T>

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 2

You are developing an application. The application calls a method that returns an array of integers

named employeeIds. You define an integer variable named employeeIdToRemove and assign a value to it.

You declare an array named filteredEmployeeIds.

You have the following requirements:

- Remove duplicate integers from the employeeIds array.
- Sort the array in order from the highest value to the lowest value.
- Remove the integer value stored in the employeeIdToRemove variable from the employeeIds array.

You need to create a LINQ query to meet the requirements.

Which code segment should you use?

- A. `int[] filteredEmployeeIds = employeeIds.Where(value => value != employeeIdToRemove).OrderBy(x => x).ToArray();`
- B. `int[] filteredEmployeeIds = employeeIds.Where(value => value != employeeIdToRemove).OrderByDescending(x => x).ToArray();`
- C. `int[] filteredEmployeeIds = employeeIds.Distinct().Where(value => value != employeeIdToRemove).OrderByDescending(x => x).ToArray();`
- D. `int[] filteredEmployeeIds = employeeIds.Distinct().OrderByDescending(x => x).ToArray();`

- A.
B.
C.
D.

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

C is the only one of the answers that includes the "Distinct" clause in order to eliminate duplicate values.

QUESTION 3

You are developing a custom collection named LoanCollection for a class named Loan class.

You need to ensure that you can process each Loan object in the LoanCollection collection by using a foreach loop.

(You may need to drag the split bar between panes or scroll to view content.))

```
: IComparable
: IEnumerable
: IDisposable
public IEnumerator GetEnumerator()
public int CompareTo(object obj)
public void Dispose()
_loanCollection[0].Amount++;
return obj == null ? 1 : _loanCollection.Length;
return _loanCollection.GetEnumerator();
```

```
public class LoanCollection
{
    private readonly Loan[] _loanCollection;
    public LoanCollection(Loan[] loanArray)
    {
        _loanCollection = new Loan[loanArray.Length];

        for (int i = 0; i < loanArray.Length; i++)
        {
            _loanCollection[i] = loanArray[i];
        }
    }
}
```

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.

Select and Place:

```

: IComparable
: IEnumerable
: IDisposable
public IEnumerator GetEnumerator()
public int CompareTo(object obj)
public void Dispose()
loanCollection[0].Amount++;
return obj == null ? 1 : _loanCollection.Length;
return _loanCollection.GetEnumerator();

```

```

public class LoanCollection : IEnumerable
{
    private readonly Loan[] _loanCollection;
    public LoanCollection(Loan[] loanArray)
    {
        _loanCollection = new Loan[loanArray.Length];

        for (int i = 0; i < loanArray.Length; i++)
        {
            _loanCollection[i] = loanArray[i];
        }
    }
}

```

Correct Answer:


```

: IComparable
: IEnumerable
: IDisposable
public IEnumerator GetEnumerator()
public int CompareTo(object obj)
public void Dispose()
loanCollection[0].Amount++;
return obj == null ? 1 : _loanCollection.Length;
return _loanCollection.GetEnumerator();

```

```

public class LoanCollection : IEnumerable
{
    private readonly Loan[] _loanCollection;
    public LoanCollection(Loan[] loanArray)
    {
        _loanCollection = new Loan[loanArray.Length];

        for (int i = 0; i < loanArray.Length; i++)
        {
            _loanCollection[i] = loanArray[i];
        }
    }

```

Section: (none)

Explanation

Explanation/Reference:

QUESTION 4

You are developing an application that uses the Microsoft ADO.NET Entity Framework to retrieve order information from a Microsoft SQL Server database. The application includes the following code. (Line numbers are included for reference only.)

```
01 public DateTime? OrderDate;  
02 IQueryable<Order> LookupOrdersForYear(int year)  
03 {  
04     using (var context = new NorthwindEntities())  
05     {  
06         var orders =  
07             from order in context.Orders  
08  
09             select order;  
10         return orders.ToList().AsQueryable();  
11     }  
12 }
```

The application must meet the following requirements:

-Return only orders that have an OrderDate value other than null. -Return only orders that were placed in the year specified in the OrderDate property or in a later year.

You need to ensure that the application meets the requirements.

Which code segment should you insert at line 08?

- A. Where order.OrderDate.Value != null && order.OrderDate.Value.Year >= year
- B. Where order.OrderDate.Value == null && order.OrderDate.Value.Year == year
- C. Where order.OrderDate.HasValue && order.OrderDate.Value.Year == year
- D. Where order.OrderDate.Value.Year == year

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

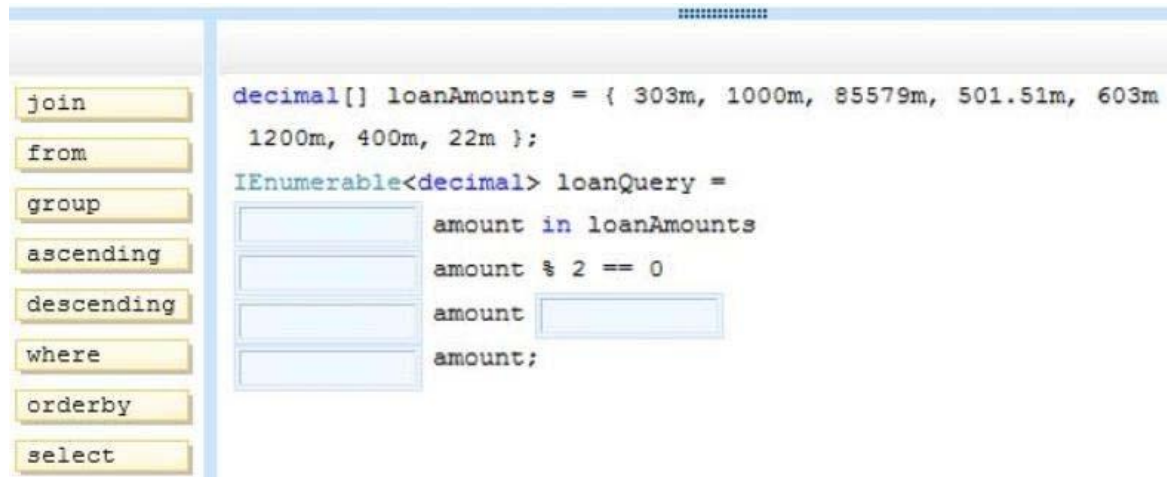
QUESTION 5

You are developing an application by using C#. The application includes an array of decimal values named loanAmounts. You are developing a LINQ query to return the values from the array.

