➢ Vendor: Microsoft

➢ Exam Code: 70-483

➢ Exam Name: Microsoft Programming in C#

➢ Question 1 -- Question 30

QUESTION 1
You are developing an application that includes a class named Order. The application will store a 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>

Answer: A

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

Answer: C

QUESTION 3
You are developing an application that includes the following code segment. (Line numbers are included for reference only.)

```
01 class Animal
02 {
03   public string Color { get; set; }
04   public string Name { get; set; }
05 }
06 private static IEnumerable<Animal> GetAnimals(string sqlConnectionString)
07 {
08   var animals = new List<Animal>();
09   SqlConnection sqlConnection = new SqlConnection(sqlConnectionString);
10   using (sqlConnection)
11   {
12     SqlCommand sqlCommand = new SqlCommand("SELECT Name, ColorName FROM Animals", sqlConnection);
13
14     using (SqlDataReader sqlDataReader = sqlCommand.ExecuteReader())
15     {
16
17       {
18         var animal = new Animal();
19         animal.Name = (string)sqlDataReader["Name"];
20         animal.Color = (string)sqlDataReader["ColorName"];
21         animals.Add(animal);
22       }
23     }
24   }
25   return customers;
26 }
```

The GetAnimals() method must meet the following requirements:
- Connect to a Microsoft SQL Server database.
- Create Animal objects and populate them with data from the database.
- Return a sequence of populated Animal objects.

You need to meet the requirements.
Which two actions should you perform?
(Each correct answer presents part of the solution. Choose two.)

A. Insert the following code segment at line 16: while (sqlDataReader.NextResult())
B. Insert the following code segment at line 13: sqlConnection.BeginTransaction();
C. Insert the following code segment at line 13: sqlConnection.Open();
D. Insert the following code segment at line 16: while (sqlDataReader.Read())
E. insert the following code segment at line 16: while (sqlDataReader.GetValues())

Answer: CD

QUESTION 4

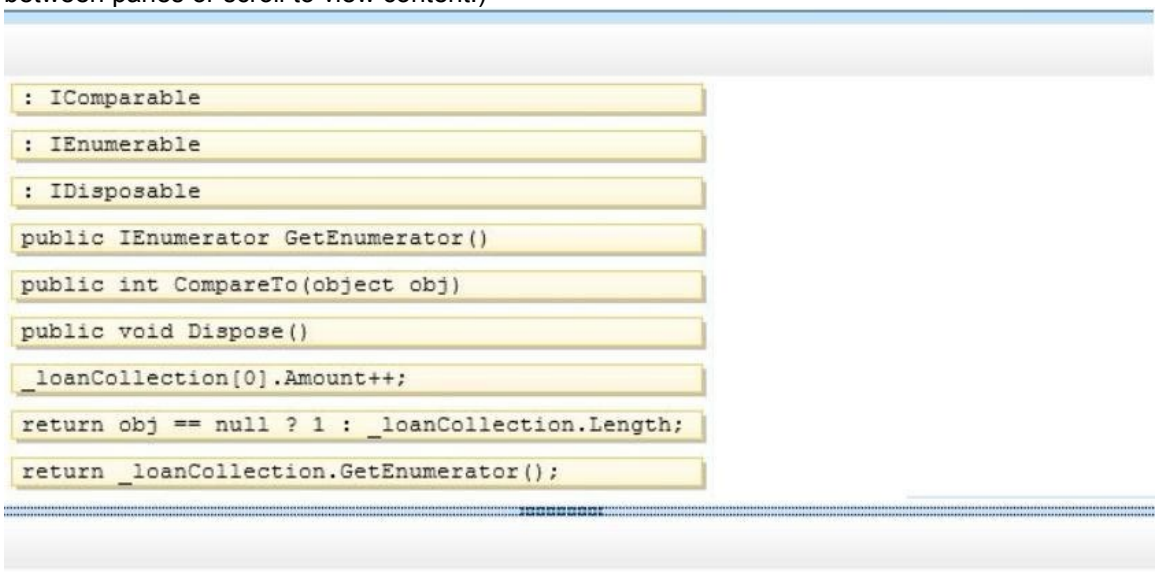
Drag and Drop Question

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.

