



Exam : 070-536

Title : Microsoft .NET Framework 2.0™ Application Development Foundation

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QUESTION 1

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are in the process of storing numerical values up to 2,100,000,000 into a variable and may require storing negative values using a .NET Framework 2.0 application. You are required to optimize memory usage

What should you do?

- A. Int32
- B. UInt16
- C. UInt32
- D. Int16

Answer: A

Explanation: The Int32 type should be used in the scenario as it can be used to store positive and negative numerical values from -2,147,483,648 to +2,147,483,647.

Incorrect Answers:

B, C: The UInt32 and UInt16 type should not be used in the scenario because they are used to store only unsigned positive numbers.

D: The Int16 type should not be used as you will only be allowed to store values from -32768 to +32768.

QUESTION 2

You work as an application developer at Certkiller .com. You are currently in the process of creating a class that stores data about Certkiller .com's customers.

Certkiller .com customers are assigned unique identifiers and various characteristics that may include aliases, shipping instructions, and sales comments. These characteristics can change in both size and data type.

You start by defining the Customer class as shown below:

```
public class Customer
{
    private int custID;
    private ArrayList attributes;
    public int CustomerID
    {
        get {return custID;}
    }
    public Customer (int CustomerID)
    {
        this.custID = CustomerID;
        this.attributes = new ArrayList ();
    }
    public void AddAttribute (object att)
    {
```

```
attributes.Add (att);  
}  
}
```

You have to create the FindAttribute method for locating attributes in Customer objects no matter what the data type is.

You need to ensure that the FindAttribute method returns the attribute if found, and you also need to ensure type-safety when returning the attribute.

What should you do?

A. Use the following code to declare the FindAttribute method:

```
public T FindAttribute (T att)  
{  
    //Find attribute and return the value  
}
```

B. Use the following code to declare the FindAttribute method:

```
public object FindAttribute (object att)  
{  
    //Find attribute and return the value  
}
```

C. Use the following code to declare the FindAttribute method:

```
public T FindAttribute <T> (T att)  
{  
    //Find attribute and return the value  
}
```

D. Use the following code to declare the FindAttribute method:

```
public string FindAttribute (string att)  
{  
    //Find attribute and return the value  
}
```

Answer: C

Explanation: This code declares the method FindAttribute and specifies an argument named att using the T placeholder as the argument and return data type. To ensure the FindAttribute method accepts arguments of different types, you should specify an argument using a generic placeholder. The argument att in this generic method will accept any valid data type and ensures type-safety by returning that same data type.

Incorrect Answers:

A: You should not use this code because it does not declare the placeholder T. when declaring a generic method, you have to use the <> brackets to declare the placeholder before using it.

B: You should not use this code because it does not guarantee type-safety.

D: You should not use this code because it will only accept a string argument and return a string argument.

QUESTION 3

You work as an application developer at Certkiller .com. You are creating a custom exception class named ProductDoesNotExistException so that custom exception messages are displayed in a new application when the product specified by users is unavailable.

This custom exception class will take the ProductID as an argument to its constructor and expose this value through the ProductID. You are now in the process of creating a method named UpdateProduct. This method will be used to generate and manage the ProductDoesNotExistException exception if the ProductID variable contains the value 0.

You need to ensure that use the appropriate code for the UpdateProduct method.

What should you do?

A. Make use of the following code:

```
public void UpdateProduct ()
{
    try
    {
        if (ProductID == 0)
            throw new ProductDoesNotExistException (ProductID);
    }
    catch (ProductDoesNotExistException ex)
    {
        MessageBox.Show ("There is no Product" + ex. ProductID);
    }
}
```

B. Make use of the following code:

```
public void UpdateProduct ()
{
    try
    {
        if (ProductID == 0)
            throw new Exception ("Invalid ProductID");
    }
    catch (ProductDoesNotExistException ex)
    {
        MessageBox.Show (ex.Message);
    }
}
```

C. Make use of the following code:

```
public void UpdateProduct ()
{
    if (ProductID == 0)
        throw new ProductDoesNotExistException (ProductID);
}
```

D. Make use of the following code:

```
public void UpdateProduct ()
{
    if (ProductID == 0)
        throw new Exception ("Invalid ProductID");
}
```

Answer: A

Explanation: This code verifies the value of the ProductID variable by using the if statement. If the ProductID variable contains a value of 0, this code generates an exception of type ProductDoesNotExistException. To explicitly generate an exception, you are required to use the throw statement. The exception generated by using the throw statement can be handled by the try...catch block. This code generates the custom exception by calling the constructor of the custom exception class named ProductDoesNotExistException. The constructor argument is the ProductID attached to the ProductDoesNotExistException object. This code then handles the custom exception named ProductDoesNotExistException by using a catch block, which handles exceptions by using a variable named ex of the type ProductDoesNotExistException. This code displays the "There is no Product" error message by using the MessageBox.Show method and concatenating the ex.ProductID to it.

Incorrect Answers:

B: You should not use the code that generates an exception of the type Exception and handles the exception of the type ProductDoesNotExistException in the catch block. This code is incorrect because you are required to generate a custom exception named ProductDoesNotExistException.

C, D: You should not use the codes that do not use a try...catch block because the application an unhandled exception.

QUESTION 4

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You have recently finished development of a class named TestReward and package the class in a .NET 2.0 assembly named TestObj.dll. After you ship the assembly and it is used by client applications, you decide to move the TestReward class from TestObj.dll assembly to the TestRewardObj.dll Assembly. You are to ensure when you ship the updated TestObj.dll and TestRewardObj.dll assemblies that the client applications continue to work and do not require recompiling.

What should you do?

- A. The TypeForwardedTo attribute should be used
- B. The TypeConvertor.ConvertTo method should be used
- C. The InternalsVisibleTo attribute should be used
- D. The Type Convertor.ConvertFrom method should be used

Answer: A

Explanation: The statement used for you to add a type from one assembly into another assembly is the TypeForwardTo attribute which enables you not to have the application recompiled.

Incorrect Answers:

B, D: The TypeConverter class provides a unified way of converting different types of values to other types and can not be used to move a type.

C: The method in question here specifies all nonpublic types in an assembly are visible to other assemblies but can not be used to move types.

QUESTION 5

You work as an application developer at Certkiller .com. You have recently created a custom collection class named ShoppingList for a local supermarket. This custom class will include ShoppinItem objects that have the public properties listed below.

- * Name

- * AisleNumber

- * OnDiscount

You are required to enable users of your class to iterate through the ShoppingList collection, and to list each product name and aisle number using the foreach statement.

You need to achieve this by declaring the appropriate code.

What code should you use?

A. public class ShoppingList : ICollection

```
{  
// Class implementation  
}
```

B. public class ShoppingList : IEnumerator, IEnumerable

```
{  
// Class implementation  
}
```

C. public class ShoppingList : IList

```
{  
// Class implementation  
}
```

D. public class ShoppingList : Enum

```
{  
// Class implementation  
}
```

Answer: B

Explanation: You should implement the IEnumerable and IEnumerator interfaces of the System.Collections namespace to ensure that your collection class supports foreach iteration. The IEnumerable interface defines only one method named GetEnumerator that returns an object of type IEnumerator of the

System.Collections namespace and is used to support iteration over a collection. The IEnumerator interface supports methods, such as Current, MoveNext, and Reset to iterate through a collection. The Current method returns the current element of the collection. The Move method positions the enumerator to the next available element of the collection. The Reset method positions the enumerator before the first element of the collection.

Incorrect Answers:

A: You should not use the code that implements the ICollection interface because this interface is used to define properties in a collection. Implementing this interface will not ensure that your collection class supports foreach iteration because it does not inherit the IEnumerator interface.

C: You should not use the code that implements the IList interface because this interface is used to define properties of a non-generic list of items accessed by index. Implementing this interface will not ensure that your collection class supports foreach iteration because it does not inherit the IEnumerator interface.

D: You should not use the code that inherits the Enum because this structure is used as a base class for those classes that provide enumeration values. Inheriting the Enum structure will not ensure that your collection class supports foreach iteration.

QUESTION 6

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 application used to store a type-safe list of names and e-mail addresses. The list will be populated all at ones from the sorted data which means you well not always need to perform insertion or deletion operations on the data. You are required to choose a data structure that optimizes memory use and has good performance.

What should you do?

- A. The System.Collections.Generic.SortedList class should be used
- B. The System.Collections.HashTable class should be used
- C. The System.Collections.Generic.SortedDictionary class should be used
- D. The System.Collections.SortedList class should be used

Answer: A

Explanation: The SortedList generic class should be used in the scenario class as it provides type safety compared against the System.Collections.SortedList class.

Incorrect Answers:

B: The System.Collections.HashTable class should not be used as this class provides no type safety.

C, D: Although this is very similar to the SortedList class the SortedList class should be used instead in the scenario.

QUESTION 7

You work as an application developer at Certkiller .com. You are currently in the

process of reviewing an application that was created by a fellow developer. The application that you are reviewing includes a declaration for a collection named EmployeeList, which stores Employee objects. The declaration is shown below:

```
public class EmployeeList : Enumerator, IEnumerable  
{  
    // Class implementation  
}
```

You require the ability to iterate through the EmployeeList with minimum development effort.

What should you do?

- A. Utilize the switch statement
- B. Utilize the dowhile statement
- C. Utilize the foreach statement
- D. Utilize the if statement

Answer: C

Explanation: the IEnumerable and IEnumerator interfaces of the System.Collections namespace are used to ensure that your collection class supports foreach iteration. The IEnumerable interface defines only one method named GetEnumerator that returns an object of type IEnumerator of the System.Collections namespace and is used to support iteration over a collection. The IEnumerator interface supports methods, such as Current, MoveNext, and Reset to iterate through a collection. The Current method returns the current element of the collection. The Move method positions the enumerator to the next available element of the collection. The Reset method positions the enumerator before the first element of the collection.

Incorrect Answers:

A D: These statements will not allow you to iterate through the EmployeeList collection.

B: You should not use this statement because it will require manually calling the MoveNext and Current methods. The scenario states that you need to "...iterate through the EmployeeList with minimum development effort."

QUESTION 8

You work as an application developer at Certkiller .com. Certkiller .com has been contracted to develop an application for the local bank.

You have been given the responsibility of creating this application and need to store each transaction record, which is identified using a complex transaction identifier, in memory. The bank informs you that the total amount of transaction records could reach 200 per day.

To achieve this, you decide to utilize one of the existing collection classes in the .NET 2.0 class library.

You need to ensure that you the collection class you select is the most efficient one for storing transaction records.

What should you do?

- A. Select the ListDictionary collection class.
- B. Select the HashTable collection class.
- C. Select the Queue collection class.
- D. Select the StringCollection collection class.

Answer: B

Explanation: You should select the HashTable class to store transaction records because each element is identified using a unique identifier and the size of the collection is large. Elements in the HashTable collection are stored with a key/value pair where each key is created using a hash code. The default capacity of a HashTable class is zero, and you can use the Add method to add a new element to the collection. The Count property provides the total number of elements in the HashTable collection. An element of the HashTable class can be accessed using the DictionaryEntry class. You can use the Key and Value properties of the DictionaryEntry class to access the key associated with the element and the value of the element, respectively.

Incorrect Answers:

- A: You should not select this collection class because this class is used if the total number of elements to be stored in a collection is less than 10 elements in length.
- C: You should not select this collection class because you need to access transaction records using a transaction identifier, not in sequential order.
- D: You should not select this collection class because this class is used to manage a collection of string values.

QUESTION 9

You work as an application developer at Certkiller .com. Certkiller .com has been hired by a small local private school to develop a class library that will be used in an application named ManageAttendance for the purpose of managing student records.

You are responsible for developing this class library. Certkiller .com has instructed you to create a collection in the application to store learners' results.

The school has informed you that they currently only have seven learners, but that this value will triple in the following year. Due to the limited resources, you need to ensure that the collection you create consumes a minimum amount of resources.

What should you use to create the collection?

- A. The HybridDictionary collection class.
- B. The HashTable collection class.
- C. The ListDictionary collection class.
- D. The StringCollection collection class.

Answer: A

Explanation: You should use the HybridDictionary class to create the collection because this class is useful in scenarios where the number of elements is unknown or could grow in size. A collection of the HybridDictionary type manages the collection depending on the number of elements. The HybridDictionary type collection uses the ListDictionary class to manage the collection when there are only a few elements. When the number of elements exceeds ten, the HybridDictionary type collection automatically converts the elements into HashTable management.

Incorrect Answers:

B: You should not use this collection class because this class is used if the total number of elements to be stored in a collection is known and is greater than ten elements in length.

C: You should not use this collection class because this class is used if the total number of elements to be stored in a collection is known and is less than ten elements in length.

D: You should not use this collection class because this class is used to manage a collection of string values.

QUESTION 10

You work as an application developer at Certkiller .com. Certkiller .com wants you to develop an application that stores and retrieves client information by means of a unique account number.

You create a custom collection class, which implements the IDictionary interface, named ClientDictionary. The following code have been included into the new application.

```
//Create Client objects
Client c1 = new Client ("AReid", "Andy Reid", Status.Current);
Client c2 = new Client ("DAustin", "Dean Austin", Status.New);
//Create ClientDictionary object
IDictionary cData = new ClientDictionary ();
cData.Add ("10001", c1);
cData.Add ("10002", c2);
```

You use the same method to add other Client objects to the collection. You need to ensure that you are able to retrieve client information associated with the account number 10111.

What should you do?

A. Use the following code:

```
Client foundClient;
foundClient = (Client) cData.Find ("10111");
```

B. Use the following code:

```
Client foundClient;
if (cData.Contains ("10111"))
foundClient = cData ["10111"];
```

C. Use the following code:

```
Client foundClient;
if (cData.Contains ("10111"))
foundClient = (Client) cData ["10111"];
```

D. Use the following code:

```
Client foundClient;
foreach (string key in cData.Keys
{
    if (key == "10111")
    foundClient = (Client) cData.Values ["10111"];
}
```

Answer: C

Explanation: This code invokes the Contains method of the IDictionary interface to determine whether a value is associated with the key 10111. If a value exists for that key, then the clientData ["10111"] statement retrieves the client data as a generic object. The code casts the generic object into a Client object, and it is stored in the foundClient variable

Incorrect Answers:

A: You should not use the code that uses the Find method because no such method exists in the IDictionary interface.

B: You should not use the code that assigns the foundClient variable to a generic object because the foundClient variable is declared as a Client type.

D: You should not use the code that iterates through the Keys collection because it is unnecessary and process-intensive.

QUESTION 11

You work as an application developer at Certkiller .com. Certkiller .com has instructed you to create a class named MetricFormula. This class will be used to compare MetricUnit and EnglishUnit objects.

The MetricFormula is currently defined as follows (Line numbers are used for reference purposes only):

```
1. public class MetricFormula
2. {
3.
4. }
```

You need to ensure that the MetricFormula class can be used to compare the required objects.

What should you do? (Choose two)

A. Add the following code on line 1:

```
: IComparable
{
```

B. Add the following code on line 1:

```
: IComparer
{
```

C. Add the following code on line 3:

```
public int Compare (object x, object y)
{
```

```
// implementation code
}  
D. Add the following code on line 3:  
public int CompareTo (object obj)  
{  
// implementation code  
}
```

Answer: B, C

Explanation: You should add the code so that it reads as follows:

```
1. public class MetricFormula : IComparer  
2. {  
3. public int Compare (object x, object y)  
4. {  
5. // implementation code  
5. }  
6. }
```

You have to implement the IComparer interface to create a comparer class for MetricUnit and EnglishUnit objects. The IComparer interface provides only one method named Compare. The Compare method takes two objects and returns an integer value representing whether those objects are equal, greater than, or less than the other. If the return value is negative, then the first object is less than the second. The objects are equal if the return value is zero. The first object is greater than the first if the return value is positive. The IComparer interface is typically used if you want to implement comparison across objects of different classes without having to provide implementation in each comparable class.

Incorrect Answers:

A, D: You should use these two options because this should be implemented by the MetricUnit and EnglishUnit classes.

QUESTION 12

You work as an application developer at Certkiller .com. You are developing an application that makes use of a Queue class object named MyQueue. This Queue class object will be used to store messages sent by the user during application run time. The application that you are developing provides an interface for administrators and an interface for users to create message reports.

You want to ensure that all user messages stored in the MyQueue object are removed when an administrator selects the reset option.

What should you do?

- A. Use the Enqueue method of the MyQueue object.
- B. Use the Clear method of the MyQueue object.
- C. Use the Dequeue method of the MyQueue object.
- D. Use the TrimToSize method of the MyQueue object.

Answer: B

Explanation: The clear method sets the Count property of the Queue class object to 0 after removing all the elements from the queue. When you call the Clear method for a Queue object, the capacity of the Queue object is not changed.

Incorrect Answers:

A: You should not use this method because it is used to add a new element at the beginning of a Queue object.

C: You should not use this method because it is used to remove an element at the beginning of a Queue object.

D: You should not use this method because it is used to resize a Queue object.

QUESTION 13

You work as an application developer at Certkiller .com. You are developing an application that will store user messages collectively and then process the messages in sequence. The order in which the messages are processed will depend on the order in which it is received.

To add messages to the collection, users will specify the message that should be stored in a TextBox control named txtMsg and then click a Button control named btnAdd.

You need to ensure that the appropriate code is used to create the collection.

What should you use? (Choose two)

- A. `Queue msgCollection = new Queue ();`
- B. `Stack msgCollection = new Stack ();`
- C. `msgCollection.Enqueue (txtMSG.Text);`
- D. `msgCollection.Push (txtMSG.Text);`

Answer: A, C

Explanation: In this scenario, you should use the Queue class to create the collection because you are required to process user messages in sequence. The Dim statement creates an object named msgCollection of the Queue class. The second line of code then calls the Enqueue method of the msgCollection object to add the Text property value of the txtMSG control as an element in the collection. To manage elements in the queue, the Queue class provides methods, such as Dequeue and Clear. The Dequeue method is used to remove elements that are at the beginning of the Queue object. The

Clear method is used to remove all elements from a Queue object. The Queue class is a data structure for handling elements based on the First In First Out (FIFO) concept.

Incorrect Answers:

B, D: Using these lines of code is incorrect because they use the Stack class to create a collection. Stack objects are used to store elements on the Last In First Out (LIFO) concept.

QUESTION 14

You work as an application developer at Certkiller .com. You are developing an application that makes use of a Queue class object named MyQueue. This Queue class object will be used to store messages sent by the user during application run time.

You would like to access the message at the beginning of the queue, prior to processing the user messages, without removing it.

What should you do?

- A. Use the Enqueue method of the MyQueue object.
- B. Use the Contains method of the MyQueue object.
- C. Use the Dequeue method of the MyQueue object.
- D. Use the Peek method of the MyQueue object.

Answer: D

Explanation: The Peek method accesses the element at the beginning of the object of the Queue class without removing it from the queue. The Queue class is a data structure for handling elements based on the First In First Out (FIFO) concept.

According to this concept, elements that are stored first are processed first.

Incorrect Answers:

A: You should not use this method of the Queue class because it is used to add a new element at the end of a Queue object.

B: You should not use this method of the Queue class because it is used to verify whether the specified element exists for the Queue object instance or not.

C: You should not use this method of the Queue class because it is used to remove the next element at the beginning of a Queue object.

QUESTION 15

You work as an application developer at Certkiller .com. Certkiller .com wants you to develop an application that stores and retrieves employee information by means of a unique staff number.

You create a custom collection class, which implements the type-safe IDictionary interface. This collection class is named EmployeeCollection, and is defined using the following code.

```
public class EmployeeCollection : IDictionary <int, Employee>
{
// Implementation code
}
```

You need to ensure that an EmployeeCollection object is instantiated and that Employee objects are added to it.

What should you do?

- A. Use the following code:
Employee e1, e2;

```
e1 = new Employee (1001, "Andy Reid", "Manager");
e2 = new Employee (1002, "Kara Lang", "Sales Engineer");
EmployeeCollection eData = new EmployeeCollection();
eData.Add (new KeyValuePair <string, Employee> (e1.ID, e1));
eData.Add (new KeyValuePair <string, Employee> (e2.ID, e2));
```

B. Use the following code:

```
Employee e1, e2;
e1 = new Employee (1001, "Andy Reid", "Manager");
e2 = new Employee (1002, "Kara Lang", "Sales Engineer");
EmployeeCollection eData = new EmployeeCollection();
eData.Add ((string) e1.ID, e1);
eData.Add ((string) e2.ID, e2);
```

C. Use the following code:

```
Employee e1, e2;
e1 = new Employee (1001, "Andy Reid", "Manager");
e2 = new Employee (1002, "Kara Lang", "Sales Engineer");
EmployeeCollection eData = new EmployeeCollection();
eData.Add (e1.ID, e1);
eData.Add (e2.ID, e2);
```

D. Use the following code:

```
Employee e1, e2;
e1 = new Employee (1001, "Andy Reid", "Manager");
e2 = new Employee (1002, "Kara Lang", "Sales Engineer");
EmployeeCollection eData = new EmployeeCollection();
eData.Add (new KeyValuePair (e1.ID, e1));
eData.Add (new KeyValuePair (e2.ID, e2));
```

Answer: C

Explanation: This code instantiates two Employee objects and an EmployeeCollection object, and it adds those two Employee objects to the EmployeeCollection object. The EmployeeCollection class implements the generic IDictionary interface specifying the CKey and TValue placeholders as Integer and Employee data types, respectively. Like the non-generic IDictionary interface, the key is used to retrieve the value. Unlike the non-generic IDictionary interface, the key does not have to be a string and the value does not have to be a generic object. Unlike the non-generic IDictionary interface, the Add method of the generic IDictionary interface can accept either a KeyValuePair structure with the appropriate data types specified or in this case two arguments, an integer and Employee object.

Incorrect Answers:

A: If you use this code fragment, the EmployeeCollection class accepts an integer for the CKey placeholder and an Employee object for the TValue placeholder.

B: You should not use the code that casts the ID property from an integer into a string, because the key value should match the integer data type defined by CKey placeholder of the generic IDictionary interface.

D: You should not use the code that does not specify the CKey and TValue placeholders when using the KeyValuePair structure because the data types must be declared explicitly.

QUESTION 16

You work as an application developer at Certkiller .com. Certkiller .com wants you to develop an application that stores and retrieves staff information by means of a unique staff number.

You have already written the following code for the purpose of storing Employee objects.

```
Employee e1 = new Employee (1001, "Andy Reid", "Manager");  
Employee e2 = new Employee (1002, "Kara Lang", "Sales Engineer");  
Dictionary <int, Employee> eData = new Dictionary <int, Employee> ();  
eData.Add (e1.ID, e1);  
eData.Add (e2.ID, e2);
```

All other Employee objects have been added in the same way. You are required to display all key/value pairs within the Dictionary collection.

What should you do?

A. Use the following code:

```
foreach (KeyValuePair<int, Employee> keyPair in eData)  
Console.WriteLine (" {0} key : {1} value", keyPair.Key, keyPair.Value);
```

B. Use the following code:

```
foreach (string key in eData.Keys)  
Console.WriteLine (" {0} key : {1} value", Key, (Employee) eData [key]);
```

C. Use the following code:

```
foreach (KeyValuePair keyPair in eData)  
Console.WriteLine (" {0} key : {1} value", keyPair.Key, keyPair.Value);
```

D. Use the following code:

```
foreach (object value in eData.Values)  
Console.WriteLine (" {0} key : {1} value", eData [value], value);
```

Answer: A

Explanation: This code iterates through each KeyValuePair structure in the generic DictionaryData, and it displays the Key and Value properties. Like the non-generic IDictionary interface, the key is used to retrieve the value. Unlike the non-generic IDictionary interface, the key does not have to be a string and the value does not have to be a generic object. You must specify the CKey and TValue placeholders when specifying a KeyValuePair structure. Because the eDataDictionary collection is instantiated with the integer and Employee data types for the CKey and TValue placeholders, respectively, the KeyValuePair structure should also use these data types. During each iteration, the KeyValuePair object is assigned to the keyPair variable, and the Console.WriteLine method is used to display the Key and Value properties to the console.

Incorrect Answers:

B: Like the non-generic IDictionary interface, the key is used to retrieve the value. Unlike the non-generic IDictionary interface, the key does not have to be a string and the value does not have to be a generic object. You must specify the CKey and TValue placeholders when specifying a KeyValuePair structure.

C: You should not use the code that does not specify the CKey and TValue placeholders when using the KeyValuePair structure because the data types must be declared explicitly.

D: You should not use the code that specifies a value when accessing items in the Dictionary collection because you should use a key to access a value and you cannot guarantee that only one key exists for a value, as there might be duplicate values in a Dictionary collection

QUESTION 17

You work as an application developer at Certkiller .com. Certkiller .com wants you to develop an application that handles passes for Certkiller .com's parking lot. The application has to store and retrieve vehicle information using a vehicle identification number (VIN).

You need to use the correct code to ensure type-safety.

What should you do?

A. Use the following code:

```
Vehicle v1, v2;  
v1 = new Vehicle ("1M2567871Y91234574", "Nissan Silvia", 1996);  
v2 = new Vehicle ("1F2569122491234574", "Mitsubishi Lancer", 2005);  
ArrayList vList = new ArrayList ();  
vList.Add (v1);  
vList.Add (v2);
```

B. Use the following code:

```
Vehicle v1, v2;  
v1 = new Vehicle ("1M2567871Y91234574", "Nissan Silvia", 1996);  
v2 = new Vehicle ("1F2569122491234574", "Mitsubishi Lancer", 2005);  
SortedList <string, Vehicle> vList = new SortedList <string, Vehicle> ();  
vList.Add (v1.VIN, v1);  
vList.Add (v2.VIN, v2);
```

C. Use the following code:

```
Vehicle v1, v2;  
v1 = new Vehicle ("1M2567871Y91234574", "Nissan Silvia", 1996);  
v2 = new Vehicle ("1F2569122491234574", "Mitsubishi Lancer", 2005);  
List vList = new List ();  
vList.Add (v1);  
vList.Add (v2);
```

D. Use the following code:

```
Vehicle v1, v2;  
v1 = new Vehicle ("1M2567871Y91234574", "Nissan Silvia", 1996);  
v2 = new Vehicle ("1F2569122491234574", "Mitsubishi Lancer", 2005);  
SortedList vList = new SortedList ();
```

```
vList.Add (v1.VIN, v1);  
vList.Add (v2.VIN, v2);
```

Answer: B

Explanation: This code instantiates two Vehicle objects and a SortedList collection, and it adds those two Vehicle objects to the SortedList collection. The SortedList collection class implements the generic IDictionary interface specifying the CKey and TValue placeholders. Like the non-generic IDictionary interface, the key is used to retrieve the value. Unlike the non-generic IDictionary interface, the key does not have to be a string and the value does not have to be a generic object. This allows flexibility and type-safety.

Incorrect Answers:

A: You should not use the code fragments that specify the ArrayList or generic List collections because these collection classes do not implement the IDictionary interface and only allow element access by index, not by key.

C, D: You should not use the code fragments that specify the List or non-generic SortedList collections because you must use generic collection classes to guarantee type-safety.

QUESTION 18

You work as an application developer at Certkiller .com. Certkiller .com wants you to develop an application that handles passes for Certkiller .com's parking lot. The application has to store and retrieve vehicle information in a contiguous list that allows for advanced navigation techniques.

You have already written and executed the following code:

```
Vehicle v1, v2, v3, v4, v5;  
v1 = new Vehicle ("1M2567871Y91234574", "Nissan Silvia", 1996);  
v2 = new Vehicle ("1H2569122493456960", "Honda Civic", 1999);  
v3 = new Vehicle ("1F2569106891234589", "Mitsubishi Lancer", 2001);  
v4 = new Vehicle ("1F7969122491234589", "Mazda MX7", 1998);  
v5 = new Vehicle ("1T2569122493456123", "Toyota Supra", 2000);  
LinkedList <Vehicle> vList = new LinkedList < Vehicle > ();  
LinkedListNode < Vehicle > vNode;  
vNode = vList.AddFirst (v1);  
vNode = vList.AddLast (v2);  
vNode = vList.AddAfter (vNode, v3);  
vNode = vList.AddAfter (vNode, v4);  
vList.AddLast (v5);  
foreach (Vehicle v in vList)  
{  
Console.WriteLine (" {0} {1} ({2})", v.MakeModel, v.Year, v.Vin);  
}
```

What output will be produced in the console?

A. Nissan Silvia 1996 (1M2567871Y91234574)

Honda Civic 1999 (1H2569122493456960)
Mitsubishi Lancer 2001 (1F2569106891234589)
Mazda MX7 1998 (1F7969122491234589)
Toyota Supra 2000 (1T2569122493456123)
B. Nissan Silvia 1996 (1M2567871Y91234574)
Mazda MX7 1998 (1F7969122491234589)
Mitsubishi Lancer 2001 (1F2569106891234589)
Honda Civic 1999 (1H2569122493456960)
Toyota Supra 2000 (1T2569122493456123)
C. Nissan Silvia 1996 (1M2567871Y91234574)
Mazda MX7 1998 (1F7969122491234589)
Mitsubishi Lancer 2001 (1F2569106891234589)
Toyota Corolla 2002 (1T2569122493456123)
Honda Civic 1999 (1H2569122493456960)
D. Nissan Silvia 1996 (1M2567871Y91234574)
Mitsubishi Lancer 2001 (1F2569106891234589)
Mazda MX7 1998 (1F7969122491234589)
Honda Civic 1999 (1H2569122493456960)
Toyota Supra 2000 (1T2569122493456123)

Answer: B

Explanation: The LinkedList collection class is a doubly-linked list that allows advanced navigation techniques when accessing its elements. An element pointer is provided by the LinkedListNode class with the Previous and Next properties. The LinkedList collection class has a few methods of insertion, including AddFirst, AddLast, AddBefore, and AddAfter methods. The AddFirst and AddLast methods accept an element argument and return a LinkedListNode object as a pointer reference. The AddBefore and AddAfter methods also return a LinkedListNode object, but they accept another LinkedListNode indicating which node before or after to insert the element.

In this scenario, there are five Vehicle objects added to the LinkedList collection named vList. The v1 object is added to the beginning of vList collection by invoking the AddFirst method. The v2 object is added to the end of the vList collection by invoking the AddLast method. The v3 object is added by invoking the AddAfter method. The v4 object is added before the v3 object by invoking the AddBefore method. Finally, the v5 object is added at the end of the vList collection by invoking the AddLast method.

Incorrect Answers:

A, C, D: These options do not represent the output that will be produced by the code you wrote.

QUESTION 19

You work as an application developer at Certkiller .com. You are developing a collection class named ClientCollection, which is to be used for storing the names of Certkiller .com's clients that are situated in various geographical areas.

These client names are represented by the Client class. You are planning to create a

method named SortClients in the ClientCollection class to arrange Client objects in ascending order.

You need to ensure that the appropriate interface is implemented by the Client class to allow sorting.

What interface should be used?

- A. IDictionary
- B. IComparable
- C. IComparer
- D. IEqualityComparer

Answer: B

Explanation: The IComparable interface provides only one method named CompareTo, which takes on generic object, compares it to the current instance, and returns an Integer value representing whether the current instance is equal to, greater than, or less than the object. The IComparable interface is typically used when you want to create a class whose objects can be sorted in either a list or collection.

Incorrect Answers:

A: This interface should not be implemented because it is used to create a collection that is managed by key/value pairs.

C: This interface should not be implemented because it should be implemented by collection or comparer classes, not comparable classes.

D: This interface should not be implemented because it provides methods to compare two objects for equality only.

QUESTION 20

You work as an application developer at Certkiller .com. You have been given the responsibility of creating a class named CalcSalary that will determine the salaries of Certkiller .com's staff.

The CalcSalary class includes methods to increment and decrement staff salaries.

You would like to invoke the IncrementSalary and DecrementSalary methods dynamically at runtime from the sales manager application when needed. After viewing the information displayed in the exhibit, you decide to use the Salary delegate to invoke these methods.

using System;

public delegate boolSalary (Employee Emp, double Amount);

public class CalcSalary

{

// for promotions

public static bool IncrementSalary (Employee Emp, double Amount)

{

// implementation details

}

// for demotions

```
public static bool DecrementSalary (Employee Emp, double Amount)
{
// implementation details
}
```

What code should you use?

- A. public void Review (Employee emp, double amount)
- ```
{
Salary salaryDel;
if (emp.Status == QuarterlyReview.OnTarget || emp.Status ==
QuarterlyReview.AboveGoals)
salaryDel.Invoke (CalcSalary.IncrementSalary (emp, amount));
else
salaryDel.Invoke (CalcSalary.DecrementSalary (emp, amount));
}
```
- B. public void Review (Employee emp, double amount)
- ```
{
Salary salaryDel;
if (emp.Status == QuarterlyReview.OnTarget || emp.Status ==
QuarterlyReview.AboveGoals)
salaryDel.Method = CalcSalary.IncrementSalary;
else
salaryDel.Method = CalcSalary.DecrementSalary;
salaryDel.Invoke (emp, amount);
}
```
- C. public void Review (Employee emp, double amount)
- ```
{
Salary salaryDel;
if (emp.Status == QuarterlyReview.OnTarget || emp.Status ==
QuarterlyReview.AboveGoals)
salaryDel.IncrementSalary (emp, amount);
else
salaryDel.DecrementSalary (emp, amount);
}
```
- D. public void Review (Employee emp, double amount)
- ```
{
Salary salaryDel;
if (emp.Status == QuarterlyReview.OnTarget || emp.Status ==
QuarterlyReview.AboveGoals)
salaryDel = CalcSalary.IncrementSalary;
else
salaryDel = CalcSalary.DecrementSalary;
salaryDel.Invoke (emp, amount);
}
```

Answer: D

Explanation: This code declares a delegate variable and, based upon the value of the Status property, assigns the delegate variable to the correct method. If the Status property is QuarterlyReview.OnTarget or QuarterlyReview.AboveGoals, then the Salary delegate variable is assigned to the IncrementSalary method of the CalcSalary class. If not, then the Salary delegate variable is assigned to the DecrementSalary method of the CalcSalary class. Delegates are method pointers and must be assigned to a method so that a delegate variable can invoke it. The Invoke method takes those arguments specified by the delegate declaration.

Incorrect Answers:

A, B, C: You should not use these code fragments because they are syntactically incorrect and will result in a compilation error if used.

QUESTION 21

You work as an application developer at Certkiller .com. You have been given the responsibility of creating a class named CalcSalary that will determine the salaries of Certkiller .com's staff.

The CalcSalary class includes methods to increment and decrement staff salaries.

The following code is included in the CalcSalary class:

```
public class CalcSalary
{
// for promotions
public static bool IncrementSalary (Employee Emp, double Amount)
{
if (Emp.Status == QuarterlyReview.AboveGoals)
Emp.Salary += Amount;
return true;
}
else
return false;
}
//for demotions
public static bool DecrementSalary (Employee Emp, double Amount)
{
if (Emp.Status == QuarterlyReview.AboveGoals)
Emp.Salary -= Amount;
return true;
}
else
return false;
}
}
```

You would like to invoke the IncrementSalary and DecrementSalary methods dynamically at runtime from the sales manager application, and decide to create a delegate named SalaryDelegate to invoke them.

You need to ensure that you use the appropriate code to declare the SalaryDelegate

delegate.

What is the correct line of code?

- A. public delegate bool Salary (Employee Emp, double Amount);
- B. public bool Salary (Employee Emp, double Amount);
- C. public event bool Salary (Employee Emp, double Amount);
- D. public delegate void Salary (Employee Emp, double Amount);

Answer: A

Explanation: The signatures of the delegate and the attached method(s) should be identical. When you declare a delegate, you use the delegate keyword followed by the return type. If you bind the delegate to a method with a return type, you should specify that. If you bind the delegate to a method that does not return a data type, you should use the void keyword. After that, you should specify the name of the delegate and declare the arguments expected. In this scenario, the IncrementSalary and DecrementSalary methods accept an Employee object and a double value, and return a Boolean value. You should, therefore, accept an Employee object and a double value, and return a Boolean value when you declare the SalaryDelegate delegate.

Incorrect Answers:

- B: You should not use the code that does not use the delegate keyword.
- C: You should not use the code that declares an event named SalaryDelegate.
- D: You should not use the code that uses the void keyword because both the IncrementSalary and DecrementSalary methods return a Boolean value.

QUESTION 22

You work as an application developer at Certkiller .com. You have recently created a Windows service application and need to define a Windows service class. What should you do?

A. Use the following code:

```
public class TestService : System.ServiceProcess.WindowsService
{
//Implementation details
}
```

B. Use the following code:

```
public class TestService : System.ServiceProcess.IWindowsService
{
//Implementation details
}
```

C. Use the following code:

```
public class TestService : System.ServiceProcess.ServiceBase
{
//Implementation details
}
```

D. Use the following code:

```
public class TestService : System.ServiceProcess.IService
{
//Implementation details
}
```

Answer: C

Explanation: The ServiceBase class contains event methods, such as OnStart, OnStop, and Run, for controlling Windows service classes.

The OnStart method code is executed when a Windows service is either manually started or when the system is booted if the Startup type is set to Automatic. The OnStop method code is executed when a Windows service is either manually stopped or when the system is shut down. The Main method is the first point of execution when running any windows application (.exe). For a Windows service to run in an application process, you must invoke the Run method on the ServiceBase class. The Run method is overloaded to accept either a single ServiceBase object or an array of ServiceBase objects.

Incorrect Answers:

A, B, D: You should not use either of the code fragments from the WindowsService class or implement the IService and IWindowsService interfaces because no such class or interfaces exist in the System.ServiceProcess namespace.

QUESTION 23

You work as an application developer at Certkiller .com. You have been given the task of developing a Windows service application that regularly monitors other Windows services on the same computer.

This Windows service application must also log any abnormal file system activity.

You have added the following class to the Windows service application:

```
public class EnumerateService : ServiceBase
{
public static EnumerateService ()
{
this.ServiceName = "Enumerate Service";
this.CanStop = true;
}
protected override void OnStart (string[] args)
{
// Enumerate all services and initialize the FileSystemWatcher
}
protected override void OnStop ()
{
// Stop the FileSystemWatcher and perform cleanup
}
public static void Main ()
{
EnumerateService service = new EnumerateService();
```

```
}  
}
```

You then create the installer for the Windows service application, and install the Windows service application. You have configured the Windows service Startup type to Automatic, and rebooted the system. You then test the new Windows service application, and find that it is not working.

You need to ensure that the service is working properly.

What should you do?

A. Override the OnBoot method instead of the OnStart method.

B. Replace the Main method code with the following code:

```
EnumerateService service = new EnumerateService ();  
Service.Run ();
```

C. Override the OnLoad method instead of the OnStart method.

D. Replace the Main method code with the following code:

```
EnumerateService service = new EnumerateService ();  
Run (service);
```

Answer: D

Explanation: For a Windows service to run in an application process, you have to invoke the Run method on the ServiceBase class. The Run method is overloaded to accept either a single ServiceBase object or an array of ServiceBase objects. The OnStart method code is executed when a Windows service is either manually started or when the system is booted if the Startup type is set to Automatic. The OnStop method code is executed when a Windows service is either manually stopped or when the system is shut down. The Main method is the first point of execution when running any windows application (.exe).