The query must return decimal values that are evenly divisible by two. The values must be sorted from the lowest value to the highest value.

You need to ensure that the query correctly returns the decimal values.

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.



```
decimal[] loanAmounts = { 303m, 1000m, 85579m, 501.51m, 603m, 1200m, 400m, 22m };
IEnumerable<decimal> loanQuery =
    amount in loanAmounts
    amount % 2 == 0
    amount
    amount;
```

Select and Place:

join

from

group

ascending

descending

where

orderby

select

```
decimal[] loanAmounts = { 303m, 1000m, 85579m, 501.51m, 603m
    1200m, 400m, 22m };

IEnumerable<decimal> loanQuery =
    from amount in loanAmounts
    where amount % 2 == 0
    orderby amount
    ascending
    select amount;
```

Correct Answer:

join

from

group

ascending

descending

where

orderby

select

```

decimal[] loanAmounts = { 303m, 1000m, 85579m, 501.51m, 603m
    1200m, 400m, 22m };

IEnumerable<decimal> loanQuery =
    from amount in loanAmounts
    where amount % 2 == 0
    orderby amount
    ascending
    select amount;
        
```

Section: (none)

Explanation

Explanation/Reference:

QUESTION 6

You are developing an application. The application includes a method named ReadFile that reads data from a file.

The ReadFile() method must meet the following requirements:

- It must not make changes to the data file.
- It must allow other processes to access the data file.
- It must not throw an exception if the application attempts to open a data file that does not exist.

You need to implement the ReadFileQ method. Which code segment should you use?

- ☐ A. `var fs = File.Open(Filename, FileMode.OpenOrCreate, FileAccess.Read, FileShare.ReadWrite);`
- ☐ B. `var fs = File.Open(Filename, FileMode.Open, FileAccess.Read, FileShare.ReadWrite);`
- ☐ C. `var fs = File.Open(Filename, FileMode.OpenOrCreate, FileAccess.Read, FileShare.Write);`
- ☐ D. `var fs = File.ReadAllLines(Filename);`
- ☐ E. `var fs = File.ReadAllBytes(Filename);`

- A.
B.
C.
D.

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

Allows you to Open or Create, but not change the file. The folder however can be changed.

QUESTION 7

You are developing an application. The application converts a Location object to a string by using a method named WriteObject. The WriteObject() method accepts two parameters, a Location object and an XmlObjectSerializer object.

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

```
01 public enum Compass
02 {
03     North,
04     South,
05     East,
06     West
07 }
08 [DataContract]
09 public class Location
10 {
11     [DataMember]
12     public string Label { get; set; }
13     [DataMember]
14     public Compass Direction { get; set; }
15 }
16 void DoWork()
17 {
18     var location = new Location { Label = "Test", Direction = Compass.West };
19     Console.WriteLine(WriteObject(location,
20
21     ));
22 }
```

You need to serialize the Location object as a JSON object.

Which code segment should you insert at line 20?

- A. New DataContractSerializer(typeof(Location))
- B. New XmlSerializer(typeof(Location))
- C. New NetDataContractSerializer { }
- D. New DataContractJsonSerializer(typeof(Location))

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 8

An application includes a class named Person. The Person class includes a method named GetData.

You need to ensure that the GetData() method can be used only by the Person class or a class derived from the Person class.

Which access modifier should you use for the GetData() method?

- A. Internal
- B. Protected
- C. Protected Internal
- D. Private
- E. Public

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 9

You are developing a class named ExtensionMethods

You need to ensure that the ExtensionMethods class implements the IsUrl() method on string objects.

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.)


```
public static class ExtensionMethods
```

```
public class ExtensionMethods
```

```
this String str
```

```
String str
```

```
protected static class ExtensionMethods
```

```
.....
```

```
{  
    public static bool IsUrl(  
          
    )  
    {  
        var regex = new Regex(  
            "(https?://)?([A-Za-z9-0-]*\\.)*([A-Za-z0-9-]*)" +  
            "\\.[A-Za-z0-9]*/*.*");  
        return regex.IsMatch(str);  
    }  
}
```

Select and Place:

```
public static class ExtensionMethods
```

```
public class ExtensionMethods
```

```
this String str
```

```
String str
```

```
protected static class ExtensionMethods
```

```
.....
```

```
public static class ExtensionMethods
```

```
{
```

```
    public static bool IsUrl(
```

```
        this String str
```

```
)
```

```
{
```

```
    var regex = new Regex(
```

```
        "(https?://)?([A-Za-z9-0-]*\\.)?([A-Za-z0-9-]*)" +
```

```
        "\\.[A-Za-z0-9]*/?.*");
```

```
    return regex.IsMatch(str);
```

```
}
```

```
}
```

Correct Answer:

```
public static class ExtensionMethods
```

```
public class ExtensionMethods
```

```
this String str
```

```
String str
```

```
protected static class ExtensionMethods
```

```
.....
```

```
public static class ExtensionMethods
```

```
{
```

```
    public static bool IsUrl(
```

```
        this String str
```

```
)
```

```
{
```

```
    var regex = new Regex(
```

```
        "(https?://)?([A-Za-z9-0-]*\\.)?([A-Za-z0-9-]*)" +
```

```
        "\\.[A-Za-z0-9-]*/*.*");
```

```
    return regex.IsMatch(str);
```

```
}
```

```
}
```

Section: (none)

Explanation

Explanation/Reference:

QUESTION 10

You are developing an application that will convert data into multiple output formats.