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 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];
        }
    }

    {

    }
}
```

Answer:

```
: IComparable

: IDisposable

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

```
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];
        }
    }

    public IEnumerator GetEnumerator()
    {
        return _loanCollection.GetEnumerator();
    }
}
```

QUESTION 5

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 }
```

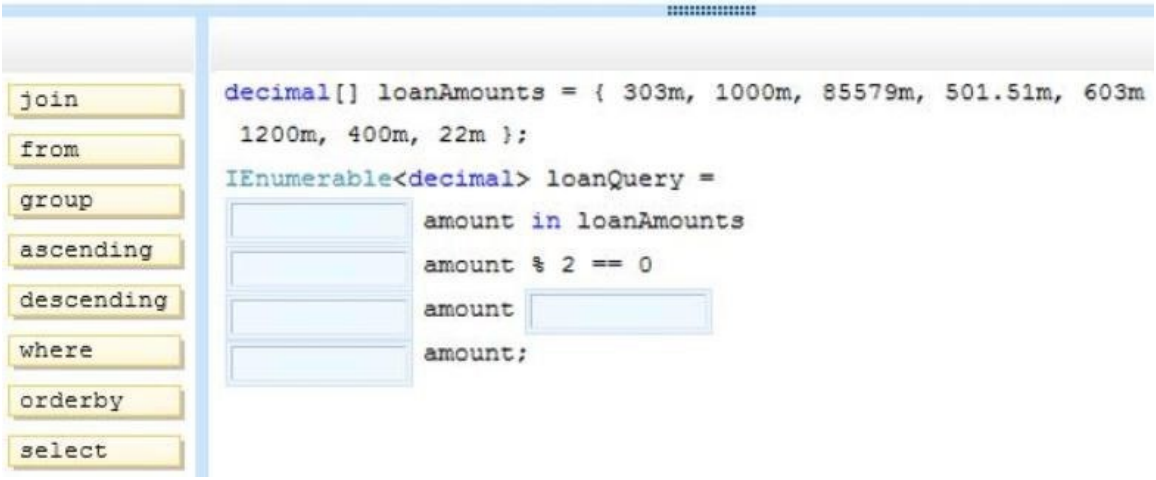
The application must meet the following requirements:
- Return only orders that have an OrderDate value other than null.
- Return only orders that were placed in the year specified in the OrderDate property or in a later year.

You need to ensure that the application meets the requirements.
Which code segment should you insert at line 08?

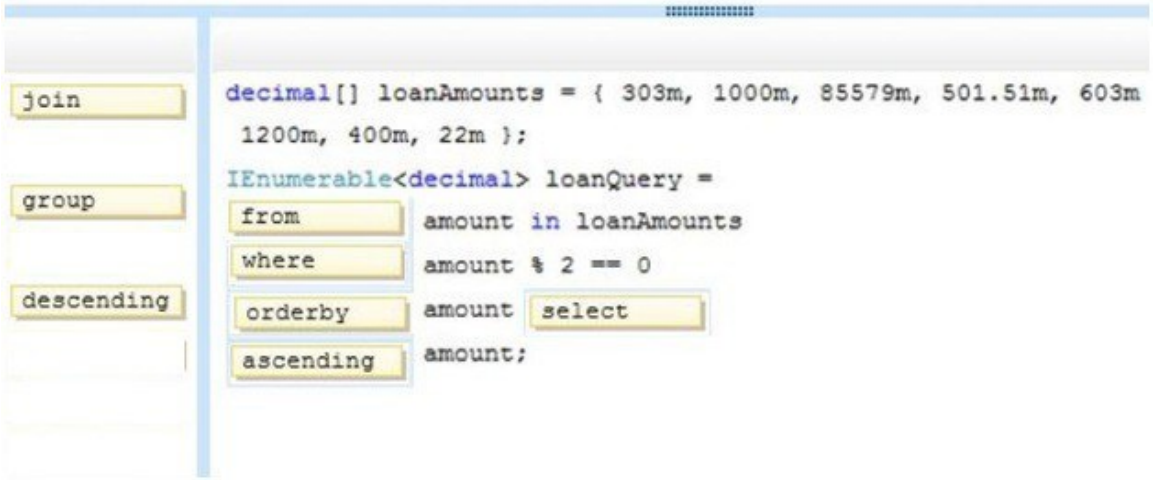
A. Where order.OrderDate.Value != null && order.OrderDate.Value.Year > = year
B. Where order.OrderDate.Value = = null && order.OrderDate.Value.Year = = year
C. Where order.OrderDate.HasValue && order.OrderDate.Value.Year = = year
D. Where order.OrderDate.Value.Year = = year