Incorrect Answers:

A C: You should not override the OnBoot or OnLoad method because there are no such methods in the ServiceBase class.

B: For a Windows service to run in an application process, you have to invoke the Run method on the ServiceBase class. The Run method is overloaded to accept either a single ServiceBase object or an array of ServiceBase objects. This code will not compile because the Run method is a class member and does not take zero arguments.

QUESTION 24

You work as an application developer at Certkiller .com. Certkiller .com has asked you to develop an application allows administrators to control Windows services dynamically without using the Services MMC.

You start by creating a class named LocalServiceController. You need to add the correct code to the LocalServiceController class to ensure that administrators are able to start local Windows services.

What code should you use?

A. public static bool StartService (string serviceName)

```
{
try {
ServiceBase.Run (serviceName);
return true;
}
catch
{
return false;
}
}
B. public static bool StartService (string serviceName)
{
ServiceController controller = new ServiceController (serviceName);
if (controller.Status != ServiceControllerStatus.Running)
{
controller.Start ();
return true;
}
else
return false;
}
C. public static bool StartService (string serviceName)
{
ServiceManager manager = new ServiceManager (serviceName);
if (manager.Status != ServiceManagerStatus.Running)
{
manager.Start ();
return true;
}
else
return false;
}
D. public static bool StartService (string serviceName)
{
ServiceBase service = new ServiceBase ();
service.ServiceName = serviceName;
if (service.CanStart)
{
ServiceBase.Run (service);
return true;
}
else
return false;
}
```

Answer: B

Explanation: This code first instantiates a ServiceController object using the ServiceName variable. Then, the Status property is compared to the enumeration value ServiceControllerStatus.Running. If the Windows service is not currently running, then the Start method is invoked on the ServiceController object, and the method returns true. If the Windows service is running, the method returns false.

Incorrect Answers:

A, D: You should not add the code that uses the ServiceManager class because there is no such class in the ServiceControllerStatus.Running namespace.

C: You should not add either of the code fragments that use the ServiceBase class because this is the base class for Windows service classes.

QUESTION 25

You work as an application developer at Certkiller .com. Certkiller .com has asked you to develop an application that monitors and controls the activities of a Windows service.

You need to use the appropriate class to meet Certkiller .com's requirements.

What should you do?

- A. Use the ServiceBase class.
- B. Use the ServiceInstaller class.
- C. Use the ServiceManager class.
- D. Use the ServiceController class.

Answer: D

Explanation: To monitor and control the behavior of a Windows service, you should use the ServiceController class.

Incorrect Answers:

A: The ServiceBase class is the base class for Windows service classes.

B: The ServiceInstaller class is used to install a Web service application.

C: There is no such class in the ServiceControllerStatus.Running namespace.

QUESTION 26

You work as an application developer at Certkiller .com. Certkiller .com has asked you to create a multi-threaded application, which executes a critical database backup operation on an hourly basis. You define this operation with the following code:

```
public void BackupDB ()  
{  
    //Implementation code  
}
```

You then create a Thread object for the purpose of invoking this method.

You need to ensure that the thread is scheduled for execution before any other thread at runtime.

What should you do?

A. Use the following code:

```
Thread th = new Thread (BackupDB);  
th.Scheduled = ThreadScheduled.Before;  
th.Start ();
```

B. Use the following code:

```
Thread th = new Thread (BackupDB);  
th.Priority = ThreadPriority.AboveNormal;  
th.Start ();
```

C. Use the following code:

```
Thread th = new Thread (BackupDB);  
th.Priority = ThreadPriority.Highest;  
th.Start ();
```

D. Use the following code:

```
Thread th = new Thread (BackupDB);  
th.Scheduled = ThreadScheduled.First;  
th.Start ();
```

Answer: C

Explanation: This code instantiates a Thread object that will execute the BackupDB method, specifies the highest priority level for scheduling threads for execution, and starts the thread running. When instantiating a Thread object, you must specify the name of the method it will invoke. The Priority property indicates the relative position of a thread in the wait queue when being scheduled for execution. If two threads arrive in the wait queue at relatively the same time, the higher priority thread will receive the time slice before the other. The Priority property is a ThreadPriority enumeration value, which can be Lowest, BelowNormal, Normal, AboveNormal, and Highest. By default, the Priority property is set to ThreadPriority.Normal.

Incorrect Answers:

A D: You should not use the code fragments that set the Scheduled property with the ThreadSchedule enumeration because no such property or enumeration exists in the System.Threading namespace.

B: You should not use the code that specifies the value ThreadPriority.AboveNormal for the Priority property because this will not schedule the thread for execution before any other thread.

QUESTION 27

You work as an application developer at Certkiller .com. You have recently created a multithreaded application to manage Certkiller .com's inventory system.

The fulfillment task has to be executed on a regular basis, while other tasks are performed in the application. The task does not need any input to start.

You are required to create and start the fulfillment thread using the appropriate code.

What code should you use?

A. ThreadStart work = new
ThreadStart (Fulfill);
Thread thFulfill = new Thread (work);
B. ParameterizedThreadStart work = new
ParameterizedThreadStart (Fulfill);
Thread thFulfill = new Thread (work);
C. ThreadStart work = new
ThreadStart (Fulfill);
Thread thFulfill = new Thread (work);
thFulfill.Start ();
D. ParameterizedThreadStart work = new
ParameterizedThreadStart (Fulfill);
Thread thFulfill = new Thread (work);
thFulfill.Start ();

Answer: C

Explanation: This code creates a ThreadStart delegate that references the Fulfill method, creates a Thread object named thFulfill, and invokes the Start method to begin the thread execution.

Incorrect Answers:

A: You should not use the code that uses the ThreadStart delegate but does not call the Start method because you are required to create and start the fulfillment thread.
B: You should not use the code that uses the ParameterizedThreadStart delegate and does not call the Start method. You have to invoke the Start method to begin thread execution.
D: You should not use the code that uses the ParameterizedThreadStart delegate and calls the Start method. The ParameterizedThreadStart delegate is used to reference a method that takes a generic object as an argument and, in this scenario, the fulfill method takes no arguments

QUESTION 28

You work as an application developer at Certkiller .com. You are currently in the process of developing a business logic component that requires long calculations. You have identified numerous tasks within this application that can be done asynchronously. You notice that these tasks are mutually dependent and require complex synchronization techniques so that it can manage efficiently. You decide to use Microsoft .NET 2.0 to take advantage of its new thread management features. You need to create and start the application threads. What should you do?

A. Use the following code:
ThreadPool thPool = new ThreadPool ("Current Application");
Thread th1 = new Thread (Task1);
Thread th1 = new Thread (Task2);

```
Thread th1 = new Thread (Task3);  
th1.StartInPool (thPool);  
th2.StartInPool (thPool);  
th3.StartInPool (thPool);
```

B. Use the following code:

```
ThreadPool thPool = new ThreadPool ("Current Application");  
thPool.QueueUserWorkItem (Task1);  
thPool.QueueUserWorkItem (Task2);  
thPool.QueueUserWorkItem (Task3);
```

C. Use the following code:

```
ThreadPool.QueueUserWorkItem (Task1);  
ThreadPool.QueueUserWorkItem (Task2);  
ThreadPool.QueueUserWorkItem (Task3);
```

D. Use the following code:

```
Thread th1 = new Thread (Task1);  
Thread th1 = new Thread (Task2);  
Thread th1 = new Thread (Task3);  
th1.Start ();  
th2.Start ();  
th3.Start ();
```

Answer: C

Explanation: This code uses the QueueUserWorkItem method of the ThreadPool class to add tasks to the current application domain's thread pool. The QueueUserWorkItem method takes a WaitCallback delegate as an argument and manages the tasks using background threads. This allows the developer to concentrate on business logic and requires minimal synchronization code.

Incorrect Answers:

A D: You should not use either of the code fragments that instantiate the Thread objects explicitly because it will require excessive synchronization code to manage effectively.

B: You should not use the code that instantiates a ThreadPool object because the ThreadPool class is a static class and cannot be instantiated.

QUESTION 29

You work as an application developer at Certkiller .com. You have created a Windows service application for the purpose of monitoring the number of active service requests running on Certkiller .com's server.

You want to configure this Windows service application to produce a report every ten minutes. You start by placing the reporting logic in the GenerateReport method of this Windows service.

You want to create a Timer object that invokes this method every ten minutes. What should you do?

A. Use the following code:

Timer tmrReport = new Timer
(new TimerCallback (GenerateReport), null, 600000, 0);

B. Use the following code:

Timer tmrReport = new Timer
(new TimerCallback (GenerateReport), null, 10, 0);

C. Use the following code:

Timer tmrReport = new Timer
(new TimerCallback (GenerateReport), null, 0, 600000);

D. Use the following code:

Timer tmrReport = new Timer
(new TimerCallback (GenerateReport), null, 0, 10);

Answer: C

Explanation: This code creates a Timer object named tmrReport that will invoke the GnerateReport every ten minutes. The first argument of the Timer constructor is a TimerCallback delegate that points to the method to be invoked. The second argument is the object that will be sent to the callback method. The third and fourth arguments are integers that specify delay and interval in milliseconds, respectively. Because the interval is in milliseconds, the following conversion must be made:
 $10 \text{ minutes} = 10 * 60 \text{ seconds} = 600 * 1000 \text{ milliseconds} = 600,000 \text{ milliseconds}$
Therefore, the delay is set to 0, and the interval is set to 600,000 milliseconds.

Incorrect Answers:

A: This option is incorrect because the delay and the interval arguments are reversed. If you use this option, then the tmrReport will invoke the GnerateReport method only once in ten minutes.

B: This option is incorrect because the delay and the interval arguments are reversed. Also, the interval argument is incorrectly specified. It should be specified in milliseconds.

D: The interval argument is incorrectly specified. It should be specified in milliseconds, not minutes. This code would set the interval to ten milliseconds instead of ten minutes.

QUESTION 30

You work as an application developer at Certkiller .com. You have recently created an application that includes the code shown below.

```
public delegate string GetFileContentsDel ();  
public string GetFileContents ()  
{  
    //Process file and return results  
}
```

You now need to invoke the GetFileContents method asynchronously.

You have to ensure that the code you use to invoke the GetFileContents method will continue to process other user instructions, and displays the results as soon as the GetFileContents method finishes processing.

What should you do?

A. Use the following code:

```
GetFileContentsDel delAsync = new
GetFileContentsDel (GetFileContents);
IAsyncResult result = delAsync.BeginInvoke (null, null);
while (!result.IsCompleted)
{
//Process other user instructions
}
string strFile = delAsync.EndInvoke (result);
```

B. Use the following code:

```
GetFileContentsDel delAsync = new
GetFileContentsDel (GetFileContents);
string strFile = delAsync.Invoke ();
```

C. Use the following code:

```
string strFile = GetFileContents.Invoke ();
```

D. Use the following code:

```
GetFileContentsDel delAsync = new
GetFileContentsDel (GetFileContents);
IAsyncResult result = delAsync.BeginInvoke (null, null);
//Process other user instructions
string strFile = delAsync.EndInvoke (result);
```

Answer: A

Explanation: This code instantiates a GetFileContentsDel delegate that references the GetFileContents method. Then, the BeginInvoke method is invoked to implicitly create and start the worker thread. The BeginInvoke method takes the same arguments as the method it references but also includes an AsyncCallback delegate and a generic object. The AsyncCallback delegate references the method that the worker thread will invoke when its processing is complete. In this scenario, there is no AsyncCallback delegate specified. Then, the code polls the IAsyncResult object to determine if its processing is complete using the IsCompleted property. Once the processing is complete, the loop is exited and the EndInvoke method returns the result from the GetFileContents method.

Incorrect Answers:

B, C: You should not use either of the code fragments that use the Invoke method because this is not a technique in asynchronous processing.

D: you should not use the code that does not poll the IAsyncResult object by retrieving the IsCompleted property.

QUESTION 31

You work as an application developer at Certkiller .com. You have been asked by your superiors at Certkiller .com to create a child application domain. The new child application domain has to specify a different assembly path than that of the parent application domain. You need to ensure that your solution meets Certkiller .com's requirements.

What should you do?

A. Use the following code:

```
AppDomainSetup domainSetup = new AppDomainSetup ();  
domainSetup.ApplicationName = @"C:\Program Files\ChildApp";  
AppDomain.CreateDomain ("ChildDomain", AppDomain.CurrentDomain.Evidence,  
domainSetup);
```

B. Use the following code:

```
AppDomainSetup domainSetup = new AppDomainSetup ();  
domainSetup.ApplicationBase = @"C:\Program Files\ChildApp";  
AppDomain.CreateDomain ("ChildDomain", AppDomain.CurrentDomain.Evidence,  
domainSetup);
```

C. Use the following code:

```
AppDomainSetup domainSetup = new AppDomainSetup ();  
domainSetup.ConfigurationFile = @"C:\Program Files\ChildApp";  
AppDomain.CreateDomain ("ChildDomain", AppDomain.CurrentDomain.Evidence,  
domainSetup);
```

D. Use the following code:

```
AppDomainSetup domainSetup = new AppDomainSetup ();  
domainSetup.CachePath = @"C:\Program Files\ChildApp";  
AppDomain.CreateDomain ("ChildDomain", AppDomain.CurrentDomain.Evidence,  
domainSetup);
```

Answer: B

Explanation: The CreateDomain method of the AppDomain class is an overloaded method that you can use to create an application domain. This code creates a child application domain named ChildDomain, which uses the same evidence as its parent domain and specifies an AppDomainSetup object. In this version of CreateDomain, the first argument passed to the CreateDomain method is a String that represents the name of the application domain to be created. The second argument of the CreateDomain method specifies an Evidence object. The Evidence object represents the identity information used for Code Access Security (CAS) in the Microsoft .NET Framework to determine the permissions granted to an assembly. The third argument of the CreateDomain method specifies an AppDomainSetup object. The AppDomainSetup object represents application domain settings such as the application name, base directory, and configuration file path. You have to specify a different assembly path than that of the parent application domain, so the ApplicationBase property of the AppDomain object has to be set. The ApplicationBase property defines the base directory of an application. Any runtime references will be resolved using this directory for assembly probing.

Incorrect Answers:

A: You should not use the code that sets the ApplicationName property of the AppDomainSetup object because this should be the friendly name of the application domain.

C: You should not use the code that sets the ConfigurationFile property of the

AppDomainSetup object because this should be the directory where the configuration file is located.

D: You should not use the code that sets the CachePath property of the AppDomainSetup object because this should be the location where shadow copies of assemblies and other resources are stored.

QUESTION 32

You work as an application developer at Certkiller .com. You have recently created an application domain for Certkiller .com.

A few weeks later you are asked to retrieve information from this application domain, which is the current application domain.

What can you do to achieve this objective? (Choose two)

A. Use the following code:

```
AppDomain appInfo = ApplicationDomain.Current;
```

B. Use the following code:

```
AppDomain appInfo = AppDomain.CurrentDomain ();
```

C. Use the following code:

```
AppDomain appInfo = Thread.GetDomain ();
```

D. Use the following code:

```
AppDomain appInfo = MainThread.GetDomain ();
```

Answer: B, C

Explanation: The CurrentDomain property of the AppDomain class is a read-only property that contains the application domain for the current thread. You can also use the GetDomain method of the Thread class to return the application domain for the thread that is currently running. Using either of these lines of code will return an AppDomain object for the currently running application from which you can retrieve information.

Incorrect Answers:

A, D: If you use any of these codes it will result in a syntax error because the .NET class libraries do not provide an ApplicationDomain or MainThread class.

QUESTION 33

You work as an application developer at Certkiller .com. You have recently created an application domain for Certkiller .com.

A few weeks later, you are required to determine if assembly references in this application domain, which is the current application domain, are being cached.

What property should you use to achieve this objective?

A. AppDomain.CurrentDomain.ShadowCopyFiles

B. AppDomain.CurrentDomain.CachePath

C. AppDomain.CurrentDomain.ConfigurationFile

D. AppDomain.CurrentDomain.Evidence

Answer: A

Explanation: The ShadowCopyFiles property of the AppDomain class contains a Boolean value that indicates whether assembly references are being cached or not.

Incorrect Answers:

B, C: These options are properties of the AppDomainSetup class.

D: This property is not used in caching.

QUESTION 34

You work as an application developer at Certkiller .com. You are required to dynamically load assemblies into a custom child application domain.

You need to ensure that the assemblies loaded into the child application domain have the same permissions as the applications that are accessed across the local intranet.

What should you do?

A. Use the following code to create the child application domain:

```
Evidence childEvidence = new Evidence (new object [ ] { SecurityZone.Intranet }, null);  
AppDomain.CreateDomain ("ChildDomain", childEvidence);
```

B. Use the following code to create the child application domain:

```
AppDomain.CreateDomain ("ChildDomain", SecurityZone.Intranet);
```

C. Use the following code to create the child application domain:

```
AppDomain domain = new AppDomain ("ChildDomain", SecurityZone.Intranet);
```

D. Use the following code to create the child application domain:

```
Evidence childEvidence = new Evidence (new object [ ] { SecurityZone.Intranet }, null);  
AppDomain domain = new AppDomain ("ChildDomain", childEvidence);
```

Answer: A

Explanation: The CreateDomain method of the AppDomain class is an overload method that can be used to create an application domain. This code creates a child application domain named ChildDomain with the default permissions of applications that are accessed across the local intranet.

Incorrect Answers:

B: You should not use the code that specifies SecurityZone.Intranet as an argument to the CreateDomain method because no such method signature exists.

C, D: You should not use the code fragments that instantiate an AppDomain object because the AppDomain class does not have any constructors.

QUESTION 35

You work as an application developer at Certkiller .com. You are required to dynamically load assemblies into an application domain.

You are using the Load method of the AppDomain class.

What types of files can you use this method for?

A. Library application files (.dll).

- B. All assembly files, no matter what their file extensions are.
- C. Application configuration files (.config).
- D. Standalone application files (.exe).

Answer: B

Explanation: An assembly specified in the Load method can use a valid extension, an invalid extension, or no extension at all. As long as the Microsoft Intermediate Language (MSIL) code is valid, the extension is immaterial.

Incorrect Answers:

A, D: Although .dll and .exe are common extensions for .NET assemblies, they are not required when you use the Load method of the AppDomain class.

C: You cannot use the Load method to load application configuration files (.config) because these have no MSIL code to execute and cannot be loaded into an application domain.

QUESTION 36

You work as an application developer at Certkiller .com. Certkiller .com has given you the task of creating medical billing application that will deal with various insurance vendors.

The appropriate assemblies have to be loaded and unloaded dynamically based on the patient's insurance provider. All of these insurance assemblies are located in C:\Insurance Assemblies.

You have to ensure that when the new application first loads, it has to load all assemblies into a separate application domain. You need to create the child application domain and load all assemblies it using the correct code.

What should you do?

A. Use the following code:

```
AppDomain domain = AppDomain.CreateDomain("InsuranceDomain");
foreach (string assembly in Directory.GetFiles(@"C:\Insurance Assemblies", "*.dll"))
domain.LoadAssembly(assembly);
```

B. Use the following code:

```
AppDomain domain = AppDomain.CreateDomain("InsuranceDomain");
foreach (string assembly in Directory.GetFiles(@"C:\Insurance Assemblies", "*.dll"))
domain.Load(assembly);
```

C. Use the following code:

```
AppDomain domain = AppDomain.CreateDomain("InsuranceDomain");
foreach (string assembly in Directory.GetFiles(@"C:\Insurance Assemblies", "*.dll"))
domain.LoadFrom(assembly);
```

D. Use the following code:

```
AppDomain.CreateDomain("InsuranceDomain",
Directory.GetFiles(@"C:\Insurance Assemblies", "*.dll"))
```

Answer: B

Explanation: First, the CreateDomain method of the AppDomain class is used to create an application named InsuranceDomain. Then, the foreach construct is used to iterate through the C:\Insurance Assemblies directory to retrieve the insurance assemblies in that location. The GetFiles method takes two String arguments, a directory path and a search string. In this code, the GetFiles method will retrieve the names of all files in C:\Insurance Assemblies that end in .dll. the Load method of the AppDomain class is used to load each assembly into the current application domain.

Incorrect Answers:

A, C: The LoadAssembly and LoadFrom methods do not exist in the AppDomain class.

D: The CreateDomain method does not allow the loading of assemblies into the new domain.

QUESTION 37

You work as an application developer at Certkiller .com. You have recently completed creating an application that uses an application configuration file. This configuration file contains a section named EmployeeSection, which contains Employee elements.

You are required to view the contents of the EmployeeSection element.

You need to ensure that the EmployeeSection element outputs its contents to the console.

What should you do?

A. Use the following code:

```
Configuration config = ConfigurationManager.OpenExeConfiguration  
(ConfigurationUserLevel.None);  
ConfigurationSection section = Config.GetSection ("EmployeeSection");  
Console.WriteLine (section.Contents);
```

B. Use the following code:

```
ConfigurationSection section = Config.GetSection ("EmployeeSection");  
Console.WriteLine (section.SectionInformation.GetRawXml ());
```

C. Use the following code:

```
string section = ConfigurationSettings.AppSettings ["EmployeeSection"];  
Console.WriteLine (section);
```

D. Use the following code:

```
Configuration config = ConfigurationManager.OpenExeConfiguration  
(ConfigurationUserLevel.None);  
ConfigurationSection section = Config.GetSection ("EmployeeSection");  
Console.WriteLine (section.SectionInformation.GetRawXml ());
```

Answer: D

Explanation: This code opens the application configuration file, retrieves the EmployeeSection element and outputs the contents as raw XML. The OpenExeConfiguration method takes a ConfigurationUserLevel enumeration value

to indicate the visibility of the configuration settings. The value None means that the settings apply to all users. The OpenExeConfiguration method returns a Configuration object representing the current configuration settings. The GetSection method of the Configuration object can then be used to retrieve a specified section of the configuration file. The GetSection method accepts a section name and returns a ConfigurationSection object representing the specified section, if it is found. In this scenario, you pass the GetSection method the name of the EmployeeSection, and it returns a ConfigurationSection representing the EmployeeSection. You can then use this ConfigurationSection object to access information about the section of the configuration file. The SectionInformation property of the ConfigurationSection object retrieves section-specific settings, including contents. The GetRawWml method returns the XML content of the EmployeeSection. The WriteLine method then outputs the contents of the console.

Incorrect Answers:

A: You should not use the code that accesses the Contents property of the ConfigurationSection class because the ConfigurationSection class contains no such property.

B: You should not use the code that does not specify the ConfigurationManager because the GetSection method is an instance member.

C: You should not use the code that specifies the ConfigurationSettings class because this class is provide only for backwards compatibility.

QUESTION 38

You work as an application developer at Certkiller .com. You are in the process of creating an application for Certkiller .com's Human Resources department that tracks employee benefits.

You have to store current employee data without recompiling the application. You elect to store this employee data as a custom section in the application configuration file. The relevant portion of the application configuration file is shown in the following exhibit:

```
<?xml version="1.0" encoding="utf-8" ?>
<configuration>
<configSections>
</configSections>
<!-- Begin Custom Section -->
<EmployeeSection type="fulltime">
<Employee name="Rory Allen" />
</EmployeeSection>
<!-- End Custom Section -->
</configuration>
```

You want to use the .NET 2.0 Configuration API to access the custom section. You need to ensure that programmatic access of the EmployeeSection element is enabled.

What should you do? (Choose two)

- A. Create a custom section handler class that inherits the ConfigurationSection interface.
- B. Add a section element to the EmployeeSection element of the application configuration file.
- C. Create a custom section handler class that implements the IConfigurationSectionHandler interface.
- D. Add an EmployeeSection element to the configSections element of the application configuration file.
- E. Create a custom section handler class that implements the IApplicatioSettingsProvider interface.
- F. Add a section element to the configSections element of the application configuration file.

Answer: A, F

Explanation: To enable programmatic access of the EmployeeSection element, you should create a custom section handler class that inherits the ConfigurationSection class and add a section element to the configSections element of the application configuration file.

Incorrect Answers:

B, D: These options violate the application configuration schema and will cause a run-time error when attempted.

C: This interface is deprecated in .NET 2.0 and requires more development effort.

E: This interface should be implemented if a custom storage solution other than application configuration files is required.

QUESTION 39

You work as an application developer at Certkiller .com. You have recently created a business application, which requires complex installation logic.

You add the following code to your project after electing to create a custom installer for the business application.

```
public class ApplicationInstaller : Installer
{
    public override void Install(IDictionary stateSaver)
    {
        //Install the application
        Base.Install(stateSaver);
    }
    public override void Commit(IDictionary savedState)
    {
        //Commit the application
        Base.Commit(savedState);
    }
    public override void Rollback(IDictionary savedState)
    {
        //Rollback the application
        Base.Rollback(savedState);
    }
}
```

```
}  
public override void Uninstall (IDictionary savedState)  
{  
    //UnInstall the application  
    Base.Uninstall (savedState);  
}  
}
```

What should be done NEXT?

- A. The assembly should be compiled and the Install.exe tool should be run.
- B. The RunInstaller attribute should be added to the business application assembly and it should be set to true.
- C. The assembly should be compiled and should be run as normal.
- D. The RunInstaller attribute should be added to the ApplicationInstaller class and it should be set to true.

Answer: D

Explanation:

Incorrect Answers:

- A: This option should be executed after applying the RunInstaller attribute and setting it to true.
- B: You should not add the RunInstaller attribute to the assembly because the RunInstaller attribute is applied to a class, not the entire assembly.
- C: You should not use this option because the installer class will be invoked without applying the RunInstaller attribute with a value of true.

QUESTION 40

You work as an application developer at Certkiller .com. You have recently created and deployed an application using the .NET 1.1 CLR to all Certkiller .com users. After a Certkiller .com administrator updates all user computers with the .NET 2.0 CLR, you run preliminary tests and find that the application you created using the .NET 1.1 CLR is not compatible with the .NET 2.0 CLR.

You need to ensure that the application can be run with the .NET 1.1 CLR.

What should you do?

- A. Use the following element in the application configuration file:

```
<configuration>  
<startup>  
<bindingRedirect oldVersion="1.0.0.0" newVersion="1.1.0.0" />  
</startup>  
</configuration>
```

- B. Use the following element in the application configuration file:

```
<configuration>  
<startup>  
<requiredRuntime version="v1.1.4322" safemode="true" />
```

</startup>

</configuration>

C. Use the following element in the application configuration file:

<configuration>

<startup>

<supportedRuntime version="v1.1.4322" />

<supportedRuntime version="v1.0.3705" />

</startup>

</configuration>

D. Use the following element in the application configuration file:

<configuration>

<startup>

<unsupportedRuntime version="v2.0.50727" />

</startup>

</configuration>

Answer: C

Explanation: This configuration element instructs the host system to launch the application using either .NET 1.1 CLR or .NET 1.0 CLR rather than defaulting to the .NET 2.0 CLR. The supportedRuntime element identifies the versions of the CLR with which the application can be run. The supportedRuntime element is only supported in assemblies built using .NET 1.1 or later.

Incorrect Answers:

A: There is no such subelement as bindingRedirect that exists for the startup element.

B: The requiredRuntime element should only be used by assemblies built by using the .NET 1.0 Framework.

D: There is no such element as the unsupportedRuntime element that exists in the application configuration schema.

QUESTION 41

You work as an application developer at Certkiller .com. You have recently created a business application that references another strong-named assembly named library.dll, and deployed it to all Certkiller .com users.

Subsequent to testing the applications performance, you elect to upgrade the assembly's version to 1.1.0.0.

You need to ensure that the new version of will not affect any of Certkiller .com's current users by adding the appropriate element to the assemblyBinding element in the application configuration file.

What element should you add?

A. <dependentAssembly>

<assemblyIdentity name="Library" publicKeyToken="32ab4bc45e90a1" culture="neutral" />

<redirect oldVersion="1.0.0.0" newVersion="1.1.0.0" />

```

</dependentAssembly>
B. <dependentAssembly>
  <assemblyIdentity name="Library" publicKeyToken="32ab4bc45e90a1"
  culture="neutral" />
  <bindingRedirect oldVersion="1.0.0.0" newVersion="1.1.0.0" />
</dependentAssembly>
C. <dependentAssembly>
  <assemblyIdentity name="Library" publicKeyToken="32ab4bc45e90a1"
  culture="neutral"
  oldVersion="1.0.0.0" newVersion="1.1.0.0" />
</dependentAssembly>
D. <dependentAssembly>
  <bindingRedirect oldVersion="1.0.0.0" newVersion="1.1.0.0" />
</dependentAssembly>

```

Answer: B

Explanation: This dependentAssembly element specifies the assembly identity information using the assemblyIdentity element. The name attribute of the assemblyIdentity element indicates the common name of the assembly. The publicKeyToken attribute specifies the strong-named key, and the culture attribute indicates the localization type. The bindingRedirect element is a subelement of the dependentAssembly element that specifies the oldVersion and newVersion attributes. Setting the oldVersion attribute to 1.0.0.0 and the newVersion attribute to 1.1.0.0 means that any users referencing the 1.0.0.0 version of the Library will now be referencing the 1.1.0.0 version.

Incorrect Answers:

A: You should not use the element that specifies the redirect element because there is no such subelement of the assemblyBinding element.

C: You should not use the element that specifies the assemblyIdentity element because this is required information when adding dependentAssembly elements.

D: You should not use the element that specifies the bindingRedirect element because there are no such attributes as oldVersion and newVersion attributes for the assemblyIdentity element.

QUESTION 42

You work as an application developer at Certkiller .com. You are currently in the process of creating a shared assembly.

You are required to perform many integration tests to make sure the assembly works properly with multiple applications. You want to avoid constantly updating each application's reference when the assembly is updated.

You have set the DEVPATH environmental variable to the default build location for the shared assembly.

You need to ensure that the Common Language Runtime (CLR) uses DEVPATH to locate the shared assembly.

What should you do?

A. Add the following element to each application's application configuration file:

```
<dependentAssembly>  
<assemblyIdentity name="SharedAssembly" />  
<codeBase version="1.0.0.0" DEVPATH="true" />  
</dependentAssembly>
```

B. Add the following element to the machine.config file in the development computer:

```
<dependentAssembly>  
<assemblyIdentity name="SharedAssembly" />  
<codeBase version="1.0.0.0" DEVPATH="true" />  
</dependentAssembly>
```

C. Add the following element to each application's application configuration file:

```
<configuration>  
<runtime>  
<developmentMode developerInstallation="true" />  
</runtime>  
</configuration>
```

D. Add the following element to the machine.config file in the development computer:

```
<configuration>  
<runtime>  
<developmentMode developerInstallation="true" />  
</runtime>  
</configuration>
```

Answer: D

Explanation: The developmentMode element instructs the CLR to use the DEVPATH environmental variable to locate assemblies. If you do not add this element to the machine.config file, the DEVPATH environmental variable will be ignored.

Incorrect Answers:

A, C: Application configuration files are used for application-specific settings only

B: The codeBase element does not have a DEVPATH attribute.

QUESTION 43

You work as an application developer at Certkiller .com. You have been asked to profile a business application that can be accessible using the Event Log API.

You have started by adding the following code to create a custom event log:

```
if (EventLog.SourceExists ("Application1"))  
EventLog.DeleteEventSource ("Application1");  
//Create new event log  
EventLog.CreateEventSource ("Application1", "Profile");
```

You need to write an event to the Application1 event log.

What code must you use?

A. EventLog log = new EventLog ();

```
log.Source = "Application1";  
log.Log = "Profile";  
log.WriteEvent ("Writing to event log.");  
B. EventLog log = new EventLog ();  
log.Source = "Profile";  
log.Log = "Application1";  
log.WriteEvent ("Writing to event log.");  
C. EventLog log = new EventLog ();  
log.Source = "Application1";  
log.Log = "Profile";  
log.WriteEntry ("Writing to event log.");  
D. EventLog log = new EventLog ();  
log.Source = "Profile";  
log.Log = "Application1";  
log.WriteEntry ("Writing to event log.");
```

Answer: C

Explanation: This code instantiates an EventLog object, sets the Source and Log properties, and invokes the WriteEntry method to output the message to the event log. The EventLog object allows you to create, delete, read from, or write to Windows event logs. In this scenario, you use the CreateEventSource method to create a custom event log. When calling the CreateEventSource method, you pass the method two arguments. The first argument represents the source name for the event log, and the second represents the name of the event log. Next, you want to write an entry to the Application1 event log. To write to an event log, you must first identify the event source and the name of the event log to which you want to write. The Source property specifies the event source, and the Log property specifies the name of the event log. There are two methods to write to the EventLog object: WriteEntry and WriteEvent. The WriteEntry method is an overloaded method used to write a text message to an event log. The WriteEvent method is used to write localized resources and event instances to an event log.

Incorrect Answers:

A, B: The WriteEvent method is used to write localized resources and event instances to an event log.

D: You should not use the code fragments that specify a value of "Profile" for the Source property and a value "Application1" for the Log property because they would attempt to write the entry to an event log named Application1.

QUESTION 44

You work as an application developer at Certkiller .com. The Certkiller .com network contains an application server named Certkiller -SR07.

You have been asked to profile a business application that can be accessible using the Event Log API. You want to achieve this by creating a custom event log on Certkiller -SR07.

What should you do?

A. Use the following code:

```
EventLog.CreateEventSource ("Application1", "Profile", " Certkiller -SR07");
```

B. Use the following code:

```
EventLog.CreateEventSource ("Application1", "Profile");
```

C. Use the following code:

```
EventSourceCreationData sourceData = new EventSourceCreationData ("Application1",  
"Profile");
```

```
sourceData.MachineName = " Certkiller -SR07";
```

```
EventLog.CreateEventSource (sourceData);
```

D. Use the following code:

```
EventSourceCreationData sourceData = new EventSourceCreationData ("Application1",  
"Profile");
```

```
EventLog.CreateEventSource (sourceData);
```

Answer: C

Explanation: This code instantiates an EventSourceCreationData object, sets the MachineName property of the EventSourceCreationData object, and invokes the CreateEventSource method, passing the EventSourceCreationData object as an argument, to create the custom event log.

The EventSourceCreationData object is used to configure a new event log source. You can then pass the EventSourceCreationData object to the CreateEventSource method of an EventLog to register the event log source and corresponding event log so that you can write entries to it. The EventSourceCreationData object's constructor accepts two String arguments: Source and Log. The Source argument specifies the event source, and the Log argument specifies the name of the event log. After creating an instance of EventSourceCreationData, you can set the EventSourceCreationData object's properties to further configure the event source. The MachineName property represents the computer on which you want to create the event source. In this scenario, you create a new EventSourceCreationData object named sourceData and then set its MachineName property to Certkiller -SR07. Then, you call the CreateEventSource method, passing the method sourceData. This creates an event log source on the computer named Certkiller -SR07.

Incorrect Answers:

A: The CreateEventSource method that takes three String arguments is obsolete in the .NET 2.0 Framework.

B, D: Both of these code fragments would create an event log on the local computer by default, but the scenario states that you should explicitly specify the machine name because the computer on which the code is running is unknown.

QUESTION 45

You work as an application developer at Certkiller .com. You are required to retrieve and display the names of all processes that are currently running in memory.

What should you do?

A. Use the following code:

```
foreach (Process curProcess in Process.GetSystemProcesses ())  
Console.WriteLine (curProcess.ProcessName);
```

B. Use the following code:

```
foreach (Process curProcess in Process.GetAllProcesses ())  
Console.WriteLine (curProcess.ProcessName);
```

C. Use the following code:

```
foreach (Process curProcess in Process.GetProcesses ())  
Console.WriteLine (curProcess.ProcessName);
```

D. Use the following code:

```
foreach (Process curProcess in Thread.GetProcesses ())  
Console.WriteLine (curProcess.ProcessName);
```

Answer: C

Explanation: The GetProcesses method creates and returns an array of Process objects representing all currently running processes in memory. Because this method invocation does not contain a computer name, the local machine is assumed. The curProcess variable is reassigned to a Process object with each iteration. The ProcessName property of the Process object retrieves the system name of the process. The WriteLine method of the Console class outputs the process name to the console. Because the WriteLine method outputs a line return, each process name will be on a separate line in the Console window.

Incorrect Answers:

A, B: The GetProcesses and GetAllProcesses methods do not exist in the Process class.

D: There is no such method as the GetProcesses method in the Thread class.

QUESTION 46

You work as an application developer at Certkiller .com. Certkiller .com is currently using a performance counter named HitCounter.

You are required to increment each time a user accesses the UI classes within the application. To do this, you start by creating performance counters using the following code:

```

CounterCreationDataCollection colCounters =
    new CounterCreationDataCollection();
CounterCreationData counterHit =
    new CounterCreationData("HitCounter", "Number of hits",
        PerformanceCounterType.NumberOfItems32);
CounterCreationData counterFile = new CounterCreationData
    ("FileCounter", "Number of files access attempts",
        PerformanceCounterType.NumberOfItems32);

colCounters.Add(counterHit);
colCounters.Add(counterFile);

PerformanceCounterCategory.Create( "ApplicationPerformance",
    "ApplicationPerformanceHelp",
    PerformanceCounterCategoryType.SingleInstance,
    colCounters );

```

You have to adjust the HitCounter performance counter when a hit occurs.
What should you do?

A. Use the following code:

```

PerformanceCounter hitCounter = new PerformanceCounter ("ApplicationPerformance',
    "HitCounter");
hitCounter.ReadOnly = false;
hitCounter.Increment ();

```

B. Use the following code:

```

PerformanceCounter hitCounter = new PerformanceCounter ("ApplicationPerformance',
    "HitCounter");
hitCounter.Increment ();

```

C. Use the following code:

```

PerformanceCounter hitCounter = new PerformanceCounter ("ApplicationPerformance',
    "HitCounter");
hitCounter ++;

```

D. Use the following code:

```

PerformanceCounter hitCounter = new PerformanceCounter ("ApplicationPerformance',
    "HitCounter");
hitCounter.ReadOnly = false;
hitCounter ++;

```

Answer: A

Explanation: This code creates a new PerformanceCounter object that references the ApplicationPerformance category and the HitCounterperformance counter. By default, a performance counter is read-only, so this code sets the ReadOnly property to False. Then, the Increment method is called to increase the counter by one. The PerformanceCounter class also provides an IncrementBy method, which increments the performance counter by the value specified in a provided argument.

Incorrect Answers:

B: You should not use the code fragments that fail to set the ReadOnly property to

False because by default, all performance counter objects are read-only.

C, D: You should not use the code fragments that use the ++ operator to increment the PerformanceCounter object because this will cause a compile-time error.

QUESTION 47

You work as an application developer at Certkiller .com. You would like to create a custom performance counter for an application that you created recently.

To do this, you decide to create a custom category named ApplicationPerformance and a performance counter named HitNumber.

You need to ensure that this counter is shared across numerous applications.

What should you do?