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

```
01 public class TabDelimitedFormatter : IOutputFormatter<string>
02 {
03     readonly Func<int, char> suffix = col => col % 2 == 0 ? '\n' : '\t';
04     public string GetOutput(IEnumerable<string> iterator, int recordSize)
05     {
06
07     }
08 }
```

You are developing a code segment that will produce tab-delimited output. All output routines implement the following interface:

You need to minimize the completion time of the GetOutput() method. Which code segment should you insert at line 06?

- ☐ A.

```
string output = null;
for (int i = 1; iterator.MoveNext(); i++)
{
    output = string.Concat(output, iterator.Current, suffix(i));
}
return output;
```
- ☐ B.

```
var output = new StringBuilder();
for (int i = 1; iterator.MoveNext(); i++)
{
    output.Append(iterator.Current);
    output.Append(suffix(i));
}
return output.ToString();
```
- ☐ C.

```
string output = null;
for (int i = 1; iterator.MoveNext(); i++)
{
    output = output + iterator.Current + suffix(i);
}
return output;
```
- ☐ D.

```
string output = null;
for (int i = 1; iterator.MoveNext(); i++)
{
    output += iterator.Current + suffix(i);
}
return output;
```

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

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 11

You are creating a class named Employee. The class exposes a string property named EmployeeType.

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

```
01 public class Employee
02 {
03     internal string EmployeeType
04     {
05         get;
06         set;
07     }
08 }
```

The EmployeeType property value must be accessed and modified only by code within the Employee class or within a class derived from the Employee class.

You need to ensure that the implementation of the EmployeeType property meets the requirements.

Which two actions should you perform? (Each correct answer represents part of the complete solution.

Choose two.)

- A. Replace line 05 with the following code segment: protected get;
- B. Replace line 06 with the following code segment: private set;
- C. Replace line 03 with the following code segment: public string EmployeeType
- D. Replace line 05 with the following code segment: private get;
- E. Replace line 03 with the following code segment: protected string EmployeeType
- F. Replace line 06 with the following code segment: protected set;

Correct Answer: AF

Section: (none)

Explanation

Explanation/Reference:

QUESTION 12

You are implementing a method named Calculate that performs conversions between value types and reference types. The following code segment implements the method. (Line numbers are included for reference only.)

```
01 public static void Calculate(float amount)
02 {
03     object amountRef = amount;
04
05     Console.WriteLine(balance);
06 }
```

You need to ensure that the application does not throw exceptions on invalid conversions.

Which code segment should you insert at line 04?

- A. `int balance = (int)(float)amountRef;`
- B. `int balance = (int)amountRef;`
- C. `int balance = amountRef;`
- D. `int balance = (int) (double) amountRef;`

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 13

You use the Task.Run() method to launch a long-running data processing operation. The data processing operation often fails in times of heavy network congestion.

If the data processing operation fails, a second operation must clean up any results of the first operation.

You need to ensure that the second operation is invoked only if the data processing operation throws an

unhandled exception.

What should you do?

- A. Create a TaskCompletionSource<T> object and call the TrySetException() method of the object.
- B. Create a task by calling the Task.ContinueWith() method
- C. Examine the Task.Status property immediately after the call to the Task.Run() method.
- D. Create a task inside the existing Task.Run() method by using the AttachedToParent option.

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 14

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


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

You need to add a user to the UserTracker instance. What should you do?

- ☐ A. Insert the following code segment at line 14:

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

Insert the following code segment at line 18:

```
AddUserCallback callback = PrintUserCount;
```

- ☐ B. Insert the following code segment at line 11:

```
delegate void AddUserDelegate(UserTracker userTracker);
```

Insert the following code segment at line 18:

```
AddUserDelegate addDelegate = (userTracker) =>
{
    ...
};
addDelegate(tracker);
```

- ☐ C. Insert the following code segment at line 11:

```
delegate void AddUserDelegate(string name, AddUserCallback callback);
```

Insert the following code segment at line 18:

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

- ☐ D. Insert the following code segment at line 18:

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

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

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 15

You are developing an application that includes a class named Kiosk. The Kiosk class includes a static property named Catalog. The Kiosk class is defined by the following code segment. (Line numbers are included for reference only.)

```
01 public class Kiosk
02 {
03     static Catalog _catalog = null;
04     static object _lock = new object();
05     public static Catalog Catalog
06     {
07         get
08         {
09
10             return _catalog;
11         }
12     }
13 }
```

You have the following requirements:

- Initialize the _catalog field to a Catalog instance.
- Initialize the _catalog field only once.

-Ensure that the application code acquires a lock only when the _catalog object must be instantiated.

You need to meet the requirements.

Which three code segments should you insert in sequence at line 09? (To answer, move the appropriate code segments from the list of code segments to the answer area and arrange them in the correct order.)

<code>lock (_lock)</code>	
<code>if (_catalog != null) _catalog = new Catalog();</code>	
<code>if (_catalog != null)</code>	
<code>if (_catalog == null) _catalog = new Catalog();</code>	
<code>if (_catalog == null)</code>	

Select and Place:

```
lock (_lock)
```

```
if (_catalog != null) _catalog = new Catalog  
();
```

```
if (_catalog != null)
```

```
if (_catalog == null) _catalog = new Catalog  
();
```

```
if (_catalog == null)
```

```
if (_catalog != null) _catalog = new Catalog  
();
```

```
if (_catalog != null)
```

```
lock (_lock)
```

Correct Answer:

```
lock (_lock)
```

```
if (_catalog != null) _catalog = new Catalog  
();
```

```
if (_catalog != null)
```

```
if (_catalog == null) _catalog = new Catalog  
();
```

```
if (_catalog == null)
```

```
if (_catalog != null) _catalog = new Catalog  
();
```

```
if (_catalog != null)
```

```
lock (_lock)
```

Section: (none)

Explanation

Explanation/Reference:

QUESTION 16

You are developing an application that implements a set of custom exception types. You declare the custom exception types by using the following code segments:

```
public class AdventureWorksException : System.Exception { ... }  
public class AdventureWorksDbException : AdventureWorksException { ... }  
public class AdventureWorksValidationException : AdventureWorksException { ... }
```

The application includes a function named DoWork that throws .NET Framework exceptions and custom exceptions.