Answer: A
Explanation:
*For the requirement to use an OrderDate value other than null use:
OrderDate.Value != null
*For the requirement to use an OrderDate value for this year or a later year use:
OrderDate.Value>= year

QUESTION 6
Drag and Drop Question
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. You may need to drag the split bar between panes or scroll to view content.)



Answer:



QUESTION 7

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. Option A
B. Option B

C. Option C
D. Option D
E. Option E

Answer: A

QUESTION 8
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.ConvertToType<Name>(json);
B. Return ser.DeserializeObject(json);
C. Return ser.Deserialize<Name> (json) ;
D. Return (Name)ser.Serialize(json);

Answer: C

QUESTION 9
Drag and Drop Question
An application serializes and deserializes XML from streams.
The XML streams are in the following format:

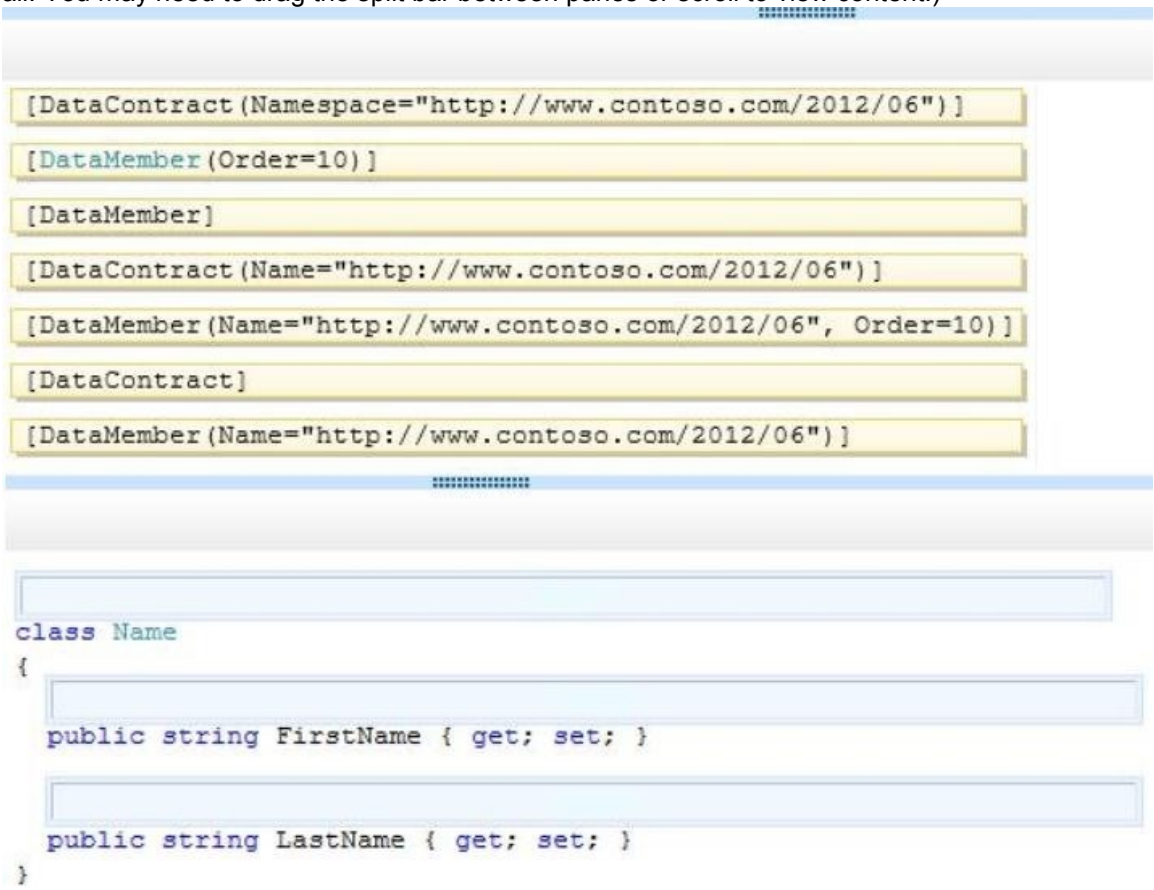
```
<Name xmlns="http://www.contoso.com/2012/06">
  <LastName>Jones</LastName>
  <FirstName>David</FirstName>
</Name>
```

The application reads the XML streams by using a DataContractSerializer object that is declared by the following code segment:

```
var ser = new DataContractSerializer(typeof(Name));
```

You need to ensure that the application preserves the element ordering as provided in the XML stream.

How should you complete the relevant code? (To answer, drag the appropriate attributes to the correct locations in the answer area-Each attribute 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:

```
[DataContract(Name="http://www.contoso.com/2012/06")]
[DataMember(Name="http://www.contoso.com/2012/06", Order=10)]
[DataContract]
[DataMember(Name="http://www.contoso.com/2012/06")]
```

```
[DataContract(Namespace="http://www.contoso.com/2012/06")]
class Name
{
    [DataMember(Order=10)]
    public string FirstName { get; set; }

    [DataMember]
    public string LastName { get; set; }
}
```

QUESTION 10
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. Private
D. Protected internal
E. Public

Answer: B
Explanation:
The protected keyword is a member access modifier. A protected member is accessible within its class and by derived classes.

QUESTION 11
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 NetBataContractSenalizer {}
D. New CataConcractJsonSerializer(typeof(Location))

Answer: D
Explanation:
The DataContractJsonSerializer class serializes objects to the JavaScript Object Notation (JSON) and deserializes JSON data to objects.
Use the DataContractJsonSerializer class to serialize instances of a type into a JSON document and to deserialize a JSON document into an instance of a type.

QUESTION 12
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. ReRegisterForFinalize()
B. SuppressFinalize()
C. Collect ()
D. WaitForFullGCApproach()

Answer: B

QUESTION 13
You are developing an application by using C#. The application includes the following code segment.
(Line numbers are included for reference only.)