A. Use the following code:

```
PerformanceCounterCategory.Create ("ApplicationPerformance",  
"ApplicationPerformanceHelp",  
PerformanceCounterCategoryType.MultiInstance, "HitNumber", "HitNumberHelp");
```

B. Use the following code:

```
PerformanceCounterCategory.Create ("HitNumber", "HitNumberHelp",  
PerformanceCounterCategoryType.SingleInstance,  
"ApplicationPerformance" "ApplicationPerformanceHelp");
```

C. Use the following code:

```
PerformanceCounterCategory.Create ("HitNumber", "HitNumberHelp",  
PerformanceCounterCategoryType.MultiInstance,  
"ApplicationPerformance" "ApplicationPerformanceHelp");
```

D. Use the following code:

```
PerformanceCounterCategory.Create ("ApplicationPerformance",  
"ApplicationPerformanceHelp",  
PerformanceCounterCategoryType.SingleInstance,  
"HitNumber", "HitNumberHelp");
```

Answer: D

Explanation: This code invokes the Create method of the PerformanceCounterCategory class. This method registers a custom category on the local computer. The first two arguments specify the name of the category and category help string, respectively. The third argument specifies a PerformanceCounterCategoryType enumeration value indicating how many counters can be in use within the specified category. The value PerformanceCounterCategoryType.SingleInstance indicates that only a single instance can exist for the entire category. The last two arguments specify the name of the performance counter and the counter's help string, respectively.

Incorrect Answers:

A, C: The code fragments that specify the MultiInstance value should not be used because the scenario requires you to share the same counter across multiple applications.

B: This code fragment incorrectly assigns the value HitNumber to the category name and ApplicationPerformance to the counter name.

QUESTION 48

You work as an application developer at Certkiller .com.

You are required to launch the App.exe process, and specify sample.txt as the input file. App.exe will then use the contents of sample.txt to establish the environment's current settings.

You need to ensure that the code you use meets these requirements.

What should you do?

A. Use the following code:

```
Process myProcess = new Process ();  
myProcess.StartInfo = new ProcessStartInfo ("App.exe sample.txt");  
myProcess.Start ();
```

B. Use the following code:

```
Process myProcess = new Process ();  
myProcess.StartInfo = new ProcessStartInfo ("App.exe");  
myProcess.ProcessStartArgs ("sample.txt");  
myProcess.Start ();
```

C. Use the following code:

```
Process myProcess = new Process ();  
myProcess.StartInfo = new ProcessStartInfo ("App.exe");  
myProcess.Start ("sample.txt");
```

D. Use the following code:

```
Process myProcess = new Process ();  
myProcess.StartInfo = new ProcessStartInfo ("App.exe");  
myProcess.StartInfo.FileName = "sample.txt"  
myProcess.Start ();
```

Answer: D

Explanation: This code creates a new Process object, sets the application to run using the StartInfo property, and uses the FileName property to specify the file to use as input. The StartInfo property of a Process object stores startup information for the process. This includes the application to run and any command-line arguments to be used by the application. The FileName property must be set, and can be set by either explicitly setting the FileName property or by passing the name of the file to the ProcessStartInfo constructor. The Start method launches the application process with the values specified in the StartInfo property.

In this scenario, the code declares a new Process object named myProcess and then sets the StartInfo property of this process. The code passes the constructor of the ProcessStartInfo a single argument representing the name of the application, App.exe. Next, the FileName property is explicitly set with an assignment statement to the value of "sample.txt". Then, the code call the Start method to launch the application using the values specified in the customized startup settings.

Incorrect Answers:

A: You should not use the code that passes a single string containing the application

and input file to the ProcessStartInfo constructor.

B: You should not use the code that invokes the ProcessStartArgs method because no such method exists in the Process class.

C: You should not use the code that invokes the Start method of the Process object specifying the input file because no such method signature exists.

QUESTION 49

You work as an application developer at Certkiller .com. Certkiller .com uses an application that calculates monthly payments based upon client input. You are currently debugging this application using the Microsoft Visual Studio 2005 IDE. The application contains the following code:

```
public double CalculateMonthlyPayment (Single rate, double principal)
{
//Implementation code
}
```

You have discovered that unexpected results are being returned by the application. You would like to pause execution and display a message box containing an error message in the event of a negative or zero rate value is Passed to the CalculateMonthlyPayment method.

You need to ensure that this only occurs during debugging mode. What should you do?

A. Add the following code to the beginning of the CalculateMonthlyPayment method:

```
Debug.Assert (rate > 0, "Rate Error", "Rate must be > zero");
```

B. Add the following code to the beginning of the CalculateMonthlyPayment method:

```
if (rate <= 0)
```

```
MessageBox.Show ("Rate is" + rate, Error);
```

C. Add the following code to the beginning of the CalculateMonthlyPayment method:

```
if (rate <= 0)
```

```
Debug.WriteLine ("Error Rate is" + rate);
```

D. Add the following code to the beginning of the CalculateMonthlyPayment method:

```
Debug.WriteLineIf (rate <= 0, "Error Rate is" & rate);
```

Answer: A

Explanation: This code makes the debugging assertion that the rate argument is greater than zero. If it is not, then a message box will be display with the message Rate Error along with the detailed description "Rate must be > zero". The Assert method of the debug class is an overloaded method that provides you the ability to test assumptions made in your programming logic. The Assert method accepts three arguments, the first of which is required. This first argument represents a condition that is assumed to be true for your programming logic and will evaluate to a Boolean value. The other two arguments represent optional string messages. When the Assert method is invoked with three arguments, the condition is evaluated. If the condition evaluates to true, then the program continues to execute. If the condition evaluates to false, the program execution is halted, and by default a modal dialog

box is displayed. This dialog box displays the first string on a single line, the second string on the second line, and then the location at which the assertion failed. From this dialog box, you can invoke the debugger, continue execution, or exit the application. Output generated using the Debug class is stripped out when creating a release version build of an application.

Incorrect Answers:

B: In this scenario, you want the dialog box to display only for debug builds of the application. Using this code, the message box would display in a release build of the application.

C, D: The output of these options will not display in a message box.

QUESTION 50

You work as an application developer at Certkiller .com. You are preparing to run diagnostics on an application by using TraceSwitch objects.

You start by adding the following elements to the application configuration file:

```
<system.diagnostics>
  <switches>
    <add name="DataTraceSwitch" value="1" />
    <add name="MessageTraceSwitch" value="3" />
  </switches>
</system.diagnostics>
```

You then test the TraceSwitch settings by using the code displayed in the exhibit below:

```
1 using System;
2 using System.Diagnostics;
3
4 public class MainApp {
5
6     private static TraceSwitch dataSwitch;
7     private static TraceSwitch messageSwitch;
8
9     public static void Main ( string[] args ) {
10         dataSwitch = new TraceSwitch( "DataTraceSwitch",
11             "Displays argument information." );
12         messageSwitch = new TraceSwitch( "MessageTraceSwitch",
13             "Displays method calling information." );
14         TestTraceSwitches( 0 );
15     }
16
17     private static void TestTraceSwitches ( int Input ) {
18         Trace.WriteLineIf( messageSwitch.Level == TraceLevel.Info,
19             "Entering TestTraceSwitches method." );
20         Trace.WriteLineIf( dataSwitch.Level == TraceLevel.Info,
21             "Input: " + Input );
22         if ( Input <= 0 ) {
23             Trace.WriteLine( dataSwitch.Level == TraceLevel.Error,
24                 "Input cannot be less than or equal to 0." );
25             Trace.WriteLine( messageSwitch.Level == TraceLevel.Error,
26                 "Exception thrown in TestTraceSwitches method." );
27             throw new ArgumentException( "Invalid value.", "Input" );
28         }
29         Trace.WriteLineIf( messageSwitch.Level == TraceLevel.Info,
30             "Exiting TestTraceSwitches method." );
31     }
32 }
```

What represents the output that will be displayed by this test?

- A. Entering TestTraceSwitches method.
Input: 0
Input cannot be less than or equal to 0.
Exception thrown in TestTraceSwitches method.
Exiting TestTraceSwitches method.
- B. Entering TestTraceSwitches method.
Input cannot be less than or equal to 0.
Exception thrown in TestTraceSwitches method.
- C. Entering TestTraceSwitches method.
Input cannot be less than or equal to 0.
Exception thrown in TestTraceSwitches method.
Exiting TestTraceSwitches method.
- D. Input cannot be less than or equal to 0.
Exception thrown in TestTraceSwitches method.

Answer: B

Explanation: In this scenario, the DataTraceSwitch is set to 1, or TraceLevel.Error, and the MessageTraceSwitch is set to 3, or TraceLevel.Info. The Trace.WriteLine method invocations check the TraceLevel of each switch. In this way, only error messages will be in the output if the DataTraceSwitch.TraceLevel property is evaluated. All messages except verbose will be in the output if the MessageTraceSwitch.TraceLevel property is evaluated. The reason that the last trace message is not in the output is because an exception is thrown before that statement can be executed.

Incorrect Answers:

A, C, D: These options are all incorrect because they do not indicate the correct output based on the TraceLevel settings of the TraceSwitch object.

QUESTION 51

You work as an application developer at Certkiller .com. You have recently created an application, and want to capture all debugging text messages generated by it. You would like these debugging messages to display on the command line. The application that you created contains the following code:

```
Debug.WriteLine ("Start the processing");  
Console.WriteLine ("Generated by Console.WriteLine");  
Debug.WriteLine ("End the processing");
```

You need to ensure that you are able to capture all debugging messages to the command line.

What should you do?

- A. Use the following code:
Debug.Listeners.Add (new TextWriterTraceListener (Console.Out));
Debug.AutoFlush = true;
- B. Use the following code:

```
Debug.Listeners.Add (new StreamWriter (Console.Out));  
Debug.AutoFlush = true;  
C. Use the following code:  
Debug.Listeners.Add (new ConsoleTraceListener ());  
Debug.AutoFlush = true;  
D. Use the following code:  
Debug.Listeners.Add (new DefaultTraceListener ());  
Debug.AutoFlush = true;
```

Answer: C

Explanation: Listeners are used to capture trace and debug messages. Both the Trace and Debug objects share the same Listeners collection, which includes a DefaultTraceListener that will capture trace and debug messages in the Output window. You are able to override this behavior by using the Add method to add another listener to the Listeners collection. The ConsoleTraceListener is used to route trace and debug messages to the console. The AutoFlush property should be set to true for immediate capture. This specifies that after each message is written, the buffer is flushed and the output is written to the listener.

Incorrect Answers:

A: You should use the code that instantiates a TextWriterTraceListener object that specifies the Console's output stream because this is less efficient than specifying a ConsoleTraceListener object.

B: You should use the code that instantiates a StreamWriter object that specifies the Console's output stream because the Listeners collection allows only Listener object streams.

D: You should use the code that instantiates a DefaultTraceListener object because this will capture the debugging messages to the Output window in the Visual Studio .NET 2005 IDE. Also, each Listeners collection will contain a DefaultTraceListener by default.

QUESTION 52

You work as an application developer at Certkiller .com. You have created an application to interface with an inventory storage system, and want to enable tracing in the application to track stock shortages and surpluses.

The application should not, however, trace inventory levels if no shortages or surpluses exist. In addition, you do not want recompile every time to switch tracing capabilities on or off.

What should you do?

- A. Specify a command-line argument named InventoryTrace, and configure the application to read the argument.
- B. Specify a system-wide environmental variable named InventoryTrace, and configure the application to read the environmental variable.
- C. Specify a registry key named InventoryTrace, and configure the application to read the registry key setting.

D. Specify a BooleanSwitch named InventoryTrace, and configure it in the application configuration file.

Answer: D

Explanation: The BooleanSwitch class is used to toggle trace messages on and off. The application configuration is intended to manage any application-specific settings, including tracing. The value of the Enabled property determines whether the BooleanSwitch is turned on or off. This value is set in the application configuration file. If the value is 0, then the BooleanSwitch object is turned off and the Enabled property returns false. If the value is any other value, the BooleanSwitch object is turned on and the Enabled property returns true.

Incorrect Answers:

A: This option requires the application to run from the command-line.

B: This option requires EnvironmentPermission and is intended for more complex application settings.

C: This option requires RegistryPermission and is intended for system-wide settings, not for application-specific settings.

QUESTION 53

You work as an application developer at Certkiller .com. Certkiller .com has a server named Certkiller -SR05 that has numerous processors installed.

You have been given the task of developing an application that displays certain clock speed statistics on all processors installed on Certkiller -SR05.

You need to ensure that this requirement is fully satisfied.

What should you do?

A. Use the following code:

```
ManagementObjectSearcher processorSearcher = new ManagementObjectSearcher ();
foreach (ManagementObject obj in processorSearcher.Get ("SELECT * FROM
Win32_Processor"))
{
    Console.WriteLine (" {0}", obj ["Name"]);
    Console.WriteLine (" {0} / {1}", obj ["CurrentClockSpeed"], Obj ["MaxClockSpeed"]);
}
```

B. Use the following code:

```
ManagementObjectSearcher processorSearcher = new ManagementObjectSearcher (
"SELECT * FROM Win32_Processor");
foreach (ManagementObject obj in processorSearcher.Get ())
{
    Console.WriteLine (" {0}", obj ["Name"]);
    Console.WriteLine (" {0} / {1}", obj ["CurrentClockSpeed"], Obj ["MaxClockSpeed"]);
}
```

C. Use the following code:

```
ManagementObjectQuery processorQuery = new ManagementObjectQuery ();
```

```
foreach (ManagementObject obj in processorQuery.Get ("SELECT * FROM
Win32_Processor"))
{
    Console.WriteLine (" {0}", obj ["Name"]);
    Console.WriteLine (" {0} / {1}", obj ["CurrentClockSpeed"], Obj ["MaxClockSpeed"]);
}
D. Use the following code:
ManagementObjectQuery processorQuery = new ManagementObjectQuery (
"SELECT * FROM Win32_Processor");
foreach (ManagementObject obj in processorQuery.Get ())
{
    Console.WriteLine (" {0}", obj ["Name"]);
    Console.WriteLine (" {0} / {1}", obj ["CurrentClockSpeed"], Obj ["MaxClockSpeed"]);
}
```

Answer: B

Explanation: This code retrieve all Win32_Processor objects on the local machine, iterates through each Win32_Processor object, and displays the Name, CurrentClockSpeed, and MaxClockSpeed properties for each Win32_Processor object. First, the ManagementObjectSearcher object is instantiated with the WQL query string on which to search. WQL is a subset of SQL, and it is specifically designed for WMI. The WQL string specified in this code returns any 32-bit processors available on the local machine. The Get method returns a ManagementObjectCollection object. On each iteration, a ManagementObject object is assigned to the variable obj. the Console.WriteLine method display the Name, ClockSpeed, and MaxClockSpeed properties on the command-line using a string indexer.

Incorrect Answers:

A: You should not use the code that specifies the WQL query string as an argument of the Get method of the ManagementObjectSearcher object because the Get method does not accept a string data type.

C D: You should not use the code that specifies the ManagementObjectQuery class because there is no such class in the .NET 2.0 class library.

QUESTION 54

You work as an application developer at Certkiller .com. You have developed an application that simplifies hard drive management for Certkiller .com's administrators.

The application that you created logs all modifications made to physical hard drives on an hourly basis. You now need to create an EventQuery object for this application.

What should you do?

A. Use the following code:

```
EventQuery query = new EventQuery ();
```

```
query.QueryString = "SELECT InstanceModificationEvent FROM 'Win32_DiskDrive'"
+
"WITHIN 3600";
```

B. Use the following code:

```
EventQuery query = new EventQuery ();
query.QueryString = "SELECT * FROM _InstanceModificationEvent WITHIN 3600" +
"WHERE TargetInstance ISA 'Win32_DiskDrive'";
```

C. Use the following code:

```
EventQuery query = new EventQuery ();
query.QueryString = "SELECT * FROM 'Win32_DiskDrive' WITHIN 3600" +
"WHERE TargetInstance ISA _InstanceModificationEvent";
```

D. Use the following code:

```
EventQuery query = new EventQuery ();
query.QueryString = "SELECT * FROM _InstanceModificationEvent WITHIN 3600" +
"WHERE Instance = 'Win32_DiskDrive'";
```

Answer: B

Explanation: This code creates a new EventQuery object that queries all disk drive events every hour. The QueryString property contains a string that follows the syntax of WQL. WQL is a subset of SQL, and it is specifically designed for WMI. The SELECT clause indicates retrieval, where the asterisk (*) represents all properties associated with the event. The FROM clause indicates the event, which in this case is _InstanceModificationEvent. The WITHIN clause specifies the polling interval in seconds. The WHERE clause specifies the condition that must be met. In this scenario, the TargetInstance field is compared to the value Win32_DiskDrive. This limits the _InstanceModificationEvent events to only those that modify hard drives.

Incorrect Answers:

A: InstanceModificationEvent is not a valid event property and Win32_DiskDrive is not a valid event.

C: The FROM clause should specify the event InstanceModificationEvent and the ISA operator should use the Win32_DiskDrive class.

D: Instance is not a valid field name and the equal sign (=) is not valid for class comparisons.

QUESTION 55

You work as an application developer at Certkiller .com.

Certkiller .com has given you the task of serializing an object and writing it to a data file using binary serialization.

You need to ensure that you meet these requirements.

What should you do?

A. Use the following code:

```
object obj = new object ();
Stream objStream = File.Open ("DataFile.dat", FileMode.Create);
```

```
BinaryFormatter objFormatter = new BinaryFormatter ();  
objFormatter.Serialize (objStream, obj);  
B. Use the following code:  
object obj = new object ();  
BinaryFormatter objFormatter = new BinaryFormatter ();  
objFormatter.Serialize (obj);  
C. Use the following code:  
Stream objSream = File.Open ("DataFile.dat", FileMode.Create);  
BinaryFormatter objFormatter = new BinaryFormatter ();  
objFormatter.Serialize (objStream);  
D. Use the following code:  
object obj = new object ();  
Stream objSream = File.Open ("DataFile.dat", FileMode.Create);  
BinaryFormatter objFormatter = new BinaryFormatter ();  
objFormatter.Serialize (obj, objStream);
```

Answer: A

Explanation: This code instantiates an object named obj, opens a file stream, instantiates a BinaryFormatter object, and serializes the obj object to the DataFile.dat file. The File.Open method takes a file path string and FileMode enumeration value as arguments and returns a FileStream object. The Serialize method of the BinaryFormatter class takes two arguments: a stream and the object to be serialized. The Serialize method uses the stream to write the object to the destination.

Incorrect Answers:

B, C, D: If you use these options it will cause a compile-time error.

QUESTION 56

You work as an application developer at Certkiller .com. You have recently created a serializable class named Vehicle.

The class is shown below:

```
[Serializable]  
public class Vehicle  
{  
    public string VIN;  
    public string Make;  
    public string Model;  
    public string Year;  
}
```

You are planning to create a custom formatter class to control the formatting of Vehicle objects when they are serialized. You need to ensure that is achieved with as little development effort as possible.

What should you do?

A. Use the following code:

```
public class VehicleFormatter : Formatter
{
//Implementation omitted
}
```

B. Use the following code:

```
public class VehicleFormatter : IGenericFormatter
{
//Implementation omitted
}
```

C. Use the following code:

```
public class VehicleFormatter : IFormatConverter
{
//Implementation omitted
}
```

D. Use the following code

```
public class VehicleFormatter : IFormatter
{
//Implementation omitted
}
```

Answer: D

Explanation: When implementing the IFormatter interface, you must provide implementation for two methods and three properties. The two methods, Serialize and Deserialize control how objects will be stored from memory and loaded into memory, respectively. Both methods accept a Stream object as an argument. The Serialize method also takes a generic object as its second argument and uses the Stream argument to write the object. The Deserialize method returns the object using the Stream argument. The Binder, Context, and Surrogate Selector properties must also be implemented.

Incorrect Answers:

A: The Formatter class requires more development effort than necessary.

B: The IGenericFormatter interface does not exist.

C: The IFormatConverter interface does not control formatting during serialization.

QUESTION 57

You work as an application developer at Certkiller .com. You develop a serializable class for persisting objects as files.

Every time an object is serialized, you have to update the database with the name of the object and location of that file. You elect to employ the OnSerialized attribute to achieve this objective.

You now need to apply the OnSerialized attribute to a certain method.

What should you do?

A. Apply the OnSerialized attribute to the following method:

```
public void AfterSerialization (object sender, SerializationEventArgs e)
```

```
{  
//Update database  
}
```

B. Apply the OnSerialized attribute to the following method:

```
public void AfterSerialization (object sender
```

```
{  
//Update database  
}
```

C. Apply the OnSerialized attribute to the following method:

```
public void AfterSerialization (StreamContext context)
```

```
{  
//Update database  
}
```

D. Apply the OnSerialized attribute to the following method:

```
public StreamContext AfterSerialization ()
```

```
{  
//Update database  
}
```

Answer: C

Explanation: This method contains the correct method signature to have the OnSerialized attribute applied. The method must accept a StreamContext as an argument for accessing the read/write stream during serialization/deserialization.

Incorrect Answers:

A, B, D: You should not apply the OnSerialized attribute to these methods because they do not accept a StreamContext as an argument.

QUESTION 58

You work as an application developer at Certkiller .com. You have recently created a point of sale application that serializes sales products into XML, which will then be consumed by Certkiller .com's partner company.

The following exhibit shows the appropriate serializable classes that you have created.

```

1 using System;
2 using System.IO;
3 using System.Xml.Serialization;
4 using System.Runtime.Serialization;
5
6 public class Product {
7     private int ID;
8     public string Name;
9 }
10
11 public class SalesProduct : Product {
12     [XmlAttribute( "Taxable" )]
13     public bool IsTaxable;
14 }
15
16 public class Region {
17     [XmlAttribute( "Area" )]
18     public string Name;
19     [XmlArrayItem( typeof( Product ),
20         ElementName = "Product" )]
21     [XmlArrayItem( typeof( SalesProduct ),
22         ElementName = "SalesProduct" )]
23     public Product[] Products;
24 }

```

You then test the serialization process by creating code in the exhibit below:

```

public void Serialize ( string filename ) {
    XmlSerializer serializer = new XmlSerializer( typeof( Region ) );
    StreamWriter writer = new StreamWriter( filename );
    SalesProduct product1 = new SalesProduct();
    product1.Name = "Sofa";
    product1.IsTaxable = true;
    Product productDisplay = new Product();
    productDisplay.Name = "Television";
    Region region = new Region();
    region.Name = "East";
    region.Products = new Product[] { product1, productDisplay };
    serializer.Serialize( writer, region );
    writer.Close();
}

```

What will be in the file if you invoke the Serialize method?

A. <?xml version="1.0" encoding="utf-8"?>
 <Region xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns:xsd= "http://www.w3.org/2001/XMLSchema">
 <Products>
 <Product IsTaxable="true">Sofa</Product>
 <Product> Television</Product>
 </Products>

</Region>

B. <?xml version="1.0" encoding="utf-8"?>

<Region xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

xmlns:xsd="http://www.w3.org/2001/XMLSchema">

<Products>

<SalesProduct Taxable="true">

<Name>Sofa</Name>

</SalesProduct>

<Product>

<Name>Television</Name>

</Product>

</Products>

</Region>

C. <?xml version="1.0" encoding="utf-8"?>

<Region xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

xmlns:xsd="http://www.w3.org/2001/XMLSchema">

<Products>

<SalesProduct>

<IsTaxable>true</IsTaxable >

<Name>Sofa</Name>

</SalesProduct>

<Product>

<Name>Television</Name>

</Product>

</Products>

</Region>

D. <?xml version="1.0" encoding="utf-8"?>

<Region xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

xmlns:xsd="http://www.w3.org/2001/XMLSchema" Area="East">

<Products>

<SalesProduct Taxable="true">

<Name>Sofa</Name>

</SalesProduct>

<Product>

<Name>Television</Name>

</Product>

</Products>

</Region>

Answer: B

Explanation: This code is generated because of the inclusion and exclusion of XML serialization attributes. The Product class contains no XML-specific attributes, so the Name field will translate into the Name element. The ID field will not serialize because it is a private member. The XmlElement attribute can specify the element name if it is different from the field name. The SalesProduct class inherits the

Product class and adds the IsTaxable field. The XmlAttribute attribute specifies the Taxable element to store the IsTaxable field value. The Region class contains the Name field, which has the XmlAttribute applied as well. The XmlAttribute attribute indicates the serialization schema to use for the

Products array. Because both generic Product objects and SalesProduct objects can be stored in the array, you must specify the XmlArrayItem for each serializable type. If you do not, the serialization process will throw an InvalidOperationException runtime error.

Incorrect Answers:

A, C, D: The serialize method would not generate the output of the other options because they do not reflect the XML serialization attributes specified in the Product, SalesProduct, and Region classes.

QUESTION 59

You work as an application developer at Certkiller .com. You have recently created a serializable class named Vehicle.

The class is shown below:

```
[Serializable]
public class Vehicle
{
    public string VIN;
    public string Make;
    private string Model;
    private int Year;
    private string Owner;
}
```

Certkiller .com does not want the Owner field to be persisted when a Vehicle object is serialized, for security reasons.

You need to ensure that this objective is fulfilled.

What should you do?

- A. Apply the OptionalField attribute to the Owner field.
- B. Apply the NonSerialized attribute to the Owner field.
- C. Have the Vehicle class implement the IFormatter interface for custom serialization.
- D. Do nothing because, when using binary serialization, Private fields are never persisted.

Answer: B

Explanation: This will ensure that the Owner field will not be serialized, but it will allow all other fields to be serialized normally.

Incorrect Answers:

A: This option would be used for deserialization.

C: This option would require excessive developer effort.

D: This is incorrect because all fields marked private or otherwise are persisted when using binary serialization.

QUESTION 60

You work as an application developer at Certkiller .com. You have just completed the creation of an application that receives order data from Certkiller .com's partner company in XML format.

The XML has to be utilized to create an Order object that is consumed by the new application.

The following exhibit displays an example of Certkiller .com's partner company's XML data:

```
<?xml version="1.0" encoding="utf-8"?>
<Order id="101">
  <Shipping>
    <Instructions>
      Come to front door and ring door bell.
      No other options.
    </Instructions>
    <Address>
      <Street>345 Microsoft Way</Street>
      <City>Atlanta</City>
      <State>GA</State>
      <Zip>30350</Zip>
    </Address>
  </Shipping>
  <Date>2006-05-12T00:00:00-04:00</Date>
  <Details>
    <SalesProduct InStock="true" Taxable="true">
      <Name>Sofa</Name>
      <Quantity>1</Quantity>
      <Price>349.99</Price>
    </SalesProduct>
    <Product InStock="false">
      <Name>Television</Name>
      <Quantity>2</Quantity>
      <Price>230.89</Price>
    </Product>
  </Details>
</Order>
```

You plan to use the XmlSerializer class to deserialize the XML data into an Order object. When you learn that Certkiller .com's partner company's XML also contains Shipping object data, you decide to deserialize the shipping object after the Shipping element is detected during deserialization.

To achieve this, you need to use a certain event of the XmlSerializer class.

What event should you use?

- A. UnknownElement
- B. UnknownNode
- C. UnreferencedObject
- D. UnknownAttribute

Answer: B

Explanation: The UnknownNode event is fired when an unexpected element or node

is detected that does not map to the XmlSerializer object's expected type. The UnknownNode event included the XmlNodeEventArgs, which allows access to the entire node of the XML data. This would allow easy deserialization for the Shipping object.

Incorrect Answers:

A, C, D: These options would not allow easy deserialization for the Shipping object.

QUESTION 61

You work as an application developer at Certkiller .com. You have recently written the code shown below:

```
Hashtable emailAddresses = new Hashtable ();  
emailAddresses.Add ("Mia", "mia@ Certkiller .com");  
emailAddresses.Add ("Andy", "andy@ Certkiller .com");  
emailAddresses.Add ("Kara", "kara@ Certkiller .com");  
FileStream stream = new FileStream ("Email.dat", FileMode.Create);  
BinaryFormatter formatter = new BinaryFormatter ();  
formatter.Serialize (stream, emailAddresses);
```

You need to ensure that you are able to load the emailAddresses object from the Email.dat file into your application.

What should you do?

A. Use the following code:

```
FileStream readStream = new FileStream ("Email.dat", FileMode.Open);  
HashTable loadEmails = readStream.Deserialize ();
```

B. Use the following code:

```
FileStream readStream = new FileStream ("Email.dat", FileMode.Open);  
BinaryFormatter readFormatter = new BinaryFormatter ();  
HashTable loadEmails = readFormatter.Deserialize (readStream);
```

C. Use the following code:

```
FileStream readStream = new FileStream ("Email.dat", FileMode.Open);  
BinaryFormatter readFormatter = new BinaryFormatter ();  
HashTable loadEmails = (HashTable) readFormatter.Deserialize (readStream);
```

D. Use the following code:

```
FileStream readStream = new FileStream ("Email.dat", FileMode.Open);  
HashTable loadEmails = (HashTable) readFormatter.ReadObject ();
```

Answer: C

Explanation: This instantiates a BinaryFormatter object, and deserializes the emailAddresses object from the Email.dat file. the FileStream constructor takes a file path string and FileMode enumeration value as arguments. The Deserialize method of the BinaryFormatter class takes the stream of the object to be deserialized and returns a generic object. This generic object must be cast or converted to the HashTable data type.

Incorrect Answers:

A, D: You should not use the code fragments that do not instantiate the

BinaryFormatter object because the ReadObject and Deserialize methods do not exist in the FileStream class.

B: You should not use the code that does not cast or convert the return value of the Deserialize method because the Deserialize method returns a generic object.

QUESTION 62

You work as an application developer at Certkiller .com. You define a serializable class named Employee, which is shown in the exhibit below.

```

1 using System;
2 using System.IO;
3 using System.Runtime.Serialization;
4
5 [Serializable()]
6 public class Employee {
7     public string Name;
8
9     public Employee() {
10         New();
11     }
12
13     public void New() {
14         //Implementation code
15     }
16
17     [OnDeserializing()]
18     public void OnDeserializingMethod( StreamingContext context ) {
19         //Implementation code
20     }
21
22     [OnDeserialized()]
23     public void OnDeserializedMethod( StreamingContext context ) {
24         //Implementation code
25     }
26
27     [OnSerializing()]
28     public void OnSerializingMethod( StreamingContext context ) {
29         //Implementation code
30     }
31
32     [OnSerialized()]
33     public void OnSerializedMethod(StreamingContext context) {
34         //Implementation code
35     }
36 }

```

To execute serialization on an Employee object, you write the code shown in the exhibit (line numbers are used for reference only).

```

01 public class Serialization {
02     public static void Main() {
03         Employee empObj = new Employee();
04         empObj.Name = "Derrin Mickels";
05         //Create formatter
06         BinaryFormatter formatter = new BinaryFormatter();
07         //Create stream
08         FileStream stream = new FileStream("empObj.emp", FileMode.Create);
09         formatter.Serialize(stream, empObj);
10         stream.Close();
11         Employee empObjCopy;
12         stream = new FileStream("empObj.emp", FileMode.Open);
13         empObjCopy = (Employee) formatter.Deserialize(stream);
14         stream.Close();
15         stream = null;
16         formatter = null;
17     }
18 }

```

A trainee developer named Amy Wilson asks you which Employee class methods will be called and in what order they will be invoked.

What should you tell Amy Wilson?

To answer, select the methods to be used and arrange them in the correct order on invocation.

Methods, Select from these

OnDeserializingMethod
OnDeserializedMethod
OnSerializingMethod
OnSerializedMethod
New

Methods, place here

Place first step here
Place second step here
Place third step here
Place fourth step here
Place fifth step here

Answer:

Methods, Select from these

Methods, place here

New
OnSerializingMethod
OnSerializedMethod
OnDeserializingMethod
OnDeserializedMethod

Explanation: Line 03 shows that the Employee object is instantiated, invoking the constructor. The constructor, in turn, invokes the New method.

Line 09 shows that the Employee object is serialized using a FileStream object. Because the OnSerializingMethod and OnSerializedMethod methods have the OnSerializing and OnSerialized attributes applied to them, respectively, the OnSerializingMethod will be invoked while serializing the Employee object, and the OnSerializedMethod will be invoked after the object is completely serialized.

Line 11 shows that a variable of type Employee is declared and the next line instantiates the FileStream object for reading the serialized data in the empObj.emp file. Because the new keyword is not used, neither the constructor nor the New method is invoked.

Because the OnDeserializingMethod and OnDeserializedMethod methods have the OnDeserializing and OnDeserialized attributes applied to them, respectively, the code on line 13 will invoke the OnDeserializing and OnDeserialized methods next. The OnDeserializing method will be invoked while deserializing the Employee object from a file. The OnDeserialized method will be invoked after the object is completely deserialized into memory.

QUESTION 63

You work as an application developer at Certkiller .com. you have recently written the code shown below:

```
Hashtable emailAddresses = new Hashtable ();  
emailAddresses.Add ("Mia", "mia@ Certkiller .com")  
emailAddresses.Add ("Andy", "andy@ Certkiller .com")  
emailAddresses.Add ("Kara", "kara@ Certkiller .com")
```

You need to ensure that these e-mail addresses are stored in the Email.dat file so that you can load them again when the user restarts the application.

What should you do?

A. Add the following code:

```
FileStream stream = new FileStream ("Email.dat", FileMode.Create);  
BinaryFormatter formatter = new BinaryFormatter ();  
formatter.Deserialize (stream, emailAddresses);
```

B. Add the following code:

```
FileStream stream = new FileStream ("Email.dat", FileMode.Create);  
BinaryFormatter formatter = new BinaryFormatter ();  
formatter.Serialize (stream, emailAddresses);
```

C. Add the following code:

```
FileStream stream = new FileStream ("Email.dat", FileMode.Create);  
stream.Serialize (emailAddresses);
```

D. Add the following code:

```
FileStream stream = new FileStream ("Email.dat", FileMode.Create);  
stream.WriteObject (emailAddresses);
```

Answer: B

Explanation: This code instantiates a file stream, instantiates a BinaryFormatter object, and serializes the emailAddresses object to the Email.dat file. The FileStream constructor takes a file path string and

FileMode enumeration as arguments. The Serialize method of the BinaryFormatter class takes two arguments, a stream and the object to be serialized. The Serialize method uses the stream to write the object to the destination.

Incorrect Answers:

A: You should not add the code that invokes the Deserialize method of the BinaryFormatter class because you must serialize the object first.

C D: You should not add the code fragments that do not instantiate the BinaryFormatter object because the WriteObject and Serialize methods do not exist in the FileStream class.

QUESTION 64

You work as an application developer at Certkiller .com. You have recently completely creating a new application for Certkiller .com.

This new application has to load an instance of the Inventory class from a large file named Inventory.dat. You need to ensure that the application executes the loading process in as little time as possible.

What should you do?

A. Use the following code:

```
FileStream readStream = new FileStream ("Inventory.dat", FileMode.Open);  
BinaryFormatter readFormatter = new BinaryFormatter ();  
Inventory currentInventory = (Inventory)  
readFormatter.FastDeserialize (readStream);
```

B. Use the following code:

```
FileStream readStream = new FileStream ("Inventory.dat", FileMode.Open);  
BinaryFormatter readFormatter = new BinaryFormatter ();  
Inventory currentInventory = (Inventory)  
readFormatter.Deserialize (readStream);
```

C. Use the following code:

```
FileStream readStream = new FileStream ("Inventory.dat", FileMode.Open);  
BinaryFormatter readFormatter = new BinaryFormatter ();  
Inventory currentInventory = (Inventory)  
readFormatter.UnsafeDeserialize (readStream);
```

D. Use the following code:

```
FileStream readStream = new FileStream ("Inventory.dat", FileMode.Open);  
BinaryFormatter readFormatter = new BinaryFormatter ();  
Inventory currentInventory = (Inventory)  
readFormatter.SafeDeserialize (readStream);
```

Answer: C

Explanation: This code instantiates a file stream, instantiates a BinaryFormatter object, and deserializes an Inventory object to the Inventory.dat file. The UnsafeDeserialize and Deserialize methods perform the same operation, but the UnsafeDeserialize method uses unmanaged code and requires more permission. Because the UnsafeDeserialize method uses unmanaged code, your code should be

granted full trust to execute properly. The UnsafeDeserialize method of the BinaryFormatter class takes two arguments, the stream of the object to be deserialized and the HeaderHandler object to deal with any binary headers. The UnsafeDeserialize method returns a generic object that must be cast or converted to the Inventory data type.

Incorrect Answers:

A, D: You should not use the code that invokes the FastDeserialize and SafeDeserialize methods because no such methods exist for the BinaryFormatter class.

B: You should not use the code that invokes the Deserialize method because the UnsafeDeserialize method yields better performance.

QUESTION 65

You work as an application developer at Certkiller .com. Certkiller .com has asked you to develop an application that displays the properties for all Certkiller .com's network drives.

The information generated by this application will be utilized by Certkiller .com's network administrators to verify client setups.

You need to ensure that these requirements are fully satisfied.

What should you do?

A. Use the following code:

```
public void EnumerateNetworkDrives ()
{
    foreach (Drive netDrive in Drive.GetDrives ())
    {
        if (netDrive.DriveType == DriveType.Network)
            Console.WriteLine ("{0} ({1}) : {2} bytes", netDrive.Name, netDrive.VolumeLabel,
                                netDrive.TotalSize);
    }
}
```

B. Use the following code:

```
public void EnumerateNetworkDrives ()
{
    foreach (DriveInfo netDrive in DriveInfo.GetDrives ())
    {
        Console.WriteLine ("{0} ({1}) : {2} bytes", netDrive.Name, netDrive.VolumeLabel,
                                netDrive.TotalSize);
    }
}
```

C. Use the following code:

```
public void EnumerateNetworkDrives ()
{
    foreach (DriveInfo netDrive in DriveDriveInfo.GetDrives ())
    {
        if (netDrive.DriveType == DriveType.Network)
```

```
Console.WriteLine ("{0} ({1}) : {2} bytes", netDrive.Name, netDrive.VolumeLabel,
netDrive.TotalSize);
}
```

```
}
```

D. Use the following code:

```
public void EnumerateNetworkDrives ()
{
foreach (DriveInfo netDrive in DriveInfo.GetDrives (DriveType.Network))
{
Console.WriteLine ("{0} ({1}) : {2} bytes", netDrive.Name,
netDrive.VolumeLabel, netDrive.TotalSize);
}
}
```

Answer: C

Explanation: The GetDrives method is invoked and returns an array of DriveInfo objects representing the available drives. The DriveType property is used to verify that the netDrive variable is a network drive. The DriveType property returns a DriveType enumeration value that can be Network, Fixed, CDROM, or Removable. If the DriveType property is DriveType.Network, then the Console.WriteLine method displays the Name, VolumeLabel, and TotalSize properties of the DriveInfo object to the console.

Incorrect Answers:

A: You should not use the code that uses the Disk class because there is no such class in the System.IO namespace.

B D: You should not use the code fragments that do not retrieve the DriveType property of the DriveInfo object because there is no such signature for the GetDrives method and no such method as GetNetworkDrives.

QUESTION 66

You work as an application developer at Certkiller .com.

Certkiller .com has asked you to create an application to display all of the top directories based on the drive path. You need to ensure that the application displays the number of files within top-level directories.

What should you do?