The application contains only the following logging methods:

```
static void Log(Exception ex) { ... }  
static void Log(AdventureWorksException ex) { ... }  
static void Log(AdventureWorksValidationException ex) { ... }
```

The application must meet the following requirements:

-When AdventureWorksValidationException exceptions are caught, log the information by using the static void Log (AdventureWorksValidationException ex) method. -When AdventureWorksDbException or other

AdventureWorksException exceptions are caught, log the information by using the static void Log (AdventureWorksException ex) method.

You need to meet the requirements.

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.)

(AdventureWorksValidationException ex)

(AdventureWorksException ex)

(Exception ex)

(ContosoDbException ex)

```
try
{
    DoWork();
}
catch 
{
    Log(ex);
}
catch 
{
    Log(ex);
}
catch 
{
    Log(ex);
}
```

Select and Place:

(AdventureWorksValidationException ex)

(AdventureWorksException ex)

(Exception ex)

(ContosoDbException ex)

```
try
{
    DoWork();
}
catch (AdventureWorksValidationException ex)
{
    Log(ex);
}
catch (AdventureWorksException ex)
{
    Log(ex);
}
catch (Exception ex)
{
    Log(ex);
}
```

Correct Answer:

```
(AdventureWorksValidationException ex)
(AdventureWorksException ex)
(Exception ex)
(ContosoDbException ex)

try
{
    DoWork();
}
catch (AdventureWorksValidationException ex)
{
    Log(ex);
}
catch (AdventureWorksException ex)
{
    Log(ex);
}
catch (Exception ex)
{
    Log(ex);
}
```

Section: (none)

Explanation

Explanation/Reference:

QUESTION 17

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.

Correct Answer: BD

Section: (none)

Explanation

Explanation/Reference:

QUESTION 18

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.

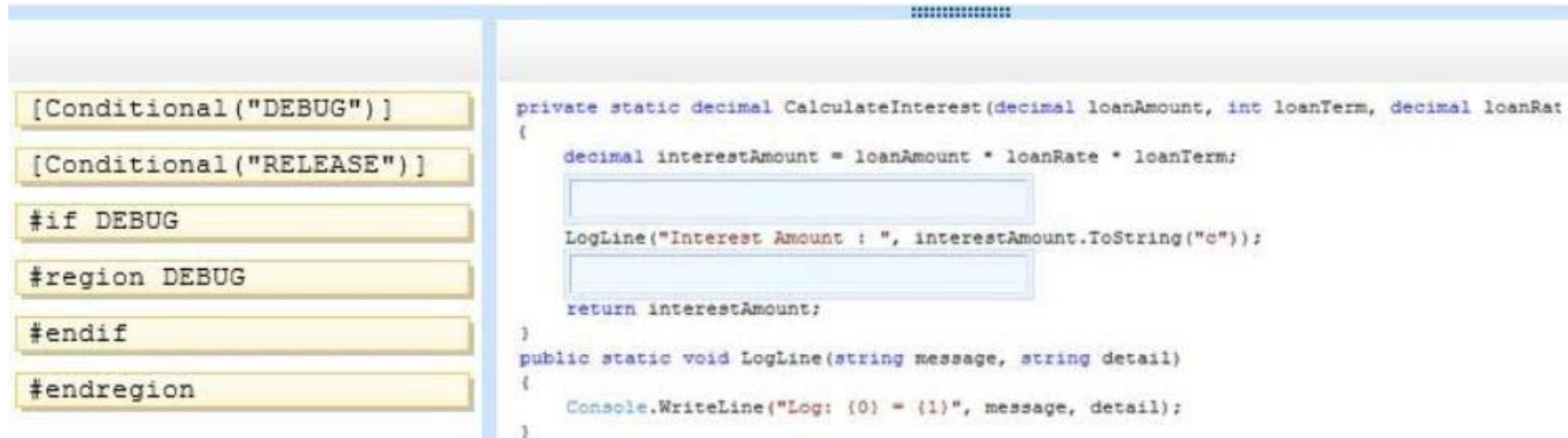
You have the following requirements:

-The CalculateInterest() method must run for all build configurations. -LogLine() method must run 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.)