```
01 public interface IDataContainer
02 {
03   string Data { get; set; }
04 }
05 void DoWork(object obj)
06 {
07
08   if (dataContainer != null)
09   {
10     Console.WriteLine(dataContainer.Data);
11   }
12 }
```

The DoWork() method must not throw any exceptions when converting the obj object to the IDataContainer interface or when accessing the Data property.
You need to meet the requirements.
Which code segment should you insert at line 07?

A. var dataContainer = (IDacaContainer)obj;
B. dynamic dataContainer = obj;
C. var dataContainer = obj is IDataContainer;
D. var dataContainer = obj as IDataContainer;

Answer: D

QUESTION 14
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;

Answer: AF

QUESTION 15
You are creating an application that manages information about zoo animals. The application includes a class named Animal and a method named Save. The Save() method must be strongly typed. It must allow only types inherited from the Animal class that uses a constructor that accepts no parameters.
You need to implement the Save() method.
Which code segment should you use?

A.
```
public static void Save<T>(T target) where T : new(), Animal
{
  ...
}
```

B.
```
public static void Save<T>(T target) where T : Animal
{
  ...
}
```

C.
```
public static void Save<T>(T target) where T : Animal, new()
{
  ...
}
```

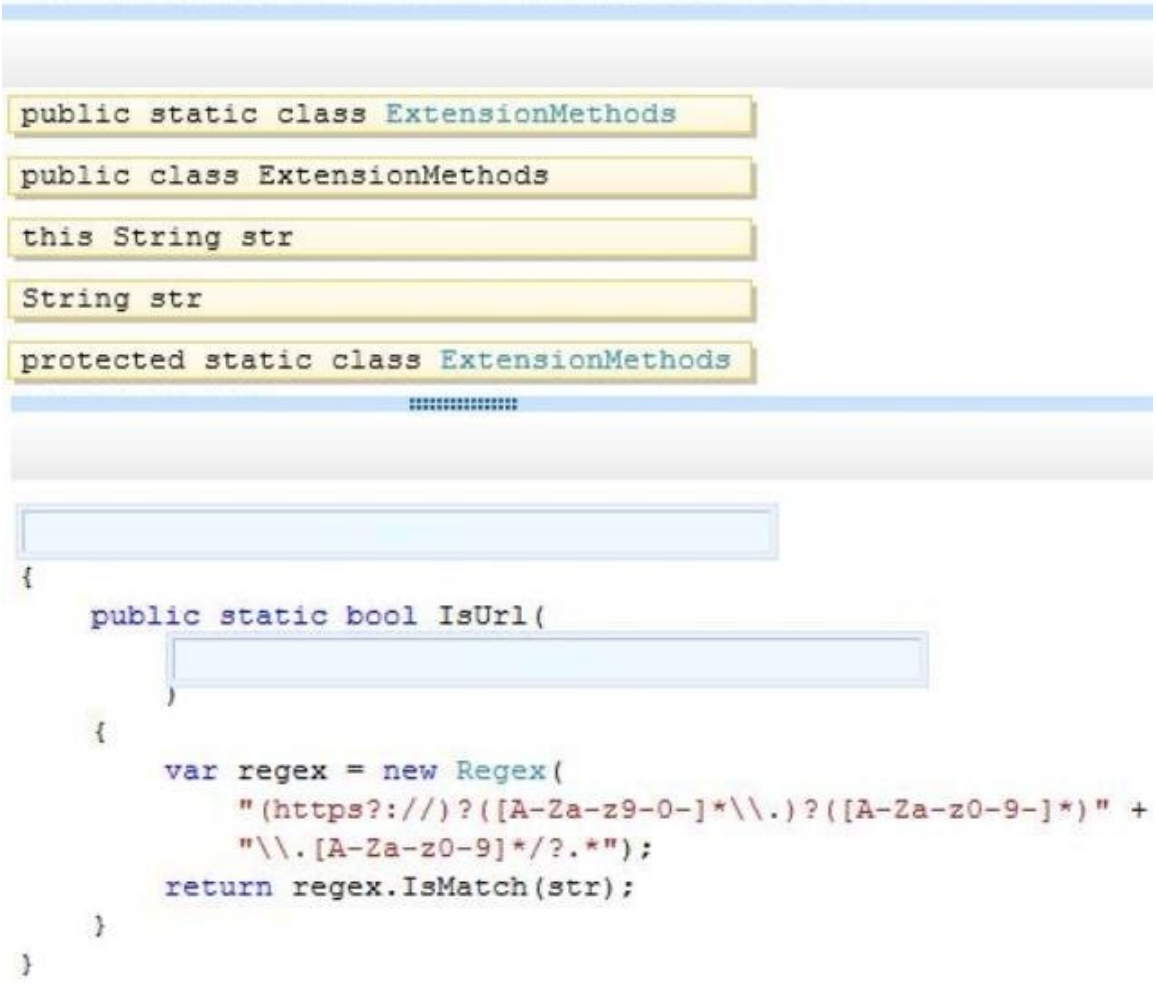
D.
```
public static void Save(Animal target)
{
  ...
}
```

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

Answer: C

QUESTION 16
Drag and Drop Question
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.)



Answer:

```
public class ExtensionMethods

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);
    }
}
```

QUESTION 17

You are developing an application. The application includes classes named Employee and Person and an interface named IPerson.

The Employee class must meet the following requirements:

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

You need to ensure that the Employee 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.
```
sealed class Employee : Person
{
  ...
}
```

B.
```
abstract class Employee : Person
{
  ...
}
```

C.
```
sealed class Employee : IPerson
{
  ...
}
```

D.
```
abstract class Employee : IPerson
{
  ...
}
```

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

Answer: BD

QUESTION 18
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(IEnumerator<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:

```
public interface IOutputFormatter<T>
{
  string GetOutput(IEnumerator<T> iterator, int recordSize);
}
```

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

Answer: B

QUESTION 19
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;

Answer: A

QUESTION 20
You are creating a console application by using C#.
You need to access the application assembly. Which code segment should you use?

A. Assembly.GetAssembly(this);
B. This.GetType();
C. Assembly.Load ();
D. Assembly.GetExecutingAssembly ();

Answer: D

QUESTION 21
Hotspot Question
You are implementing a library method that accepts a character parameter and returns a string. If the lookup succeeds, the method must return the corresponding string value. If the lookup fails, the method must return the value "invalid choice."
You need to implement the lookup algorithm.
How should you complete the relevant code?
(To answer, select the correct keyword in each drop-down list in the answer area.)

Work Area

```
public string GetResponse(char letter)
{
   string response;
   [ ▼ ](letter)
   {
      [ ▼ ] 'a':
         response = "animal";
         break;
      [ ▼ ] 'm':
         response = "mineral";
         break;
      [ ▼ ]:
         response = "invalid choice";
         break;
   }
   return response;
}
```

case
if
switch

case
default
else
if

case
default
else
if

case
default
else
if

Answer:

Work Area

```
public string GetResponse(char letter)
{
   string response;
   [switch] (letter)
   {
      [case] 'a':
         response = "animal";
         break;
      [case] 'm':
         response = "mineral";
         break;
      [default]:
         response = "invalid choice";
         break;
   }
   return response;
}
```

QUESTION 22

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.

Answer: B

QUESTION 23

You are modifying an application that processes leases.
The following code defines the Lease class.
(Line numbers are included for reference only.)

```
01 public class Lease
02 {
03
04   private int _term;
05   private const int MaximumTerm = 5;
06   private const decimal Rate = 0.034m;
07   public int Term
08   {
09     get
10     {
11       return _term;
12     }
13     set
14     {
15       if (value <= MaximumTerm)
16       {
17         _term = value;
18       }
19       else
20       {
21
22       }
23     }
24   }
25 }
26 public delegate void MaximumTermReachedHandler(object source, EventArgs e);
```

Leases are restricted to a maximum term of 5 years. The application must send a notification message if a lease request exceeds 5 years.
You need to implement the notification mechanism.
Which two actions should you perform?
(Each correct answer presents part of the solution. Choose two.)

A. Insert the following code segment at line 03:

```
public event MaximumTermReachedHandler OnMaximumTermReached;
```

B. Insert the following code segment at line 21:

```
if (OnMaximumTermReached != null)
{
  OnMaximumTermReached(this, new EventArgs());
}
```

C. Insert the following code segment at line 21:

```
value = MaximumTerm;
```

D. Insert the following code segment at line 03:

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

E. Insert the following code segment at line 03:

```
private string MaximumTermReachedEvent;
```

F. Insert the following code segment at line 21:

```
value = 4;
```

A. Option A
B. Option B
C. Option C
D. Option D
E. Option E
F. Option F

Answer: AB

QUESTION 24
You are developing an application that uses structured exception handling.
The application includes a class named ExceptionLogger.
The ExceptionLogger class implements a method named LogException by using the following code segment:

```
public static void LogException(Exception ex)
```

You have the following requirements:

```
- Log all exceptions by using the LogException() method of the ExceptionLogger class.
- Rethrow the original exception, including the entire exception stack.
```

You need to meet the requirements. Which code segment should you use?

A.
```
catch (Exception ex)
{
  ExceptionLogger.LogException(ex);
  throw;
}
```

B.
```
catch (Exception ex)
{
  ExceptionLogger.LogException(ex);
  throw ex;
}
```

C.
```
catch
{
  ExceptionLogger.LogException(new Exception());
  throw;
}
```

D.
```
catch
{
  var ex = new Exception();
  throw ex;
}
```

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

Answer: A

QUESTION 25
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

Answer: D

QUESTION 26

Drag and Drop Question

You develop an application that displays information from log files. When a user opens a log file by using the application, the application throws an exception and closes. The application must preserve the original stack trace information when an exception occurs.

You need to implement the method that reads the log files.

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.)

```
using (StringReader sr = new StringReader("log.txt"))
using (StreamReader sr = new StreamReader("log.txt"))
throw new FileNotFoundException();
throw;
```

```
{
    try
    {
        string line;
        while ((line = sr.ReadLine()) != null)
        {
            Console.WriteLine(line);
        }
    }
    catch (FileNotFoundException e)
    {
        Console.Write(e.ToString());

    }
}
```

Answer:

```
using (StringReader sr = new StringReader("log.txt"))

throw new FileNotFoundException();
```

```
using (StreamReader sr = new StreamReader("log.txt"))
{
    try
    {
        string line;
        while ((line = sr.ReadLine()) != null)
        {
            Console.WriteLine(line);
        }
    }
    catch (FileNotFoundException e)
    {
        Console.Write(e.ToString());
        throw;
    }
}
```

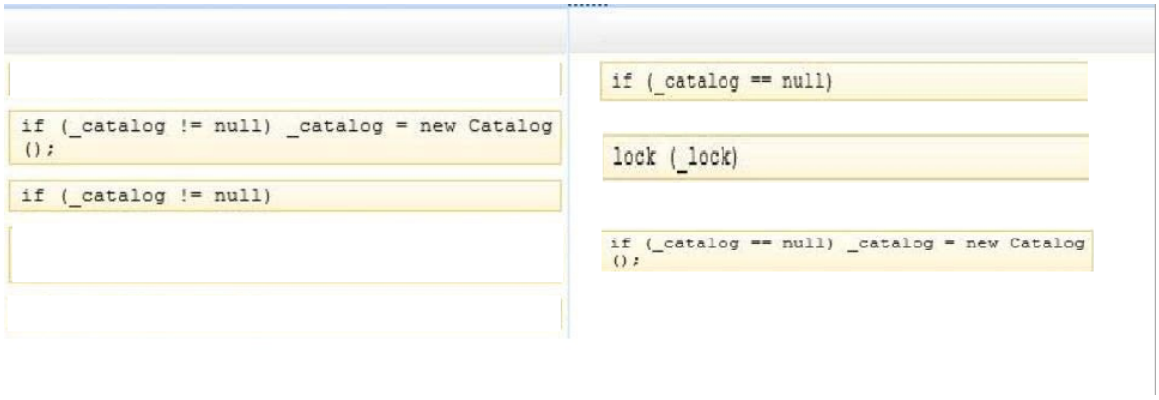
QUESTION 27
Drag and Drop Question
You are developing an application that includes a class named Kiosk. The Kiosk class includes a static property named Catalog. The Kiosk class is defined by the following code segment. (Line numbers are included for reference only.)

```
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.

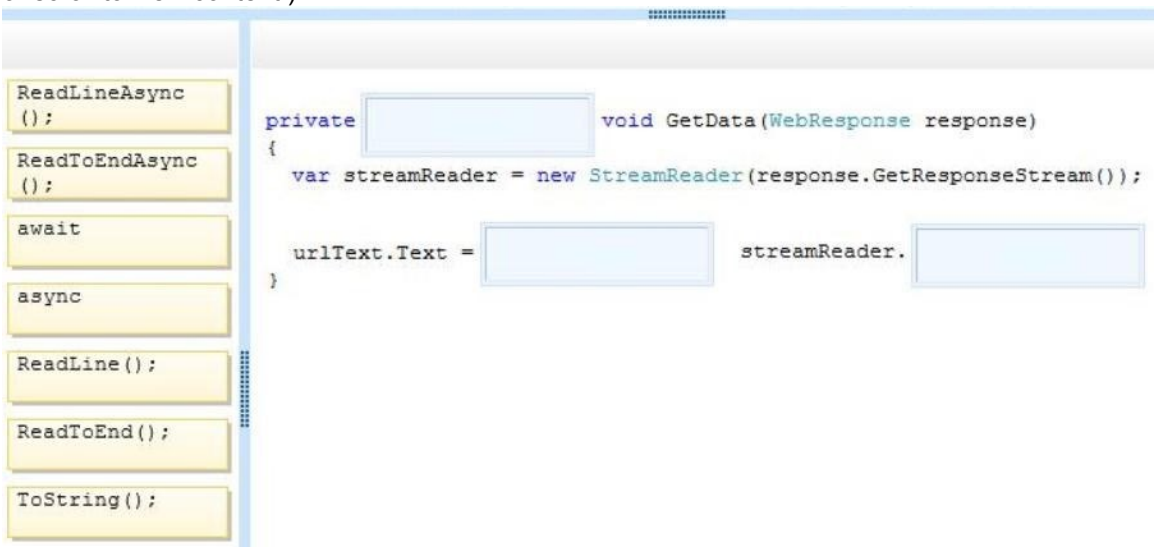
You need to meet the requirements.
Which three code segments should you insert in sequence at line 09?
(To answer, move the appropriate code segments from the list of code segments to the answer area and arrange them in the correct order.)

Answer:

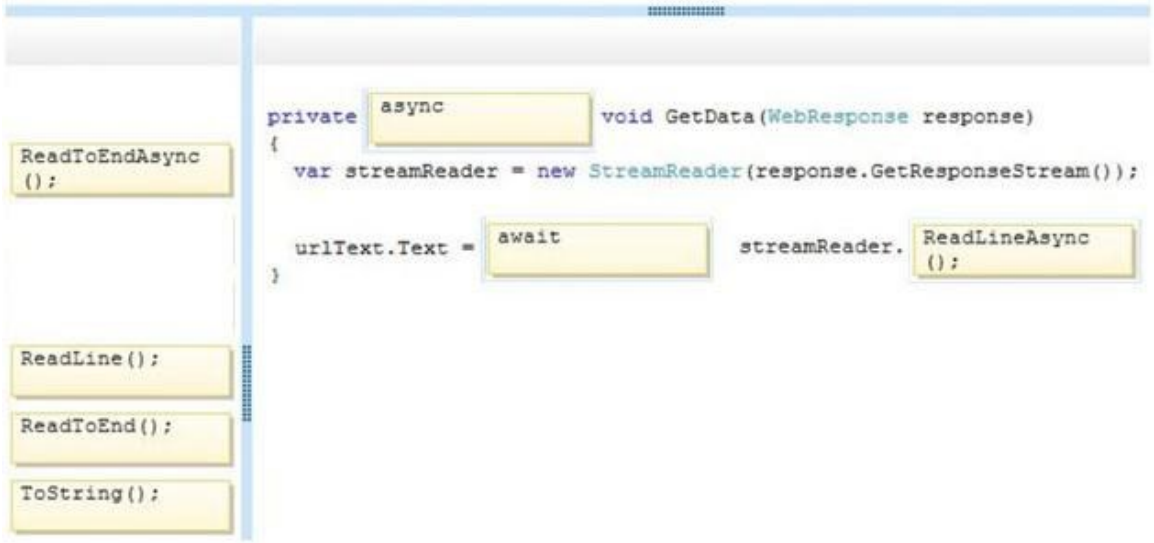


QUESTION 28
Drag and Drop Question
You are developing an application that will include a method named GetData. The GetData()

method will retrieve several lines of data from a web service by using a System.IO.StreamReader object.
You have the following requirements:
- The GetData() method must return a string value that contains the first line of the response from the web service.
- The application must remain responsive while the GetData() method runs.
You need to implement the GetData() method.
How should you complete the relevant code?
(To answer, drag the appropriate objects to the correct locations in the answer area. Each object 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 29
You are adding a public method named UpdateScore to a public class named ScoreCard.
The code region that updates the score field must meet the following requirements:
- It must be accessed by only one thread at a time.
- It must not be vulnerable to a deadlock situation.

You need to implement the UpdateScore() method. What should you do?

A. Place the code region inside the following lock statement:

```
lock (this)
{
  ...
}
```

B. Add a private object named **lockObject** to the **ScoreCard** class. Place the code region inside the following lock statement:

```
lock (lockObject)
{
  ...
}
```

C. Apply the following attribute to the **UpdateScore()** method signature:

```
[MethodImpl(MethodImplOptions.Synchronized)]
```

D. Add a public static object named **lockObject** to the **ScoreCard** class. Place the code region inside the following lock statement:

```
lock (typeof(ScoreCard))
{
  ...
}
```

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

Answer: B

QUESTION 30

Drag and Drop Question

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 ContosoException : System.Exception { ... }
public class ContosoDbException : ContosoException { ... }
public class ContosoValidationException : ContosoException { ... }
```

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(ContosoException ex) { ... }
static void Log(ContosoValidationException 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 I oq(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);
}
```

Answer:

(ContosoDbException ex)

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