A. Use the following code:

```
public void DisplayDriveDirectories (string drivePath)
{
if (Directory.Exists (drivePath))
{
foreach (String dirPath in Directory.GetDirectories (drivePath))
{
DirectoryInfo dir = new DirectoryInfo (drivePath);
int numFiles = dir.TotalFiles;
```

```
Console.WriteLine( "{0} : {1} files.", dir.Name, numFiles);  
}  
}  
}
```

B. Use the following code:

```
public void DisplayDriveDirectories (string drivePath)  
{  
    if (Directory.Exists (drivePath))  
    {  
        foreach (String dirPath in Directory.GetDirectories (drivePath))  
        {  
            DirectoryInfo dir = new DirectoryInfo (drivePath);  
            int numFiles = dir.Length;  
            Console.WriteLine( "{0} : {1} files.", dir.Name, numFiles);  
        }  
    }  
}
```

C. Use the following code:

```
public void DisplayDriveDirectories (string drivePath)  
{  
    if (Directory.Exists (drivePath))  
    {  
        foreach (String dirPath in Directory.GetDirectories (drivePath))  
        {  
            DirectoryInfo dir = new DirectoryInfo (drivePath);  
            int numFiles = dir.GetFiles().Length;  
            Console.WriteLine( "{0} : {1} files.", dir.Name, numFiles);  
        }  
    }  
}
```

D. Use the following code:

```
public void DisplayDriveDirectories (string drivePath)  
{  
    if (Directory.Exists (drivePath))  
    {  
        foreach (String dirPath in Directory.GetDirectories (drivePath))  
        {  
            DirectoryInfo dir = new DirectoryInfo (drivePath);  
            int numFiles = dir.Size;  
            Console.WriteLine( "{0} : {1} files.", dir.Name, numFiles);  
        }  
    }  
}
```

Answer: C

Explanation: This code iterates through each top level of a given drive path and displays the Name property and number of files. First, the Exists method verifies that the drive path exists. Then, the GetDirectories method is invoked and returns a string array of directory paths. GetDirectories takes a directory path as an argument. Then a DirectoryInfo object is instantiated using the dirPath variable as it is updated with each iteration. The number of files in the directory is evaluated by using the GetFiles method, which returns an array of FileInfo objects and retrieves the Length Property of the array. The value is assigned to the numFiles variable. The DirectoryInfo object represents metadata about a directory instance. The Console.WriteLine method displays the Name property of the DirectoryInfo object and the numFiles variable.

Incorrect Answers:

A, B, D: The TotalFiles, Length, and Size properties do not exist in the DirectoryInfo class.

QUESTION 67

You work as an application developer at Certkiller .com. Certkiller .com has asked you to create a file management application to monitor the hosts file. Certkiller .com has instructed you to change the hosts file if it has been changed. You, therefore, need to display the size and whether the hosts file is set to read-only. What should you do?

A. Use the following code:

```
FileInfo hosts = new FileInfo (@\"C:\Windows\system32\drivers\etc\hosts\");  
Console.WriteLine (\"ReadOnly?\" + hosts.IsReadOnly);  
Console.WriteLine (\"Size?\" + hosts.Length);
```

B. Use the following code:

```
File hosts = new File (@\"C:\Windows\system32\drivers\etc\hosts\");  
Console.WriteLine (\"ReadOnly?\" + hosts.IsReadOnly);  
Console.WriteLine (\"Size?\" + hosts.Length);
```

C. Use the following code:

```
File hosts = new File (@\"C:\Windows\system32\drivers\etc\hosts\");  
Console.WriteLine (\"ReadOnly?\" + hosts.GetReadOnly);  
Console.WriteLine (\"Size?\" + hosts.GetLength);
```

D. Use the following code:

```
FileInfo hosts = new FileInfo (@\"C:\Windows\system32\drivers\etc\hosts\");  
Console.WriteLine (\"ReadOnly?\" + hosts.IsReadOnly);  
Console.WriteLine (\"Size?\" + hosts.Size);
```

Answer: A

Explanation: This code instantiates a FileInfo object using a file path string and outputs the IsReadOnly and Length properties to the command line. The FileInfo object represents the information about a system file. The FileInfo class contains common properties and methods for reading and setting file metadata and contents. The IsReadOnly property returns a Boolean value indicating whether the file is set

to read-only. The Length property returns the size of the file in bytes.

Incorrect Answers:

B C: You should not use the code that instantiate a File object because the File class does not contain an IsReadOnly or Length property and is a static class. Also, you should not use the code fragments that specify the Size property because no such property exists.

D: You should not use the code fragments that specify the GetReadOnly and GetLength methods because no such methods exist.

QUESTION 68

You work as an application developer at Certkiller .com. You have recently completed the creation of a new application.

Certkiller .com requires you to ensure that this new application creates a file that contains an array of bytes.

What should you do?

A. Use the following code:

```
public void WriteBytes (byte [] bytes)
{
    FileStream fs = new FileStream ("C:\\file.txt", FileMode.Create);
    for (int i = 0; i < bytes.Length - 1; i++)
        fs.Write (bytes [i]);
    fs.Close ();
}
```

B. Use the following code:

```
public void WriteBytes (byte [] bytes)
{
    FileStream fs = new FileStream ("C:\\file.txt", FileMode.Create);
    for (int i = 0; i < bytes.Length - 1; i++)
        fs.WriteByte (bytes [i]);
    fs.Close ();
}
```

C. Use the following code:

```
public void WriteBytes (byte [] bytes)
{
    FileStream fs = new FileStream ("C:\\file.txt", FileMode.Create);
    fs.WriteBytes (bytes, 0, bytes.Length);
    fs.Close ();
}
```

D. Use the following code:

```
public void WriteBytes (byte [] bytes)
{
    FileStream fs = new FileStream ("C:\\file.txt", FileMode.Create);
    fs.Write (bytes, 0, bytes.Length);
    fs.Close ();
}
```

Answer: D

Explanation: The FileStream constructor accepts a string argument as the file path and a FileMode enumeration value. The FileMode enumeration value indicates the file stream will be used, and includes the values Append, Create, CreateNew, Open, and Truncate. The FileMode.Create value indicates a new file will be created or, if one already exists, that it will be overwritten. The FileStream class includes a Write method for writing an array of bytes. The Write method takes a byte array, offset value, and total number of bytes as arguments. The other method, WriteByte, takes a single argument of the type of byte, and it requires manual iteration to write an array. Like all streams, the FileStream object has a Close method, which should be called after work is done with the stream.

Incorrect Answers:

A, C: You should not use the code fragments that invokes the Write method or the WriteBytes method with only one argument because no such signatures exists in the FileStream class.

B: This code is unnecessary because the FileStream class also contains a Write method that takes a byte array as an argument.

QUESTION 69

You work as an application developer at Certkiller .com. You are currently in the process of creating an application that reads binary information from a file. You need to ensure that the only the first kilobyte of data is retrieved. What should you do?

A. Use the following code:

```
FileStream fs = new FileStream("C:\\file.txt", FileMode.Open);
BufferedStream bs = new BufferedStream (fs);
byte [ ] bytes = new byte [1023];
bs.Read (bytes, 0, bytes.Length);
bs.Close ();
for (int i = 0; i < bytes.Length-1; i++)
Console.WriteLine (" {0} : {1}", I, bytes [i]);
```

B. Use the following code:

```
FileStream fs = new FileStream("C:\\file.txt", FileMode.Open);
byte [ ] bytes = new byte [1023];
fs.Read (bytes, 0, bytes.Length);
fs.Close ();
for (int i = 0; i < bytes.Length-1; i++)
Console.WriteLine (" {0} : {1}", I, bytes [i]);
```

C. Use the following code:

```
FileStream fs = new FileStream("C:\\file.txt", FileMode.Open);
BufferedStream bs = new BufferedStream (fs);
byte [ ] bytes = new byte [1023];
bytes = bs.ReadAllBytes (0, 1023);
```

```
bs.Close ();
for (int i = 0; i < bytes.Length-1; i++)
Console.WriteLine (" {0} : {1}", I, bytes [i]);
D. Use the following code:
FileStream fs = new FileStream("C:\\file.txt", FileMode.Open);
BufferedStream bs = new BufferedStream (fs);
byte [ ] bytes = new byte [1023];
bs.Read (bytes);
bs.Close ();
for (int i = 0; i < bytes.Length-1; i++)
Console.WriteLine (" {0} : {1}", I, bytes [i]);
```

Answer: B

Explanation: The FileStream constructor accepts a string argument as the file path and a FileMode enumeration value. The FileMode enumeration value indicates the file stream will be used, and includes the values Append, Create, CreateNew, Open, and Truncate. The FileMode.Open value indicates a file will be opened if existing, or else a FileNotFoundException object will be thrown. An array of 1024 bytes is instantiated. The Read method takes the byte array, offset value, and total number of bytes as arguments. The other method ReadByte returns a single byte at a time, but it requires manual iteration to write an array. Like all streams, the FileStream object has a Close method, which should be called after work is done with the stream. The Console.WriteLine method is invoked to display the byte index and byte value.

Incorrect Answers:

A, C, D: You should not use the code that specifies a buffered stream because the FileStream class is already a buffered stream. Also, you should not use the code fragments that invoke the ReadAllBytes method and the Read method with the incorrect arguments because no such method signatures exist.

QUESTION 70

You work as an application developer at Certkiller .com. You are in the process of creating a new application.

This new application has to be able to read all data from a text file.

What should you do?

A. Use the following code:

```
FileStream fs = new FileStream("C:\\file.txt", FileMode.Open);
StreamReader sr = new StreamReader (fs);
string data = new sr.ReadToEnd ();
sr.Close ();
```

Console.WriteLine (data);

B. Use the following code:

```
FileStream fs = new FileStream("C:\\file.txt", FileMode.Open);
string data = new sr.ReadToEnd ();
```

```
fs.Close ();
Console.WriteLine (data);
C. Use the following code:
FileStream fs = new FileStream("C:\\file.txt", FileMode.Open);
StringBuilder data = new StringBuilder ();
string data;
while (sr.Peek () > -1)
data += sr.ReadLine ();
sr.Close ();
Console.WriteLine (data);
D. Use the following code:
FileStream fs = new FileStream("C:\\file.txt", FileMode.Open);
StreamReader sr = new StreamReader (fs);
StringBuilder data = new StringBuilder ();
while (sr.Peek () > -1)
data.Append (sr.ReadLine ());
sr.Close ();
Console.WriteLine (data.ToString ());
```

Answer: A

Explanation: The FileStream constructor accepts a string argument as the file path and a FileMode enumeration value. The FileMode enumeration value indicates the file stream will be used, and includes the values Append, Create, CreateNew, Open, and Truncate. The FileMode.Open value indicates a file will be opened if existing, or else a FileNotFoundException object will be thrown. A StreamReader object is instantiated using the FileStream object as input. The ReadToEnd method returns a string representing all data from that position to the end of the file. There are two other read methods, ReadLine and ReadBlock. The ReadLine method returns a string representing all data from that position to the end of a line return. The ReadBlock method takes a character array, offset value and total number of characters as arguments. Like all streams, the StreamReader object has a Close method, which should be called after work is done with the stream. The Console.WriteLine method is invoked to display the data to the console.

Incorrect Answers:

B: You should not use the code that does not specify the StreamReader class because the FileStream class does not contain a ReadToEnd method.

C: You should not use the code that specifies a string object when invoking the ReadLine method rather than a StringBuilder object. The string object is less efficient than StringBuilder objects when performing concatenation operations.

D: This code should not be used because it manually iterates through the file using the ReadLine method, whereas the ReadToEnd method is more efficient.

QUESTION 71

You work as an application developer at Certkiller .com. You are currently in the process of creating a new application for Certkiller .com.

You are required to read compressed data files that has been sent by Certkiller .com's sales offices. These data files are less than 4 GB in size, but was compressed without cyclic redundancy.

You want to write a method that receives the compressed files and return the uncompressed data as a byte array.

What should you do?

A. Use the following code:

```
public byte [] DecompressFile (string file)
{
    FileStream fs = new FileStream (file, FileMode.Open);
    DeflateStream cs = new DeflateStream (fs, CompressionMode.Decompress, true);
    byte [ ] data = new byte [fs.Length - 1];
    cs.Read (data, 0, data.Length);
    cs.Close ();
    return data;
}
```

B. Use the following code:

```
public byte [] DecompressFile (string file)
{
    FileStream fs = new FileStream (file, FileMode.Open);
    GZipStream cs = new GZipStream (fs, CompressionMode.Decompress)
    byte [ ] data = new byte [fs.Length - 1];
    cs.Read (data, 0, data.Length);
    return data;
}
```

C. Use the following code:

```
public byte [] DecompressFile (string file)
{
    FileStream fs = new FileStream (file, FileMode.Open);
    DeflateStream cs = new DeflateStream (fs, CompressionMode.Decompress)
    byte [ ] data = new byte [fs.Length - 1];
    cs.Read (data, 0, data.Length);
    return data;
}
```

D. Use the following code:

```
public byte [] DecompressFile (string file)
{
    FileStream fs = new FileStream (file, FileMode.Open);
    GZipStream cs = new GZipStream (fs, CompressionMode.Decompress, true);
    byte [ ] data = new byte [fs.Length - 1];
    cs.Read (data, 0, data.Length);
    cs.Close ();
    return data;
}
```

Answer: A

Explanation: The DeflateStream uses the LZ77 and Huffman coding algorithms for lossless compression and decompression without cyclic redundancy. The DeflateStream constructor takes a stream (in this case an input stream), a CompressionMode enumeration value, and a Boolean value indicating whether to keep the stream open. The CompressionMode enumeration value indicates whether to compress or decompress the specified stream using the values Compress and Decompress, respectively. The Read method takes the byte array, offset value, and total number of bytes as arguments. In this code, the compressed data is read from the FileStream object associated with the DeflateStream object, and it is stored in the byte array. Like all streams, the DeflateStream object has a Close method, which should be called after work is done with the stream. Finally, the resulting byte array is returned.

Incorrect Answers:

B, D: You should not use the code fragments that specify the GZipStream class because this data format includes a data corruption check during decompression.

C: You should not use the code fragments that instantiates the Stream objects and invoke the Read method with the wrong arguments.

QUESTION 72

You work as an application developer at Certkiller .com. Certkiller .com has a file server named Certkiller -SR07 that stores old inventory files.

Certkiller .com has given you the task of creating an application to archive these old inventory files. The inventory files have to be compressed prior to being uploaded to Certkiller .com's Web server.

You are currently writing a method that will receive a byte array and compress it into a new file. You need to ensure that a data corruption check takes place during the decompression process.

What should you do?

A. Use the following code:

```
public void CompressFileWrite (string file, byte[] data)
{
    FileStream fs = new FileStream (file, FileMode.Create);
    DeflateStream cs = new DeflateStream( fs, Compressionmode.Compress, true);
    cs.Write (data, 0, data.Length);
    cs.Close ();
}
```

B. Use the following code:

```
public void CompressFileWrite (string file, byte[] data)
{
    FileStream fs = new FileStream (file, FileMode.Create);
    GZipStream cs = new GZipStream( fs, Compressionmode.Compress, true);
    cs.Compress (data, 0, data.Length);
    cs.Close ();
}
```

```

}
C. Use the following code:
public void CompressFileWrite (string file, byte[] data)
{
    FileStream fs = new FileStream (file, FileMode.Create);
    DeflateStream cs = new DeflateStream( fs, Compressionmode.Compress, true);
    cs.Compress (data, 0, data.Length);
    cs.Close ();
}
D. Use the following code:
public void CompressFileWrite (string file, byte[] data)
{
    FileStream fs = new FileStream (file, FileMode.Create);
    GZipStream cs = new GZipStream( fs, Compressionmode.Compress, true);
    cs.Write (data, 0, data.Length);
    cs.Close ();
}

```

Answer: D

Explanation:

Incorrect Answers:

A, B, C: You should not use the code fragments that specify the DeflateStream class because this data format does not ensure that a data corruption check occurs during decompression. You should also not use the code that invokes the Compress method because no such method exists in the GZipStream or the DeflateStream classes.

QUESTION 73

You work as an application developer at Certkiller .com. You are in the process of creating an assembly that will be used to manage file content on Certkiller .com's user computers.

Certkiller .com wants you to ensure that the users who use the assembly you are creating should not be able to access classes in your assembly if they do not have access to the local file system.

To do this, you need to add certain code fragments to your classes.

What should you use? (Choose two)

- A. [FileIOPermission (SecurityAction.RequestMinimum)]
- B. FileIOPermission perm = New FileIOPermission (PermissionState.Unrestricted);
Perm.Assert
- C. [FileIOPermission (SecurityAction.RequestOptional)]
- D. FileIOPermission perm = New FileIOPermission (PermissionState.Unrestricted);
Perm.Request
- E. [FileIOPermission (SecurityAction.Demand)]
- F. FileIOPermission perm = New FileIOPermission (PermissionState.Unrestricted);
Perm.Demand

Answer: E, F

Explanation: The .NET Framework security system allows permission requests, overrides, and demands using declarative security and imperative security. Declarative security makes use of attributes to place security data into the metadata of the assembly. The permission attributes take a SecurityAction enumeration and other optional arguments. The SecurityAction enumeration includes the values Assert, Demand, Deny, RequestMinimum, RequestOptional, and RequestRefuse. The SecurityAction.Demand value indicates that all callers must have the permission to access the resource.

Incorrect Answers:

A, C: You should not use the code fragments that specify the SecurityAction.RequestMinimum and SecurityAction.RequestOptional values because attributes with these values can only be applied to the entire assembly.
B: You should not use the code fragment that invokes the Assert method because all users must have permission to access the file system.
D: You should not use the code fragment that invokes the Request method because no such method exists in the CodeAccessPermission or FileIOPermission class.

QUESTION 74

You work as an application developer at Certkiller .com. A fellow developer named Amy Walsh recently created an assembly that implements a custom permission set. Certkiller .com has asked you to test this assembly. You start by copying the assembly to a test server named Certkiller -SR15 that has the Microsoft .NET 2.0 Framework installed. You then log on to the Certkiller -SR15 as a member of the local Administrators Windows group. You run the assembly, and receive a security exception. You perform a brief analysis of the security issues involved, and find that the assembly has not been assigned the appropriate permissions to run. You need to ensure that this assembly runs. What should you do?

- A. Use the permview.exe tool to modify the assembly's granted permissions.
- B. Use the sn.exe tool to modify the assembly's granted permissions.
- C. Use the caspol.exe tool to modify the assembly's granted permissions.
- D. Use the gacutil.exe tool to modify the assembly's granted permissions.

Answer: C

Explanation: The caspol.exe command-line tool allows users to modify security permissions, permission sets, and code groups for an assembly at the machine, user, and enterprise policy levels.

Incorrect Answers:

A: The permview.exe tool only allows users to view declarative security of an assembly.
B: The sn.exe tool allows developers to create a strong-named asymmetric key pair for

strong-named assemblies.

D: The gacutil.exe tool allows users to manage the contents of the global assembly and download cache.

QUESTION 75

You work as an application developer at Certkiller .com. Certkiller .com has a test server named Certkiller -SR09 that is frequently used by other Certkiller .com developers to test assemblies and applied security policies.

You have just completed creating an assembly and want to test it on Certkiller -SR09. you need to ensure that all security policies on Certkiller -SR09 are reset to their default settings.

What should you do?

- A. Execute the caspol all -rollback command.
- B. Execute the caspol all -reset command.
- C. Execute the machine all -rollback command.
- D. Execute the machine all -reset command.

Answer: B

Explanation: The caspol.exe command-line tool allows users to modify security permissions, permission sets, and code groups for an assembly at the machine, user, and enterprise policy levels. The reset switch will set the specified security policy or policies back to their default state. The all switch refers to machine, user, and enterprise policy levels.

Incorrect Answers:

A, C: The rollback switch does not exist for the caspol.exe tool.

D: This option will not set all security policies back to their default state.

QUESTION 76

You work as an application developer at Certkiller .com. Certkiller .com has asked you to create an application that copies file content from one file on a client computer named Certkiller -WS007 to a new file on a server named Certkiller -SR15.

The method displayed in the following exhibit is included in the new application:

```
public void Copy(string oFile , string dFile) {  
    FileInfo file1 = new FileInfo(oFile);  
    FileInfo file2 = new FileInfo(dFile);  
    StreamReader fs1 = new StreamReader(  
        file1.Open(FileMode.Open));  
    StreamWriter fs2 = new StreamWriter(  
        file2.Open(FileMode.Create));  
    fs2.Write(fs1.ReadToEnd());  
    fs1.Close();  
    fs2.Close();  
    //Add code here  
}
```

You have to ensure that the application copies all permissions on the original file to

the new file. You should also make sure that the new file does not inherit its permissions from the destination directory on Certkiller -SR15.
What should you do?

- A. Add the following code to the Copy method:
`file2.SetAccessControl (file1.GetAccessControl ());`
- B. Add the following code to the Copy method:
`FileSecurity acl = file1.GetAccessControl ();`
`acl. SetAccessRuleProtection (true, true);`
`file2.SetAccessControl (acl);`
- C. Add the following code to the Copy method:
`file2.SetAccessControl (file1.GetAccessControl (), false);`
- D. Add the following code to the Copy method:
`FileSecurity acl = file1.GetAccessControl ();`
`acl. SetAccessRuleProtection (true, false);`
`file2.SetAccessControl (acl);`

Answer: B

Explanation: This code retrieves the FileSecurity object from the original file, copies and protects the ACL settings from directory inheritance, and copies the ACL settings to the destination file. The GetAccessControl method returns a FileSecurity object representing the ACL of the original file. The SetAccessRuleProtection method sets or removes ACL protection from the parent objects through inheritance. The SetAccessRuleProtection method accepts two Boolean arguments, the first of which indicates whether settings are protected from inheritance, and the second of which indicates whether to preserve the existing inherited access rule. In this scenario, the value true for both arguments indicates that the ACL is protected from inheritance, but the current ACL settings are copied. The SetAccessControl method takes a FileSecurity object and applies the ACL to the destination folder.

Incorrect Answers:

A, C: You should not use the code fragments that do not invoke the SetAccessRuleProtection method because this will not protect the destination file's ACL settings from inheritance.

D: This code will protect the ACL from inheritance, but it does not copy the existing inherited ACL settings.

QUESTION 77

You work as an application developer at Certkiller .com. Certkiller .com has been contracted by a local doctor's clinic to develop a client application using Microsoft .NET 2.0 that sends patient visit information to a remote server at the clinic's main office.

This data must be transmitted via a secure network stream because it contains patient protected health information (PHI). The data will be sent from a windows application client on the doctor's notebook computer to a windows service hosted on a remote server. Both of these applications employ a certificate store for network

identification.

You need to create a secure data stream by adding certain classes to the client application.

What classes should you add? (Choose three)

- A. The MD5CryptoServiceProvider class.
- B. The X509Certificate class.
- C. The NetworkStream class.
- D. The SslStream class.
- E. The TcpListener class.
- F. The TcpClient class.

Answer: B, D, F

Explanation: You should use the X509Certificate class to store the server certificate and encrypt data, the SslStream class to create a secure channel, and the TcpClient class to establish the connection with the server application.

Incorrect Answers:

- A: Using this option would only hash the data using the MD5 algorithm.
- C: Using this option would not necessarily create a secure channel.
- E: This class is used by the server application.

QUESTION 78

You work as an application developer at Certkiller .com. Certkiller .com has been contracted by the local hospital to create an application that forwards private patient information to various insurance providers.

The hospital informs you that the amount and frequency of the patient data is high. You need to ensure that data confidentiality is guaranteed, with as little overhead as possible.

You now need to encrypt the patient information.

What should you do?

A. Use the following code:

```
public byte [] EncryptData (byte [] PatientInfo, RSACryptoServiceProvider SecretKey)
{
    CryptoStream cs = new CryptoStream (SecretKey);
    cs.Encrypt (PatientInfo, 0, PatientInfo.Length);
    byte [] data = cs.ToArray ();
    cs.Close ();
    return data;
}
```

B. Use the following code:

```
public byte [] EncryptData (byte [] PatientInfo, RSACryptoServiceProvider SecretKey)
{
    MemoryStream ms = new MemoryStream ();
    CryptoStream cs = new CryptoStream (ms, SecretKey.CreateEncryptor (),
```

```
CryptoStreamMode.Write);  
cs.Write (PatientInfo, 0, PatientInfo.Length);  
cs.Close ();  
byte [] data = ms.ToArray ();  
ms.Close ();  
return data;  
}
```

C. Use the following code:

```
public byte [] EncryptData (byte [] PatientInfo, DESCryptoServiceProvider SecretKey)  
{  
    CryptoStream cs = new CryptoStream (SecretKey);  
    cs.Encrypt (PatientInfo, 0, PatientInfo.Length);  
    byte [] data = cs.ToArray ();  
    cs.Close ();  
    return data;  
}
```

D. Use the following code:

```
public byte [] EncryptData (byte [] PatientInfo, DESCryptoServiceProvider SecretKey)  
{  
    MemoryStream ms = new MemoryStream ();  
    CryptoStream cs = new CryptoStream (ms, SecretKey.CreateEncryptor (),  
    CryptoStreamMode.Write);  
    cs.Write (PatientInfo, 0, PatientInfo.Length);  
    cs.Close ();  
    byte [] data = ms.ToArray ();  
    ms.Close ();  
    return data;  
}
```

Answer: D

Explanation: This code instantiates a CryptoStream object, specifies the ICryptoTransform object to encrypt data, encrypts the PatientInfo byte array, and returns the encrypted byte array. The DESCryptoServiceProvider class represents a managed cryptographic provider of the DataEncryption Standard (DES) symmetric algorithm. The DES symmetric algorithm is commonly used for data confidentiality, and it supports 64-bit keys. When you instantiate a DESCryptoServiceProvider object, a secret key for encryption and an initialization vector (IV) are created. Because the same key and IV are needed for encryption and decryption, the CreateEncryptor and CreateDecryptor methods generate the appropriate ICryptoTransform object to alter the data.

Incorrect Answers:

A, B: You should not use the code fragments that specify the

RSACryptoServiceProvider because this implements an asymmetric algorithm.

C: You should not use the code fragments that invoke the Encrypt method because no such method exists in the CryptoStream class.

QUESTION 79

You work as an application developer at Certkiller .com. Certkiller .com stores data in a byte array named dataArray.

You have been given the task of ensuring that this data is protected against corruption and tampering. You are planning to employ a HashAlgorithm object to achieve this objective.

What should you do?

A. Use the following code to generate a hash value for the dataArray object:

hash.GenerateHash (dataArray);

B. Use the following code to generate a hash value for the dataArray object:

hash.ComputeHash (dataArray);

C. Use the following code to generate a hash value for the dataArray object:

hash. Hash (dataArray);

D. Use the following code to generate a hash value for the dataArray object:

hash.Compute (dataArray);

Answer: B

Explanation: This option will return a byte array representing the hash value. The HashAlgorithm abstract class is the base class for all hash algorithm provider classes, including the MD5CryptoServiceProvider and SHA1CryptoServiceProvider classes. They all inherit the ComputeHash method from the HashAlgorithm class.

Incorrect Answers:

A, C, D: These options are incorrect because these methods do not exist in the HashAlgorithm class.

QUESTION 80

You work as an application developer at Certkiller .com. Certkiller .com has been contracted by the local hospital to create an application that forwards private patient information to various insurance providers.

The patient information is sent via a secured VPN to ensure confidentiality. You also need to guarantee data integrity, and verify that the patient data originated from the local hospital. To achieve this objective, you elect to utilize asymmetric encryption and a digital signature technology.

What code would you use to complete your task?

A. public byte [] SignAndHash (byte [] PatientInfo, RSAParameters RSAInfo)

```
{  
    RSACryptoServiceProvider RSAProvider = new RSACryptoServiceProvider ();  
    RSAProvider.ImportParameters (RSAInfo);  
    Return RSAProvider.Encrypt (PatientInfo, true);  
}
```

B. public byte [] SignAndHash (byte [] PatientInfo, DSAParameters DSAInfo)

```
{
```

```
DSACryptoServiceProvider DSAProvider = new DSACryptoServiceProvider ();
DSAProvider.ImportParameters (DSAInfo);
Return DSAProvider.SignHash (PatientInfo);
}
C. public byte [] SignAndHash (byte [] PatientInfo, RSAParameters RSAInfo)
{
    RSACryptoServiceProvider RSAProvider = new RSACryptoServiceProvider ();
    RSAProvider.ImportParameters (RSAInfo);
    Return RSAProvider.SignEncrypt (PatientInfo, true);
}
D. public byte [] SignAndHash (byte [] PatientInfo, DSAParameters DSAInfo)
{
    DSACryptoServiceProvider DSAProvider = new DSACryptoServiceProvider ();
    DSAProvider.ImportParameters (DSAInfo);
    Return DSAProvider.SignData (PatientInfo);
}
```

Answer: D

Explanation: The DSACryptoServiceProvider class represents a managed cryptographic provider of the Digital Signature Algorithm (DSA) asymmetric algorithm. The DSA asymmetric algorithm is commonly used for digital signatures and data integrity, supporting 1024 bit keys. When instantiating a DSACryptoServiceProvider object, a public/private key pair is generated and a default hash is assigned. Thus, to use a particular private key to sign data, a public key to verify data, or a particular hash, you must invoke the ImportParameters method for the current DSACryptoServiceProvider to load custom settings. The SignData method takes a byte array representing the original data and returns the hashed and then signed byte array.

Incorrect Answers:

A, C: You should not use the code fragments that specify the RSACryptoServiceProvider object because the method invocations are incorrect.
B: The SignHash method is used to sign a message digest, not the original data.

QUESTION 81

You work as an application developer at Certkiller .com. A fellow developer named Andy Booth has recently created an application. The application receives confidential transaction data from Certkiller .com's clients, which it secures using the TripleDESCryptoServiceProvider class. You are currently reviewing this application, and need to decrypt a byte array of cipher text. What code should you use to achieve this objective?

```
A. public byte [] DecryptData (byte [] cipherText, TripleDESCryptoServiceProvider
secretKey)
{
    MemoryStream ms = new MemoryStream (cipherText);
```

```
CryptoStream cs = new CryptoStream (ms, SecretKey, CryptoStreamMode.Read);
byte [] data = new byte [ms.Length - 1];
cs.Read (data, 0, data.Length);
cs.Close ();
ms.Close ();
return data;
}
B. public byte [] DecryptData (byte [] cipherText, TripleDESCryptoServiceProvider
secretKey)
{
MemoryStream ms = new MemoryStream (cipherText);
CryptoStream cs = new CryptoStream (ms, secretKey.CreateDecryptor (),
CryptoStreamMode.Read);
byte [] data = new byte [ms.Length - 1];
cs.Read (data, 0, data.Length);
cs.Close ();
ms.Close ();
return data;
}
C. public byte [] DecryptData (byte [] cipherText, TripleDESCryptoServiceProvider
secretKey)
{
MemoryStream ms = new MemoryStream (secret.Key);
CryptoStreamMode.Read);
byte [] data = ms.Decrypt (cipherText);
cs.Read (data, 0, data.Length);
ms.Close ();
return data;
}
D. public byte [] DecryptData (byte [] cipherText, TripleDESCryptoServiceProvider
secretKey)
{
CryptoStream cs = new CryptoStream (secretKey);
byte [] data = ms.Decrypt (cipherText);
cs.Read (data, 0, data.Length);
ms.Close ();
return data;
}
}
```

Answer: B

Explanation: This code instantiates a CryptoStream object, specifies the ICryptoTransform object to encrypt data, decrypts the CipherText byte array, and returns the encrypted byte array. The TripleDESCryptoServiceProvider class represents a managed cryptographic provider of the Data Encryption Standard (DES) symmetric algorithm. The DES symmetric algorithm is commonly used for

data confidentiality, and it supports 64-bit keys. When you instantiate a TripleDESCryptoServiceProvider object, a secret key for encryption and an initialization vector (IV) are created. Because the same key and IV are needed for encryption and decryption, the CreateEncryptor and CreateDecryptor methods generate the appropriate ICryptoTransform object to alter the data.

Incorrect Answers:

A: You should not use the code that does not invoke the CreateDecryptor method because this is required when instantiating a CryptoStream object.

C, D: You should not use the code fragments that invoke the Decrypt method because no such method exists in the CryptoStream class.

QUESTION 82

You work as an application developer at Certkiller .com. Certkiller .com has given you the task of creating an application that will allow Certkiller .com's customers to order products online.

To guarantee the availability funds, the application will forward billing information to a third-party payment verification system to guarantee the availability funds.

You need to ensure that the data has not been tampered with between the application and the third-party payment verification system. To do this, you have to hash the billing information.

What code should you use to achieve this?

A. Use the following code:

```
public byte [] Hash (byte [] BillingData)
{
    DESCryptoServiceProvider hashProvider = new DESCryptoServiceProvider ();
    return hashProvider.Hash (BillingData);
}
```

B. Use the following code:

```
public byte [] Hash (byte [] BillingData)
{
    MD5CryptoServiceProvider hashProvider = new MD5CryptoServiceProvider ();
    return hashProvider.Hash (BillingData);
}
```

C. Use the following code:

```
public byte [] Hash (byte [] BillingData)
{
    MD5CryptoServiceProvider hashProvider = new MD5CryptoServiceProvider ();
    return hashProvider.ComputeHash (BillingData);
}
```

D. Use the following code:

```
public byte [] Hash (byte [] BillingData)
{
    DESCryptoServiceProvider hashProvider = new DESCryptoServiceProvider ();
    return hashProvider.ComputeHash (BillingData);
}
```

Answer: C

Explanation:

This code instantiates an MD5CryptoServiceProvider object, invokes the ComputeHash method, and returns the hashed byte array. The MD5CryptoServiceProvider class represents a managed cryptographic provider of the MD5 hash algorithm. The MD5 hash algorithm is commonly used for data integrity, and it supports a 128-bit hash size. The MD5 hash algorithm is known as a message detection code (MDC) hash function. The ComputeHash method accepts a byte array and returns a hashed byte array for data integrity.

Incorrect Answers:

A, D: The DESCryptoServiceProvider class is used for data confidentiality, not integrity.

B: The Hash method does not exist in the MD5CryptoServiceProvider class.

QUESTION 83

You work as an application developer at Certkiller .com. Certkiller .com has a file server named Certkiller -SR07 that hosts company data.

You are currently in the process of creating an application that will be used by Certkiller .com users to manage the data on Certkiller -SR07. to ensure that Certkiller .com users have the appropriate file permissions on the working directory, you define the DemanDirectorySecurity method as shown below.

```
public void DemanDirectorySecurity (string path)
{
    FileIOPermission filePerm = new FileIOPermission (PermissionState.None);
    filePerm.AddPathList (FileIOPermissionAccess.AllAccess, path);
    filePerm.Assert ();
}
```

Subsequent to installing the new application, you find that some users do not have full access to their working directories. You are informed that these Certkiller .com users only require read only access.

You are required to override the permission assertion in the DemanDirectorySecurity method for these users only.

What should you do?

A. Use the following code:

```
FileIOPermission.Revert ();
FileIOPermission fileOVPerm = new FileIOPermission (PermissionState.None);
fileOVPerm.AddPathList (FileIOPermissionAccess.Read, path);
fileOVPerm.Assert ();
```

B. Use the following code:

```
FileIOPermission fileOVPerm = new FileIOPermission (PermissionState.None);
fileOVPerm.AddPathList (FileIOPermissionAccess.Read, path);
fileOVPerm.Permit ();
```

C. Use the following code:

```
FileIOPermission.Revoke ();  
FileIOPermission fileOVPerm = new FileIOPermission (PermissionState.None);  
fileOVPerm.AddPathList (FileIOPermissionAccess.Read, path);  
fileOVPerm.Assert ();  
D. Use the following code:  
FileIOPermission fileOVPerm = new FileIOPermission (PermissionState.None);  
fileOVPerm.AddPathList (FileIOPermissionAccess.Read, path);  
fileOVPerm.OverrideAll ();
```

Answer: A

Explanation: This code invokes the RevertAssert method on the FileIOPermission class, instantiates a FileIOPermission object representing read-only access to the working directory, and invokes the assert method on the FileIOPermission object.

Incorrect Answers:

B, C, D: The Permit, OverrideAll, and Revoke methods do not exist in the FileIOPermission class.

QUESTION 84

You work as an application developer at Certkiller .com. You are currently creating a manifest-activated application on the Certkiller .com's intranet using ClickOnce deployment.

The network administrator informs you that each application has to identify its name, version, culture, and requested permissions. You need to ensure that the application you are creating uses the command line to display the required information.

What should you do?

A. Use the following code:

```
ApplicationSecurityInfo appInfo = new ApplicationSecurityInfo  
(appDomain.CurrentDomain);  
Console.WriteLine (appInfo.ApplicationID.Name);  
Console.WriteLine (appInfo.ApplicationID.Version);  
Console.WriteLine (appInfo.ApplicationID.Culture);  
Console.WriteLine (appInfo.DefaultRequestSet.ToXml ());
```

B. Use the following code:

```
ApplicationSecurityInfo appInfo = ActivationContext .GetCurrentContext ();  
Console.WriteLine (appInfo.ApplicationID.Name);  
Console.WriteLine (appInfo.ApplicationID.Version);  
Console.WriteLine (appInfo.ApplicationID.Culture);  
Console.WriteLine (appInfo.DefaultRequestSet.ToXml ());
```

C. Use the following code:

```
ApplicationSecurityInfo appInfo = new ApplicationSecurityInfo (  
appDomain.CurrentDomain.ActivationContext);  
Console.WriteLine (appInfo.ApplicationID.Name);  
Console.WriteLine (appInfo.ApplicationID.Version);
```

```
Console.WriteLine (appInfo.ApplicationID.Culture);
Console.WriteLine (appInfo.DefaultRequestSet.ToXml ());
D. Use the following code:
ApplicationSecurityInfo appInfo = ActivationID.GetCurrentApplication ();
Console.WriteLine (appInfo.ApplicationID.Name);
Console.WriteLine (appInfo.ApplicationID.Version);
Console.WriteLine (appInfo.ApplicationID.Culture);
Console.WriteLine (appInfo.DefaultRequestSet.ToXml ());
```

Answer: C

Explanation: The ApplicationSecurityInfo class represents the security evidence for a manifest-activated application. The constructor requires an ActivationContext object that represents the manifest activation context of the application. The AppDomain.CurrentDomain.ActivationContext property retrieves the activation context of the current manifest-activated application. The DefaultRequestSet property represents the permission set the application is requesting of the local system.

Incorrect Answers:

A, B, D: You should not use the code fragments because they attempt to retrieve the ApplicationSecurityInfo object through non-existent methods.

QUESTION 85

You work as an application developer at Certkiller .com. You are in the process of creating an application that will be used to forward confidential information to Certkiller .com's business partners.

In a bid to improve the security of your production environment, you install digital certificates for publishing all assemblies in the application.

You need to confirm that every assembly belongs to the same publisher, based on that publisher's digital certificate.

You are asked to confirm that the current assembly belongs to a certain publisher. What should you do?

A. Use the following code:

```
public bool CheckPolicy (X509Certificate cert)
{
    PublisherMembershipCondition policy = new PublisherMembershipCondition (cert);
    return policy.Check (Assembly.GetCallAssembly ().Evidence);
}
```

B. Use the following code:

```
public bool CheckPolicy (X509Certificate cert)
{
    Publisher pub = new Publisher (cert);
    return pub.Verify (AppDomain.CurrentDomain.Evidence);
}
```

C. Use the following code:

```
public bool CheckPolicy (X509Certificate cert)
{
    Publisher pub = new Publisher (cert);
    return pub.Check (AppDomain.CurrentDomain.Evidence);
}
```

D. Use the following code:

```
public bool CheckPolicy (X509Certificate cert)
{
    PublisherMembershipCondition policy = new PublisherMembershipCondition (cert);
    return policy.Verify (Assembly.GetCallAssembly ().Evidence);
}
```

Answer: A

Explanation:

Incorrect Answers:

B, C: You should not use the code fragments that specify the AppDomain.CurrentDomain.Evidence property as an argument because this property retrieves only the evidence available to the current application domain.

D: You should not use this code fragment that specifies the Verify method because this method does not exist in the PublisherMembershipCondition class

QUESTION 86

You work as an application developer at Certkiller .com. You are in the process of creating an application on Certkiller .com's Web sever named Certkiller -SR11.

This application will be used to manage confidential data from Certkiller .com's business partners. The application relies on several assemblies located in Certkiller .com's intranet to fulfill its duties.

As a result, you have to verify that every assembly originates from the same intranet Web site.

How would you accomplish this?

A. Use the following code:

```
public bool CheckSite ()
{
    SiteMembershipCondition site = new SiteMembershipCondition
(http//intranet. Certkiller .com);
    return site.Check (AppDomain.CurrentDomain.Evidence);
}
```

B. Use the following code:

```
public bool CheckSite ()
{
    Site site = new Site (http//intranet. Certkiller .com);
    return site.Check (Assembly.GetCallingAssembly ().Evidence);
}
```

C. Use the following code:

```
public bool CheckSite ()
{
    Site site = new Site (http://intranet. Certkiller .com);
    return site.Check (AppDomain.CurrentDomain.Evidence);
}
D. Use the following code:
public bool CheckSite ()
{
    SiteMembershipCondition site = new SiteMembershipCondition
(http://intranet. Certkiller .com);
    return site.Check (Assembly.GetCallingAssembly ().Evidence);
}
```

Answer: D

Explanation: This code instantiates a SiteMembershipCondition object using the site's URL as a string, retrieves the evidence information from the current assembly, and verifies the evidence indicating the assembly originates from the company intranet. The SiteMembershipCondition class' sole purpose is to verify whether an assembly belongs to a site's code group based upon the originating Web site of the application or assembly. The SiteMembershipCondition class has a constructor that takes a URL as a string argument. The Check method determines whether an assembly belongs to the site's code group based upon the evidence provided as an argument. The GetExecutingAssembly method of the Assembly class returns an

Assembly object representing the assembly that invoked the CheckPolicy method. The Evidence property of the Assembly class returns the identity information used by the .NET Framework code access security mechanism to determine code group membership.

Incorrect Answers:

A, C: You should not use the code fragments that specify the AppDomain.CurrentDomain.Evidence property because this retrieves the evidence available to the current application domain only.

B: You should not use the code fragments that specify the Site class because this class does not provide a method to verify the originating Web site of an assembly or application.

QUESTION 87

You work as an application developer at Certkiller .com. You are currently creating an application that requires role-based security. You are planning to utilize a database to store the user accounts and group membership data.

You need to ensure that users are able to log on and off. You also need to ensure that the application you have created tracks the user accounts of these users, and restrict or allow access to code based on their group membership. You need to achieve this objective with as little developer effort as possible.

What should you do to implement role-based security?

- A. Inherit from the GenericIdentity and GenericPrincipal classes.
- B. Make use of GenericIdentity and GenericPrincipal objects.
- C. Implement the IIdentity and IPrincipal interfaces.
- D. Make use of WindowsIdentity and WindowsPrincipal objects.

Answer: B

Explanation: in this scenario, the GenericIdentity and GenericPrincipal objects could be implemented as follows:

```
GenericIdentity curIdentity = new GenericIdentity ("CurrentUser");  
string [] roles = { "Users", "Administrators" };  
thread.CurrentPrincipal = GenericPrincipal (curIdentity, roles);
```

This code instantiates a GenericIdentity object based upon a user name as a string object, instantiates a string array representing the roles to which that user belongs, instantiates a GenericPrincipal object specifying the GenericIdentity object and string array of roles as arguments, and assigns the new GenericPrincipal object to the CurrentPrincipal property of the current thread. By assigning the new principal to the CurrentPrincipal property of the current thread, role membership checks can be performed using the IsInRole method

Incorrect Answers:

A, C: These options require more developer effort than necessary.

D: The WindowsIdentity and WindowsPrincipal classes are intended for use with windows domain stored accounts and groups only.

QUESTION 88

You work as an application developer at Certkiller .com. You are in the process of creating an application that will display confidential employee information.

When your manager informs you that only managers and administrators should be able to view the information, you utilize windows authentication and .NET role-based security to guarantee this.

The network administrator in your department informs you that he has noticed that there are certain users that are not managers or administrators are able to view the employee information. You immediately analyze your code, and discover an issue with domain group memberships.

The network administrator asks you to trace the user account and security identifier (SID) of each user in the application so that he can use this information to detect users across the enterprise and verify that their group memberships are correct.

How would you do this?

A. Use the following code:

```
WindowsIdentity curID = WindowsIdentity.GetCurrent ();  
NTAccount account = new NTAccount (curID.Name);  
SecurityIdentifier sid = (SecurityIdentifier);  
account.Translate (typeof (SecurityIdentifier));  
Trace.Write ("User's SID is" + sid.Value, "User" + account.Value);
```

B. Use the following code:

```
WindowsIdentity curID = WindowsIdentity.GetCurrent ();  
NTAccount account = new NTAccount (curID.Name);  
Trace.Write ("User's SID is" + sid.Value, "User" + account.Value);
```

C. Use the following code:

```
WindowsIdentity curID = WindowsIdentity.GetCurrent ();  
Trace.Write ("User's SID is" + curID.Value, "User" + sid.Name);
```

D. Use the following code:

```
WindowsIdentity curID = WindowsIdentity.GetCurrent ();  
SecurityIdentifier sid = new SecurityIdentifier (curID.Name);  
Trace.Write ("User's SID is" + curID.Value, "User" + sid.Name);
```

Answer: A

Explanation: This code retrieves the current WindowsIdentity object associated with the user, instantiates an NTAccount object using the Name property, invokes the Translate method to retrieve the current SecurityIdentifier object, and invokes the Write method on the Trace class to record the Value property of both the SecurityIdentifier and NTAccount objects. The GetCurrent method of the WindowsIdentity object represents the identity of the application user. The NTAccount class represents a Windows user group account in the local Security Accounts Manager (SAM) or in the Active Directory domain. The constructor of the NTAccount class accepts either a single string representing the account name or two strings, one representing the domain name and the other representing the account on that domain. To facilitate SID lookups, the Translate method takes a Type argument and returns an IdentityReference object. You must convert or cast the IdentityReference object to a SecurityIdentifier object to retrieve the Sid for the specified account. The Value property of the SecurityIdentifier and NTAccount class returns a SID and fully-qualified user name string, respectively. The Write method of the Trace class outputs the specified message into the specified category.

Incorrect Answers:

B: You should not use the code that does not specify the SecurityIdentifier class because the NTAccount class does not have a SID property.

C: You should not use the code that does not specify the NTAccount and SecurityIdentifier classes because there is no SID property in the WindowsIdentity class.

D: You should not use the code that does not specify the NTAccount class because a SecurityIdentifier object cannot be instantiated using an account name as an argument, and it does not contain a Name property.

QUESTION 89

You work as an application developer at Certkiller .com. You are currently creating a sales report application that requires Windows authentication on Certkiller .com's domain.

To achieve this, you are required to implement role-based security within the sales report application.

You establish that the method shown below should only be invoked by members of

the Managers group:

```
public void UpdateEmpSalesBonus (int empID, double amount)
{
//Update employee's salary
}
```

You need to ensure that invocation of the UpdateEmpSalesBonus method is restricted to only managers.

What should you do? (Choose two)

A. Apply the following attribute to the UpdateEmpSalesBonus method:

[WindowsPrincipalPermission (SecurityAction.Demand, Role = "Managers")]

B. Apply the following code to the UpdateEmpSalesBonus method:

```
WindowsIdentity user = WindowsIdentity.GetCurrent ();
if (user.IsInRole ("Managers"))
```

```
{
//Update employee's salary
}
```

C. Apply the following attribute to the UpdateEmpSalesBonus method:

[PrincipalPermission (SecurityAction.Demand, Role = "Managers")]

D. Apply the following code to the UpdateEmpSalesBonus method:

```
if (Thread.CurrentPrincipal.IsInRole ("Managers"))
{
//Update employee's salary
}
```

Answer: C, D

Explanation: Imperative role-based security can use the PrincipalPermission class or the IPrincipal object directly. The PrincipalPermission class takes a user name and role as string arguments representing the required membership. The Demand method indicates that all callers must belong to the user or group membership specified in the constructor to access the resource. The IPrincipal object can be retrieved using the Thread.CurrentPrincipal property. The IsInRole method takes a role argument as a string and returns a Boolean value indicating whether the current caller belongs to that group or not.

Incorrect Answers:

A: You should not use the attribute that applies the WindowsPrincipalPermission attribute because no such attribute exists in the .NET Framework 2.0 class library.

B: You should not use the code that invokes the IsInRole method on the WindowsIdentity class because no such method exists.

QUESTION 90

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS536 as your development computer.

You are developing a .NET Framework 2.0 application on Certkiller -WS536. You are trying to port an old Certkiller .com management application that was written in unmanaged Windows code with no COM interfaces. The application you are developing makes calls to the old Certkiller .com management unmanaged library named BillPerformance.dll.

You are required to make a call to the GetPerformanceScore method of the unmanaged Performance.dll library.

What should you do?

- A. The Type Library Exporter tool (tlbexp.exe) should be used
- B. The Type Library Importer tool (tlbimp.exe) should be used
- C. The Assembly Registration tool (regasm.exe) should be used
- D. The Platform Invoke (DllImportAttribute) should be used

Answer: D

Explanation: The feature Platform Invoke is used to allow you to call methods that are in unmanaged libraries but you need to declare the unmanaged method in the managed code using the extern and static keywords with the DllImport attribute which is used to specify the unmanaged library.

Incorrect Answers:

A, B, C: The tool should not be considered for usage in the scenario because the unmanaged dll file is not in COM and it only processes COM type libraries.

QUESTION 91

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS536 as your development computer.

You are developing a .NET Framework 2.0 application on Certkiller -WS536. The application will be used to list the available public types and methods in the Certkiller .com assembly. You named the assembly strongly and it is installed in the global assembly cache (GAL) and an assembly with the same identity is stored at c:\Certkiller\assemb\Certkiller .com.dll.

You are required to dynamically load the Certkiller .com assembly into your application whilst you ensure that the assembly is loaded from c:\Certkiller\assemb\Certkiller .com.dll rather than the global assembly cache (GAL). What should you do?

- A. Assembly assemb = Assembly.LoadFrom("c:\Certkiller\assemb\Certkiller .com.dll");
- B. Assembly assemb = Assembly.LoadFile("c:\Certkiller\assemb\Certkiller .com.dll");
- C. Assembly assemb = Assembly.ReflectionOnlyLoad("Certkiller .com");
- D. Assembly assemb = Assembly.Load("Certkiller .com");
- E. Assembly assemb = Assembly.ReflectionOnlyLoadFrom("c:\Certkiller\assemb\Certkiller .com.dll");

Answer: E

Explanation: To correctly load the Assembly class from the location c:\Certkiller\assemb\Certkiller.com.dll you should make use of the method used in the option of the scenario.

Incorrect Answers:

A, B, C, D: The other methods of the assembly class will request the common language runtime (CLR) to resolve the location of the assembly based on its identity therefore these options should not be used in the scenario even though you provide the full absolute path as a parameter.

QUESTION 92

You work as the application developer at Certkiller.com. Certkiller.com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller-WS536 as your development computer.

You are developing a .NET Framework 2.0 application on Certkiller-WS536. The application's assembly is named Certkiller App and is stored in Certkiller App.exe.

You are busy using .NET Framework's Strong Name tool to generate a pair for Certkiller App.exe shown below:

```
Sn.exe -k Certkiller AppKey
```

You are required to use the key pair to build the Certkiller App.exe as a strong named assembly.

What should you do?

- A. The AssemblyKeyFileAttribute class should be used
- B. The AssemblyDelaySignAttribute class should be used
- C. The AssemblyConfigurationAttribute class should be used
- D. The AssemblyKeyNameAttribute should be used

Answer: A:

Explanation: The Strong name tool is used to allow you to generate and manage keys for the strong name signing and by using the -k switch the tool generates a new key pair and stores it in the specified file. So using the AssemblyKeyFileAttribute is the correct way to go in the scenario.

Incorrect Answers:

B: This class should not be considered for use as it is designed to specify whether or not delayed signing should be used.

C: The class should not be used in the scenario because the class is used to specify a build configuration for an assembly.

D: This class should not be used in the scenario because it is used to specify the name of a key container that should be used.

QUESTION 93

You work as the application developer at Certkiller.com. Certkiller.com uses Visual

Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS553 as your development computer.

You are developing a .NET Framework 2.0 application on Certkiller -70-553. The application will allow users to send e-mails. The users are required to be able to send e-mail containing information like budget documents and images. You decide to use the .NET Framework 2.0 Attachment class to create the e-mail attachments within your application.

You are required to specify the content in an attachment by using the attachment class constructors.

What should you do? (Choose two)

- A. The Stream object attachment class should be used in the scenario
- B. The String object attachment class should be used in the scenario
- C. The Image object attachment class should be used in the scenario
- D. The XmlDocument object attachment class should be used in the scenario
- E. The SqlDataReader object attachment class should be used in the scenario

Answer: A, B

Explanation: In the scenario the Attachment constructors allow you to create attachments from a filename, a String object, or a Stream object.

Incorrect Answers:

- C: This method is incorrect and should not be used in the scenario because the Image object Attachment class cannot directly use an Image object.
- D: This method is incorrect and should not be used in the scenario because the XmlDocument Attachment class cannot directly use an XmlDocument object.
- E: This method is incorrect and should not be used in the scenario because the SqlDataReader Attachment class cannot directly make use of a SqlDataReader object.

QUESTION 94

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS552 as your development computer.

You are developing a .NET Framework 2.0 enterprise application on Certkiller -WS552. The application will be used to allow the users to send e-mail messages and should allow users to send HTML-based e-mails, but the users should not be able to use the HTML tag to embed images in the HTML document. The images are not externally hosted so instead the images must be sent as part of the e-mail message. You are required to select which class to use.

What should you do?

- A. The AlternateView class should be used.
- B. The Attachment class should be used.
- C. The MailAddress class should be used.

D. The `LinkedResource` class should be used.

Answer: D

Explanation: In the scenario you should make use of the `LinkedResource` class as it is used to embed external resources in an e-mail attachment such as images in an HTML attachment.

Incorrect Answers:

A: The class in question could be used in the scenario but the `AlternateView` class itself cannot be used to embed images in the HTML document.

B: The `Attachment` class should not be used in the scenario as the class only allows you to send images as an attachment.

C: The usage of this class is incorrect as it is used to store the address information for e-mail messages in the scenario.

QUESTION 95

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS554 as your development computer.

You are developing a .NET Framework 2.0 Windows Forms application on Certkiller -WS554. The Windows Forms application will be used by regional offices of Certkiller .com in various countries.

You are required to customize the application so that the language, calendar and cultural conventions are changed based on the user's operating system settings. You additionally are required to identify the .Net Framework class that should be used for this requirement.

What should you do?

- A. The `CultureInfo` class should be used
- B. The `TextInfo` class should be used
- C. The `DateTimeFormatInfo` should be used
- D. The `CharUnicodeInfo` should be used
- E. The `RegionInfo` should be used

Answer: A

Explanation: The `CultureInfo` class should be used in the scenario because it contains culture-specific information and provides the information required for performing culture-specific operations like changing casing, formatting dates and numbers and comparing strings.

Incorrect Answers:

B: This class should not be used in the scenario because this class only affects the behavior such as text casing.

C: This class should not be used in the scenario because this class only defines how the Date and Time values are formatted.

D: This class should not be used in the scenario because this class is used to only retrieve information about a Unicode character.

E: This class should not be used in the scenario because this class does not represent any preferences of the user and does not depend upon the culture.

QUESTION 96

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS554 as your development computer.

You are developing a .NET Framework 2.0 Windows Forms application on Certkiller -WS554. The application must provide support for multiple languages and regional differences. You are required to define a custom culture based on an existing culture and region. An administrative user will install the custom culture on the end user's computer prior to the applications deployment and you are required to select which class to use.

What should you do?

- A. The CultureAndRegionInfoBuilder class should be used
- B. The CustomAttributeBuilder class should be used
- C. The RegionInfo class should be used
- D. The CultureInfo class should be used

Answer: A

Explanation: The correct option in the scenario would be to make use of the CultureAndRegionInfoBuilder class as this class is used to define a custom culture that is new or based upon an existing region and culture.

Incorrect Answers:

B: This class should not be used in the scenario because this class is used to define custom attributes which are used to associate declarative information.

C: This class should not be used in the scenario because this class is used to access the region data for an already installed culture.

D: This class should not be used in the scenario because this class can only be used to make use of cultures that have already been installed.

QUESTION 97

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS536 as your development computer.

You are developing a .NET Framework 2.0 application on Certkiller -WS536. You need to provide locale-specific services to employees with the application. You must additionally ensure that you use a unique country identifier that can be used as a key to access a database record that contains specific information about a country whilst you use the minimum storage for storing the key.

What should you do?

- A. CultureInfo.Name should be used as an identifier for a country
- B. CultureInfo.GetHashCode should be used as an identifier for a country
- C. RegionInfo.GetHashCode should be used as an identifier for a country
- D. RegionInfo.Name should be used as an identifier for a country

Answer: D

Explanation: In the scenario you should make use of the RegionInfo.Name property as this property gets the name or ISO 3166 two-letter country/region code for the current RegionInfo object.

Incorrect Answers:

A: This method should not be used in the scenario as you will only receive the culture name instead of the country name and does not meet the objective.

B, C: The usage of the GetHashCode property in the scenario is incorrect as the hash value generated can be used to tell whether the RegionInfo or CultureInfo objects are the same or not.

QUESTION 98

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS554 as your development computer.

You are developing a .NET Framework 2.0 enterprise application on Certkiller -WS554. You create the following variable in your code:

```
DateTime dateValue;
```

You additionally write code to store time in the local time to the dateValue variable.

You are required to serialize the value of the dateValue variable, if you serialize the DateTime object in one time zone and deserialized in a different time zone, the local time represented as a result should be automatically adjusted to the second time zone. You are to decide which expression to use.

What should you do?

- A. The dateValue.ToString("yyyy-MM-ddTHH:mm:ss.ffffff", CultureInfo.InvariantCulture)
- B. The dateValue.ToBinary() expression should be used
- C. The dateValue.Kind expression should be used
- D. The dateValue.Ticks expression should be used

Answer: B

Explanation:

To preserve the information that you are required to preserve in the scenario you should make use of the newToBinary and FromBinary method as these methods can be used to automatically adjust the local times.

Incorrect Answers:

A: The expression in question should not be used in the scenario because the expression will not preserve any of the required reserved information.

C: This expression will be used to check whether the value indicates whether time is represented by the instance is based on local time.

D: This expression is used to super fast serialize the required information but should not be considered when working with the local time.

QUESTION 99

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS552 as your development computer.

You are developing a .NET Framework 2.0 enterprise application on Certkiller -WS552 used as collateral. You write the code below in your application, line numbers are reference:

01: string num;

02: integer val;

03: num = " (37)";

04:

You are required to write additional code at line 04 that will be used to correctly parse the string value and assigns the result to the Integer variable named val.

When you execute the code the variable is required to hold a value of -37 and you must decide which code to use.

What should you do?

A. val=Int32.Parse(num, NumberStyles.AllowLeadingSign And NumberStyles.AllowLeadingWhite)

B. val=Int32.Parse(num, NumberStyles.AllowParentheses And NumberStyles.AllowLeadingWhite)

C. val=Int32.Parse(num, NumberStyles.AllowLeadingSign Or NumberStyles.AllowLeadingWhite)

D. val=Int32.Parse(num, NumberStyles.AllowParentheses Or NumberStyles.AllowLeadingWhite)

Answer: D

Explanation: The NumberStyles.AllowParentheses value is used to indicate that the numeric string can have one pair of parentheses enclosing the number and the NumberStyles.AllowLeadingWhite value is used to indicate that a leading white-space character must be ignored during the parse.

Incorrect Answers:

A, B: This code should not be used in the scenario because the code is used to indicate that the numeric string can have a leading sign.

C: The code in question should not be used in the scenario because the attributes of NumberStyles are set by using the bitwise inclusive Or on the field flags.

QUESTION 100

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 Windows Forms application that will be used by several Certkiller .com employees in several countries on a workstation used as collateral. The application is required to fully support customization of the user interface based on the user's preferences like the language currency and date and time formats.

You are required to write code that will compare the name of two employees which are stored in variables named employee1 and employee2. You are required to ensure correct comparisons whilst taking care of the regional settings selected. What should you do?

- A. The String.Compare(Fileemployee1, Fileemployee2, true, CultureInfo.CurrentCulture) segment should be used
- B. The String.Compare(Fileemployee1, Fileemployee2, true, CultureInfo.InvariantCulture) segment should be used
- C. The String.Compare(Fileemployee1, Fileemployee2, true, CultureInfo.InstalledUICulture) segment should be used
- D. The String.Compare(Fileemployee1, Fileemployee2, true, CultureInfo.CurrentUICulture) segment should be used

Answer: A

Explanation: The default behavior of the segment in question is to perform culture-sensitive comparisons and should definitely be considered for use in the scenario.

Incorrect Answers:

B: This code segment is incorrect and should not be used in the scenario because it will lead to culture-insensitive operations.

C: This code segment is incorrect and should not be used in the scenario because this will used the culture that is installed with the operating system.

D: This code segment is incorrect and should not be used in the scenario because this settings only used for changing the user's interface culture used by a thread.

QUESTION 101

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windwos XP Professional client computer named Certkiller -WS554 as your development computer.

You are developing a large .NET Framework 2.0 application that is required to provide support for culture-specific information. You are required to parse a date and time string generated for a custom culture and to help the success of the parse operation you designate parse patterns that tare likely to succeed. You must additionally prevent the operation from failing whilst you select the method to use

for parsing the string.
What should you do?

- A. The ParseExact method should be used
- B. The Parse method should be used
- C. The TryParseExact method should be used
- D. The TryParse method should be used

Answer: C

Explanation: The TryParseExact method should be used if you require parsing a date and time string generated from a custom culture.

Incorrect Answers:

A, B: The usage of these methods in the scenario would be incorrect because the methods do not provide error handling and the custom culture can be complicated and difficult to parse.

D: If you decide to use the TryParse method which attempt to parse a string using several implicit parse patterns that may all fail you will not achieve the scenario objective.

QUESTION 102

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS554 as your development computer.

You are developing a .NET Framework 2.0 application that will be used to manipulate graphics files in GIF, JPG and PNG formats. You are required to choose an appropriate data type to store graphic files whilst your solution must use the least amount of code.

What should you do?

- A. The Icon class should be used
- B. The Metafile class should be used
- C. The Image class should be used
- D. The Bitmap class should be used

Answer: D

Explanation: Because the Bitmap class is an implementation of the Image abstract class that is capable of working with several types of image formats this class should be considered for usage in the scenario.

Incorrect Answers:

A: This class should not be used in the scenario because the Icon class only allows you to work with small bitmap images.

B: This class should not be used in the scenario because this class can not be used to manipulate images in different formats.

C: This class should not be used in the scenario because this class is an abstract class which requires functionality to be implemented which requires programming effort.

QUESTION 103

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS551 as your development computer.

You are developing a .NET Framework 2.0 text-processing application on Certkiller -WS551. You define the following regular expression of currency values:

```
regex tx = new regex("^-?\d+(\.\d{2})?$")
```

You are required to write code that will be used to find whether a string in the variable named Bill matches the regular expression or not. You are also required to use this code as the expression in a conditional statement and need to know which code segment to use.

What should you do?

- A. The tx.Matches(Bill)
- B. The tx.Equals(Bill)
- C. The tx.Match(Bill)
- D. The tx.IsMatch(Bill)

Answer: D

Explanation: In order for you to successfully indicate whether the regular expression finds a match in the input string you should make use of the IsMatch(Bill) segment in the scenario.

Incorrect Answers:

A: This segment should not be used in the scenario because the Matches method is used to search an input string for all occurrences of a regular expression and returns all the successful matches.

B: This segment should not be used in the scenario because this method is used to determine whether any two Object instances are equal.

C: This segment should not be used in the scenario because the Match method is used to search an input string for an occurrence of a regular expression and returns the precise results as a single successful match.

QUESTION 104

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS554 as your development computer.

You are developing a .NET Framework 2.0 application. The application will be used globally and must be able to represent characters in the following languages: English, Chinese Traditional, Hebrew and Tamil. Your application is required to

provide error detection for invalid sequences of characters whilst your application must also optimize storage.
What should you do?

- A. Encode the characters in your application using the UTF8Encoding class
- B. Encode the characters in your application using the UTF7Encoding class
- C. Encode the characters in your application using the UTF32Encoding class
- D. Encode the characters in your application using the UTF16Encoding class

Answer: A

Explanation: To successfully enable error detection and make the class instance more secure you should make use of the UTF8Encoding class in the scenario.

Incorrect Answers:

B: The Encoding class used in this option UTF7Encoding does not provide any error detection and should not be used in the scenario.

C, D: The Encoding classes in these options should not be used in the scenario because the UTF16Encoding class represents each character as a sequence of one to two 16-bit integers and the UTF32Encoding represents each code point as a 32-bit integer.

QUESTION 105

You work as the application developer at Certkiller .com. You are developing a .NET Framework 2.0 application that uses the following code (line numbers are for reference only)

```
1: Dim testCount As Nullable(Of Integer) = -1
```

```
2: testCount = Nothing
```

You are required to insert a statement after line 2 to print the value of the variable testCount but if the value of the testCount is a null reference(nothing) the program should print -1.

What should you do?

- A. If (testCount.HasValue) Then
Console.WriteLine("testCount = {0}", testCount.Value)
Else
Console.WriteLine("testcount = {0}", testCount.GetValueOrDefault())
End If
- B. Console.WriteLine("testCount = {0}", testCount.Value)
- C. Console.WriteLine("testcount = {0}", testCount.GetValueOrDefault())
- D. If (testCount.HasValue) Then
Console.WriteLine("testCount = {0}", testCount.Value)
Else
Console.WriteLine("testCount = {0}", -1)
End If

Answer: D

Explanation: The Has.Value method should be used to determine if a nullable type contains a defined value and should be used in the scenario.

Incorrect Answers:

A, B, C: The other statements are incorrect as it will only run fine when a value is not set to Nothing in the scenario. The GetValueOrDefault method retrieves the value of the current nullable object if it is not Nothing.

QUESTION 106

You work as an application developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. You are in the process of storing numerical values up to 2,100,000,000 into a variable and may require storing negative values using a .NET Framework 2.0 application. You are required to optimize memory usage, What should you do?

- A. Use the Int32 data type.
- B. Use the UInt16 data type.
- C. Use the UInt32 data type.
- D. Use the Int16 data type.

Answer: A

Explanation: The Int32 type should be used in the scenario as it can be used to store positive and negative numerical values from -2,147,483,648 to +2,147,483,647.

Incorrect Answers:

B, C: The UInt32 and UInt16 type should not be used in the scenario because they are used to store only unsigned positive numbers.
D: The Int16 type should not be used as you will only be allowed to store values from -32768 to +32768.

QUESTION 107

You work as an application developer at Certkiller .com. Certkiller .com uses the Microsoft Visual Studio .NET 2005 as their application development platform. You have recently finished development of a class named TestReward and package the class in a .NET 2.0 assembly named TestObj.dll. After you ship the assembly and it is used by client applications, you decide to move the TestReward class from TestObj.dll assembly to the TestRewardObj.dll Assembly. You are to ensure when you ship the updated TestObj.dll and TestRewardObj.dll assemblies that the client applications continue to work and do not require recompiling. What should you use?

- A. The TypeForwardedTo attribute.
- B. The TypeConverter.ConvertTo method.
- C. The InternalsVisibleTo attribute.
- D. The TypeConverter.ConvertFrom method.

Answer: A

Explanation: The statement used for you to add a type from one assembly into another assembly is the TypeForwardTo attribute which enables you not to have the application recompiled.

Incorrect Answers:

B, D: The TypeConverter class provides a unified way of converting different types of values to other types and can not be used to move a type.

C: The method in question here specifies all nonpublic types in an assembly are visible to other assemblies but can not be used to move types.

QUESTION 108

You work as an application developer at Certkiller .com. You are developing a .NET Framework 2.0 application used to store a type-safe list of names and e-mail addresses. The list will be populated all at ones from the sorted data which means you well not always need to perform insertion or deletion operations on the data. You are required to choose a data structure that optimizes memory use and has good performance. What should you do?

- A. The System.Collections.Generic.SortedList class should be used
- B. The System.Collections.HashTable class should be used
- C. The System.Collections.Generic.SortedDictionary class should be used
- D. The System.Collections.SortedList class should be used

Answer: A

Explanation: The SortedList generic class should be used in the scenario class as it provides type safety compared against the System.Collections.SortedList class.

Incorrect Answers:

B: The System.Collections.HashTable class should not be used as this class provides no type safety.

C, D: Although this is very similar to the SortedList class the SortedList class should be used instead in the scenario.

QUESTION 109

You work as the application developer at Certkiller .com. You are developing a .NET Framework 2.0 application that uses the Stack class. You need to write the code which will enumerate through the stack which may contain objects of the Stack class or objects of a class derived from the Stack class. The code you write must guarantee thread safety during the enumeration. What should you do?

- A. Dim TeStack As Stack = New Stack()
SyncLock (TeStack.SyncRoot)
For Each item As Object In TeStack

```
' additional code goes here.  
Next  
End SyncLock  
B. Dim TeStack As Stack = New Stack()  
Dim syncStack As Stack = Stack.Synchronized(TeStack)  
For Each item As Object In syncStack  
'additional code goes here.  
Next  
C. Dim TeStack As Stack = New Stack()  
Dim syncStack As Stack = TeStack.SyncRoot  
For Each item As Object In syncStack  
' additional code goes here.  
Next  
D. Dim TeStack As Stack = New Stack()  
SyncLock (Stack.Synchronized(TeStack))  
For Each item As Object In TeStack  
' additional code goes here.  
Next  
End SyncLock
```

Answer: A

Explanation:

It is important to remember that when enumerating through a collection that a thread procedure is not safe as another thread can modify the collection, to ensure the safety the collection should be locked during enumeration.

Incorrect Answers:

B, C: Any Stack classes derived from the Stack class may make use of the SyncRoot property to implement their own synchronized version of the Stack class.

D: The technique used here can also be used to maintain proper synchronization with other threads that might be modifying the Stack object simultaneously.

QUESTION 110

You work as an application developer at Certkiller .com. Certkiller .com has been contracted to develop an application for the local bank.

You have been given the responsibility of creating this application and need to store each transaction record, which is identified using a complex transaction identifier, in memory. The bank informs you that the total amount of transaction records could reach 200 per day.

To achieve this, you decide to utilize one of the existing collection classes in the .NET 2.0 class library.

You need to ensure that you the collection class you select is the most efficient one for storing transaction records.

What should you do?

A. Select the ListDictionary collection class.

- B. Select the HashTable collection class.
- C. Select the Queue collection class.
- D. Select the StringCollection collection class.

Answer: B

Explanation: You should select the HashTable class to store transaction records because each element is identified using a unique identifier and the size of the collection is large. Elements in the HashTable collection are stored with a key/value pair where each key is created using a hash code. The default capacity of a HashTable class is zero, and you can use the Add method to add a new element to the collection. The Count property provides the total number of elements in the HashTable collection. An element of the HashTable class can be accessed using the DictionaryEntry class. You can use the Key and Value properties of the DictionaryEntry class to access the key associated with the element and the value of the element, respectively.

Incorrect Answers:

- A: You should not select this collection class because this class is used if the total number of elements to be stored in a collection is less than 10 elements in length.
- C: You should not select this collection class because you need to access transaction records using a transaction identifier, not in sequential order.
- D: You should not select this collection class because this class is used to manage a collection of string values.

QUESTION 111

You work as an application developer at Certkiller .com. Certkiller .com has been hired by a small local private school to develop a class library that will be used in an application named ManageAttendance for the purpose of managing student records.

You are responsible for developing this class library. Certkiller .com has instructed you to create a collection in the application to store learners' results.

The school has informed you that they currently only have seven learners, but that this value will triple in the following year. Due to the limited resources, you need to ensure that the collection you create consumes a minimum amount of resources.

What should you use to create the collection?

- A. The HybridDictionary collection class.
- B. The HashTable collection class.
- C. The ListDictionary collection class.
- D. The StringCollection collection class.

Answer: A

Explanation: You should use the HybridDictionary class to create the collection because this class is useful in scenarios where the number of elements is unknown or could grow in size. A collection of the HybridDictionary type manages the collection

depending on the number of elements. The HybridDictionary type collection uses the ListDictionary class to manage the collection when there are only a few elements. When the number of elements exceeds ten, the HybridDictionary type collection automatically converts the elements into HashTable management.

Incorrect Answers:

B: You should not use this collection class because this class is used if the total number of elements to be stored in a collection is known and is greater than ten elements in length.

C: You should not use this collection class because this class is used if the total number of elements to be stored in a collection is known and is less than ten elements in length.

D: You should not use this collection class because this class is used to manage a collection of string values.

QUESTION 112

You work as an application developer at Certkiller .com. You are developing an application that makes use of a Queue class object named MyQueue. This Queue class object will be used to store messages sent by the user during application run time. The application that you are developing provides an interface for Certkiller .com administrators and an interface for Certkiller .com users to create message reports.

You want to ensure that all user messages stored in the MyQueue object are removed when an Certkiller .com administrator selects the reset option.

What should you do?

- A. Use the Enqueue method of the MyQueue object.
- B. Use the Clear method of the MyQueue object.
- C. Use the Dequeue method of the MyQueue object.
- D. Use the TrimToSize method of the MyQueue object.

Answer: B

Explanation: The clear method sets the Count property of the Queue class object to 0 after removing all the elements from the queue. When you call the Clear method for a Queue object, the capacity of the Queue object is not changed.

Incorrect Answers:

A: You should not use this method because it is used to add a new element at the beginning of a Queue object.

C: You should not use this method because it is used to remove an element at the beginning of a Queue object.

D: You should not use this method because it is used to resize a Queue object.

QUESTION 113

You work as an application developer at Certkiller .com. You are developing an application that makes use of a Queue class object named MyQueue. This Queue class object will be used to store messages sent by the user during application run time.

You would like to access the message at the beginning of the queue, prior to processing the user messages, without removing it.
What should you do?

- A. Use the Enqueue method of the MyQueue object.
- B. Use the Contains method of the MyQueue object.
- C. Use the Dequeue method of the MyQueue object.
- D. Use the Peek method of the MyQueue object.

Answer: D

Explanation: The Peek method accesses the element at the beginning of the object of the Queue class without removing it from the queue. The Queue class is a data structure for handling elements based on the First In First Out (FIFO) concept. According to this concept, elements that are stored first are processed first.

Incorrect Answers:

- A: You should not use this method of the Queue class because it is used to add a new element at the end of a Queue object.
- B: You should not use this method of the Queue class because it is used to verify whether the specified element exists for the Queue object instance or not.
- C: You should not use this method of the Queue class because it is used to remove the next element at the beginning of a Queue object.

QUESTION 114

You work as an application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing an application that will store user messages collectively and the process the messages in sequence. The order in which the messages are processed will depend on the order in which it is received.

To add messages to the collection, Certkiller .com users will specify the message that should be stored in a TextBox control named txtMsg and then click a Button control named btnAdd.

You need to ensure that the appropriate code is used to create the collection.

What should you use? (Choose two)

- A. `Dim msgCollection As Queue = New Queue()`
- B. `Dim msgCollection As Stack = New Stack()`
- C. `msgCollection.Enqueue(txtMsg.Text)`
- D. `msgCollection.Push(txtMsg.Text)`

Answer: A, C

Explanation: In this scenario, you should use the Queue class to create the collection because you are required to process user messages in sequence. The Dim statement creates an object named msgCollection of the Queue class. The second line of code then calls the Enqueue method of the msgCollection object to add the Text property

value of the txtMSG control as an element in the collection. To manage elements in the queue, the Queue class provides methods, such as Dequeue and Clear. The Dequeue method is used to remove elements that are at the beginning of the Queue object. The Clear method is used to remove all elements from a Queue object. The Queue class is a data structure for handling elements based on the First In First Out (FIFO) concept.

Incorrect Answers:

B, D: Using these lines of code is incorrect because they use the Stack class to create a collection. Stack objects are used to store elements on the Last In First Out (LIFO) concept.

QUESTION 115

You work as the application developer at Certkiller .com. You are developing a .NET Framework 2.0 application that uses a Dictionary generic class. You write the following code to create the dictionary.

```
Dim value As String = ""  
Dim openWith As Dictionary(Of String, String) = New Dictionary(Of  
String, String)()  
openWith.Add("txt", "notepad.exe")  
openWith.Add("gif", "paint.exe")  
openWith.Add("png", "paint.exe")  
openWith.Add("rtf", "wordpad.exe")  
openWith.Add("log", "notepad.exe")
```

You are required to write the code that displays the value corresponding to a key if the key exists in the dictionary, but the code frequently tries keys that are not in the dictionary. The solution you propose must minimize the number of times you access the dictionary and offer the fastest performance.

What should you do?

- A. If openWith.ContainsKey("tif") Then
Console.WriteLine("For key = " & "tif" & ", value = {0}. ", openWith("tif"))
Else
Console.WriteLine("Key = " & "tif" & "is not found.")
End If
- B. Try
Console.WriteLine("For key = " & "tif" & ", value = {0}. ", openWith("tif"))
Catch notfoundex As KeyNotFoundException
Console.WriteLine("Key =" & "tif" & "is not found.")
End Try
- C. Try
Console.WriteLine("For key = " & "tif" & ", value = {0}. ", openWith("tif"))
Catch argex As ArgumentException
Console.WriteLine("Key =" & "tif" & "is not found.")
End Try
- D. If (openWith.TryGetValue("tif", value)) Then
Console.WriteLine("For key = " & "tif" & ", value = {0}. ", value)

```
Else  
Console.WriteLine("Key = " "tif" "is not found.")  
End If
```

Answer: D

Explanation: By making use of the TryGetValue method you efficiently retrieve values in a program that frequently tries keys that are not in the dictionary. By using this method the return will simply be a null reference (nothing).

Incorrect Answers:

A: The contains key is an effective way to check if a key exists but in this scenario it would require an additional operation to retrieve the value corresponding to the key.

B: Better performance can be attained by using the TryGetValue method in the scenario.

C: The method in question about catching the ArgumentException is not correct as nothing will be caught that is thrown when a key is not found.

QUESTION 116

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 application class library. You create a class named Test using the following code.

```
Class Test
```

```
'Additional code goes here
```

```
End Class
```

In the code created a SortedList collection with the Test objects as keys, the SortedList collection must be able to sort the items in a collection so that they are arranged in order from biggest to smallest. You must ensure that the class you wrote complies with the .NET Framework standard contracts.

What should you do?

- A. The Test class should be modified to implement the Icomparer interface.
- B. The Test class should be modified to implement the IEquatable interface.
- C. The Test class should be modified to implement the IConvertible interface.
- D. The Test class should be modified to implement the IComparable interface.

Answer: D

Explanation: The Test class must be modified to implement the IComparable interface as it determines the sort order of the two objects of the class.

Incorrect Answers:

A: This method is not recommended because the key type (Test) implements Icomparable , the default comparer of the SortedList will use Icomparable defined in the Test class to compare two objects.

B: This method should not be implemented as it only checks the two type instances for equality.

C: This interface is used to define methods that allow you to convert the value of the Test object to an equivalent value of any other type.

QUESTION 117

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing an application that uses the queue data structure. You are required to create a solution that allows you to enumerate a queue's contents whilst providing type safety.

What should you do?

- A. Dim ckQueue As Queue = New Queue()
ckQueue.Enqueue("one")
ckQueue.Enqueue("two")
For Each ckStr As String In ckQueue
Console.WriteLine(ckStr)
Next
- B. Dim ckQueue As Queue(Of String) = New Queue(Of String)()
ckQueue.Enqueue("one")
ckQueue.Enqueue("two")
For Each ckStr As String In ckQueue
Console.WriteLine(ckStr)
Next
- C. Dim ckQueue As Queue = New Queue()
ckQueue.Enqueue("one")
ckQueue.Enqueue("two")
Dim safeT As Queue = Queue.Synchronized(ckQueue)
For Each ckStr As String In ckQueue
Console.Writeline(ckStr)
Next
- D. Dim ckQueue As Queue = New Queue()
ckQueue.Enqueue("one")
ckQueue.Enqueue("two")
For Each ckStr As String in ckQueue
Console.WriteLine(ckStr)
Next

Answer: B

Explanation: If you are to ensure type safety the generic version of the Queue class should be used, if you used the non-generic Queue class you would be able to add or insert objects of any type.

Incorrect Answers:

A, C, D: The usage of the SyncRoot property and the Synchronized method is useful for using the queue in a multithreaded scenario but does not provide any type safety.

QUESTION 118

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing an application that will be used to store a list of names and e-mail addresses. The number of elements in the list are currently unknown and may vary at runtime. You are required to choose a data structure that provides the highest performance as you work with your data.

What should you do?

- A. A HybridDictionary should be used
- B. A HashTable should be used
- C. The ListDictionary should be used
- D. OrderedDictionary should be used

Answer: A

Explanation: Since the number of Elements in the dictionary is unknown the HybridDictionary class is recommended as it takes advantage of the improved performance of a ListDictionary with small collections.

Incorrect Answers:

B, C: The class used in the answer to the scenario takes advantage of all that is offered by these classes and these classes should not be used.

D: In the scenario at hand the use of a OrderedDictionary class does not provide any performance advantage.

QUESTION 119

You work as an application developer at Certkiller .com. You are developing a collection class named ClientCollection, which is to be used for storing the names of Certkiller .com's clients that are situated in various geographical areas.

These client names are represented by the Client class. You are planning to create a method named SortClients in the ClientCollection class to arrange Client objects in ascending order.

You need to ensure that the appropriate interface is implemented by the Client class to allow sorting.

What interface should be used?

- A. IDictionary
- B. IComparable
- C. IComparer
- D. IEqualityComparer

Answer: B

Explanation: The IComparable interface provides only one method named CompareTo, which takes on generic object, compares it to the current instance, and returns an Integer value representing whether the current instance is equal to,

greater than, or less than the object. The IComparable interface is typically used when you want to create a class whose objects can be sorted in either a list or collection.

Incorrect Answers:

A: This interface should not be implemented because it is used to create a collection that is managed by key/value pairs.

C: This interface should not be implemented because it should be implemented by collection or comparer classes, not comparable classes.

D: This interface should not be implemented because it provides methods to compare two objects for equality only.

QUESTION 120

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing an application that handles the inventory for Certkiller .com. You develop an Inventory class. The class definition for the Inventory class is shown in the following exhibit.

```
Public Class Inventory
    Public Event Reorder As EventHandler
    Private quantity As Integer
    Protected Overridable Sub OnReorder(ByVal e As EventArgs)
        RaiseEvent Reorder(Me, e)
    End Sub
End Class
```

You need to have code added for a new method named TestOne. The new method will be used to decrease the quantity variable by one unit and raises the Reorder event when the quantity becomes 0. You must additionally avoid rewriting any functionality that is already available.

What should you do?

- A. Public Sub TestOne()
 quantity = quantity -1
 If quantity = 0 Then
 RaiseEvent Reorder(Me, EventArgs.Empty)
 End If
End Sub
- B. Public Sub TestOne()
 quantity = quantity -1
 If quantity = 0 Then
 AddHandler Reorder, AddressOfInventory_Reorder
 End If
End Sub
- Public Sub Inventory_Reorder(ByVal sender As Object, ByVal e As EventArgs)
 OnReorder(e)
End Sub
- C. Public Sub TestOne()

```
quantity = quantity -1
If quantity = 0 Then
RaiseEvent Reorder(Me,New EventArgs())
End If
End Sub
D. Public Sub TestOne()
quantity = quantity -1
If quantity =0 Then
OnReorder(New EventArgs())
End If
End Sub
```

Answer: D

Explanation: The method in the answer is the correct choice because when the quantity reaches 0 it calls the OnReorder method which raises the Reorder event.

Incorrect Answers:

A: The method in this answer should not be used as an AddHandler statement is used to add an event handler to the Reorder event which in turn calls the OnReorder method raising the Reorder event in an infinite loop.

B, C: The following methods should not be used because you should call the already available OnReorder method to correctly raise the Reorder event without rewriting the functionality which already exists.

QUESTION 121

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 class library and write the following code:

```
Public Delegate Sub NumberDelegate(ByVal number As Integer)
Public Class NumberClass
Public Sub Method1(ByVal number As Integer)
Dim output As String = "Zero"
If (number > 0) Then output = "Positive"
If (number < 0) Then output = "Negative"
Console.WriteLine(output)
End Sub
Public Sub Method2(ByVal number As Integer)
Dim output As String = String.Empty
If (number > 0) Then output = "+"
If (number < 0) Then output = "-"
Console.WriteLine(output)
End Sub
End Class
```

You want to test the class. You write the following piece of code to test the class:

```
Dim num As NumberClass = New NumberClass()
```

```
Dim del1 As NumberDelegate = New NumberDelegate(AddressOf num.Method1)
Dim del2 As NumberDelegate = New NumberDelegate(AddressOf num.Method2)
[Delegate].combine(del2, del1)
del1(5)
```

You are required to select the output that you would receive.
What should you select?

- A. Positive
- B. Positive
+
- C. +
positive
- D. +

Answer: A

Explanation: It is possible to combine two delegates objects but it does not alter the existing delegates, therefore the received output would be Positive.

Incorrect Answers:

B, C, D: There will be only one line of output generated because only one delegate (del1) is invoked in the scenario.

QUESTION 122

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing an inventory application by using the .NET Framework 2.0 for Certkiller .com. You develop and Inventory class. The class definition for the Inventory class is shown in the following exhibit.

```
Public Class Inventory
Public Event Reorder As EventHandler
Private quantity As Integer
Public Sub SellOne()
quantity = quantity - 1
If quantity = 0 Then
OnReorder(Me, New EventArgs())
End If
End Sub
End Class
```

You are required to define the OnReorder method to raise the Reorder event.
What should you do?

- A. Protected Overridable Sub OnReorder (ByVal sender As Object, ByVal e As EventArgs)
RaiseEvent Reorder(Me, e)
End Sub
- B. Protected Overridable Sub OnReorder (ByVal sender As Object, ByVal e As

```
EventArgs)  
AddHandler Reorder, AddressOf OnReorder  
RaiseEvent Reorder(Nothing, e)  
End Sub  
C. Protected Overridable Sub OnReorder (ByVal sender As Object, ByVal e As  
EventArgs)  
If e Is Nothing Then  
RaiseEvent Reorder(Me, e)  
End If  
End Sub  
D. Protected Overridable Sub OnReorder (ByVal sender As Object, ByVal e As  
EventArgs)  
AddHandler Reorder, AddressOf OnReorder  
End Sub
```

Answer: A

Explanation: By using the code specified in the answer, the RaiseEvent statement raises the specified event by calling all the event handlers attached to the event.

Incorrect Answers:

B, D: This statement about AddHandler is incorrect as you have to raise the event not add event handlers.

C: This is also incorrect as there is no need for checking whether the event argument is nothing before invoking the event.

QUESTION 123

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a Windows Forms application. You are required to create a new class that raises a large number of events and keep memory usage of the class as low as possible. This task must be accomplished using the minimum amount of code possible.

What should you do?

- A. One instance of the EventHandlerList class should be used to store the delegate defined for each event in the class
- B. One instance of the EventInstance class should be used for each event in the class
- C. The EventBuilder class should be used to define the events for the class
- D. One member variable per event delegate should be created per event delegate instance in the class

Answer: A

Explanation: The best option in this scenario would be to make use of the EventHandlerList class since the number of events is large and this method provides a memory efficient mechanism for storing a list of delegates.

Incorrect Answers:

B: This method is used for representing information for an event log entry.

C: This method is used for defining events for a dynamically generated class and in the scenario the class is not dynamically generated.

D: This method should not be used as it is not a memory efficient solution which is what is required of you.

QUESTION 124

You work as the application developer at Certkiller .com. You are developing a .NET Framework 2.0 Windows Service application named TestScannerSync that will be used to constantly monitor for a scanner to be connected to the computer. The TestScannerSync class inherits its functionality from the ServiceBase class. When you connect a scanner the service synchronizes its data with the data in a SQL Server database.

You decide to override the OnStop method in the TestScannerSync class and write code to close database connections. You are required to identify a place in the code where you can open the connection to the database.

What should you do?

A. The database connection is opened in the constructor of TestScannerSync class

B. The database connection is opened in the OnContinue method of TestScannerSync class

C. The database connection is opened in the OnStart method of the TestScannerSync class

D. The database connection is opened in the OnPowerEvent method of the TestScannerSync class

Answer: C

Explanation: The constructor for a service class derived from ServiceBase is called the first time you call Start on the service, the OnStart command-handling method is called immediately after the constructor executes.

Incorrect Answers:

A: The constructor is the incorrect choice as this is only called upon once and not again.

B: This method should not be used as this code will be executed when a Continue command is sent to a service in a paused state.

D: This method should not be considered as this method will execute when the computer's power state has changed.

QUESTION 125

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing an application that will be used to connect and control the behavior of existing services installed on a network server named Certkiller -SR01.

What should you do?

- A. Use the MachineName and ServiceName properties of the ServiceController class.
- B. Use the Site property of the ServiceController class.
- C. Use the Site property of the ServiceInstaller class.
- D. Use the ServiceName and DisplayName properties of the ServiceInstaller class.

Answer: A

Explanation: The proper way to connect and control the behavior of existing services is by using the ServiceController class after which you are required to set two properties on it to identify the service to interact with. The MachineName property is used to define the computer Certkiller -SR01.

Incorrect Answers:

B, C: The Site property of the ServiceController and ServiceInstaller class should not be used because they bind a component to a container and enables communication between them.

D: This property should not be used as it is meant to specify the name of the service at the time of installation. The DisplayName property is used to specify the friendly name of the service at the time of installation.

QUESTION 126

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a Windows Service application that consists of two Services. The first service monitors a directory for new orders while the other service replicates a database table with up-to-date information. You are required to develop a project installer class to install these services.

What should you do? (Choose two)

- A. One ServiceProcessInstaller instance must be Instantiate and add it to the project installer class
- B. Two ServiceInstaller instances must be Instantiate and add them to the project installer class
- C. Two ServiceProcessInstaller instances must be Instantiate and add them to the project installer class
- D. One ComponentInstaller instance must be Instantiate and add them to the project installer class
- E. Two ComponentInstaller instances must be Instantiate and add them to the project installer class
- F. One ServiceInstaller instance must be Instantiate and add them to the project installer class

Answer: A, B

Explanation: The proper way to do what the scenario requires of you would be to create one ServiceProcessInstaller instance per service application and one

ServiceInstaller instance for each service in the application which have to be Instantiate.

Incorrect Answers:

C, F: You must create one ServiceProcessInstaller instance per service application and one ServiceInstaller instance for each service in the application which have to be Instantiate.

D, E: The ComponentInstaller class should not be considered for use as this class is an abstract class that can not be Instantiate.

QUESTION 127

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a Windows Service application. You need to change the security context in which the service runs. The service will be run in context of a non-privileged user on the local computer and present anonymous credentials to any remote server.

You are required to set the Account property of the ServiceProcessInstaller class to specify the service account.

What should you do?

- A. Use ServiceAccount.User.
- B. Use ServiceAccount.LocalService.
- C. Use ServiceAccount.LocalSystem.
- D. Use ServiceAccount.NetworkService.

Answer: B

Explanation: The proper way to complete the operation is to use the ServiceAccount.LocalService as the value of the Account property of the ServiceProcessInstaller class, setting this value will run the service in context of the non-privileged user on the local computer.

Incorrect Answers:

A: This method should not be used as you will be specifying the service to run in the security context of a specified user account.

C: This method should not be considered as you will run the service in the security context of a highly privileged user account.

D: The scenario requires the service to run in the security context of a non-privileged user on the local system not the network.

QUESTION 128

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a Windows Service application which contains three different Windows services. You are required to only set one Windows service to start automatically when the system is restarted.

What should you do?

- A. Use the ServiceController class.
- B. Use the ServiceBase class.
- C. Use the ServiceProcessInstaller class.
- D. Use the ServiceInstaller class.

Answer: D

Explanation: The proper and best way to achieve the scenario would be to use the ServiceInstaller class, the StartType property of the ServiceInstaller class allows you to specify how and when a service is started.

Incorrect Answers:

- A: This method used here is incorrect as it can not be used to specify the start type of a Windows service.
- B: This method is the base type for all Windows services but does not allow you to specify the start type for a Windows service.
- C: This class should not be used because it has a method that affects all services in an executable.

QUESTION 129

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 Windows Service application and are busy writing the following installation code for the Windows service:

```
<RunInstallerAttribute(True)> Public Class TestServiceInstaller  
Implements Installer  
'Additional code to go here  
End Class
```

You are required to install the Windows service and write the values associated with the service in the Windows Registry.

What should you do?

- A. The Assembly Registration Tool (Regasm.exe) should be used.
- B. The Global Assembly Cache Tool (Gacutil.exe) should be used.
- C. The .NET Services Installation Tool (Regsvcs.exe) should be used.
- D. The Installer Tool (InstallUtil.exe) should be used.

Answer: D

Explanation: The InstallUtil.exe utility is the correct tool that should be used because it will install the classes in the specified assembly that derive from the installer class and have the RunInstallAttribute attribute set to True.

Incorrect Answers:

- A: This tool should not be used in the scenario as this tool registers .Net assemblies so that COM clients can access .NET classes.
- B: This tool should not be used as it is used to install and uninstall assemblies from the

global assembly cache.

C: This tool should not be considered for usage as the tool is used for installing classes for Enterprise Services.

QUESTION 130

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 Windows service application that is used to perform several short tasks that require background processing. You are not required to actively manage threads in your application but you are required to ensure that security checks are performed during the execution of the task.

What should you do?

- A. Use ThreadPool.queueUserWorkItem.
- B. Use ThreadPool.UnsafeQueueUserWorkItem.
- C. Use Thread.Resume.
- D. Use Thread.Start.

Answer: A

Explanation: The scenario requires several short tasks to be run which requires background processing. Using the ThreadPool class is ideal in this situation as the system manages the thread pool meaning you have less overhead involved.

Incorrect Answers:

B: This method should not be considered for use as the security check the scenario requires will not be performed.

C, D: This method should not be considered because the Thread class is useful for creating threads that run in the foreground that are actively managed.

QUESTION 131

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 Windows application and need to create a foreground thread to draw lines in your application. When the thread is started you must provide a data value that specifies the number of lines drawn.

What should you do? (Choose two)

- A. A WaitCallback delegate should be created
- B. A ThreadStart delegate should be created
- C. A ParameterizedThreadStart delegate should be created
- D. The ThreadStart method should be called
- E. The ThreadPool.QueueUserWorkItem method should be called

Answer: C, D

Explanation: The first order of operations would be to create a

ParameterizedThreadStart delegate then use the ThreadStart method to start the thread. The ThreadStart method can be used to create actively managed foreground threads. The Parameterized ThreadStart delegate allows the passing of data when starting a thread.

Incorrect Answers:

A: This method should not be used as this method is for executing in a background thread that is part of a thread pool.

B: The ThreadStart delegate should not be used because you first need to pass parameters when starting a thread.

E: The method in this option should not be used because this method is used to create system managed background threads.

QUESTION 132

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 Windows Service application. You write the following code:

```
Dim ckTimer As Timer = New Timer(statusDelegate, Nothing, 1000, 250)
```

You already correctly defined the delegate statusDelegate and are required to modify the code to start so that the callback method is not invoked periodically. What should you do?

- A. Dim ckTimer As Timer = New Timer(statusDelegate, Nothing, Timeout.Infinite, 0)
- B. Dim teTimer As Timer = New Timer(statusDelegate, Nothing, 0, 32767)
- C. Dim teTimer As Timer = New Timer(statusDelegate, Nothing, Timeout.Infinite, 250)
- D. Dim teTimer As Timer = New Timer(statusDelegate, Nothing, 1000, Timeout.Infinite)

Answer: D

Explanation: This is the correct method if you do not want the callback method to be called periodically, the second last parameter is used to specify when the timer must fire for the first time whilst the last parameter indicates the interval for the callback method.

Incorrect Answers:

A, B, C: The methods in question in the options here should not be used as one option will try the callback method after 32767 milliseconds and the other option has a value of infinite meaning the callback is never invoked and the timer is disabled.

QUESTION 133

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a graphics application. You create a Point class with two Integer fields as shown in the exhibit.

Class Point

```
Dim x, y As Integer
```

```
Public Sub New(ByVal x As Integer, ByVal y As Integer)
```

```
Me.x = x
Me.y = y
End Sub
End Class
```

You are required to write a method named GetPointPosition that will be used to provide read access to the two Integer fields in the class. You must also permit read access to multiple threads at the same time whilst your solution results in fast response time and high throughput.

What should you do?

```
A. Private rwlock As ReaderWriterLock
Public Sub GetPointPosition(ByRef x As Integer, ByRef y As Integer)
    rwlock.AcquireReaderLock(Timeout.Infinite)
    Try
        x = Me.x
        y = Me.y
    Finally
        rwlock.ReleaseReaderLock()
    End Try
End Sub

B. Public Sub GetPointPosition(ByRef X As Integer, ByRef y As Integer)
    SyncLock (Me)
        x = Me.x
        y = Me.y
    End SyncLock
End Sub

C. Public Sub GetPointPosition(ByRef x As Integer, ByRef y As Integer)
    Dim lockAcquired As Boolean
    lockAcquired = Monitor.TryEnter(Me, 2000)
    If (lockAcquired) Then
        Try
            x = Me.x
            y = Me.y
        Finally
            Monitor.Exit(Me)
        End Try
    End If
End Sub

D. Public Sub GetPointPosition(ByRef x As Integer, ByRef y As Integer)
    Monitor.Enter(Me)
    Try
        x = Me.x
        y = Me.y
    Finally
        Monitor.Exit(Me)
    End Try
```

End Sub

Answer: A

Explanation: The method chosen in the scenario allows you to design a synchronization scheme that employs shared locks together with exclusive locks making it possible to access multiple reader threads at the same time.

Incorrect Answers:

B, C, D: The other methods in questions should not be used as they all have an exclusive locking mechanism which does not take into consideration that not all threads are readers or writers.

QUESTION 134

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 application class library. You make use of a custom class named TestResource in the application, you create two instances of the TestResource class as shown in the exhibit.

Dim CK1 , CK2 As TestResource

'Additional code goes here

You want object CK2 to be assigned to object CK1 if the value of the CK1 object is Nothing. The code may be shared by multiple threads. You are required to write code that is thread-safe and provides the best performance.

What should you do?

A. System.Threading.Monitor.TryEnter(Me)

If (CK1 Is Nothing) Then CK1 = CK2

System.Threading.Monitor.Exit(Me)

B. System.Threading.Interlocked.Exchange(CK1 , CK2)

C. If (CK1 Is Nothing) Then

SyncLock (Me)

If (CK1 Is Nothing) Then CK1 = CK2

End SyncLock

End If

D. System.Threading.Interlocked.CompareExchange(CK1 , CK2 , Nothing)

Answer: D

Explanation: The statement used in the answer should be used because the statement performs two operations comparison and exchange. The value of the first operand with the third operand if there is a match the first operand replaces the second operand.

Incorrect Answers:

A, C: This method should not be used in the scenario because it makes use of two atomic operations comparison and exchange whereas the CompareExchange method uses just one.

B: This statement should not be considered for usage as the first operand will always replace the second operand.

QUESTION 135

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 Windows Service application that will be used on a multiprocessor system. You are writing code for a class that contains globally accessible Integer variable named Testcounter. The value of the Testcounter will be incremented or decremented from other classes running in separate threads.

You are required to provide atomic and non-blocking updates for the Testcounter whilst your solution provides the best performance.

What should you do?

- A. The Interlocked class should be used
- B. The Overlapped class should be used
- C. The SynchronizationContext class should be used
- D. The SyncLock statement should be used

Answer: A

Explanation: For this particular scenario the Interlocked class is ideal because you are required to provide atomic and non-blocking updates for a data item.

Incorrect Answers:

B: This option should not be used in the scenario because it is used to transfer information to Win32 API functions.

C: This operation should not be used as you will not be providing atomic and non-blocking updates.

D: This option should not be used as it does not offer atomic operations and offers inferior performance compared to the Interlocked class.

QUESTION 136

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 Windows Service application. You are required to synchronize execution of some resources across multiple processes.

What should you do?

- A. Use the Mutex class.
- B. Use the Interlocked class.
- C. Use the Monitor class.
- D. Use the ReaderWriterLock class.

Answer: A

Explanation: The Mutex class can be used for the synchronization of thread execution across multiple processes.

Incorrect Answers:

B, C, D: The classes in question in these options can not be used in the scenario because they can only be used within a single process.

QUESTION 137

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 graphics application and are busy writing a Point class with two Integer fields shown below:

Class Point

Dim x, y As Integer

Public Sub New(ByVal x As Integer, ByVal y As Integer)

Me.x = x

Me.y = y

End Sub

'Additional code goes here

End Class

You are required to write a method named GetPointPosition that will be used to provide read access to the two Integer fields in the class and prevent inconsistent reads where another reader thread would be able to see a Point object at an invalid position. The Point class makes use of additional code that other applications may use over which you have no control. You must ensure you protect your code against deadlocks.

What should you do?

A. Public Sub GetPointPosition(ByRef x As Integer, ByRef y As Integer)

Dim lockAcquired As Boolean

lockAcquired = Monitor.TryEnter(Me, 2000)

If (lockAcquired) Then

Try

x = Me.x

y = Me.y

Finally

Monitor.Exit(Me)

End Try

End If

End Sub

B. Public Sub GetPointPosition(ByRef x As Integer, ByRef y As Integer)

Monitor.Enter(Me)

Try

x = Me.x

y = Me.y

Catch

Monitor.Exit(Me)

```
End Try
End Sub
C. Public Sub GetPointPosition(ByRef x As Integer, ByRef y As Integer)
Synclock (Me)
x = Me.x
y = Me.y
End SyncLock
End Sub
D. Public Sub GetPointPosition(ByRef x As Integer, ByVal y As Integer)
Monitor.Enter(Me)
Try
x = Me.x
y = Me.y
Finally
Monitor.Exit(Me)
End Try
End Sub
```

Answer: A

Explanation: To have your code protected from being deadlocked you should avoid using the SyncLock statement and replace calls to Monitor.Enter with calls to Monitor.TryEnter.

QUESTION 138

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 application that uses the CreateDomain method of the AppDomain class to create an application domain. You are required to set the following properties for the new application domain:

- * Root directory
- * Location of the configuration file
- * Search path that the Common Language Runtime uses to load the assemblies into the domain

You must ensure that these properties values are passed to the CreateDomain method.

What should you do?

- A. Pass an AppDomainFactory object as a parameter to the CreateDomain method.
- B. Pass an AppDomainIsolatedTask object as a parameter to the CreateDomain method.
- C. Pass an AppDomainHelper object as a parameter to the CreateDomain method.
- D. Pass an AppDomainSetup object as a parameter to the CreateDomain method.

Answer: D

Explanation: The correct method for achieving your scenario objective is to pass an

AppDomainSetup object as parameter to the CreateDomain method. The AppDomainSetup object is used to allow you to specify the root directory and required.

Incorrect Answers:

A: This method is used to create a new AppDomain instance for the Web applications and can not be used to specify setup information for an application domain.

B: The method in question here can be used to create build tasks that can be instantiated in their own application domain but can not be used to specify setup information.

C: This method should not be used in the scenario as it switches into the given application domain and does a callback on the given function and can not be used to specify setup information.

QUESTION 139

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 application that will be used for geographical mapping. Whenever you load a plug-in you create a separate application domain. You want to specify a list of directories that are searched for private assemblies. You are required to add the application's base directory as part of your search and need to configure an application domain to meet the requirements.

What should you do?

A. The AppDomainSetup.PrivateBinPathProbe property should be used.

B. The AppDomain.BaseDirectory property should be used.

C. The AppDomain.DynamicDirectory property should be used.

D. The AppDomainSetup.PrivateBinPath property should be used.

Answer: D

Explanation: The method used in the answer is used to specify a list of directories under the application's base directory that are probed for private assemblies. This property must be set to specify the locations that should be searched.

Incorrect Answers:

A: This property is set to a non-empty value and excludes the ApplicationBase from the searches and should not be used.

B: This method only specifies the base directory for the application domain and does not specify all the different locations to be searched for private assemblies.

C: This property is used to get the directory that the assembly resolver uses to probe for dynamically created assemblies and is a read-only assembly.

QUESTION 140

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 application class library and decide to use the AppDomainSetup class to create an application domain. You are required to

create an instance of a type named BillSpace.BillType. You are additionally required to configure the new application domain so that it probes for the assembly containing the type in a specified directory.

What should you do?

- A. The ApplicationBase property of the AppDomainSetup class should be used.
- B. The ActivationArguments property of the AppDomainSetup class should be used.
- C. The CachePath property of the AppDomainSetup class should be used.
- D. The AppDomainInitializerArguments property of the AppDomainSetup class should be used.

Answer: A

Explanation: It is possible to provide the common language runtime with configuration information for a new application domain using the AppDomainSetup class. The most important property is the ApplicationBase when creating your own application domains which is used to define the root directory of the application.

Incorrect Answers:

- B: This method is incorrect and should not be used because it sets or gets data about activation of an application domain.
- C: This method is incorrect and should not be used because it sets or gets the name of an area specific to the application where files are shadow copied.
- D: This method is incorrect and should not be used because it sets or gets AppDomainInitializer delegate which represents a callback method.

QUESTION 141

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 system utility application and are required to write some code that allows you to examine assemblies compiled for other platforms of the .NET Framework. You create a new application domain and load assemblies into it. You are required to ensure that code loaded into this context can be examined but not executed. You know the path name of the file containing the assembly but you do not know the name of the assembly.

What should you do?

- A. The Assembly.ReflectionOnlyLoadFrom method should be used.
- B. The Assembly.LoadFrom method should be used.
- C. The Assembly.ReflectionOnlyLoad method should be used.
- D. The Assembly.Load method should have been used.

Answer: A

Explanation: The correct method for what is required would be to use the reflection-only load context because this allows you to only examine the assembly and not execute it.

Incorrect Answers:

B, D: These methods should not be considered for usage because the methods allow you to execute code and create objects.

C: The method in question should not be considered for usage when you only know the path name to where the assembly resides.

QUESTION 142

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 Web application. You need to access the configuration data for the application. You do not need read-only access to the configuration data whilst your solution provides the maximum performance. What should you do?

- A. The GetSection method of the Configuration class should be used
- B. The GetSection method of the ConfigurationManager class should be used
- C. The GetSectionGroup method of the Configuration class should be used
- D. The GetSection method of the WebConfigurationManager class should be used

Answer: D

Explanation: The configuration class in question is designed to programmatically access configuration information for Web applications. The GetSection static method retrieves the cached configuration information.

Incorrect Answers:

A: The method in question does allow programmatic access to all configuration files but it does not cache configuration values for the current application.

B: This should be avoided at all costs as it is best suited for retrieving information for Windows client applications.

C: This method is used to only retrieve specific section groups from the configuration object similar to the GetSection method.

QUESTION 143

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 Web application and are busy creating a Configuration object in your application that inherits settings from the applications' web.config file and machine.config file. You modify several of the Configuration objects settings and want to save the Configuration object to a file named testconf.config. You require only the values that differ from the inherited values to be written to the configuration file.

What should you do? (Choose two)

- A. The Save method on the Configuration object should be called
- B. The ConfigurationSaveMode.Full value must be passed as a parameter
- C. The ConfigurationSaveMode.Modified value must be passed as a parameter

- D. The SaveAs method on the Configuration object should be called
- E. The ConfigurationSaveMode.Minimal value should be passed as a parameter

Answer: C, D

Explanation: When you are required to write configuration settings to a different file the SaveAs method should be called. If you wish to write only values which differ from inherited values the ConfigurationSaveMode.Minimal value should be passed as a parameter.

Incorrect Answers:

A: This method is used to have the SaveAs method to save all the values to the configuration file that you specified in the scenario.

B: This method is used to have the SaveAs method to only the modified values to the configuration file that you specified in the scenario.

QUESTION 144

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 Web application. You are required to extend the standard configuration setting by adding a custom configuration section using the following class:

```
Public Class ConfigHandler
Public Sub New()
End Sub
End Class
```

You are required to ensure that the class ConfigHandler allows reading and writing to the custom configuration section whilst providing strongly typed access to the custom configuration elements.

What should you do?

- A. The ConfigHandler class must be inherited from the ConfigurationSection class.
- B. The ISettingsProviderService interface must be implemented in the ConfigHandler class.
- C. The IConfigurationSectionHandler interface must be implemented in the ConfigHandler class.
- D. The IApplicationSettingsProvider interface must be implemented in the ConfigHandler class.

Answer: A

Explanation: The ConfigurationSection is a new class in .NET Framework 2.0 which should be used as it allows you to read and write custom configuration sections. The method in the answer also provides strongly typed access to the custom configuration sections.

Incorrect Answers:

B: This method is used to provide support for specific application settings that are

required by the design-time tools and will not help in the scenario.

C: This is an old method of working with custom configuration sections and does not provide the required strongly typed access.

D: This method is only use full when it comes to Windows client applications and you are busy with a Web application.

QUESTION 145

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are in the process of maintaining a .NET Framework 1.0 Windows application and need to configure the application to run using the .NET Framework 1.1. The network computers of Certkiller .com all have three versions of .NET Framework (version 1.0, 1.1, and 2.0 installed side-by-side. You are required to modify the application configuration file to target the .NET Framework 1.1 runtime.

What should you do?

A. <configuration>

<startup>

<supportedRuntime version="v2.0.50727"/>

<supportedRuntime version="v1.1.4322"/>

<supportedRuntime version="v1.0.3705"/>

</startup>

</configuration>

B. <configuration>

<startup>

<supportedRuntime version="v1.1.4322"/>

<supportedRuntime version="v1.0.3705"/>

</startup>

</configuration>

C. <configuration>

<startup>

<requiredRuntime version="v1.1.4322"/>

</startup>

</configuration>

D. <configuration>

<startup>

<supportedRuntime version="v1.1.4322"/>

</startup>

</configuration>

Answer: D

Explanation:

To have your applications run under the required runtime in the scenario you should use the configuration section provided in the answer, this is the only correct method.

Incorrect Answers:

A: The method you are trying to use here is incorrect as you would be executing against .NET Framework v2.0.

B: The method you are trying to use here is incorrect as you would be executing against .NET Framework v1.1.

C: This method is used to indicate that the application only supports .Net Framework v1.0 and should not be used in the scenario.

QUESTION 146

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 Windows application that will make use of an assembly named BillAssembly. The assembly file BillAssembly.dll is deployed in a folder named Test20 under the application root directory. The BillAssembly assembly was not strongly named

You are required to configure the Windows application to specify the location of the BillAssembly assembly whilst any settings that you change not affect other applications installed on the system.

What should you do?

A. The application configuration file must be modified to add the following setting to the <assemblyBinding> section:

<probing privatePath="Test20\BillAssembly.dll"/>

B. The machine configuration file should be modified to add the following setting to the <assemblyBinding> section:

<codeBase href="Test20"/>

C. The machine configuration file must be modified to add the following setting to the <assemblyBinding> section for the BillAssembly assembly:

<codeBase href="Test20/BillAssembly.dll"/>

D. The application configuration file should be modified to add the following section to the <assemblyBinding> section:

<probing privatePath="Test20"/>

Answer: D

Explanation: Since the BillAssembly assembly is not strongly named the configuration will have to be made at the local level by making use of the application configuration files as is the case in the scenario.

Incorrect Answers:

A, B: The modification of the machine configuration file is incorrect as the assembly in question does not have a unique identity and should not be used.

C: The path here is incorrect since you only need point to the Test20 path in the scenario.

QUESTION 147

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 application and are busy developing the shared assembly called BillSharedObjects which resides in a file named BillSharedObjects.dll, upon compiling you store the assembly in the C:\BillSharedObjects\Debug directory. You do not want the assembly to be repeatedly installed in the global assembly cache while you develop and debug. You want the application to load the assembly from its current location by .Net Framework when testing whilst any changes made to the system not affect any other applications that are deployed or will be deployed. What should you do? (Choose two)

- A. C:\SharedObjects\Debug must be put in the PATHEXT environment variable
- B. C:\SharedObjects\Debug must be put in the PATH environment variable
- C. C:\SharedObjects\Debug must be put in the DEVPATH environment variable
- D. The following code should be added to the application configuration file:

```
<configuration>
<runtime>
<assemblyBinding xmlns="urn:schemas-microsoft-com:asm.v1">
<probing privatePath="c:\SharedObjects\Debug"/>
</assemblyBinding>
</runtime>
</configuration>
```

- E. The following code should be added to the machine configuration file:

```
<configuration>
<runtime>
<assemblyBinding xmlns="urn:schemas-microsoft-com:asm.v1">
<dependantAssembly>
<assemblyIdentity name="BillSharedObjects"
publicKeyToken="12ac3ab67e0a34b5"
culture="en-us"/>
<codeBase version="2.0.0.0"
href="BillSharedObjects\Debug"/>
</dependantAssembly>
</assemblyBinding>
</runtime>
</configuration>
```

- F. The following code should be added to the machine configuration file:

```
<configuration>
<runtime>
<developmentMode developerInstallation="true"/>
</runtime>
</configuration>
```

Answer: C F

Explanation:

In order for you to achieve the scenario objective you must use the

<developmentMode> element and set the developerInstallation attribute to "true" this will let .NET Framework search for assemblies in the DEVPATH environment variable.

Incorrect Answers:

A, B: This method is incorrect as these environment variables are used by Windows and are not used by .NET Framework.

D, E: The usage of the <codeBase> and <probing> elements are incorrect as the one is useful for specifying the search path for private assemblies and the other will affect settings of applications that are already deployed.

QUESTION 148

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 Windows service application that has three distinct Windows services. You create a custom installation class named BillAppInstaller which derives from the Installer class. Within the class you decide to customize installation for each Windows service by using the ServiceInstaller objects and add them to the installer collection below:

```
Installers.Add(serviceInstaller1)
```

```
Installers.Add(serviceInstaller2)
```

```
Installers.Add(serviceInstaller3)
```

You later compile the class and store in a file named BillAppInstaller.dll. You are required to programmatically access and install the Windows services in the BillAppInstaller.dll file.

What should you do?

- A. Use the ManagedInstallerClass class.
- B. Use the ComponentInstaller class.
- C. Use the InstallContext class.
- D. Use the AssemblyInstaller class.

Answer: D

Explanation: The AssemblyInstaller class should be used in the scenario because the AssemblyInstaller class is capable of loading available installers in an assembly and install them.

Incorrect Answers:

A: This class should not be used in the scenario as this is not for the .NET Framework internal use.

B: This method is used to install components such as event logs and performance counters and should not be used in the scenario.

C: This class should not be used because by itself the class can not help install the installers in an assembly.

QUESTION 149

You work as the application developer at Certkiller .com. Certkiller .com uses Visual

Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 Remoting application with the name of your class BillType and the name of the assembly TestAssembly which will be accessed using the Transmission Control Protocol (TCP) at port 1234. You are required to expose BillType as a server-activated object for remote access whilst you must use a configuration file to register the remote object.

What should you do?

A. <configuration>

<system.runtime.remoting>

<application>

<service>

<activated type = "BillType, TestAssembly"/>

</service>

</application>

</system.runtime.remoting>

</configuration>

B. <configuration>

<system.runtime.remoting>

<application>

<client url="tcp://localhost:1234/BillType.rem">

<activated type ="BillType, TestAssembly"/>

</client>

</application>

</system.runtime.remoting>

</configuration>

C. <configuration>

<system.runtime.remoting>

<application>

<service>

<wellknown mode = "Singleton"

type ="BillType, TestAssembly"

objectUri="BillType.rem"

/>

</service>

</application>

</system.runtime.remoting>

</configuration>

D. <configuration>

<system.runtime.remoting>

<application>

<client>

<wellknown type="BillType, TestAssembly"

url="tcp://localhost:1234/BillType.rem"

/>

</client>

```
</application>  
</system.runtime.remoting>  
</configuration>
```

Answer: C

Explanation: In order to successfully set up an object for remote access the configuration used in the answer is the proper method if you want the object to be activated as a server object.

Incorrect Answers:

A, B, D: The usage of the <client> element is incorrect as this will be used to configure a program that will consume the remote object and in the scenario you must expose an object for remote access.

QUESTION 150

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 application for Certkiller .com. You complete the application but as soon as Certkiller .com users attempt to log on to the application the application fails. You need to have an entry written to the Windows event log. When you look at the event log viewer you want the source of the events to be listed as TestApp. You are required to create an event source that can be used to write entries to the event log.

What should you do?

- A. If Not EventLog.SourceExists("TestApp") Then
EventLog.CreateEventSource("TestApp", "Application")
End If
- B. EventLog.LogNameFromSourceName("TestApp", "Application")
- C. EventLog.LogNameFromSourceName("TestApp", "Security")
- D. If Not EventLog.SourceExists("TestApp") Then
EventLog.CreateEventSource("TestApp", "Security")
End If

Answer: A

Explanation: The code that is used in the answer is the proper code that should be used to create entries into the Application event log.

Incorrect Answers:

B, C, D: The other methods that are used are not correct because the security log is read-only and furthermore the LogNameSourceName method returns the name of an event log for the given event and does not help in creating an event source.

QUESTION 151

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 application that will be used to capture application errors like failure to send e-mail messages are logged in the Windows event log. You are required to write only non-localized string messages to the event log. You already previously wrote the event source and need to write code to create an entry in the error log.
What should you do?

- A. Dim failedEvent As EventInstance = New EventInstance(1001, 0, EventLogEntryType.Error)
Dim messageStrings As Strings() = {"Process1", "Value1"}
myEventLog.WriteEvent(failedEvent, messageStrings)
- B. Dim messageStrings As String() = {"Process1", "Value1"}
myEventLog.WriteEntry(String.Join(", ", messageStrings), EventLogEntryType.FailureAudit)
- C. Dim failedEvent As EventInstance = New EventInstance(1001, 0, EventLogEntryType.FailureAudit)
Dim messageStrings As String() = {"Process1", "Value1"}
myEventLog.WriteEvent(failedEvent, messageStrings)
- D. Dim messageStrings As String() = {"Process1", "Value1"}
meEventLog.WriteEntry(String.Join(", ", messageStrings), EventLogEntryType.Error)

Answer: D

Explanation: The WriteEntry method of the EventLog class should be used in the scenario as this method is used to write the localized messages to the event log. The usage of the EventLogEntryType.Error value as a parameter is the proper way to use the WriteEntry method.

Incorrect Answers:

A, B, C: The other methods in question are not correct as you would be auditing and you are required to write to the error log of the Windows event log and should not be considered to use.

QUESTION 152

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 Windows application named TestAnalyzer.exe that will be used to monitor the Application event log of the local computer to find if any new events are generated by another application named BillNotify.exe which runs on the local computer named Certkiller -WS11. Whenever a new event log entry is recorded the application must invoke the applicationLog_EntryWritten method in response.

You write the code below for the notification of new event log entries:

```
Dim applicationLog As EventLog = New EventLog("Application", ".")  
AddHandler applicationLog.EntryWritten, AddressOf  
applicationLog_EntryWritten
```

When you test the application you discover that there are no notifications

generated. You are required to ensure that you are notified of a new event log entries.

What should you do?

- A. The applicationLog.EnableRaisingEvents property must be set to True
- B. The applicationLog.Log property must be set to BillNotify.exe
- C. The applicationLog.MachineName property must be set to Certkiller -WS11
- D. The applicationLog.EnableRaisingEvents property must be set to False

Answer: A

Explanation: The EnableRaisingEvents property of the applicationLog object must be set to true if you want to be notified whenever new entries have been written to the specified event log.

Incorrect Answers:

B: This method is incorrect as the Log property should be used to specify the name of the event log.

C: This is incorrect as this is a redundant operation and the EventLog object is already pointing to Certkiller -WS11.

D: This step is almost what you require but the property of the EnableRaisingEvents should be set to True.

QUESTION 153

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 application that will be used for publishing its own custom performance counter. You additionally require the value of a performance counter to increase by 5 and must minimize the amount of code needed to write.

What should you do?

- A. Use the NextValue method.
- B. Use the Decrement method.
- C. Use the Increment method.
- D. Use the IncrementBy method.

Answer: D

Explanation: To have the value of a counter decreased by the desired amount the best choice of method requiring the least amount of code would be the IncrementBy method.

Incorrect Answers:

A: This is the code used to return the value of the counter and should not be used in the scenario.

B: The method is used if you want to have the value decreased and in the scenario an increase is needed.

C: This method is used to only increase the value of the counter by one and should not be used.

QUESTION 154

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 time management application that requires opening a file named BillTimeManagement.xls programmatically. All the client computers are equipped with Microsoft Office and file associations have not been modified after installation of the software. You are required to create a ProcessStartInfo object to provide file details to open the file.

What should you do?

- A. Dim psi As ProcessStartInfo = New ProcessStartInfo("BillTimeManagement.xls", "Excel")
- B. Dim psi As ProcessStartInfo = New ProcessStartInfo("Excel BillTimeManagement.xls")
- C. Dim psi As ProcessStartInfo = New ProcessStartInfo("Excel", "BillTimeManagement.xls")
- D. Dim psi As ProcessStartInfo = New ProcessStartInfo("BillTimeManagement.xls")

Answer: D

Explanation: To successfully complete your objective you should use the ProcessStartInfo class that is used to specify an application file name with which the process should start.

Incorrect Answers:

- A: This option should not be used because BillTimeManagement the file to be opened would be used as a command line argument.
- B: This method should not be used as the file name Excel BillTime Management.xls will be treated as the file name in the scenario.
- C: This option should not be considered for use as Excel would be the file name and BillTimeManagement would be a command line argument

QUESTION 155

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 Windows application that provides a user interface similar to Microsoft Excel and allows users to manage their expenses. You recently wrote a wrapper around the expense management application which performs security checks. If the users have the sufficient rights the wrapper application launches the expense management application, if no sufficient rights the application should be forced to close. You must decide which method of the Process class to use.

What should you do?

- A. Use the Kill method.
- B. Use the Close method.
- C. Use the Dispose method.
- D. Use the CloseMainWindows method.

Answer: A

Explanation: To successfully have an application forcefully close or shutdown the Kill method should be used as it forces an immediate termination of the process.

Incorrect Answers:

B: This method should not be used as the Close method is used to free resources associated with the application process.

C: This method should not be used in the scenario as it is generally used to implement cleaning of unmanaged resources.

D: This method should not be used as this method requests that the application be closed and we require closing the application forcefully.

QUESTION 156

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 Windows application that has the following configuration settings.

```
<system.diagnostics>
<switches>
<add name="BooleanSwitch" value="1"/>
<add name="TraceLevelSwitch" value="1"/>
</switches>
</system.diagnostics>
```

You started coding your Windows application further by creating switch objects using the following statements:

```
Dim bs As Boolean Switch = New BooleanSwitch("BooleanSwitch", "Boolean Switch")
```

```
Dim ts As TraceSwitch = New TraceSwitch("TraceLevelSwitch", "Trace Switch")
```

You are required to select what the outcome would be of executing the command s in the scenario.

What should you do? (Choose two)

- A. The TraceLevelSwitch switch objects trace level is set to TraceLevel.Info.
- B. The BooleanSwitch switch object is disabled.
- C. The TraceLevelSwitch switch objects trace level is set to TraceLevel.Warning.
- D. The BooleanSwitch switch object is enabled.
- E. The TraceLevelSwitch switch objects trace level is set to TraceLevel.Error.

Answer: D, E

Explanation: The Boolean objects can be considered to be either On or Off. The value 0 corresponds to being off whereas a non-zero value indicates the objects are On.

Incorrect Answers:

A, C: The usage of the TraceSwitch class is used to provide different levels of tracing switches which are defined by the enumeration as Off -0, Error -1, Warning -2, Info -3 and Verbose -4.

B: The value 1 will have the BooleanSwitch object enabled and a value of 1 will set the TraceLevelSwitch objects to have a trace level to TraceLevel.Error.

QUESTION 157

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 application and write the following code in your Bill program:

```
Dim logFile As Stream = File.Create("C:\BillLogFile.txt")
Dim txtl As TextWriterTraceListner = New TextWriterTraceListner(logFile)
Trace.Listners.Add(txtl)
Trace.WriteLine("Bill Message 1")
Debug.WriteLine("Bill Message 2")
Trace.Flush()
```

You need to know what output will be generated in the C:\BillLogFile.txt file when you run the Bill program in debug mode.

What should you do?

- A. Bill Message 1
- B. Bill Message 2
- C. The C:\BillLogFile.txt file is empty
- D. Bill Message 1
Bill Message 2

Answer: D

Explanation: The program if run in debug mode both the Trace and Debug statements will be executed as their object is sent to the listener object.

Incorrect Answers:

A, B, C: The other mentioned methods are all incorrect because if you run the application in debug mode both the Tracer and Debug statements will be executed.

QUESTION 158

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 console application that will be used to enumerate all disk drives on the local computer and list their drive letter and available free space. You are required to make use of the functionality in the System.Management namespace to accomplish the task.

What should you do?

```
A. Dim tQuery As SelectQuery = New SelectQuery ("Win32_LogicalDisk")
Dim moSearch As ManagementObjectSearcher = New
ManagementObjectSearcher(tQuery)
For Each mo As ManagementObject In moSearch.Get()
Console.WriteLine("Drive {0}, Free Space {1}", mo("DeviceID"),
mo("NumberOfBlocks"))
Next
B. Dim tQuery As SelectQuery = New SelectQuery ("Select *from Win32_LogicalDisk")
Dim moSearch As ManagementObjectSearcher = New ManagementObject
Searcher(tQuery)
For Each mo As ManagementObject In moSearch.Get()
Console.WriteLine("Drive {0}, Free Space {1}", mo("DeviceID"),
mo("NumberOfBlocks"))
Next
C. Dim tQuery As SelectQuery = New SelectQuery ("Select *from Win32_LogicalDisk")
Dim moSearch As ManagementObjectSearcher = New ManagementObject
Searcher(tQuery)
For Each mo As ManagementObject In moSearch.Get()
Console.WriteLine("Drive {0}, FreeSpace {1}", mo("Name"), mo("FreeSpace"))
Next
D. Dim tQuery As SelectQuery = New SelectQuery ("Win32_LogicalDisk")
Dim moSearch As ManagementObjectSearcher = New
ManagementObjectSearcher(tQuery)
For Each mo As ManagementObject In moSearch.Get()
Console.WriteLine("Drive {0}, FreeSpace {1}", mo("Name"), mo("FreeSpace"))
Next
```

Answer: D

Explanation: The correct way to have your code display what is required in the scenario would be to write the code specified in the answer this will list the drive letters and available free space.

Incorrect Answers:

A, B, C: The usage of the Win32_LogicalDisk management object is incorrect as this will not return the drive letter and furthermore the usage of the NumberOfBlocks property should not be used because it will return the block size of each disk rather than the free space.

QUESTION 159

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 Windows application. You require finding the current IP address of the local computer and need to create a SelectQuery object in your application that enables the retrieval of the current IP

address.

What should you do?

- A. Dim tQuery As SelectQuery = New SelectQuery ("SELECT IPAddress FROM _Win32_NetworkAdapterConfiguration ")
- B. Dim tQuery As SelectQuery = New SelectQuery ("SELECT IPXAddress FROM _Win32_NetworkAdapterConfiguration")
- C. Dim tQuery As SelectQuery = New SelectQuery ("SELECT NetworkAddress FROM _Win32_NetworkAdapter")
- D. Dim tQuery As SelectQuery = New SelectQuery ("SELECT MacAddress FROM _Win32_NetworkAdapter")

Answer: A

Explanation: The proper way to go in the scenario would be to query the Win32_NetworkAdapterConfiguration object as this property is associated with the network adapter configuration.

Incorrect Answers:

B: This method should not be used as there is no statement about an IPXAddress in the scenario.

C: This should not be used as it is an unimplemented method which returns nothing by default.

D: This method is used to return the machine address for a network adapter which is a unique 48-bit id assigned to the network card by the manufacturer.

QUESTION 160

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 Windows application. You are required to asynchronously monitor the creation of new Windows processes and write the following code:

```
Dim eQuery As WqlEventQuery = New  
WqlEventQuery("__InstanceCreationEvent", _  
New TimeSpan(0, 0, 5), "TargetInstance is a ""Win32_Process""")  
Dim meWatcher As ManagementEventWatcher = New ManagementEventWatcher()  
meWatcher.Query = eQuery
```

You are in the process of adding additional code for the asynchronous monitor to work and need to know which code segment to use.

What code segment should you use? (Each correct answer presents part of the solution. Choose TWO)

- A. meWatcher.Stop()
- B. Dim mObj As ManagementBaseObject = meWatcher.WaitForNextEvent()
- C. AddHandler meWatcher.EventArrived, AddressOf Process_Created
- D. meWatcher.Start()

Answer: C, D

Explanation: The correct method would be for you to start with using the Start method of the ManagementEventWatcher class to asynchronously monitor the creation of processes. In order for you to receive notifications an event handler should be added.

Incorrect Answers:

A: This is the correct method used to have the monitor stop monitoring events.

B: The usage of the method is used for waiting for when the events occur and leads to synchronous processing.

QUESTION 161

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 class library. You create the classes below:

Public Class Book

Public Name As String

End Class

Public Class Encyclopedia

Inherits Book

Public Volume As Integer

End Class

You are required to serialize the objects in the encyclopedia class to a disk file.

What should you do?

- A. The <Serializable> attribute should be added to the Book class and the <Serializable> attribute should be added to the Encyclopedia class
- B. The <Serializable> attribute should be added to the Book class only
- C. The <Serializable> attribute should be added to the Encyclopedia class only
- D. The <Serializable> attribute should be added to the Encyclopedia class and the <NonSerialized> attribute should be added to the Name field

Answer: A

Explanation: As the Serializable attribute is not inherited by the derived classes you should add the attribute to both classes in the scenario.

Incorrect Answers:

B, C: If you only marked one of the classes with the Serializable attribute you would not be capable of completing your scenario objective.

D: If you configured the application this way the program would return a runtime error, meaning this should not be used.

QUESTION 162

You work as the application developer at Certkiller .com. Certkiller .com uses Visual

Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 application and create the following class in the application:

Public Class Model

Public Name As String

End Class

You are required to deserialize the data in testmodel.xml in an object of the Model type. The contents of testmodel.xml are shown below, if you encounter unknown elements the method named Model_Unknown should be executed:

```
<?xml version="1.0" encoding="utf-8"?>
<Model xmlns:xsi="http://www. Certkiller .com/XMLSchema-instance"
xmlns:xsd="http://www. Certkiller .com/XMLSchema">
<Number>123</Number>
<Name>Model1</Name>
<Style>Business</Style>
<Size>Large</Size>
</Model>
```

What should you do?

A. Private Sub DeserializeModel(ByVal filename As String)

Dim xSerial As XmlSerializer = New XmlSerializer(GetType(Model))

AddHandler xSerial.UnknownElement, AddressOf Model_Unknown

Using fStream As FileStream = New FileStream(filename, FileMode.Open)

Dim testModel As Model = CType(xSerial.Deserialize(fStream), Model)

End Using

End Sub

B. Private Sub DeserializeModel(ByVal filename As String)

Dim xSerial As XmlSerializer = New XmlSerializer(GetType(Model))

Using fStream As FileStream = New FileStream(filename, FileMode.Open)

Dim testModel As Model = CType(xSerial.Deserialize(fStream), Model)

End Using

End Sub

C. Private Sub DeserializeModel(ByVal filename As String)

Dm xSerial As XmlSerializer = New XmlSerializer(GetType(Model))

AddHandler xSerial.UnknownAttribute, AddressOf Model_Unknown

Using fStream As FileStream = New FileStream(filename, FileMode.Open)

Dim testModel As Model = CType(xSerial.Deserialize(fStream), Model)

End Using

End Sub

D. Private Sub DeserializeModel(ByVal filename As String)

Dim xSerial As XmlSerializer = New XmlSerializer(GetType(Model))

AddHandler xSerial.UnreferencedObject, AddressOf Model_Unknown

Using fStream As FileStream = New FileStream(filename, FileMode.Open)

Dim testModel As Model = CType(xSerial.Deserialize(fStream), Model)

End Using

End Sub

Answer: A

Explanation: The proper way to achieve the scenario objective is shown in the answer, the UnknownElement event will be raised when the XmlSerializer encounters an XML element such as number, style and size.

Incorrect Answers:

B, C, D: The other events should not be considered for use in the scenario because the UnknownAttribute event is raised when such an event is encountered. Further more the UnreferencedObject should not be used as this event is raised when types are encountered that are not being used.

QUESTION 163

You work as an application developer at Certkiller .com. You have just completed the creation of an application that receives order data from Certkiller .com's partner company in XML format.

The XML has to be utilized to create an Order object that is consumed by the new application.

The following exhibit displays an example of Certkiller .com's partner company's XML data:

```
<?xml version="1.0" encoding="utf-8"?>
<Order id="101">
  <Shipping>
    <Instructions>
      Come to front door and ring door bell.
      No other options.
    </Instructions>
    <Address>
      <Street>536 Certkiller Lane</Street>
      <City>Miami</City>
      <State>FL</State>
      <Zip>70536</Zip>
    </Address>
  </Shipping>
  <Date>2006-07-12T00:00:00-04:00</Date>
  <Details>
    <SalesProduct InStock="true" Taxable="true">
      <Name>Lounge Suite</Name>
      <Quantity>1</Quantity>
      <Price>200.00</Price>
    </SalesProduct>
    <Product InStock="false">
      <Name>Plasma Television</Name>
      <Quantity>2</Quantity>
      <Price>26.999.00</Price>
    </Product>
```

</Details>

</Order>

You plan to use the XmlSerializer class to deserialize the XML data into an Order object. When you learn that Certkiller .com's partner company's XML also contains Shipping object data, you decide to deserialize the shipping object after the Shipping element is detected during deserialization.

To achieve this, you need to use a certain event of the XmlSerializer class.

What event should you use?

- A. UnknownElement
- B. UnknownNode
- C. UnreferencedObject
- D. UnknownAttribute

Answer: B

Explanation: The UnknownNode event is fired when an unexpected element or node is detected that does not map to the XmlSerializer object's expected type. The UnknownNode event included the XmlNodeEventArgs, which allows access to the entire node of the XML data. This would allow easy deserialization for the Shipping object.

Incorrect Answers:

A, C, D: These options would not allow easy deserialization for the Shipping object.

QUESTION 164

You work as the application developer at Certkiller .com. You make use of Visual Studio 2005 as your application development platform.

You are developing a .NET Framework 2.0 application and write the code below as your own code:

```
Public Class Book
Public Name As String
End Class
Public Class Library
<XmlArray("ID1")> _
<XmlArrayItem("ID2")> _
Public Book As Book()
End Class
```

You are required to create an object of the Library type and serialize it to disk in a file named Certkiller books.xml and write the following code:

```
Dim books As Book() = New Book() {New Book(), New Book(), New Book()}
books(0).Name = "Book Name 1"
books(1).Name = "Book Name 2"
books(2).Name = "Book Name 3"
Dim library As Library = New Library()
library.Books = books
Dim ckSerializer As XmlSerializer = New XmlSerializer(GetType(library))
```

```
Using ckWriter As StreamWriter = New StreamWriter(" Certkiller books.xml")
ckSerializer.Serialize(ckWriter, library)
```

End Using

You are required to choose from the following selection which output will be generated by the program.

What should you do?

A. <Library>

<ID1>

<Book>

<ID2>Book Name 1</ID2>

</Book>

<Book>

<ID2>Book Name 2</ID2>

</Book>

<Book>

<ID2>Book Name 3</ID2>

</Book>

</ID1>

</Library>

B. <Library>

<Books>

<ID1>

<ID2>Book Name 1</ID2>

</ID1>

<ID1>

<ID2>Book Name 2</ID2>

</ID1>

<ID1>

<ID2>Book Name 3</ID2>

</ID1>

</Books>

</Library>

C. <Library>

<ID2>

<ID1>

<Name>Book Name 1</Name>

</ID1>

<ID1>

<Name>Book Name 2</Name>

</ID1>

<ID1>

<Name>Book Name 3</Name>

</ID1>

</ID2>

</Library>

```
D. <Library>
  <ID1>
  <ID2>
  <Name>Book Name 1</Name>
</ID2>
  <ID2>
  <Name>Book Name 2</Name>
</ID2>
  <ID2>
  <Name>Book Name 3</Name>
</ID2>
</ID1>
</Library>
```

Answer: D

Explanation: The proper and best way for you to achieve your scenario objective would be to use the code specified in the answer this will serialize the required data into the Certkiller books.xml file.

Incorrect Answers:

A, B, C: The other mentioned methods should not be considered for use as they will most likely change the name of the array element to which it is applied.

QUESTION 165

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 remoting application. Your computer system relies on run-time type validation. You are required to deserialize a remote stream by using the BinaryFormatter class in your application whilst you configure the BinaryFormatter object to protect against any deserialization attacks by deserializing only certain types associated with only the most basic remoting functionality.

What should you do?

- A. The TypeFormat property should be set to FormatterTypeStyle.TypesAlways
- B. The TypeFormat property should be set to FormatterTypeStyle.TypesWhenNeeded
- C. The FilterLevel property should be set to TypeFilterLevel.Full
- D. The FilterLevel property must be set to TypeFilterLevel.Low

Answer: D

Explanation: The best choice for you in the scenario would be to use the FilterLevel property of the BinaryFormatter object set to TypeFilter.Low which deserializes only the most basic remoting functionality helping to protect against deserialization attacks.

Incorrect Answers:

A, B: The setting can not be used to set the deserialization of types because it just configures how the types are laid out in the deserialization stream.
C: This setting should not be used as you will be deserializing all types and this offers no protection against deserialization attacks in the scenario.

QUESTION 166

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 geographical information system for the company and create a class named Certkiller Code. You are required to serialize all public and non-public data of the Certkiller Code class whilst you ensure that you produce the smallest byte stream so that the smallest load is placed upon network resources.

What should you do?

- A. The XmlSerializationWriter class should be used
- B. The XmlSerializer class should be used
- C. The BinaryFormatter class should be used
- D. The SoapFormatter class should be used

Answer: C

Explanation: To successfully serialize all the public and non-public data you should make use of the BinaryFormatter class because in addition the BinaryFormatter class produces the most compact byte stream compared to other serialization classes.

Incorrect Answers:

A, B: The XmlSerializer class should not be used as this class only serializes public properties and fields and the XmlSerializationWriter class is used to controls serialization by using the XmlkSerialization class and fails to meet requirements.

D: The SoapFormatter class could be used as it will allow you to serialize public and non-public data but the result of the stream will be a verbose and will consume more network resources.

QUESTION 167

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 resource management utility. You write the code below as part of your program:

```
Dim ckDirInfo As DirectoryInfo = New DirectoryInfo("c:\CK_Docs1")  
ckDirInfo.MoveTo("d:\CK_Docs 2")
```

Both of the required folders exist when you run the application and the code has the required permissions to work with c:\Test1 and c:\Bill2. You are required to select the outcome when you execute your application.

What should you do?

- A. The c:\CK_Docs1 directory will be moved within the d:\CK_Docs 2 to become d:\CK_Docs 2\CK_Docs 1.
- B. The c:\ CK_Docs1 directory will be renamed to d:\ CK_Docs2.
- C. An ArgumentException will be thrown by the code.
- D. An IOException will be thrown by the code.

Answer: D

Explanation: In the scenario the target directory already exists therefore the method in question will throw an IOException as it wants to create the folder.

Incorrect Answers:

- A: This will not be the outcome of the situation you should have specified c:\Bill2\Test1 as the target directory then this would be correct.
- B: The Directory will only be renamed if the target does not exist in the scenario the targets exists.
- C: This will only be thrown if in the event the target directory is an empty string.

QUESTION 168

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 financial application and are busy developing a module that backs up the critical data on a separate hard drive. You are required to decide which properties of the DriveInfo class to use and find the type of file system like FAT or NTFS and the drive free space and the user disk quota should be ignored by the application.

What should you do?

- A. Use the DriveFormat and TotalFreeSpace properties of the DriveInfo class.
- B. Use the DriveType and AvailableFreeSpace properties of the DriveInfo class.
- C. Use the VolumeLabel and TotalSize properties of the DriveInfo class.
- D. Use the DriveType and TotalSize properties of the DriveInfo class.
- E. Use the DriveFormat and AvailableFreeSpace properties of the DriveInfo class.

Answer: A

Explanation: The only choice that would work with your requirement is the DriveFormat and TotalFreeSpace properties of the DriveInfo class; this will display what you need.

Incorrect Answers:

- B: The DriveType property should not be used as it only specifies whether the drive is a DVD ROM or fixed drive etc. The AvailableFreeSpace property should also not be used as the user disk quota would be taken into account.
- C: The VolumeLabel property should not be used in the scenario as it is used to give a name to the fixed disk. The TotalSize property should also not be used as it will specify the entire disk space not just free space.
- D: The DriveType property should not be used as it only specifies whether the drive is a

DVD ROM or fixed drive etc.

E: The AvailableFreeSpace property should not be used as the user disk quota would be taken into account.

QUESTION 169

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 resource management utility that will be used to monitor for the creation of a file with the .res extension in c:\CK_Doc1.

When such a file is created you will execute code to read and process its contents.

You are required to write the code that enables you to monitor the creation of the .res file.

What should you do? (Choose two)

- A. Dim ckWatcher As FileSystemWatcher = New FileSystemWatcher()
ckWatcher.Path = "c:\CK_Docs1"
ckWatcher.Filter = "*.res"
- B. ckWatcher.WaitForChanged(WatcherChangeTypes.Created)
- C. ckWatcher.NotifyFilter = NotifyFilters.CreationTime
- D. ckWatcher.EnableRaisingEvents = True
- E. Dim ckWatcher As FileSystemWatcher = New FileSystemWatcher()
ckWatcher.Filter = c:\CK_Docs1*.res"

Answer: A, B

Explanation: The first step will be to create the FileSystemWatcher object and set its path and filter properties and finally the WaitForChanged method should be invoked in the scenario this will let you achieve your objective.

Incorrect Answers:

C: This method should not be used in the scenario as it is used to specify which of the notification events are invoked in the scenario when a file is changed.

D: This property should only be created when you have coded event handlers in the scenario that is the only time this method would be use full.

E: This method should not ever be considered for use in the scenario because the filter property is used to specify the file pattern only the path should not be included there.

QUESTION 170

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 data analysis application. You have no information about the inherent structure of a file when it is supplied to the program for reading data. You are required to read the contents of the file byte-by-byte and make use of a custom algorithm to find its format whilst selecting a class that allows you to read the files contents byte-by-byte.

What should you do?

- A. Use the FileStream class.
- B. Use the BinaryReader class.
- C. Use the StreamReader class.
- D. Use the StringReader class.

Answer: A

Explanation: The purpose and function of the FileStream class is to allow the user to be able to view the required files byte-by-byte.

Incorrect Answers:

B: The BinaryReader class is use full if you know the binary format for the data to read but should not be considered for use in the scenario.

C: This method is use full if you want to read character data in a particular encoding, but is not useful for reading any other data.

D: This class is used for reading text from a string and is not use full for reading any other data.

QUESTION 171

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 text-processing application. You have access to an array of bytes named ckArray that contains your data. You are busy writing code that will be used to write the contents of the array to a disk file. If you are done with the write operation you also display the contents of the stream on the console to make sure that the write operation completes successfully. The code segment to read and write from the stream is shown below and the line numbers are reference only:

01: Using fStream As FileStream = New FileStream("ckFile.txt",
 FileStream.Create)

02: For i As Integer = 0 To ckArray.Length

03: fStream.WriteByte(ckArray(i))

04: Next i

05: 'Add code segment here

06: For i As Integer = 0 To fStream.Length

07: Console.WriteLine(fStream.ReadByte())

08: Next i

09: End Using

You add the appropriate code at line 05 to correctly print the contents of the stream.

What segment should you add?

- A. fStream.Seek(0, SeekOrigin.End)
- B. fStream.Position = fStream.Length
- C. fStream.Seek(0, SeekOrigin.Current)
- D. fStream.Seek(0, SeekOrigin.Begin)

Answer: D

Explanation: Because after every write operation is completed you need to reposition the stream so that you can read the contents from the beginning which is done with the statement in the answer, the first parameter will specify the offset, the second the reference point for the seek operation and the value `SeekOrigin.Begin` indicates that the reader should be positioned at the beginning of the stream.

Incorrect Answers:

A, C: The method in the statement is incorrect because you are referencing the end or the current part of the stream which you are trying to manipulate.

B: This statement should not be used because it sets the current position of the stream to its length effectively referencing the end of the stream.

QUESTION 172

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 banking Windows Forms application and are busy working on a function that retrieves the images of cancelled checks and displays them on the form. You currently have access to a method that reads the images from Microsoft SQL server as a series of bytes. You are required to select a class that allows you to transfer the image from SQL Server to the Windows Forms application whilst your solution reduces the need of a temporary buffers and files

What should you do?

- A. Use the `MemoryStream` class.
- B. Use the `NetworkStream` class.
- C. Use the `FileStream` class.
- D. Use the `BufferedStream` class.

Answer: A

Explanation: With the given scenario objective you should use the `MemoryStream` class which allows you to read the image data in memory and stream it to a Windows Forms application without creating any temporary buffers or files.

Incorrect Answers:

B: There is no connection established directly to the SQL Server database so using this option is out of the question.

C, D: The streaming class in question in this option is incorrect because both require the creation of temporary files or buffers.

QUESTION 173

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 text manipulation application. You make use of the code below in your application:

```
Dim ckBuilder As StringBuilder = New StringBuilder(":string:")
Dim b() As Char = {"a"c, "b"c, "c"c, "d"c, "e"c, "f"c, "g"c}
Dim ckWriter As StringWriter = New StringWriter(ckBuilder)
ckWriter.Write(b, 0, 3)
Console.WriteLine(ckBuilder)
ckWriter.Close()
```

You are required to select from the following what the output will be when you execute the application.
What should you do?

- A. :string:abcdefg
- B. abc:string:
- C. abcstring
- D. :string:abc

Answer: D

Explanation:

Since the specific overload of the Write method takes character array and reads three characters starting from the index 0 and appends them to the underlying StringBuilder object this is the proper choice in the scenario.

Incorrect Answers:

A, C: Both of the streams are incorrect and should not be used because the StringWriter is sequential and will not go back and overwrite the characters that already exist in the underlying StringBuilder object.

B: This is the incorrect response because the characters will append to the end of the underlying StringBuilder object in the scenario.

QUESTION 174

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 graphical analysis application. You are about to save a graphical object from the application which is a collection of x and y points, each represented by using a single precision floating point number. You are required to keep the disk space usage to a minimum by the saved object.

What should you do?

- A. Use the TextWriter class.
- B. Use the StreamWriter class.
- C. Use the StringWriter class.
- D. Use the BinaryWriter class.

Answer: D

Explanation: The BinaryWriter class is used to store data in a binary format, which is used to provide the most compact format for storing data among the given classes.

Incorrect Answers:

A, B, C: The classes in question all save or store data in the text format, which will require more space than the binary format and therefore should not be used in the scenario.

QUESTION 175

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 Windows application that uses a shared assembly personalizing the user interface of the application. The assembly in question is used by several other applications on the user's computer and any changes made to the user preferences in one application should be carried over to other applications. You are required to access the user's preferences for displaying the user interface.

What should you do?

- A. The IsolatedStorageFile.GetUserStoreForDomain method should be used
- B. The IsolatedStorageFile.GetMachineStoreForDomain method should be used
- C. The IsolatedStorageFile.GetMachineStoreForAssembly method should be used
- D. The IsolatedStorageFile.GetUserStoreForAssembly method should be used

Answer: D

Explanation: To successfully read the user's preferences you should make use of the IsolatedStorageFile.GetUserStoreForAssembly method should be used. The method retrieves assembly-specific and user-specific data from the isolated storage.

Incorrect Answers:

A: This method should not be used in the scenario as it is designed too retrieve isolated storage that is application domain and assembly specific.

B, C: The settings in question should not be used because the methods are machine-scoped rather than user scoped.

QUESTION 176

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windwos XP Professional client computer named Certkiller -WS554 as your development computer.

You are developing a .NET Framework 2.0 application on Certkiller -WS554. You write the following code in the application line numbers are for reference only:

```
01: Public Function ProcCount() As Integer
02: Dim envPerm As EnvironmentPermission = _
03: New EnvironmentPermission( _
04: EnvironmentPermissionAccess.Read, _
05: "NUMBER_OF_PROCESSORS")
06: 'Add code segment here
07: Return Environment.ProcessorCount
```

08: End Function

The ProcCount method in the code will be used to return the number of processors on the computer running the code and the implementation of the method is completely transparent to the callers of the methods. You ensured that the ProcCount method has been granted permission to access environment variables and the callers to the code may not have permission to access the variables. The classes in the other assemblies are required to be able to successfully call the ProcCount method. You must add code at line 06 to override the security check whilst you ensure that any code you write does not affect the permissions that your code already has.

What code segment should you add?

- A. envPerm.PermitOnly()
- B. envPerm.Demand()
- C. encPerm.Deny()
- D. envPerm.Assert()

Answer: D

Explanation: The envPerm.Assert() method should be used in the scenario because the method allows your code and any code that you call to perform actions that your code has permissions to perform however the callers may not have permissions to perform.

Incorrect Answers:

A: The PermitOnly method should not be used in the scenario because it will result to the same action as calling Deny on all permissions other than the permission P and this will affect other permissions.

B: This method should not be considered for use in the scenario because the Demand method requires all the callers to have permissions to perform the specific action.

C: The Deny method should not be considered for usage in the scenario because the method will explicitly cause the Permission P to be denied and you are required to ensure permissions are applied to the code.

QUESTION 177

You work as an application developer at Certkiller .com. A fellow developer named Amy Walsh recently created an assembly that implements a custom permission set. Certkiller .com has asked you to test this assembly. You start by copying the assembly to a test server named Certkiller -SR15 that has the Microsoft .NET 2.0

Framework installed. You then log on to the Certkiller -SR15 as a member of the local Administrators Windows group.

You run the assembly, and receive a security exception. You perform a brief analysis of the security issues involved, and find that the assembly has not been assigned the appropriate permissions to run.

You need to ensure that this assembly runs.

What should you do?

- A. Use the permview.exe tool to modify the assembly's granted permissions.
- B. Use the sn.exe tool to modify the assembly's granted permissions.
- C. Use the caspol.exe tool to modify the assembly's granted permissions.
- D. Use the gacutil.exe tool to modify the assembly's granted permissions.

Answer: C

Explanation: The caspol.exe command-line tool allows users to modify security permissions, permission sets, and code groups for an assembly at the machine, user, and enterprise policy levels.

Incorrect Answers:

- A: The permview.exe tool only allows users to view declarative security of an assembly.
- B: The sn.exe tool allows developers to create a strong-named asymmetric key pair for strong-named assemblies.
- D: The gacutil.exe tool allows users to manage the contents of the global assembly and download cache.

QUESTION 178

You work as an application developer at Certkiller .com. Certkiller .com has a test server named Certkiller -SR09 that is frequently used by other Certkiller .com developers to test assemblies and applied security policies.

You have just completed creating an assembly and want to test it on Certkiller -SR09. you need to ensure that all security policies on Certkiller -SR09 are reset to their default settings.

What should you do?

- A. Run the caspol all -rollback command.
- B. Run the caspol all -reset command.
- C. Run the machine all -rollback command.
- D. Run the machine all -reset command.

Answer: B

Explanation: The caspol.exe command-line tool allows users to modify security permissions, permission sets, and code groups for an assembly at the machine, user, and enterprise policy levels. The reset switch will set the specified security policy or policies back to their default state. The all switch refers to machine, user, and enterprise policy levels.

Incorrect Answers:

- A, C: The rollback switch does not exist for the caspol.exe tool.
- D: This option will not set all security policies back to their default state.

QUESTION 179

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 application and are about to examine

the code groups in machine, user, and enterprise policies. The user security policy file is located in c:\ Certkiller \config\ Certkiller Security.config and belongs to a user other than the currently logged on user.

You are required to use code access security policy tool to inspect the security policy and need the required command.

What should you do?

- A. Run the caspol -customall -resolvegroup "c:\ Certkiller \config\ Certkiller Security.config" command.
- B. Run the caspol -customer "c:\ Certkiller \config\ Certkiller Security.config" -listgroups command.
- C. Run the caspol -customer -resolvegroup "c:\ Certkiller \config\ Certkiller Security.config" command.
- D. Run the caspol -customall "c:\ Certkiller \config\ Certkiller Security.config" -listgroups command.

Answer: D

Explanation: Since the -customall option is used to specify that the command applies to the enterprise, machine and custom user policy stored in the "c:\ Certkiller \config\ Certkiller Security.config" file making this the correct option to use in the scenario. The -listgroup option is used to specify the code groups in the specified policies that need to be listed.

Incorrect Answers:

- A, C: The usage of the -resolvegroup option in the scenario is incorrect because the -resolvegroup option is used to show the code groups that the specified user belongs to.
- B: The option in question in this answer should not be used in the scenario because the option is used to specify only the code groups of the specified user policy.

QUESTION 180

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS536 as your development computer.

You are developing a .NET Framework 2.0 application on Certkiller -WS536. You create an assembly that implements a custom security object. The assembly resides in the CKPerm.exe file. The CKPerm.exe references the classes in the BasePerm.exe assembly. You are required to write a script that will be used to add the assembly to the full trust assembly list of the currently logged on user whilst the user will never have write access to the machine policy file.

What should you do? (Choose two)

- A. Run the caspol -addfulltrust CKPerm.exe command.
- B. Run the caspol -addfulltrust BasePerm.exe command.
- C. Run the caspol -enterprise -addfulltrust BasePerm.exe command.
- D. Run the caspol -enterprise -addfulltrust CKPerm.exe command.

- E. Run the caspol -machine -addfulltrust BasePerm.exe command.
- F. Run the caspol -machine -addfulltrust CKPerm.exe command.

Answer: A, B

Explanation: The caspol.exe tool is used to allow you to modify the code access security policy at the user level, machine level as well as the enterprise level and using the -addfulltrust option adds an assembly that implements a custom security object to a list of fully trusted assemblies.

Incorrect Answers:

C, D, E, F: In the event that there is no policy level specified the caspol.exe tool checks if the user has write permission to the machine policy file if so the machine level security policy will be used other wise the user-level policy will be used.

QUESTION 181

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS536 as your development computer.

You are developing a .NET Framework 2.0 application on a Certkiller -WS536. You must add a new code group which adds FullTrust permissions to the code originating from www. Certkiller .com. You are required to use the code access security policy tool (Caspol.exe) to add the code group whilst you ensure that you only affect the user level policy for the user running Caspol.exe. What should you do?

- A. Run the caspol -user -addgroup -site www. Certkiller .com FullTrust command.
- B. Run the caspol -user -addgroup -zone Internet command.
- C. Run the caspol -user -addgroup -url www. Certkiller .com FullTrust command.
- D. Run the caspol -user -addgroup -pub -cert test.cer FullTrust command.

Answer: A

Explanation: The correct thing to do in the scenario would be to make use of the segment that used -user to specify only the user level policy, the -addgroup argument to add a new code group to the code hierarchy and the -site argument that targets code that originated only from www. Certkiller .com.

Incorrect Answers:

B: This method should not be used in the scenario because it is used to simply add a new code group that is a member of the Internet Zone.

C: This command should not be used in the scenario because it should be used to specify a complete url including the protocol like http:// etc.

D: The command should not be used in the scenario as the method does not specify a Web site and the -pub argument is used to identify the software publisher.

QUESTION 182

You work as an application developer at Certkiller .com. Certkiller .com has been contracted by a local doctor's clinic to develop a client application using Microsoft .NET 2.0 that sends patient visit information to a remote server at the clinic's main office.

This data must be transmitted via a secure network stream because it contains patient protected health information (PHI). The data will be sent from a windows application client on the doctor's notebook computer to a windows service hosted on a remote server. Both of these applications employ a certificate store for network identification.

You need to create a secure data stream by adding certain classes to the client application.

What classes should you add? (Choose three)

- A. The MD5CryptoServiceProvider class.
- B. The X509Certificate class.
- C. The NetworkStream class.
- D. The SslStream class.
- E. The TcpListener class.
- F. The TcpClient class.

Answer: B, D, F

Explanation: You should use the X509Certificate class to store the server certificate and encrypt data, the SslStream class to create a secure channel, and the TcpClient class to establish the connection with the server application.

Incorrect Answers:

- A: Using this option would only hash the data using the MD5 algorithm.
- C: Using this option would not necessarily create a secure channel.
- E: This class is used by the server application.

QUESTION 183

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 application that will be used for transmitting contents over the Internet. You need to encrypt a data file before transmitting the file. The encryption is required to prevent any spoofing of the identity of the publisher of the data file. You decide to sign the data using the publisher's private key. You encrypt the data with the publisher's public key as well.

The receiver of the file will use a private key that only he knows to decrypt the data and the receiver has access to the publisher's public key also. The intended receiver of the file should be able to decrypt the encrypted file after it was received through the Internet transmission whilst the receiver should additionally be able to detect if the contents of the data file were tampered with.

What should you do?

- A. The RSACryptoServiceProvider class should be used in the scenario
- B. The RijndaeManaged class should be used in the scenario
- C. The SHA1CryptoServiceProvider class should be used in the scenario
- D. The SHA1Managed class should be used in the scenario

Answer: A

Explanation: Since the RSACryptoServiceProvider class implements an asymmetric cryptography algorithm that makes use of a set of related keys to encrypt and decrypt data this class is the correct choice in the scenario.

Incorrect Answers:

B: This class should not be used in the scenario because the RijndaeManaged class implements a symmetric cryptography algorithm that uses a single shared secret key for encrypting and decrypting data.

C, D: The classes in these two options should not be used in the scenario because the classes both implement a hash algorithm that can be used to detect tampering but they can not be used to establish the identity of the data file's publisher.

QUESTION 184

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 application and are busy creating a default instance of the Rijndael symmetric algorithm class and configure it with a key that is generated from a password. The following code you wrote, line numbers are for reference only:

01: Dim dub1 As Double = 0

02: Dim salt(16) As Byte

03: Dim pwdDeBytes As PasswordDeriveBytes = New PasswordDeriveBytes(pwd, salt)

04: Dim key As Byte() = pwdDeBytes.GetBytes(16)

05: Dim cryptoRij As Rijndael = Rijndael.Create()

06: cryptoRij.Key = key

The variable that is named salt acts as a seed to the key derivation algorithm. You are required to insert additional code before line 03 that stores a random number in the salt variable.

What code segment should you add?

- A. Dim rNum As RandomNumberGenerator = RandomNumberGenerator.Create()
rNum.GetBytes(salt)
- B. Dim ckGuid as Guid = New Guid()
salt = ckGuid.ToByteArray()
- C. Dim enc as Encoding = New ASCIIEncoding()
salt = enc.GetBytes(DateTime.Now.ToString())
- D. Dim rNum as Random = New Random()

rNum.NextBytes(salt)

Answer: A

Explanation: The correct thing to do in the scenario at hand would be for you to use the code segment RandomNumberGenerator class as it represents a cryptographically secure random number.

Incorrect Answers:

B: The Guid method should not be considered for use in the scenario as this is only use full for creating a unique number that will be use full for computer, network and component identification.

C: The Date and time should not ever be considered as an instance because that would be a very predictable number.

D: The class should never be considered for use because the Random class generates pseudo random numbers that may be repeatable or predictable.

QUESTION 185

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windwos XP Professional client computer named Certkiller -WS536 as your development computer.

You are developing a .NET Framework 2.0 Windows application on Certkiller -WS536 which is used as collateral. You write the following code in the application:

```
Dim testplain As Byte()
```

The byte array testplain contains the data that needs to be protected and the length of the data stored in the byte array is always a multiple of 16. You want only the threads running under the current user context to be able to unprotect the data whilst the protected data will be stored in a different byte array. The original contents from the testplain byte array must remain unmodified. You are required to select which code segment to use if the application will be executed on computers running Windows XP Professional.

What should you do?

- A. Use ProtectedMemory.Protect(testplain, MemoryProtectionScope.SameLogon)
- B. Use ProtectedMemory.Protect(testplain, Nothing, DataProtectionScope.LocalMachine)
- C. Use ProtectedMemory.Protect(testplain, MemoryProtectionScope.SameProcess)
- D. Use ProtectedData.Protect(testplain, Nothing, DataProtectionScope.CurrentUser)

Answer: D

Explanation:

The ProtectedData.Protect method is used to return a protected copy of the data in the testplain byte array whilst the content of the byte array remains unaffected making this the correct option to use in the scenario.

Incorrect Answers:

A, C: The methods in the option should not be used in the scenario because this method is used to store the protected data in the original copy of the byte array and the original array should remain unaffected.

B: The usage of this method is incorrect as you will allow any process running on the local computer to be able to unprotect the data.

QUESTION 186

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS554 as your development computer.

You are developing a .NET Framework 2.0 application on Certkiller -WS536. The application will be used to send data over the internet. You are required to ensure that the sent data is not modified or tampered with during transmission, the secrecy of the data transmission is not considered important.

You recently decided to implement a hash value for the data by using a secret key and transmit the data along with the hash value. The receiver of the data should be able to detect whether the data or the hash value has been modified whilst the receiver should have access to the secret key that was used for computing the hash value. You must additionally ensure that a key sequence of 160 bits should be acceptable.

What should you do?

- A. The DESCryptoServiceProvider class should be used to encode the data prior to transmission
- B. The HMACMD5 class should be used to encode the data prior to transmission
- C. The MACTripleDES class should be used to encode the data prior to transmission
- D. The HMACSHA1 class should be used to encode the data prior to transmission

Answer: D

Explanation: The SHA1 has function is used by the HMACSHA1 class to compute a Has-based Message Authentication Code (HMAC) and additionally HMAC can be used to check if a message has been modified during the transmission.

Incorrect Answers:

A: The class should not be considered for use in the scenario because the class is used to encode the data to protect and maintain its secrecy.

B: The class should not be used because the scenario requires a hash sequence of 160 bits and the class only provides a hash sequence of 128 bits.

C: The class should never be considered for use in the scenario because the class uses a secret key of length 16 or 24 bytes whilst producing a hash sequence of 8 bytes.

QUESTION 187

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 Windows application that will be used to allow Certkiller .com users to download training video files to the local hard drive. The application will require permissions for file input and output operations in order to execute, if no permissions are available for input or output operations the program should not execute whilst you ensure the application is secure. What should you do?

- A. The following attribute should be applied at the assembly level:
<Assembly: FileIOPermission(SecurityAction.RequestOptional, Unrestricted:=True)>
- B. The following attribute should be applied at the class level:
<FileIOPermission(SecurityAction.Assert, Unrestricted:=True)>
- C. The following attribute should be applied at the class level:
<FileIOPermission(SecurityAction.Demand, Unrestricted:=True)>
- D. The following attribute should be applied at the assembly level:
<Assembly: FileIOPermission(SecurityAction.RequestRefuse, Unrestricted:=True)>
- E. The following attribute should be applied at the assembly level:
<Assembly: FileIOPermission(SecurityAction.RequestMinimum, Unrestricted:=True)>

Answer: E

Explanation: The best choice seems to be requesting the minimum permissions that the application requires to perform the operations it was intended to perform in the scenario which is to download video files to the local hard drive.

Incorrect Answers:

- A: The option in question specifies that the permissions required by the application are optional and should not be used in the scenario.
- B, C: The security in the scenario is required at the application level and this attributes should not be applied at the class level in the scenario.
- D: This option should not be used as this will specify that the application be refused the required permissions to perform the required operations.

QUESTION 188

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS552 as your development computer.

You are developing a .NET Framework 2.0 application on a Certkiller -WS552. You create a class named Certkiller DataAccess. You must configure the Certkiller DataAccess class to disallow access to the c:\ Certkiller \cfg.dat file. You also want to restrict the access to c:\ Certkiller \cfg.dat through a Universal Naming Convention (UNC) path or a mapped drive letter path. You are required additionally to be able to access all other files on the c: drive of the computer running the program. What should you do? (Choose two)

- A. <FileIOPermissionAttribute(SecurityAction.RequestOptional, All:"C:\ Certkiller \cfg.dat")>
- B. <FileIOPermissionAttribute(SecurityAction.RequestRefuse, All:"C:\ Certkiller \cfg.dat")>
- C. <FileIOPermissionAttribute(SecurityAction.Demand, All:"C:\")>
- D. <FileIOPermissionAttribute(SecurityAction.RequestMinimum, All:"C:\")>
- E. <FileIOPermissionAttribute(SecurityAction.Deny, All:"C:\ Certkiller \cfg.dat")>
- F. <FileIOPermissionAttribute (SecurityAction.PermitOnly, All:"C:\")>

Answer: E F

Explanation: The correct option in the scenario applies permissions only to the specified pathname so if the file is access using a different path such as \\Workstation1\C\$\ Certkiller \cfg.dat or by mapping a drive the permissions do not apply.

Incorrect Answers:

A, B, C, D: It is possible to use a combination of PermitOnly and deny to deny access to specific resources as in the above segment the first line uses SecurityAction.PermitOnly to specify access permissions are only available for path names starting c:\.

QUESTION 189

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 assembly using the code shown below:

```
Public NotInheritable Class UtilProc
```

```
Public Sub DoWork()
```

```
' Additional code to go here
```

```
End Sub
```

```
End Class
```

The code is capable of being called by a Web application or Web service. You are required to restrict the assemblies that are capable of calling the DoWork method so only assemblies signed with a specific public key should be able to call the DoWork method.

What should you do?

- A. SecurityAction.LinkDemand should be passed as a parameter to the attribute
- B. The StrongNameIdentityPermission attribute should be applied to the DoWork method
- C. SecurityAction.InheritanceDemand should be passed as a parameter to the attribute
- D. The SecurityAction.Demand should be passed as a parameter to the attribute
- E. The GacIdentityPermission should be applied to the DoWork method
- F. The KeyContainerPermission should be applied to the DoWork method

Answer: A, B

Explanation: By using the StrongNameIdentityPermission attribute you effectively

ensure that only the assemblies that have been signed by a specific public key are capable of calling the DoWork method in the scenario, the SecurityAction.LinkDemand value further ensures that only the immediate caller is authorized.

Incorrect Answers:

C: This method should be used if you want to limit the scope of the attribute to only inheriting classes and the class is declared NotInheritable.

D: This should not be used because you would be forcing everything in the call stack to be signed using the same public key and you can not sign dynamically created assemblies.

E: This option should not be considered for usage as you will ensure that calling code should originate from the global assembly cache (GAC).

F: This method should not be used in the scenario because this method is used to control access to specific key containers.

QUESTION 190

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS536 as your development computer.

You are developing a .NET Framework 2.0 application on Certkiller -WS536. You write the class named TestScrapData. You are required to configure the TestScrapData class and limit its access to only the code originating from a specific Web site, www. Certkiller .com and its subdomains.

The Web sites will be required to be accessed using HTTP, HTTPS and the FTP protocols. You are required to additionally configure code access permissions for the TestScrapData class

What should you do?

- A. The SiteIdentityPermission class should be used in the scenario.
- B. The PublisherIdentityPermission class should be used in the scenario.
- C. The ZoneIdentityPermission class should be used in the scenario.
- D. The UrlIdentityPermission class should be used in the scenario.

Answer: A

Explanation: To successfully achieve your scenario objective you must use the SiteIdentityPermission class to configure code access permissions for the callers from a specific Web site.

Incorrect Answers:

B: This class should not be used as it is designed for usage to configure permissions based on the identity of the software publisher.

C: This class should not be used because it is used to configure code access permissions for the zone where the code originates and the Internet zone may contain many Web-sites.

D: This class should not be considered for use as it is used to configure access permissions for a Uniform Resource Locator (URL).

QUESTION 191

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform.

You are developing a .NET Framework 2.0 application that will be deployed throughout the network on all workstations which are all networked as part of a Microsoft Windows domain. The application you wrote requires certain permissions in order to run. As the domain administrator you configure the enterprise policy to grant the required permissions to the application which may be part of one or more code group.

You must ensure that your application receives the sufficient permissions to run at all times whilst you override any policy changes made by the end users that lower the permissions required by the application to run.

What should you do?

- A. The LevelFinal attribute should be applied to the application's code group on the enterprise policy level.
- B. The Exclusive attribute should be applied to the application's code group on the user policy level.
- C. The LevelFinal attribute should be applied to the application's code group on the user policy level.
- D. The Exclusive attribute should be applied to the application's code group on the enterprise policy level.

Answer: A

Explanation: The FinalLevel attribute should be applied in the scenario to the application's code group on the enterprise level as this is the highest level of policy.

Incorrect Answers:

B, D: The Exclusive attribute should not be considered in the scenario for usage as the runtime will never grant permissions associated with the code group marked with the Exclusive attribute.

C: This should not be done as you would enable the end users the capability of changing or altering security settings that will restrict the applications execution.

QUESTION 192

You work as an application developer at Certkiller .com. You are currently creating an application that requires role-based security. You are planning to utilize a database to store the user accounts and group membership data.

You need to ensure that users are able to log on and off. You also need to ensure that the application you have created tracks the user accounts of these users, and restrict or allow access to code based on their group membership. You need to achieve this objective with as little developer effort as possible.

What should you do to implement role-based security?

- A. Inherit from the GenericIdentity and GenericPrincipal classes.
- B. Make use of GenericIdentity and GenericPrincipal objects.
- C. Implement the IIdentity and IPrincipal interfaces.
- D. Make use of WindowsIdentity and WindowsPrincipal objects.

Answer: B

Explanation: in this scenario, the GenericIdentity and GenericPrincipal objects could be implemented as follows:

```
GenericIdentity curIdentity = new GenericIdentity ("CurrentUser");  
string [] roles = { "Users", "Administrators" };  
thread.CurrentPrincipal = GenericPrincipal (curIdentity, roles);
```

This code instantiates a GenericIdentity object based upon a user name as a string object, instantiates a string array representing the roles to which that user belongs, instantiates a GenericPrincipal object specifying the GenericIdentity object and string array of roles as arguments, and assigns the new GenericPrincipal object to the CurrentPrincipal property of the current thread. By assigning the new principal to the CurrentPrincipal property of the current thread, role membership checks can be performed using the IsInRole method

Incorrect Answers:

A, C: These options require more developer effort than necessary.

D: The WindowsIdentity and WindowsPrincipal classes are intended for use with windows domain stored accounts and groups only.

QUESTION 193

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windwos XP Professional client computer named Certkiller -WS536 as your development computer.

You are developing a .NET Framework 2.0 application on Certkiller -WS536. You write the following code in the application, line numbers are for reference:

```
01: Dim ckSecurity As FileSecurity =  
File.GetAccessControl("c:\root\config.crn")  
02: Dim myName As String = String.Empty  
03: Console.WriteLine("Owner name: {0}", myName)
```

You are required to write additional code before line 03 that will be used to allow you to print a user-friendly owner name of the c:\Bill\root\config.crn.

What should you do?

- A. Dim sID As SecurityIdentifier = ckSecurity.GetGroup(GetTyp(SecurityIdentifier))
myName = sID.Value
- B. Dim sID As SecurityIdentifier = ckSecurity.GetOwner(GetType(SecurityIdentifier))
myName = sID.Value
- C. Dim ntAcc As NTAccount = ckSecurity.GetGroup(GetType(NTAccount))
myName = ntAcc.Value
- D. Dim ntAcc As NTAccount = ckSecurity.GetOwner(GetType(NTAccount))

```
myName = ntAcc.Value
```

Answer: D

Explanation: Since the GetOwner method of the FileSecurity class gets the owner associated with the given file and the Value property of the NTAccount class represents a user-friendly owner name this particular code segment should be used.

Incorrect Answers:

A, B: In the scenario you are required to get the file owner instead of the primary group to which the owner belong and there for you should not use the two GetGroup method code segments.

C: The Value of the security identifier class provides a long string containing the security identifier corresponding to the windows account.

QUESTION 194

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windwos XP Professional client computer named Certkiller -WS554 as your development computer.

You are developing a .NET Framework 2.0 application on Certkiller -WS554. You write the code shown below:

```
Public Class Shape
Private shapeName As String
Public Sub Shape(ByVal shapeName As String)
Me.shapeName = shapeName
End Sub
Public Overridable Function GetName() As String
Return shapeName
End Function
Private Sub DrawShape()
'Additional code goes here
End Sub
End Class
```

You later decide to have the application compiled and registered for COM interoperability. The other developers on your team complain that they are unable to create an instance of the Shape class in their COM applications. You are required to ensure that COM applications are able to create an instance of the Shape class. What should you do?

A. The following code should be added to the Shape class:

```
Public Sub New()
End Sub
```

B. The following ComVisible attribute to the Shape class:

```
<ComVisible(True)>
```

C. The definition of the GetName method should be modified as below:

```
Public Function GetName() As String
```

Return shapeName

End Function

D. The following ComVisible attribute should be added to each method of the Shape class:

<ComVisible(True)>

Answers: A

Explanation: Remember that only the classes that have a public default constructor can be instantiated from a COM application and the parameterized constructor which is not used by the COM and therefore you should add the code used in the answer.

Incorrect Answers:

B, D: The lines of code that are used in the scenario will not make any difference to the situation at hand currently in the scenario and should not be used.

C: The class and public members are already visible to COM applications so your only problem lays with instantiating the class.

QUESTION 195

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS536 as your development computer.

You are developing a .NET Framework 2.0 application on Certkiller -WS536. You write a new class named Certkiller Process as shown below:

```
Public Class Certkiller Process
```

```
Public Sub New()
```

```
End Sub
```

```
Public Sub GetState()
```

```
'Additional code goes here
```

```
End Sub
```

```
Public Function ChangeCase(ByVal s As String) As String
```

```
Return s.ToUpper()
```

```
End Function
```

```
End Class
```

You compile the class to a file named Certkiller Process.dll, the Component Object Model (COM) applications are required to be able to create instances of this class and invoke methods. The COM applications may need to bind type information at compile time. You are required to select which command line tool to use.

What should you do?

- A. The Type Library Exporter tool (tlbexp.exe) should be used.
- B. The Type Library Importer tool (tlbimp.exe) should be used.
- C. The Assembly Registration tool (regasm.exe) should be used.
- D. The Native Image Generator tool (ngen.exe) should be used.

Answer: C

Explanation:

Because the Com applications expect to find runtime information about types in the Windows registry the usage of the Assembly Registration tool (Regasm.exe) reads an assembly and creates entries required by the Com applications.

Incorrect Answers:

A: This tool is used to generate a Com library from an assembly and should not be considered for usage in the scenario.

B: This tool does exactly the opposite of the exporter tool and should also not be considered for usage in the scenario.

D: The tool is used to generate a native image for managed code and reduces load times for the application but does not convert assemblies for use in COM applications.

QUESTION 196

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS554 as your development computer.

You are developing a .NET Framework 2.0 application on Certkiller -WS554. You are trying to port an old Certkiller .com management application that was written in unmanaged Windows code with no COM interfaces. The application you are developing makes calls to the old Certkiller .com management unmanaged library named BillPerformance.dll.

You are required to make a call to the GetPerformanceScore method of the unmanaged Performance.dll library.

What should you do?

- A. The Type Library Exporter tool (tlbexp.exe) should be used.
- B. The Type Library Importer tool (tlbimp.exe) should be used.
- C. The Assembly Registration tool (regasm.exe) should be used.
- D. The Platform Invoke (DllImportAttribute) should be used.

Answer: D

Explanation: The feature Platform Invoke is used to allow you to call methods that are in unmanaged libraries but you need to declare the unmanaged method in the managed code using the extern and static keywords with the DllImport attribute which is used to specify the unmanaged library.

Incorrect Answers:

A, B, C: The tool should not be considered for usage in the scenario because the unmanaged dll file is not in COM and it only processes COM type libraries.

QUESTION 197

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS536 as your development

computer.

You are developing a .NET Framework 2.0 Windows application on Certkiller -WS536. Your application needs to call the GetComputerName method in the library named kernel32.dll to display the computer name. You write the code below:

```
<DllImport("kernel32.dll")> Public Shared Function GetComputerName( _  
ByVal IpBuffer As StringBuilder, ByRef IpnSize As Integer) As Boolean  
End Function
```

You are required to call the method as ComputerName based on your coding standards whilst you ensure that your code can be cancelled on any Windows operating system. You need to know how to modify the DllImport attribute to call the GetComputerName method.

What should you do?

- A. The EntryPoint property must be set to "ComputerName".
- B. The CharSet property must be set to CharSet.Unicode.
- C. The CharSet property must be set to CharSet.Ansi.
- D. The EntryPoint property must be set to "GetComputerName".
- E. The CharSet property must be set to CharSet.Auto.

Answer: D, E

Explanation: The correct method to use in the scenario is to modify the DllImport attribute and set the EntryPoint property to "GetComputerName" which is the name of the method invoked in kernel32.dll but the .NET method should be declared as ComputerName.

Incorrect Answers:

A, B, C: The methods used in the options could be used but require that the code be changed significantly and you should not consider using the options in the scenario as they are bound to fail.

QUESTION 198

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS536 as your development computer.

You are developing a .NET Framework 2.0 application on Certkiller -WS536. The application will be used to list the available public types and methods in the Certkiller .com assembly. You named the assembly strongly and it is installed in the global assembly cache (GAL) and an assembly with the same identity is stored at c:\Certkiller\assemb\Certkiller .com.dll.

You are required to dynamically load the Certkiller .com assembly into your application whilst you ensure that the assembly is loaded from c:\Certkiller\assemb\Certkiller .com.dll rather than the global assembly cache (GAL). What code segment should you use?

- A. Dim assemb As Assembly =
Assembly.LoadFrom("c:\ Certkiller \assemb\ Certkiller .com.dll")
- B. Dim assemb As Assembly =
Assembly.LoadFile("c:\ Certkiller \assemb\ Certkiller .com.dll")
- C. Dim assemb As Assembly = Assembly.ReflectionOnlyLoad(" Certkiller .com")
- D. Dim assemb As Assembly = Assembly.Load(" Certkiller .com")
- E. Dim assemb As Assembly = _
Assembly.ReflectionOnlyLoadFrom("c:\ Certkiller \assemb\ Certkiller .com.dll")

Answer: E

Explanation: To correctly load the Assembly class from the location c:\ Certkiller \assemb\ Certkiller .com.dll you should make use of the method used in the option of the scenario.

Incorrect Answers:

A, B, C, D: The other methods of the assembly class will request the common language runtime (CLR) to resolve the location of the assembly based on its identity therefore these options should not be used in the scenario even though you provide the full absolute path as a parameter.

QUESTION 199

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS554 as your development computer.

You are developing a .NET Framework 2.0 application on Certkiller -WS554. The application's assembly is named Certkiller App and is stored in Certkiller App.exe. You are busy using .NET Framework's Strong Name tool to generate a pair for Certkiller App.exe shown below:

Sn.exe -k Certkiller AppKey

You are required to use the key pair to build the Certkiller App.exe as a strong named assembly.

What should you do?

- A. The AssemblyKeyFileAttribute class should be used.
- B. The AssemblyDelaySignAttribute class should be used.
- C. The AssemblyConfigurationAttribute class should be used.
- D. The AssemblyKeyNameAttribute should be used.

Answer: A:

Explanation: The Strong name tool is used to allow you to generate and manage keys for the strong name signing and by using the -k switch the tool generates a new key pair and stores it in the specified file. So using the AssemblyKeyFileAttribute is the correct way to go in the scenario.

Incorrect Answers:

B: This class should not be considered for use as it is designed to specify whether or not delayed signing should be used.

C: The class should not be used in the scenario because the class is used to specify a build configuration for an assembly.

D: This class should not be used in the scenario because it is used to specify the name of a key container that should be used.

QUESTION 200

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS554 as your development computer.

You are developing a .NET Framework 2.0 application on Certkiller -WS554. The application will allow Certkiller .com users to send e-mails. The Certkiller .com users must be able to send e-mail containing information like budget documents and images. You decide to use the .NET Framework 2.0 Attachment class to create the e-mail attachments within your application.

You are required to specify the content in an attachment by using the attachment class constructors.

What should you do? (Choose two)

- A. The Stream object attachment class should be used.
- B. The String object attachment class should be used.
- C. The Image object attachment class should be used.
- D. The XmlDocument object attachment class should be used.
- E. The SqlDataReader object attachment class should be used.

Answer: A, B

Explanation: In the scenario the Attachment constructors allow you to create attachments from a filename, a String object, or a Stream object.

Incorrect Answers:

C: This method is incorrect and should not be used in the scenario because the Image object Attachment class cannot directly use an Image object.

D: This method is incorrect and should not be used in the scenario because the XmlDocument Attachment class cannot directly use an XmlDocument object.

E: This method is incorrect and should not be used in the scenario because the SqlDataReader Attachment class cannot directly make use of a SqlDataReader object.

QUESTION 201

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS536 as your development computer.

You are developing a .NET Framework 2.0 application that will be used to send e-mail. You develop the code shown below, line numbers for reference:

```
01: Public Sub SendMessage(ByVal message As MailMessage, ByVal host As  
String)  
02: Dim client As SmtpClient = New SmtpClient(host)  
03: Try  
04: client.Send(message)  
05: Catch ex As SmtpFailedRecipientsException  
06:  
07: For i As Integer = 1 To ex.InnerExceptions.Length  
08:  
09: Next  
10: End Try  
11: End Sub
```

The parameter MailMessage will be used to represent an e-mail message and the parameter host contains the address of a SMTP server. During the day the code will encounter SMTP error 450 (mailbox busy) errors, when this occurs an attempt should be made to resend the mail message after five seconds. In the event that you encounter another error it should be recorded in the event log.

You are required to add additional code at line 08 for handling the errors and need to write an expression that allows you to find the specific SMTP error returned by the SMTP server.

What should you do?

- A. The ex.InnerExceptions(i).Data expression should be used
- B. The ex.InnerExceptions(i).Message expression should be used
- C. The ex.InnerExceptions(i).FailedRecipient expression should be used
- D. The ex.InnerExceptions(i).StatusCode expression should be used

Answer: D

Explanation: In the scenario you should make use of the StatusCode expression because the expression can be used to return an enumeration of type SmtpStatusCode and gets the error code returned by the SMTP server in the scenario.

Incorrect Answers:

- A: This expression should not be used in the scenario because this expression will be used to return a set of user-defined values corresponding to the exception.
- B: This expression should not be used in the scenario because it returns a descriptive message about the error and does not provide you specific information of the error returned by the SMTP server
- C: This expression should not be used in the scenario because it is used to have the e-mail address that had the problems returned and gives no information about the SMTP error.

QUESTION 202

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP

Professional client computer named Certkiller -WS554 as your development computer.

You are developing a .NET Framework 2.0 enterprise application on Certkiller -WS554. The application will be used to allow Certkiller .com users to send e-mail messages and should allow Certkiller .com users to send HTML-based e-mails, but the users should not be able to use the HTML tag to embed images in the HTML document

The images are not externally hosted so instead the images must be sent as part of the e-mail message. You are required to select which class to use.

What should you do?

- A. The AlternateView class should be used.
- B. The Attachment class should be used.
- C. The MailAddress class should be used.
- D. The LinkedResource class should be used.

Answer: D

Explanation: In the scenario you should make use of the LinkedResource class as it is used to embed external resources in an e-mail attachment such as images in an HTML attachment.

Incorrect Answers:

- A: The class in question could be used in the scenario but the AlternateView class itself cannot be used to embed images in the HTML document.
- B: The Attachment class should not be used in the scenario as the class only allows you to send images as an attachment.
- C: The usage of this class is incorrect as it is used to store the address information for e-mail messages in the scenario.

QUESTION 203

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS536 as your development computer.

You are developing a .NET Framework 2.0 Windows Forms application on Certkiller -WS536. The Windows Forms application will be used by regional offices of Certkiller .com in various countries.

You are required to customize the application so that the language, calendar and cultural conventions are changed based on the user's operating system settings. You additionally are required to identify the .Net Framework class that should be used for this requirement.

What should you do?

- A. The CultureInfo class should be used.
- B. The TextInfo class should be used.
- C. The DateTimeFormatInfo should be used.

- D. The CharUnicodeInfo should be used.
- E. The RegionInfo should be used.

Answer: A

Explanation: The CultureInfo class should be used in the scenario because it contains culture-specific information and provides the information required for performing culture-specific operations like changing casing, formatting dates and numbers and comparing strings.

Incorrect Answers:

- B: This class should not be used in the scenario because this class only affects the behavior such as text casing.
- C: This class should not be used in the scenario because this class only defines how the Date and Time values are formatted.
- D: This class should not be used in the scenario because this class is used to only retrieve information about a Unicode character.
- E: This class should not be used in the scenario because this class does not represent any preferences of the user and does not depend upon the culture.

QUESTION 204

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS554 as your development computer.

You are developing a .NET Framework 2.0 Windows Forms application that must provide support for multiple languages and regional differences. You are required to define a custom culture based on an existing culture and region. An administrative user will install the custom culture on the end user's computer prior to the applications deployment. You are required to select which class to use. What should you do?

- A. The CultureAndRegionInfoBuilder class should be used
- B. The CustomAttributeBuilder class should be used
- C. The RegionInfo class should be used
- D. The CultureInfo class should be used

Answer: A

Explanation:

The correct option in the scenario would be to make use of the CultureAndRegionInfoBuilder class as this class is used to define a custom culture that is new or based upon an existing region and culture.

Incorrect Answers:

- B: This class should not be used in the scenario because this class is used to define custom attributes which are used to associate declarative information.
- C: This class should not be used in the scenario because this class is used to access the

region data for an already installed culture.

D: This class should not be used in the scenario because this class can only be used to make use of cultures that have already been installed.

QUESTION 205

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS536 as your development computer.

You are developing a .NET Framework 2.0 application on Certkiller -WS536. You are required to provide locale-specific services to employees with the application. You must additionally ensure that you use a unique country identifier that can be used as a key to access a database record that contains specific information about a country whilst you use the minimum storage for storing the key. What should you do?

- A. CultureInfo.Name should be used as an identifier for a country.
- B. CultureInfo.GetHashCode should be used as an identifier for a country.
- C. RegionInfo.GetHashCode should be used as an identifier for a country.
- D. RegionInfo.Name should be used as an identifier for a country.

Answer: D

Explanation: In the scenario you should make use of the RegionInfo.Name property as this property gets the name or ISO 3166 two-letter country/region code for the current RegionInfo object.

Incorrect Answers:

A: This method should not be used in the scenario as you will only receive the culture name instead of the country name and does not meet the objective.

B, C: The usage of the GetHashCode property in the scenario is incorrect as the hash value generated can be used to tell whether the RegionInfo or CultureInfo objects are the same or not.

QUESTION 206

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS554 as your development computer.

You are developing a .NET Framework 2.0 enterprise application on Certkiller -WS554. You create the following variable in your code:

```
Dim dateValue As DateTime
```

You additionally write code to store time in the local time to the dateValue variable. You are required to serialize the value of the dateValue variable, if you serialize the DateTime object in one time zone and deserialized in a different time zone, the local time represented as a result should be automatically adjusted to the second time zone. You are to decide which expression to use.

What should you do?

- A. The `dateValue.ToString("yyyy-MM-ddTHH:mm:ss.ffffff", CultureInfo.InvariantCulture)` expression should be used.
- B. The `dateValue.ToBinary()` expression should be used.
- C. The `dateValue.Kind` expression should be used.
- D. The `dateValue.Ticks` expression should be used.

Answer: B

Explanation: To preserve the information that you are required to preserve in the scenario you should make use of the `newToBinary` and `FromBinary` method as these methods can be used to automatically adjust the local times.

Incorrect Answers:

- A: The expression in question should not be used in the scenario because the expression will not preserve any of the required reserved information.
- C: This expression will be used to check whether the value indicates whether time is represented by the instance is based on local time.
- D: This expression is used to super fast serialize the required information but should not be considered when working with the local time.

QUESTION 207

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS536 as your development computer.

You are developing a .NET Framework 2.0 enterprise application on a Certkiller -WS536 which is used as collateral. You write the code below in your application, line numbers are reference:

```
01: Dim num As String
02: Dim val As Integer
03: num = " (37)"
04:
```

You are required to write additional code at line 04 that will be used to correctly parse the string value and assigns the result to the Integer variable named val. When you execute the code the variable is required to hold a value of -37. You must decide which code to use.

What code segment should you use?

- A. `val=Int32.Parse(num, NumberStyles.AllowLeadingSign And NumberStyles.AllowLeadingWhite)`
- B. `val=Int32.Parse(num, NumberStyles.AllowParentheses And NumberStyles.AllowLeadingWhite)`
- C. `val=Int32.Parse(num, NumberStyles.AllowLeadingSign Or NumberStyles.AllowLeadingWhite)`
- D. `val=Int32.Parse(num, NumberStyles.AllowParentheses Or`

NumberStyles.AllowLeadingWhite)

Answer: D

Explanation: The NumberStyles.AllowParentheses value is used to indicate that the numeric string can have one pair of parentheses enclosing the number and the NumberStyles.AllowLeadingWhite value is used to indicate that a leading white-space character must be ignored during the parse.

Incorrect Answers:

A, B: This code should not be used in the scenario because the code is used to indicate that the numeric string can have a leading sign.

C: The code in question should not be used in the scenario because the attributes of NumberStyles are set by using the bitwise inclusive Or on the field flags.

QUESTION 208

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS554 as your development computer.

You are developing a .NET Framework 2.0 Windows Forms application that will be used by several Certkiller .com employees in several countries. The application is required to fully support customization of the user interface based on the user's preferences like the language currency and date and time formats.

You are required to write code that will compare the name of two employees which are stored in variables named employee1 and employee2. You are required to ensure correct comparisons whilst taking care of the regional settings selected. What should you do?

A. The

String.Compare(Fileemployee1, Fileemployee2, true, CultureInfo.CurrentCulture) segment should be used.

B. The String.Compare(Fileemployee1, Fileemployee2, true, CultureInfo.InvariantCulture) segment should be used.

C. The String.Compare(Fileemployee1, Fileemployee2, true, CultureInfo.InstalledUICulture) segment should be used.

D. The String.Compare(Fileemployee1, Fileemployee2, true, CultureInfo.CurrentUICulture) segment should be used.

Answer: A

Explanation: The default behavior of the segment in question is to perform culture-sensitive comparisons and should definitely be considered for use in the scenario.

Incorrect Answers:

B: This code segment is incorrect and should not be used in the scenario because it will lead to culture-insensitive operations.

C: This code segment is incorrect and should not be used in the scenario because this will use the culture that is installed with the operating system.

D: This code segment is incorrect and should not be used in the scenario because this settings only used for changing the user's interface culture used by a thread.

QUESTION 209

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS554 as your development computer.

You are developing a large .NET Framework 2.0 application that is required to provide support for culture-specific information. You are required to parse a date and time string generated for a custom culture and to help the success of the parse operation you designate parse patterns that are likely to succeed. You must additionally prevent the operation from failing whilst you select the method to use for parsing the string.

What should you do?

- A. The ParseExact method should be used.
- B. The Parse method should be used.
- C. The TryParseExact method should be used.
- D. The TryParse method should be used.

Answer: C

Explanation: The TryParseExact method should be used if you require parsing a date and time string generated from a custom culture.

Incorrect Answers:

A, B: The usage of these methods in the scenario would be incorrect because the methods do not provide error handling and the custom culture can be complicated and difficult to parse.

D: If you decide to use the TryParse method which attempt to parse a string using several implicit parse patterns that may all fail you will not achieve the scenario objective.

QUESTION 210

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS536 as your development computer.

You are developing a .NET Framework 2.0 application that will be used to manipulate graphics files in GIF, JPG and PNG formats. You are required to choose an appropriate data type to store graphic files whilst your solution must use the least amount of code.

What should you do?

- A. The Icon class should be used.

- B. The Metafile class should be used.
- C. The Image class should be used.
- D. The Bitmap class should be used.

Answer: D

Explanation: Because the Bitmap class is an implementation of the Image abstract class that is capable of working with several types of image formats this class should be considered for usage in the scenario.

Incorrect Answers:

- A: This class should not be used in the scenario because the Icon class only allows you to work with small bitmap images.
- B: This class should not be used in the scenario because this class can not be used to manipulate images in different formats.
- C: This class should not be used in the scenario because this class is an abstract class which requires functionality to be implemented which requires programming effort.

QUESTION 211

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS536 as your development computer.

You are developing a .NET Framework 2.0 text-processing application on Certkiller -WS536. You are busy defining the following regular expression of currency values:

```
Dim tx As Regex = New Regex("^-?\d+(\.\d{2})?$")
```

You are required to write code that will be used to find whether a string in the variable named bill matches the regular expression or not. You are also required to use this code as the expression in a conditional statement and need to know which code segment to use.

What should you do?

- A. Use the code segment: tx.Matches(bill)
- B. Use the code segment: tx.Equals(bill)
- C. Use the code segment: tx.Match(bill)
- D. Use the code segment: tx.IsMatch(bill)

Answer: D

Explanation: In order for you to successfully indicate whether the regular expression finds a match in the input string you should make use of the IsMatch(bill) segment in the scenario.

Incorrect Answers:

- A: This segment should not be used in the scenario because the Matches method is used to search an input string for all occurrences of a regular expression and returns all the successful matches.

B: This segment should not be used in the scenario because this method is used to determine whether any two Object instances are equal.

C: This segment should not be used in the scenario because the Matches method is used to search an input string for an occurrence of a regular expression and returns the precise results as a single successful match.

QUESTION 212

You work as the application developer at Certkiller .com. Certkiller .com uses Visual Studio.NET 2005 as its application development platform. You use a Windows XP Professional client computer named Certkiller -WS554 as your development computer.

You are developing a .NET Framework 2.0 application on a Certkiller -WS554. The application will be used globally and must be able to represent characters in the following languages: English, Chinese Traditional, Hebrew and Tamil. Your application is required to provide error detection for invalid sequences of characters whilst your application must also optimize storage. What should you do?

- A. Encode the characters in your application using the UTF8Encoding class.
- B. Encode the characters in your application using the UTF7Encoding class.
- C. Encode the characters in your application using the UTF32Encoding class.
- D. Encode the characters in your application using the UTF16Encoding class.

Answer: A

Explanation: To successfully enable error detection and make the class instance more secure you should make use of the UTF8Encoding class in the scenario.

Incorrect Answers:

B: The Encoding class used in this option UTF7Encoding does not provide any error detection and should not be used in the scenario.

C, D: The Encoding classes in these options should not be used in the scenario because the UTF16Encoding class represents each character as a sequence of one to two 16-bit integers and the UTF32Encoding represents each code point as a 32-bit integer.