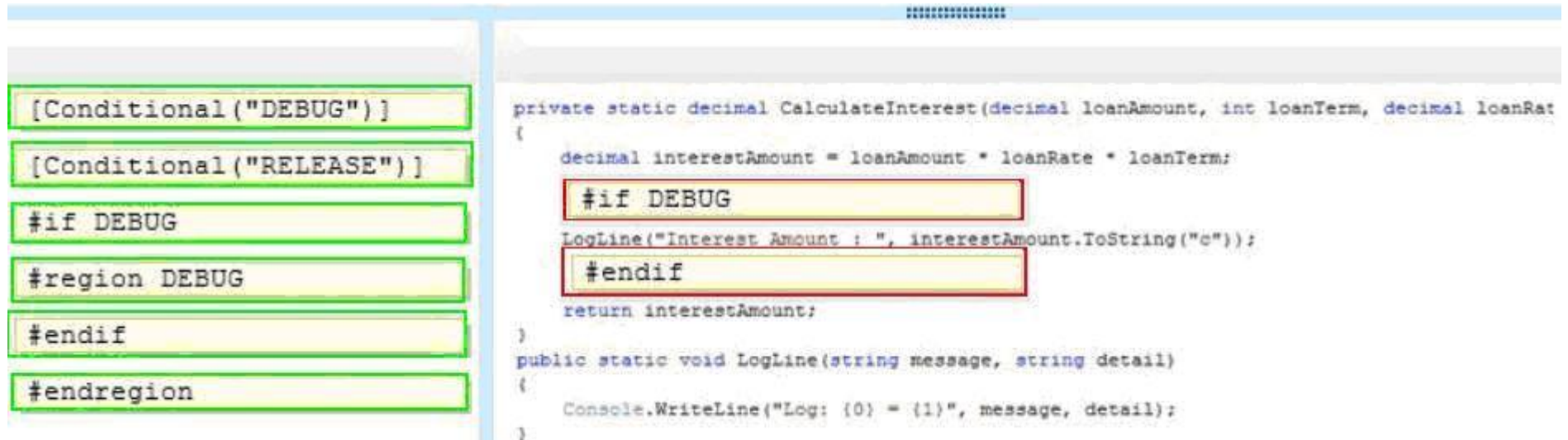


```
[Conditional("DEBUG")]
[Conditional("RELEASE")]
#if DEBUG
#region DEBUG
#endif
#endregion

private static decimal CalculateInterest(decimal loanAmount, int loanTerm, decimal loanRate)
{
    decimal interestAmount = loanAmount * loanRate * loanTerm;
    LogLine("Interest Amount : ", interestAmount.ToString("c"));
    return interestAmount;
}

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

Select and Place:

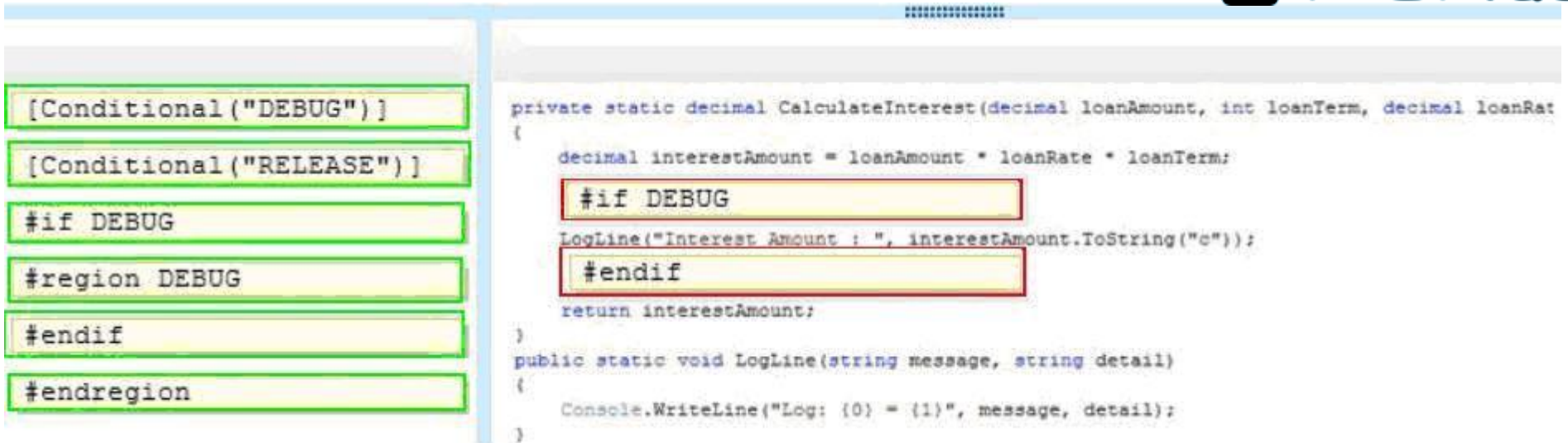


```
[Conditional("DEBUG")]
[Conditional("RELEASE")]
#if DEBUG
#region DEBUG
#endif
#endregion

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

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

Correct Answer:



Section: (none)

Explanation

Explanation/Reference:

QUESTION 19

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. Choose two.)

- 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.

Correct Answer: BD

Section: (none)

Explanation

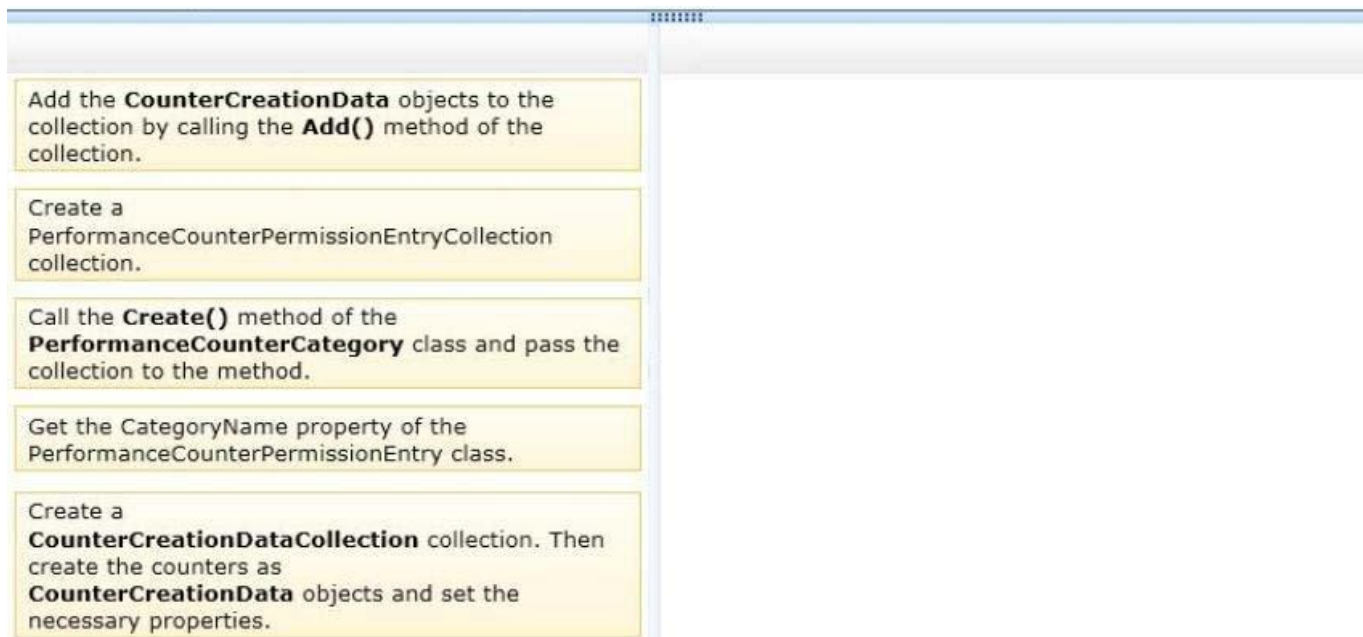
Explanation/Reference:

QUESTION 20

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.)



The screenshot shows a drag-and-drop interface with a list of actions on the left and an empty answer area on the right. The actions are:

- 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.

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.

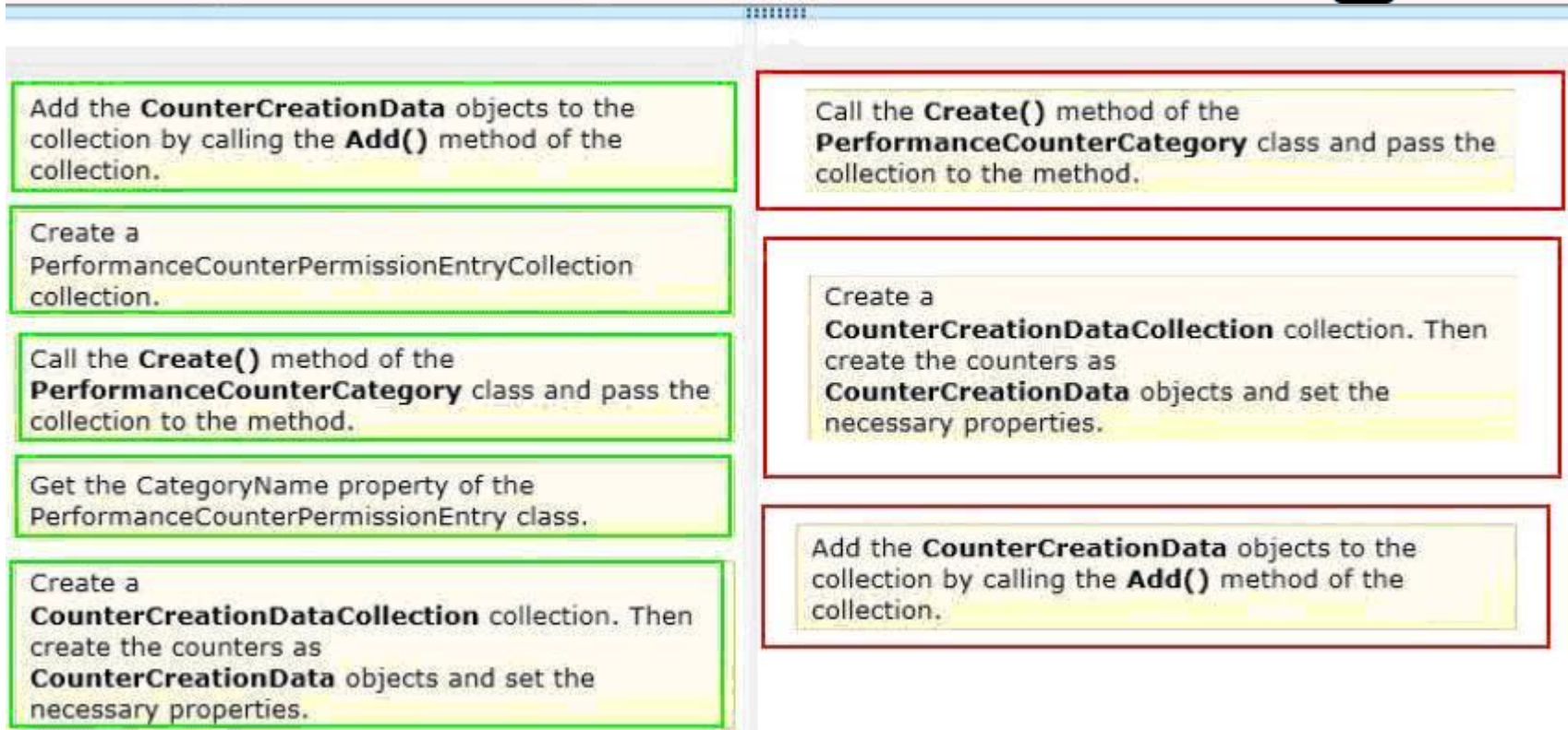
Create a **CounterCreationDataCollection** collection. Then create the counters as **CounterCreationData** objects and set the necessary properties.

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

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

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

Correct Answer:



Section: (none)

Explanation

Explanation/Reference:

QUESTION 21

You are developing an application by using C#. You provide a public key to the development team during development.

You need to specify that the assembly is not fully signed when it is built.

Which two assembly attributes should you include in the source code? (Each correct answer presents part of the solution. Choose two.)

