Microsoft 70-536

Microsoft .NET Framework, Application Development Foundation

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Topic 1, C# Questions

QUESTION NO: 1

You are developing a custom event handler to automatically print all open documents. The event handler helps specify the number of copies to be printed. You need to develop a custom event arguments class to pass as a parameter to the event handler.

Which code segment should you use?

A. public class PrintingArgs
{
private int copies;
public PrintingArgs(int numberOfCopies)
{
this.copies = numberOfCopies;
}
public int Copies
{
get { return this.copies; }
}
}
B. public class PrintingArgs : EventArgs
{
private int copies;
public PrintingArgs(int numberOfCopies)
{
this.copies = numberOfCopies;
}
public int Copies
{
get { return this.copies; }
}
}
C. public class PrintingArgs
{
private EventArgs eventArgs;
public PrintingArgs(EventArgs ea)
{
this.eventArgs = ea;
}
public EventArgs Args
{
get { return eventArgs; }
}
}

D. public class PrintingArgs : EventArgs
{
private int copies;
}

Answer: B
Explanation: The event handler will require a parameter of type EventArgs or a derived type. The derived type in this example will question states that the event handler helps specify the number of documents that require printing, this information will have to come from the derived EventArgs class in the form of an instance variable.

QUESTION NO: 2

You use Reflection to obtain information about a method named MyMethod.

You need to ascertain whether MyMethod is accessible to a derived class.

What should you do?

A. Call the IsAssembly property of the MethodInfo class.
B. Call the IsVirtual property of the MethodInfo class.
C. Call the IsStatic property of the MethodInfo class.
D. Call the IsFamily property of the MethodInfo class.

Answer: D
Explanation: The IsFamily property determines whether the method is accessible onlsecy to the class and descendant classes.

QUESTION NO: 3

You are creating a class that uses unmanaged resources. This class maintains references to managed resources on other objects. You need to ensure that users of this class can explicitly release resources when the class instance ceases to be needed. Which three actions should you perform? (Each correct answer presents part of the solution. Choose three.)

A. Define the class such that it inherits from the WeakReference class.
B. Define the class such that it implements the IDisposable interface.
C. Create a class destructor that calls methods on other objects to release the managed resources.

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D. Create a class destructor that releases the unmanaged resources.

E. Create a Dispose method that calls System.GC.Collect to force garbage collection.

F. Create a Dispose method that releases unmanaged resources and calls methods on other objects to release the managed resources.

Answer: B,D,F

Explanation:

It is necessary to implement the IDisposable interface if you need to release unmanaged resources or want explicit control of the life of managed resources. A class destructor should be created to release the unmanaged resources and this should be called from within the Dispose method. The dispose method should also release the managed resources.

Inheriting from WeakReference would result in the garbage collector releasing resources even though there may be valid references.

The managed resources should be released in the Dispose method.

System.GC.Collect could be used, however it is more efficient to manually release the managed resources. The GC incurs overhead and may have only recently been called anyway. The question states resources should be released explicitly.

QUESTION NO: 4

You are working on a debug build of an application. You need to find the line of code that caused an exception to be thrown. Which property of the Exception class should you use to achieve this goal?

A. Data
B. Message
C. StackTrace
D. Source

Answer: C

Explanation: The StackTrace property provides a listing of the current call stack. Information such as the method calls and line numbers are shown.

QUESTION NO: 5

You are testing a newly developed method named PersistToDB. This method accepts a parameter

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of type EventLogEntry. This method does not return a value.

You need to create a code segment that helps you to test the method. The code segment must read entries from the application log of local computers and then pass the entries on to the PersistToDB method. The code block must pass only events of type Error or Warning from the source MySource to the PersistToDB method.

Which code segment should you use?

A. EventLog myLog = new EventLog("Application", ".");
foreach (EventLogEntry entry in myLog.Entries)
{
if (entry.Source == "MySource")
{
PersistToDB(entry);
}
}
B. EventLog myLog = new EventLog("Application", ".");
myLog.Source = "MySource";
foreach (EventLogEntry entry in myLog.Entries)
{
if (entry.EntryType == (EventLogEntryType.Error & EventLogEntryType.Warning))
{
PersistToDB(entry);
}
}
C. EventLog myLog = new EventLog("Application", ".");
foreach (EventLogEntry entry in myLog.Entries)
{
if (entry.Source == "MySource")
{
if (entry.EntryType == EventLogEntryType.Error || entry.EntryType == EventLogEntryType.Warning)
{
PersistToDB(entry);
}
}
}
D. EventLog myLog = new EventLog("Application", ".");
myLog.Source = "MySource";
foreach (EventLogEntry entry in myLog.Entries)
{
if (entry.EntryType == EventLogEntryType.Error || entry.EntryType == EventLogEntryType.Warning)
{

PersistToDB(entry);
}
}

Answer: C

Explanation: It is necessary to create a new Application EventLog, iterate over all the EventLogEntries and call the PersistToDB method if the entry is a warning or error and the source is MySource.

QUESTION NO: 6

Your application uses two threads, named thread One and thread Two. You need to modify the code to prevent the execution of thread One until thread Two completes execution.

What should you do?

A. Configure threadOne to run at a lower priority.
B. Configure threadTwo to run at a higher priority.
C. Use a WaitCallback delegate to synchronize the threads.
D. Call the Sleep method of threadOne.
E. Call the SpinLock method of threadOne.

Answer: C
Explanation:

QUESTION NO: 7

You are writing a custom dictionary. The custom-dictionary class is named MyDictionary. You need to ensure that the dictionary is type safe. Which code segment should you use?

A. class MyDictionary : Dictionary<string, string>
B. class MyDictionary : HashTable
C. class MyDictionary : IDictionary
D. class MyDictionary { ... }
Dictionary<string, string> t = new Dictionary<string, string>();
MyDictionary dictionary = (MyDictionary)t;

Answer: A
Explanation:

QUESTION NO: 8

You are creating an assembly named Assembly1. Assembly1 contains a public method. The global cache contains a second assembly named Assembly2. You must ensure that the public method is only called from Assembly2.

Which permission class should you use?

A. GacIdentityPermission
B. StrongNameIdentityPermission
C. DataProtectionPermission
D. PublisherIdentityPermission

Answer: B
Explanation: StrongNameIdentityPermission can be used to verify the identity of a calling assembly.

QUESTION NO: 9

You create an application to send a message by e-mail. An SMTP server is available on the local subnet. The SMTP server is named smtp.contoso.com.

To test the application, you use a source address, me@contoso.com, and a target address, you@contoso.com.

You need to transmit the e-mail message.

Which code segment should you use?

A. MailAddress addrFrom =
new MailAddress("me@contoso.com", "Me");
MailAddress addrTo =
new MailAddress("you@contoso.com", "You");
MailMessage message = new MailMessage(addrFrom, addrTo);
message.Subject = "Greetings!";
message.Body = "Test";
SocketInformation info = new SocketInformation();
Socket client = new Socket(info);
System.Text.ASCIIEncoding enc =
new System.Text.ASCIIEncoding();

```
byte[] msgBytes = enc.GetBytes(message.ToString());
client.Send(msgBytes);
```
B. MailAddress addrFrom = new MailAddress("me@contoso.com");
MailAddress addrTo = new MailAddress("you@contoso.com");
MailMessage message = new MailMessage(addrFrom, addrTo);
message.Subject = "Greetings!";
message.Body = "Test";
SmtpClient client = new SmtpClient("smtp.contoso.com");
client.Send(message);
C. string strSmtpClient = "smtp.contoso.com";
string strFrom = "me@contoso.com";
string strTo = "you@contoso.com";
string strSubject = "Greetings!";
string strBody = "Test";
MailMessage msg =
new MailMessage(strFrom, strTo, strSubject, strSmtpClient);
D. MailAddress addrFrom =
new MailAddress("me@contoso.com", "Me");
MailAddress addrTo =
new MailAddress("you@contoso.com", "You");
MailMessage message = new MailMessage(addrFrom, addrTo);
message.Subject = "Greetings!";
message.Body = "Test";
message.Dispose();

Answer: B
Explanation: To Send a simple mail message construct a MailMessage object and a SmptClient object. Call the SmtpClient.Send instance method supplying the MailMessage object as a parameter.

QUESTION NO: 10

You are developing a custom-collection class. You need to create a method in your class. You need to ensure that the method you create in your class returns a type that is compatible with the Foreach statement. Which criterion should the method meet?

A. The method must return a type of either IEnumerator or IEnumerable.
B. The method must return a type of IComparable.
C. The method must explicitly contain a collection.
D. The method must be the only iterator in the class.

Answer: A
Explanation: Returning an IEnumerator will enable the ForEach statement. IEnumerable is a

subtype of IEnumerator hence can also be up cast to IEnumerator.

IComparable is used to enable comparisons for a user type.

Explicitly containing a collection within the method will have no impact on the methods return type which is what the ForEach statement will operate on.

QUESTION NO: 11

You are developing an application to perform mathematical calculations. You develop a class named CalculationValues. You write a procedure named PerformCalculation that operates on an instance of the class.

You need to ensure that the user interface of the application continues to respond while calculations are being performed. You need to write a code segment that calls the PerformCalculation procedure to achieve this goal.

Which code segment should you use?

A. public ref class CalculationValues {...};
public ref class Calculator {
public :
void PerformCalculation(Object= values) {}
};
public ref class ThreadTest{
private :
void DoWork (){
CalculationValues= myValues = gcnew CalculationValues();
Calculator = calc = gcnew Calculator();
Thread= newThread = gcnew Thread(
gcnew ParameterizedThreadStart(calc,
&Calculator::PerformCalculation));
newThread->Start(myValues);
}
};
B. public ref class CalculationValues {...};
public ref class Calculator {
public :
void PerformCalculation() {}
};
public ref class ThreadTest{

```
private :
void DoWork (){
CalculationValues= myValues = gcnew CalculationValues();
Calculator = calc = gcnew Calculator();
ThreadStart= delStart = gcnew
ThreadStart(calc, &Calculator::PerformCalculation);
Thread= newThread = gcnew Thread(delStart);
if (newThread->IsAlive) {
newThread->Start(myValues);
}
}
};
```

C. public ref class CalculationValues {...};
```
public ref class Calculator {
public :
void PerformCalculation(CalculationValues= values) {}
};
public ref class ThreadTest{
private :
void DoWork (){
CalculationValues= myValues = gcnew CalculationValues();
Calculator = calc = gcnew Calculator();
Application::DoEvents();
calc->PerformCalculation(myValues);
Application::DoEvents();
}
};
```

D. public ref class CalculationValues {...};
```
public ref class Calculator {
public :
void PerformCalculation() {}
};
public ref class ThreadTest{
private :
void DoWork (){
CalculationValues= myValues = gcnew CalculationValues();
Calculator = calc = gcnew Calculator();
Thread= newThread = gcnew Thread(
gcnew ThreadStart(calc, &Calculator::PerformCalculation));
newThread->Start(myValues);
}
};
```

Answer: A

Explanation: It is a requirement that the UI continues to respond, hence PerformCalculation
should execute in a separate thread. PerformCalculation requires a parameter hence you should