- A. AssemblyKeyNameAttribute
- B. ObfuscateAssemblyAttribute
- C. AssemblyDelaySignAttribute
- D. AssemblyKeyFileAttribute

Correct Answer: CD

Section: (none)

Explanation

Explanation/Reference:

QUESTION 22

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 Runner
13 {
14
15     BookTracker tracker = new BookTracker();
16     public void Add(string name)
17     {
18
19     }
20 }
```

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

- ☐ A. 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;
```

- ☐ B. Insert the following code segment at line 18:

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

- ☐ C. Insert the following code segment at line 11:

```
delegate void AddBookDelegate(BookTracker bookTracker);
```

Insert the following code segment at line 18:

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

- ☐ D. Insert the following code segment at line 11:

```
delegate void AddBookDelegate(string name, AddBookCallback callback);
```

Insert the following code segment at line 18:

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

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

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 23

You are developing an application by using C#.

The application includes an object that performs a long running process.

You need to ensure that the garbage collector does not release the object's resources until the process completes.

Which garbage collector method should you use?

- A. `WaitForFullGCComplete()`
- B. `WaitForFullGCApproach()`
- C. `KeepAlive()`
- D. `WaitForPendingFinalizers()`

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

Please note that "KeepAlive" is an option when you want to keep resources alive so that the garbage collector does not destroy them. Then, you may add additional code that is more specific for how long you want the resource(s) to be kept alive. Even though the `WaitForFullGCComplete` method seems correct, that method is waiting for full garbage collection to be complete, not for the processes to complete.

QUESTION 24

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. `public static void Save(Product target)`
`{`
 `...`
`}`
- ☐ B. `public static void Save<T>(T target) where T : new(), Product`
`{`
 `...`
`}`
- ☐ C. `public static void Save<T>(T target) where T : Product`
`{`
 `...`
`}`
- ☐ D. `public static void Save<T>(T target) where T : Product, new()`
`{`
 `...`
`}`

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

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 25

You are developing an application. The application includes classes named Mammal and Animal and an interface named IAnimal.

The Mammal class must meet the following requirements:

- It must either inherit from the Animal class or implement the IAnimal interface.
- It must be inheritable by other classes in the application.

You need to ensure that the Mammal class meets the requirements.

Which two code segments can you use to achieve this goal? (Each correct answer presents a complete solution. Choose two.)

- ☐ A.

```
abstract class Mammal : IAnimal
{
    ...
}
```
- ☐ B.

```
sealed class Mammal : IAnimal
{
    ...
}
```
- ☐ C.

```
abstract class Mammal : Animal
{
    ...
}
```
- ☐ D.

```
sealed class Mammal : Animal
{
    ...
}
```

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

Correct Answer: AC

Section: (none)

Explanation

Explanation/Reference:

QUESTION 26

You are developing a class named ExtensionMethods.

You need to ensure that the ExtensionMethods class implements the IsEmail() method on string objects.

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.)

public static class ExtensionMethods

public class ExtensionMethods

this String str

String str

protected static class ExtensionMethods

```

{
    public static bool IsEmail(
        
    )
    {
        var regex = new Regex(@"^([\\w\\.\\-]+)@([\\w\\-]+)((\\.([\\w]{2,3})+)$)");
        return regex.IsMatch(str);
    }
}

```

Select and Place:

public static class ExtensionMethods

public class ExtensionMethods

this String str

String str

protected static class ExtensionMethods

public static class ExtensionMethods

```

{
    public static bool IsEmail(
        

this String str


    )
    {
        var regex = new Regex(@"^([\\w\\.\\-]+)@([\\w\\-]+)((\\.([\\w]{2,3})+)$)");
        return regex.IsMatch(str);
    }
}

```

Correct Answer:


```
public static class ExtensionMethods
```

```
public class ExtensionMethods
```

```
this String str
```

```
String str
```

```
protected static class ExtensionMethods
```

```
public static class ExtensionMethods
```

```
{
```

```
    public static bool IsEmail(
```

```
        this String str
```

```
    )
```

```
    {
```

```
        var regex = new Regex(@"^([w\.\-]+)@([w\-]+)([.](w)
```

```
        return regex.IsMatch(str);
```

```
    }
```

```
}
```

Section: (none)

Explanation

Explanation/Reference:

QUESTION 27

An application receives JSON data in the following format:

```
{ "FirstName" : "David",  
  "LastName" : "Jones",  
  "Values" : [0, 1, 2] }
```

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

```
01 public class Name
02 {
03     public int[] Values { get; set; }
04     public string FirstName { get; set; }
05     public string LastName { get; set; }
06 }
07 public static Name ConvertToName(string json)
08 {
09     var ser = new JavaScriptSerializer();
10
11 }
```

You need to ensure that the ConvertToName() method returns the JSON input string as a Name object.

Which code segment should you insert at line 10?

- A. Return ser.Desenalize (json, typeof(Name));
- B. Return ser.ConvertToType<Name>(json);
- C. Return ser.Deserialize<Name>(json);
- D. Return ser .ConvertToType (json, typeof (Name) >

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 28

You are developing an application that includes a class named Customer.

The application will output the Customer class as a structured XML document by using the following code segment:

```
<?xml version="1.0" encoding="utf-8"?>
<Prospect xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  ProspectId="9c027bb8-65f1-40a9-8afa-ac839f3cdc5d" xmlns="http://prospect">
  <FullName>David Jones</FullName>
  <DateOfBirth>1977-06-11T00:00:00</DateOfBirth>
</Prospect>
```

You need to ensure that the Customer class will serialize to XML.

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.)

```
[XmlRoot("Customer", Namespace = "http://customer")]  
[XmlRoot("Prospect", Namespace = "http://prospect")]  
[XmlAttribute("ProspectId")]  
[XmlElement("ProspectId")]  
[XmlChoiceIdentifier]  
[XmlIgnore]  
[XmlArrayItem]  
[XmlElement("FullName")]
```

```
public class Customer  
{  
    public Guid Id { get; set; }  
    public string Name { get; set; }  
    public DateTime DateOfBirth { get; set; }  
    public int Tin { get; set; }  
}
```

Select and Place:

```
[XmlRoot("Customer", Namespace = "http://customer")]
```

```
[XmlRoot("Prospect", Namespace = "http://prospect")]
```

```
[XmlAttribute("ProspectId")]
```

```
[XmlElement("ProspectId")]
```

```
[XmlChoiceIdentifier]
```

```
[XmlIgnore]
```

```
[XmlArrayItem]
```

```
[XmlElement("FullName")]
```

```
[XmlRoot("Prospect", Namespace = "http://prospect")]
```

```
public class Customer
```

```
{
```

```
    [XmlAttribute("ProspectId")]
```

```
    public Guid Id { get; set; }
```

```
    [XmlElement("FullName")]
```

```
    public string Name { get; set; }
```

```
    public DateTime DateOfBirth { get; set; }
```

```
    [XmlIgnore]
```

```
    public int Tin { get; set; }
```

```
}
```

Correct Answer:


```
[XmlAttribute("ProspectId")]
```

```
[XmlAttribute("ProspectId")]
```

```
[XmlElement("ProspectId")]
```

```
[XmlElement("ProspectId")]
```

```
[XmlElement("ProspectId")]
```

```
[XmlElement("ProspectId")]
```

```
[XmlElement("ProspectId")]
```

```
[XmlElement("ProspectId")]
```

```
[XmlAttribute("ProspectId")]
```

```
public class Customer
```

```
{
```

```
[XmlAttribute("ProspectId")]
```

```
public Guid Id { get; set; }
```

```
[XmlElement("ProspectId")]
```

```
public string Name { get; set; }
```

```
public DateTime DateOfBirth { get; set; }
```

```
[XmlElement("ProspectId")]
```

```
public int Tin { get; set; }
```

```
}
```


Section: (none)

Explanation

Explanation/Reference:

QUESTION 29

You are developing an application. The application converts a Location object to a string by using a method named WriteObject.

The WriteObject() method accepts two parameters, a Location object and an XmlObjectSerializer object.

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

```
01 public enum Compass
02 {
03     North,
04     South,
05     East,
06     West
07 }
08 [DataContract]
09 public class Location
10 {
11     [DataMember]
12     public string Label { get; set; }
13     [DataMember]
14     public Compass Direction { get; set; }
15 }
16 void DoWork()
17 {
18     var location = new Location { Label = "Test", Direction = Compass.West };
19     Console.WriteLine(WriteObject(location,
20
21     ));
22 }
```

You need to serialize the Location object as XML. Which code segment should you insert at line 20?

- A. `New XmlSerializer(typeof(Location))`
- B. `New NetDataContractSerializer()`
- C. `New DataContractJsonSerializer {typeof (Location) }`
- D. `New DataContractSerializer(typeof(Location))`

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 30

You are developing an application that includes the following code segment. (Line numbers are included for reference only.)

```
01 using System;
02 class MainClass
03 {
04     public static void Main(string[] args)
05     {
06         bool bValidInteger = false;
07         int value = 0;
08         do
09         {
10             Console.WriteLine("Enter an integer:");
11             bValidInteger = GetValidInteger(ref value);
12         } while (!bValidInteger);
13         Console.WriteLine("You entered a valid integer, " + value);
14     }
15     public static bool GetValidInteger(ref int val)
16     {
17         string sLine = Console.ReadLine();
18         int number;
19
20         {
21             return false;
22         }
23         else
24         {
25             val = number;
26             return true;
27         }
28     }
29 }
```

You need to ensure that the application accepts only integer input and prompts the user each time non-integer input is entered.

Which code segment should you add at line 19?

- A. If (!int.TryParse(sLine, out number))
- B. If ((number = Int32.Parse(sLine)) == Single.NaN)
- C. If ((number = int.Parse (sLine)) > Int32.MaxValue)
- D. If (Int32.TryParse(sLine, out number))

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 31

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 have the following requirements:

- The debugger must break execution within the CalculateInterest() method when the loanAmount variable is less than or equal to zero.
- The release version of the code must not be impacted by any changes.

You need to meet the requirements.

What should you do?

- A. Insert the following code segment at line 05: Debug.Write(loanAmount > 0);

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

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

This question differs from the other time it is asked in this exam because its only the "release" version that they are speaking about. Since Debug symbols do not carry over into release versions, C is the answer.

QUESTION 32

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.

The following code implements the methods. (Line numbers are included for reference only.)

```
01
02 private static decimal CalculateInterest(decimal loanAmount, int loanTerm, decimal loanRate)
03 {
04     decimal interestAmount = loanAmount * loanRate * loanTerm;
05
06     LogLine("Interest Amount : ", interestAmount.ToString("c"));
07
08     return interestAmount;
09 }
10
11 public static void LogLine(string message, string detail)
12 {
13     Console.WriteLine("Log: {0} = {1}", message, detail);
14 }
```

You have the following requirements:

- The `CalculateInterest()` method must run for all build configurations.
- The `LogLine()` method must run only for debug builds.

You need to ensure that the methods run correctly.

What are two possible ways to achieve this goal? (Each correct answer presents a complete solution.

Choose two.)

- A. Insert the following code segment at line 01:
#region DEBUG
Insert the following code segment at line 10:
#endregion
- B. . Insert the following code segment at line 10:
[Conditional(MDEBUG")]
- C. . Insert the following code segment at line 05:
#region DEBUG
Insert the following code segment at line 07:
#endregion
- D. . Insert the following code segment at line 01:
#if DE30G Insert the following code segment at line 10: #endif
- E. Insert the following code segment at line 01:
[Conditional(MDEBUG")]
- F. Insert the following code segment at line 05:
#if DEBUG
Insert the following code segment at line 07:
#endif
- G. . Insert the following code segment at line 10:
[Conditional("RELEASE")]

Correct Answer: BD

Section: (none)

Explanation

Explanation/Reference: