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A Composite Solution With Just One Click

Microsoft

70-513 PRACTICE EXAM

TS:Windows Communication Found Dev w/MS .NET Frmwk (C# and VB) 4

70-513CSHARP**Question: 1**

You are creating a Windows Communication Foundation (WCF) service application. The application needs to service many clients and requests simultaneously. The application also needs to ensure subsequent individual client requests provide a stateful conversation. You need to configure the service to support these requirements. Which attribute should you add to the class that is implementing the service?

- A. [ServiceBehavior (InstanceContextMode = InstanceContextMode.PerSession, ConcurrencyMode = ConcurrencyMode.Single)]
- B. [ServiceBehavior (InstanceContextMode = InstanceContextMode.PerCall, ConcurrencyMode = ConcurrencyMode.Reentrant)]
- C. [ServiceBehavior (InstanceContextMode = InstanceContextMode.PerSession, ConcurrencyMode = ConcurrencyMode.Multiple)]
- D. [ServiceBehavior (InstanceContextMode = InstanceContextMode.PerCall, ConcurrencyMode = ConcurrencyMode.Multiple)]

Answer: C**Question: 2**

A service implements the following contract. (Line numbers are included for reference only.)

```

01 [ServiceContract(SessionMode = SessionMode.Required)]
02 public interface IContosoService
03 {
04     [OperationContract(IsOneWay = true, IsInitiating = true)]
05     void OperationOne(string value);
06
07     [OperationContract(IsOneWay = true, IsInitiating = false)]
08     void OperationTwo(string value);
09 }
```

The service is implemented as follows.

```

20 class ContosoService : IContosoService
21 {
22     public void OperationOne(string value) { ... }
23
24     public void OperationTwo(string value) { ... }
25 }
```

ContosoService uses NetMsmqBinding to listen for messages. The queue was set up to use transactions for adding and removing messages. You need to ensure that OperationOne and OperationTwo execute under the same transaction context when they are invoked in the same session. What should you do?

- A. Insert the following attribute to OperationOne on IContosoService.

[TransactionFlow(TransactionFlowOption.Mandatory)]
Insert the following attribute to OperationTwo on IContosoService.

B. Insert the following attribute to OperationOne on ContosoService.

[OperationBehavior(TransactionScopeRequired = true,
 TransactionAutoComplete = false)]

Insert the following attribute to OperationTwo on ContosoService.

[OperationBehavior(TransactionScopeRequired = true,
 TransactionAutoComplete = true)]

C. Add the following XML segment to the application config file in the system.serviceModel/bindings configuration section.

```
<netMsmqBinding>  
    <binding name="contosoTx" durable="true" receiveContextEnabled="true" />  
</netMsmqBinding>
```

Then use the NetMsmqBinding named contosoTx to listen for messages from the clients.

D. Add the following XML segment to the application config file in the system.serviceModel/bindings configuration section.

```
<customBinding>  
    <binding name="contosoTx">  
        <transactionFlow />  
        <binaryMessageEncoding />  
        <msmqTransport durable="true" />  
    </binding>  
</customBinding>
```

Then use the CustomBinding named contosoTx to listen for messages from the clients.

Answer: B

Question: 3

A Windows Communication Foundation (WCF) solution exposes the following service over a TCP binding. (Line numbers are included for reference only.)

```
01 [ServiceContract]  
02 [ServiceBehaviorConcurrencyMode = ConcurrencyMode.Multiple)]  
03 public class DataAccessService  
04 {  
05     [OperationContract]  
06     public void PutMessage(string message)  
07     {  
08         MessageDatabase.PutMessage(message);  
09     }  
10     [OperationContract]  
11     public string[] SearchMessages(string search)  
12     {  
13         return MessageDatabase.SearchMessages(search);  
14     }  
15 }
```

MessageDatabase supports a limited number of concurrent executions of its methods.

You need to change the service to allow up to the maximum number of executions of the methods of MessageDatabase. This should be implemented without preventing customers from connecting to the service.

What should you do?

A. Change the service behavior as follows.

```
[ServiceBehavior(ConcurrencyMode = ConcurrencyMode.Multiple,
    InstanceContextMode = InstanceContextMode.Single)]
```

B. Change the service behavior as follows.

```
[ServiceBehavior(ConcurrencyMode = ConcurrencyMode.Single,
    InstanceContextMode = InstanceContextMode.PerSession)]
```

C. Add a throttling behavior to the service, and configure the maxConcurrentCalls.

D. Add a throttling behavior to the service, and configure the maxConcurrentSessions.

Answer: C

Question: 4

You are developing a Windows Communication Foundation (WCF) service that allows customers to update financial data.

a. The service contract is defined as follows. (Line numbers are included for reference only.)

```
01 [ServiceContract]
02 public interface IDataUpdate
03 {
04     [OperationContract]
05     [TransactionFlow(TransactionFlowOption.Mandatory)]
06     void Update(string accountNumber, double amount);
07 }
08
09 class UpdateService : IDataUpdate
10 {
11     [OperationBehavior(TransactionScopeRequired = true,
12         TransactionAutoComplete = false)]
12     public void Update(string accountNumber,
13         double amount)
14     {
15         ...
16     }
17 }
```

You need to ensure that the service is invoked within a transaction.

What should you do?

A. Replace line 01 with the following code.

```
[ServiceContract(
SessionMode = SessionMode.NotAllowed)]
```

B. Replace line 01 with the following code.

```
[ServiceContract( SessionMode = SessionMode.Required)]
```

C. Insert the following code at line 08.

```
[ServiceBehavior(
TransactionAutoCompleteOnSessionClose = false)]
```

D. Insert the following code at line 08.

```
[ServiceBehavior(
ReleaseServiceInstanceOnTransactionComplete = false)]
```

Answer: B

Question: 5

You are developing a Windows Communication Foundation (WCF) service that is hosted by a Windows Forms application.

The ServiceHost instance is created in the Form constructor.

You need to ensure that the service is not blocked while the UI thread is busy.

What should you do?

- A. Decorate the service implementation class with the following line of code.

```
[ServiceBehavior(  
    UseSynchronizationContext = false)]
```

- B. Decorate the service implementation class with the following line of code.

```
[ServiceBehavior(  
    ConcurrencyMode = ConcurrencyMode.Multiple)]
```

- C. Call the Invoke method of the form and supply a delegate.

- D. Call the BeginInvoke method of the form and supply a delegate.

Answer: A

Question: 6

You develop a Windows Communication Foundation (WCF) service that employees use to access bonus information.

You define the following service contract. (Line numbers are included for reference only.)

```
01 [ServiceContract(SessionMode = SessionMode.Required)]  
02 public interface IFinancialService  
03 {  
04     [OperationContract]  
05     string Login(int employeeID, string passwordHash);  
06  
07     [OperationContract]  
08     double GetBonus(int month);  
09  
10    [OperationContract(IsTerminating = true)]  
11    void Logout();  
12 }
```

Client applications can invoke methods without logging in.

You need to ensure that the client applications invoke Login before invoking any other method.

You also need to ensure that client applications cannot consume the service after invoking Logout.

Which two actions should you perform? (Each correct answer presents part of the solution. Choose two.)

- A. Replace line 04 with the following code.

```
[OperationContract(IsInitiating = false)]
```

- B. Replace line 04 with the following code.

```
[OperationContract(IsInitiating = true, IsTerminating = true)]
```

- C. Replace line 07 with the following code.

```
[OperationContract(IsInitiating = false)]
```

- D. Replace line 10 with the following code.

[OperationContract(IsInitiating = false,
IsTerminating = true)]

Answer: C, D

Question: 7

You develop a Windows Communication Foundation (WCF) service that interacts with Microsoft Message Queuing (MSMQ).

The service requires sessions. You need to create a custom binding that enables messages sent to the queue to be viewed when you are using a listener tool.

Which binding elements should you use?

- A. textMessageEncoding and msmqTransport in this order
- B. textMessageEncoding and msmqIntegrationTransport in this order
- C. msmqTransport and textMessageEncoding in this order
- D. msmqIntegrationTransport and textMessageEncoding in this order

Answer: A

Question: 8

You are creating a Windows Communication Foundation (WCF) service. The service endpoints change frequently. On the service, you add a new ServiceDiscoveryBehavior to the Behaviors collection of the ServiceHost Description property.

You need to ensure that client applications can communicate with the service and discover changes to the service endpoints.

What should you do?

- A. Add a new ServiceDiscoveryBehavior to the Behaviors collection in the client application.
- B. Add a new AnnouncementClient to the Behaviors collection in the client application.
- C. Use the FindCriteria class and the UdpDiscoveryEndpoint class to set up the binding in the client application.
- D. Use the DiscoveryProxy class and the EndpointDiscoveryMetadata class to set up the binding in the client application.

Answer: C

Question: 9

You are developing an application to update a users social status. You need to consume the service using Windows Communication Foundation (WCF).

The client configuration is as follows.

```
<system.serviceModel>
  <bindings>
    <webHttpBinding>
      <binding name="SocialConfig">
        <security mode="TransportCredentialOnly">
          <transport clientCredentialType="Basic"
            realm="Social API" />
```

```

</security>
</binding>
</webHttpBinding>
</bindings>
<client>
    <endpoint address="http://contoso.com"
        binding="webHttpBinding"
        bindingConfiguration="SocialConfig"
        contract="ISocialStatus"
        name="SocialClient" />
</client>
</system.serviceModel>

```

The service contract is defined as follows.

```
[ServiceContract] public interface ISocialStatus {
[OperationContract]
[WebInvoke(UriTemplate =
"/statuses/update.xml?status={text}")]
void UpdateStatus(string text);
}
```

Which code segment should you use to update the social status?

- A. using (WebChannelFactory<ISocialStatus> factory =
new WebChannelFactory<ISocialStatus>("SocialClient"))
{
factory.Credentials.UserName.UserName = user.Name;
factory.Credentials.UserName.Password = user.Password;
ISocialStatus socialChannel = factory.CreateChannel();
socialChannel.UpdateStatus(newStatus);
}
- B. using (ChannelFactory<ISocialStatus> factory =
new WebChannelFactory<ISocialStatus>(typeof(ISocialStatus)))
{
factory.Credentials.UserName.UserName = user.Name;
factory.Credentials.UserName.Password = user.Password;
ISocialStatus socialChannel = factory.CreateChannel();
socialChannel.UpdateStatus(newStatus);
}
- C. using (ChannelFactory<ISocialStatus> factory =
new ChannelFactory<ISocialStatus>"POST")
{
factory.Credentials.Windows.ClientCredential.UserName =
user.Name;
factory.Credentials.Windows.ClientCredential.SecurePassword.
SetAt(0, Convert.ToChar(user.Password));
ISocialStatus socialChannel = factory.CreateChannel();
socialChannel.UpdateStatus(newStatus); }
- D. using (WebChannelFactory<ISocialStatus> factory =
new WebChannelFactory<ISocialStatus>(typeof(ISocialClient)))
{
factory.Credentials.Windows.ClientCredential.UserName =
user.Name;

```
factory.Credentials.Windows.ClientCredential.SecurePassword.  
SetAt(0, Convert.ToChar(user.Password) );  
ISocialStatus socialChannel = factory.CreateChannel();  
socialChannel.UpdateStatus(newStatus); }
```

Answer: A

Question: 10

You are developing a client application that uses the following code to consume a Windows Communication Foundation (WCF) service. (Line numbers are included for reference only.)

```
01 BasicHttpBinding myBinding = new BasicHttpBinding();  
02 EndpointAddress myEndpointAddress =  
new EndpointAddress(  
"http://contoso.com/TaxService.svc");  
03  
04 ITaxService client = channelFactory.CreateChannel();  
05 string data = client.GetData(1);
```

You need to consume the service.

Which code segment should you insert at line 03?

- A. var channelFactory = new ChannelFactory<ITaxService>();
- B. var channelFactory = new ChannelFactory<ITaxService>(myBinding);
- C. var channelFactory = new ChannelFactory<ITaxService>(myBinding, myEndpointAddress);
- D. var channelFactory = new ChannelFactory<ITaxService>("http://contoso.com/TaxService.svc");

Answer: C

Question: 11

You are developing a client application that consumes a Windows Communication Foundation (WCF) service.

You use the svcutil.exe utility to create a proxy for the service.

You use the svcutil.exe switches that generate asynchronous calls. GetFlight is a service operation that takes no parameters and returns a string. The GetFlightCallback method must be called when the service operation returns.

You create an instance of the client proxy with the following code.

```
var client = new TravelServiceClient();
```

You need to ensure that a callback is received when the GetFlight operation is called asynchronously.

Which code segment should you use?

- A. client.BeginGetFlight(GetFlightCallback, null);
client.GetFlight();
- B. client.GetFlight();
client.BeginGetFlight(GetFlightCallback, null);
- C. client.GetFlightCompleted +=
new EventHandler<GetFlightCompletedEventArgs>(GetFlightCallback);
client.GetFlightAsync();

```
D. IAsyncResult asyncResult = client.BeginGetFlight(
    GetFlightCallback, client);
client.EndGetFlight(asyncResult);
```

Answer: C

Question: 12

A Windows Communication Foundation (WCF) solution uses the following contracts. (Line numbers are included for reference only.)

```
01 [ServiceContract(CallbackContract = typeof(INameService))]
02 public interface IGreetingService
03 {
04     [OperationContract]
05     string GetMessage();
06 }
07
08 [ServiceContract]
09 public interface INameservice
10 {
11     [OperationContract]
12     string GetName();
13 }
```

When the client calls GetMessage on the service interface, the service calls GetName on the client callback. In the client, the class NameService implements the callback contract.

The client channel is created as follows.

```
22 In stancetext callbackContext =
    new InstanceContext(new NameService("client"));
25 DuplexChannelFactory<IGreetingService> factory =
    new DuplexChannelFactory<IGreetingService>(
        typeof(NameService), binding, address);
26 IGreetingService greetingService = factory.CreateChannel();
```

You need to ensure that the service callback is processed by the instance of NameService.

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

A. Change line 25 to the following code segment.

```
DuplexChannelFactory<IGreetingService> factory =
new DuplexChannelFactory<IGreetingService>(
    callbackContext, binding, address);
```

B. Change line 26 to the following code segment.

```
IGreetingService greetingService =
    factory.CreateChannel(callbackContext);
```

- | | | | | |
|----|--|-------|------|-----|
| C. | Add the following code segment | after | line | 26. |
| | callbackContext.IncomingChannels.Add((IDuplexChannel)greetingService); | | | |
| D. | Add the following code segment | after | line | 26. |
| | callbackContext.OutgoingChannels.Add((IDuplexChannel)greetingService); | | | |

Answer: A, B

Question: 13

A Windows Communication Foundation (WCF) service has a callback contract. You are developing a client application that will call this service.

You must ensure that the client application can interact with the WCF service.

What should you do?

- A. On the OperationContractAttribute, set the AsyncPattern property value to true.
- B. On the OperationContractAttribute, set the ReplyAction property value to the endpoint address of the client.
- C. On the client, create a proxy derived from DuplexClientBase<TChannel>.
- D. On the client, use GetCallbackChannel<T>.

Answer: C

Question: 14

A Windows Communication Foundation (WCF) client application is consuming an RSS syndication feed from a blog. You have a SyndicationFeed variable named feed. The application iterates through the items as follows. (Line numbers are included for reference only.)

```
01 foreach (SyndicationItem item in feed.Items)
02 {
03 }
```

You need to display the content type and body of every syndication item to the console.

Which two lines of code should you insert between lines 02 and 03?

- A. Console.WriteLine(item.Content.Type); Console.WriteLine(((TextSyndicationContent)item.Content).Text);
- B. Console.WriteLine(item.Content.GetType()); Console.WriteLine(((TextSyndicationContent)item.Content).Text);
- C. Console.WriteLine(item.Content.Type); Console.WriteLine(item.Content.ToString());
- D. Console.WriteLine(item.Content.GetType()); Console.WriteLine(item.Content.ToString());

Answer: A

Question: 15

You are creating a Windows Communication Foundation (WCF) service.

You have the following requirements:

- Messages must be sent over TCP.
- The service must support transactions.
- Messages must be encoded using a binary encoding.
- Messages must be secured using Windows stream-based security.

You need to implement a custom binding for the service.

In which order should the binding stack be configured?

- A. tcpTransport
windowsStreamSecurity
transactionFlow
binaryMessageEncoding
- B. transactionFlow
binaryMessageEncoding
windowsStreamSecurity
tcpTransport

- C. windowsStreamSecurity
tcpTransport
binaryMessageEncoding
transactionFlow
- D. binaryMessageEncoding
transactionFlow
tcpTransport
windowsStreamSecurity

Answer: B

Question: 16

A Windows Communication Foundation (WCF) application uses the following data contract.

```
[DataContract]
public class Person
{
    [DataMember]
    public string firstName;
    [DataMember]
    public string lastName;
    [DataMember]
    public int age;
    [DataMember]
    public int ID;
}
```

You need to ensure that the following XML segment is generated when the data contract is serialized.

```
<Person>
    <firstName xsi:nil="true"/>
    <lastName xsi:nil="true"/>
    <ID>999999999</ID>
</Person>
```

Which code segment should you use?

- A. [DataMember]
public string firstName;
[DataMember]
public string lastName;
[DataMember(EmitDefaultValue = true)]
public int age = 0 ;
[DataMember(EmitDefaultValue = true)]
public int ID = 99999999;
- B. [DataMember(EmitDefaultValue = false)]
public string firstName = null;
[DataMember(EmitDefaultValue = false)]
public string lastName = null;
[DataMember(EmitDefaultValue = true)]
public int age = -1;
[DataMember(EmitDefaultValue = false)]

```
public int ID = 999999999;
C. [DataMember(EmitDefaultValue = true)]
public string firstName;
[DataMember(EmitDefaultValue = true)]
public string lastName;
[DataMember(EmitDefaultValue = false)]
public int age = -1;
[DataMember(EmitDefaultValue = false)]
public int ID = 999999999;
D. [DataMember]
public string firstName = null;
[DataMember] public string lastName = null;
[DataMember(EmitDefaultValue = false)] public int age = 0;
[DataMember(EmitDefaultValue = false)]
public int ID = 999999999;
```

Answer: D

Question: 17

You are developing a Windows Communication Foundation (WCF) service.

The service operation takes a customer number as the only argument and returns information about the customer.

The service requires a security token in the header of the message.

You need to create a message contract for the service.

Which code segment should you use?

- A. [ServiceContract]
public interface IService
{
 [OperationContract]
 CustomerInformation GetCustomerInformation(Header header,
 int customerNumber);
}
 [DataContract]
 public class CustomerInformation
 {

 }
 [MessageContract]
 public class Header { [MessageHeader] public string SecurityTag;
}
- B. [ServiceContract]
public interface IService
{ [OperationContract]
 CustomerInformation GetCustomerInformation(Header header,
 int customerNumber);
} [MessageContract] public class CustomerInformation { } [MessageContract] public class Header {
 [MessageHeader] public string SecurityTag; }
- C. [ServiceContract]
public interface IService {
 [OperationContract]

```
CustomerInformation GetCustomerInformation( CustomerNumber request);
}
[DataContract]
public class CustomerInformation { } [MessageContract] public class CustomerNumber { [MessageHeader]
public string SecurityTag; [MessageBodyMember] public int CustomerNumberElement; }
D. [ServiceContract]
public interface IService
{
[OperationContract]
CustomerInformation GetCustomerInformation(
CustomerNumber request);
}
[MessageContract]
public class CustomerInformation
{
.....
}
[MessageContract] public class CustomerNumber
{
[MessageHeader]
public string SecurityTag;
[MessageBodyMember]
public int CustomerNumberElement;
}
```

Answer: D

Question: 18

A Windows Communication Foundation (WCF) solution uses two services to manage a shopping cart. Service A processes messages containing line items that total between \$0 and \$500. Service B processes messages containing line items that total more than \$500.

All messages are of equal importance to the business logic.

You need to route incoming messages to the appropriate services by using WCF routing.

Which two message filters should you add to the router? (Each correct answer presents part of the solution. Choose two.)

- A. a message filter with a priority of 100 that will forward messages that total between \$0 and \$500 to Service A
- B. a message filter with a priority of 0 that will forward messages that total between \$0 and \$500 to Service A
- C. a message filter with a priority of 0 that will forward all messages to Service B
- D. a message filter with a priority of 100 that will forward all messages to Service B

Answer: A, C

Question: 19

You are developing a data contract for a Windows Communication Foundation (WCF) service.

The data in the data contract must participate in round trips. Strict schema validity is not required.

You need to ensure that the contract is forward-compatible and allows new data members to be added to it.

Which interface should you implement in the data contract class?

- A. ICommunicationObject
- B. IExtension<T>
- C. IExtensibleObject<T>
- D. IExtensibleDataObject

Answer: D

Question: 20

Your company has a Windows Communication Foundation (WCF) service at the URL <http://services.contoso.com/OrderLookupService.svc>.

The <system.serviceModel> section of the configuration file is as follows. (Line numbers are included for reference only.)

```
01 <system.serviceModel>
02   <behaviors>
03     <serviceBehaviors>
04       <behavior>
05         <serviceDebug
06           includeExceptionDetailInFaults="false"/>
07
08         </behavior>
09       </serviceBehaviors>
10     </behaviors>
11   <serviceHostingEnvironmentmultipleSiteBindingsEnabled="true" />
12 </system.serviceModel>
```

You need to ensure that the service publishes the WSDL description at <http://services.contoso.com/OrderLookupService.svc?wsdl>.

What should you do?

- A. Change the serviceDebug element at line 05 as follows.

```
<serviceDebug includeExceptionDetailInFaults="true"/>
```

- B. Insert the following element at line 06.

```
<serviceDiscovery>
  <announcementEndpoints>
    <endpoint name="wsdlAnnouncement" kind="udpAnnouncementEndpoint" />
  </announcementEndpoints>
</serviceDiscovery>
```

- C. Insert the following element at line 06.

```
<serviceMetadata httpGetEnabled="true" />
```

- D. Insert the following element at line 06.

```
<serviceMetadata httpGetEnabled="false" />
```

Answer: C

Question: 21

A Windows Communication Foundation (WCF) service handles online order processing for your company.

You discover that many requests are being made with invalid account numbers.

You create a class named AccountNumberValidator that has a method named Validate.

Before the message is processed, you need to validate account numbers with AccountNumberValidator and reject messages with invalid account numbers.

You create a new class that implements the IParameterInspector interface.

Which code segment should you use in this class?

- A. public void AfterCall(string operationName,
 object[] outputs,
 object returnValue,
 object correlationState)
 {
 string accountNumber = GetAccountNumber(outputs);
 var validator = new AccountNumberValidator();
 if(!validator.Validate(accountNumber))
 {
 throw new FaultException();
 }
 }
 public object BeforeCall(string operationName, object[] inputs)
 {
 return null;
 }
- B. public void AfterCall(string operationName,
 object[] outputs,
 object returnValue,
 object correlationState)
 {
 return;
 }
 public object BeforeCall(string operationName,
 object[] inputs)
 {
 string accountNumber = GetAccountNumber(inputs);
 var validator = new AccountNumberValidator();
 if (!validator.Validate(accountNumber))
 {
 throw new FaultException();
 }
 return null;}
- C. public void AfterCall(string operationName,
 object[] outputs,
 object returnValue,
 object correlationState)
 {
 string accountNumber = GetAccountNumber(outputs);
 var validator = new AccountNumberValidator();
 if(!validator.Validate(accountNumber))
 {
 returnValue = new FaultException();
 }
 }

```
public object BeforeCall(string operationName,  
object[] inputs)  
{  
    return null;  
}  
D. public void AfterCall(string operationName,  
object[] outputs,  
object returnValue,  
object correlationState)  
{  
    return;  
}  
public  
object BeforeCall(string operationName, object[] inputs) {  
string accountNumber = GetAccountNumber(inputs);  
var validator = new AccountNumberValidator();  
if (!validator.Validate(accountNumber))  
{  
    return new FaultException();  
}  
}
```

Answer: B

Question: 22

You have an existing Windows Communication Foundation (WCF) service.
You need to ensure that other services are notified when the service is started.
What should you do?

- A. Add the following standard endpoint to the service.

```
<endpoint name="udpAnnouncementEndpoint"  
         kind="udpDiscoveryEndpoint" />
```

- B. Add the following standard endpoint to the service.

```
<endpoint name="udpDiscoveryEndpoint"  
         kind="udpAnnouncementEndpoint" />
```

- C. Add a service behavior with the following element.

```
<serviceDiscovery>  
  <announcementEndpoints>  
    <endpoint kind="udpDiscoveryEndpoint" />  
  </announcementEndpoints>  
</serviceDiscovery>
```

- D. Add a service behavior with the following element.

```
<serviceDiscovery>  
  <announcementEndpoints>  
    <endpoint kind="udpAnnouncementEndpoint" />  
  </announcementEndpoints>  
</serviceDiscovery>
```

Answer: D

Question: 23

You are creating a Windows Communication Foundation (WCF) service. You do not want to expose the internal implementation at the service layer. You need to expose the following class as a service named Arithmetic with an operation named Sum.

```
public class Calculator
{
    public int Add(int x, int y)
    {
    }
}
```

Which code segment should you use?

A. [ServiceContract(Namespace="Arithmetic")]

```
public class Calculator
```

```
{
    [OperationContract(Action="Sum")]
    public int Add(int x, int y)
    {
    ....
    }
}
```

B. [ServiceContract(ConfigurationName="Arithmetic")] public class Calculator

```
{
    [OperationContract(Action="Sum")]
    public int Add(int x, int y)
    {
    ....
    }
}
```

C. [ServiceContract(Name="Arithmetic")]

```
public class Calculator
{
    [OperationContract(Name="Sum")]
    public int Add(int x, int y)
    {
    ....
    }
}
```

D. [ServiceContract(Name="Arithmetic")] public class Calculator

```
{
    [OperationContract(ReplyAction="Sum")]
    public int Add(int x, int y)
    {
    ....
    }
}
```

Answer: C

Question: 24

You are creating a Windows Communication Foundation (WCF) service that responds using plain-old XML (POX).

You have the following requirements:

- You must enable the /catalog.svc/items operation to respond using the POX, JSON, or ATOM formats. You also must ensure that the same URL is used regardless of the result type.
- You must determine the response format by using the Accepts HTTP header.

What should you do?

- A. Implement the IChannelInitializer interface in the service class.
- B. Implement the System.Runtime.Serialization.IFormatterConverter interface in the service class.
- C. Set the BodyStyle parameter of the WebGet attribute on the operation to WebMessageBodyStyle.WrappedResponse.
- D. Set the return type of the operation to System.ServiceModel.Channels.Message. Use the current WebOperationContext methods to return the data in the required format.

Answer: D

Question: 25

A Windows Communication Foundation (WCF) service is self-hosted in a console application. The service implements the ITimeService service interface in the TimeService class.

You need to configure the service endpoint for HTTP communication.

How should you define the service and endpoint tags?

- A. Define the service tag as follows.

```
<service name=" ITImeService " >
```

Define the endpoint tag as follows.

```
< endpoint kind =" TimeService "
```

```
    address="http://localhost:8080/TimeService"
```

```
    binding=" wsHttpBinding "
```

```
    contract=" ITImeService"/ >
```

- B. Define the service tag as follows.

```
<service name=" TimeService " >
```

Define the endpoint tag as follows.

```
< endpoint kind=" TimeService "
```

```
address="http://localhost:8080/TimeService"
```

```
binding=" wsHttpBinding "
```

```
contract=" ITImeService " / >
```

- C. Define the service tag as follows.

```
<service name=" ITImeService ">
```

Define the endpoint tag as follows.

```
< endpoint name=" TimeService "
```

```
    address="http://localhost:8080/TimeService"
```

```
    binding=" wsHttpBinding "
```

```
    contract=" ITImeService " / >
```

- D. Define the service tag as follows.

```
<service name=" TimeService ">
```

Define the endpoint tag as follows.

```
<endpoint address="http://localhost:8080/TimeService"
```

```
binding=" wsHttpBinding "
contract=" ITimeService "/>
```

Answer: D

Question: 26

You are developing a Windows Communication Foundation (WCF) service that reads messages from a public non-transactional MSMQ queue.

You need to configure the service to read messages from the failed-delivery queue.

Which URI should you specify in the endpoint configuration settings of the service?

- A. net.msmq://localhost/msmq\$; FailedMessages
- B. net.msmq://localhost/msmq\$; DeadLetter
- C. net.msmq://localhost/system\$; DeadXact
- D. net.msmq://localhost/system\$; DeadLetter

Answer: D

Question: 27

A Windows Communication Foundation (WCF) service is self-hosted in a console application.

The service implements the IDataAccess contract, which is defined in the MyApplication namespace.

The service is implemented in a class named DataAccessService, which implements the IDataAccess interface and also is defined in the MyApplication namespace.

The hosting code is as follows. (Line numbers are included for reference only.)

```
01 static void Main(string[] args)
02 {
03     ServiceHost host;
04
05     host.Open();
06     Console.ReadLine();
07     host.Close();
08 }
```

You need to create a ServiceHost instance and assign it to the host variable. You also need to instantiate the service host.

Which line of code should you insert at line 04?

- A. host = new ServiceHost("MyApplication.DataAccessService");
- B. host = new ServiceHost("MyApplication.IDataAccess");
- C. host = new ServiceHost(typeof(IDataAccess));
- D. host = new ServiceHost(typeof(DataAccessService));

Answer: D

Question: 28

Four Windows Communication Foundation (WCF) services are hosted in Microsoft Internet Information Services (IIS). No behavior configuration exists in the web.config file.

You need to configure the application so that every service and endpoint limits the number of concurrent calls to 50 and the number of concurrent sessions to 25.

Which XML segment should you add to the system.serviceModel configuration section of the web.config file?

A. <behaviors>

```
< serviceBehaviors >
< behavior name= " * " >
    < serviceThrottling maxConcurrentCalls ="50" maxConcurrentSessions ="25"/>
</behavior>
</ serviceBehaviors >
</behaviors>
```

B. < behaviors>

```
< serviceBehaviors >
<behavior name="default">
    < serviceThrottling maxConcurrentCalls ="50" maxConcurrentSessions ="25"/>
</behavior>
</ serviceBehaviors >
</behaviors>
```

C. <behaviors>

```
< serviceBehaviors >
<behavior name="">
    < serviceThrottling maxConcurrentCalls ="50" maxConcurrentSessions ="25"/>
</behavior>
</ serviceBehaviors >
</behaviors>
```

D. <behaviors>

```
< serviceBehaviors >
<behavior name=" ALL ">
    < serviceThrottling maxConcurrentCalls ="50" maxConcurrentSessions ="25"/>
</behavior>
</ serviceBehaviors >
</behaviors>
```

Answer: C

Question: 29

You are creating a Windows Communication Foundation (WCF) service.

You need to ensure that the service is compatible with ASP.NET to make use of the session state.

Which binding should you use?

- A. NetTcp ContextBinding
- B. BasicHttpContextBinding
- C. NetTcp Binding
- D. NetMsmqBinding

Answer: B

Question: 30

You are adding a Windows Communication Foundation (WCF) service to an existing application. The application is configured as follows. (Line numbers are included for reference only.)

```
01 <configuration>
02   <system.serviceModel >
03     <services>
04       <service name=" Contoso.Sales.StockService "
05         behaviorConfiguration =" MetadataBehavior " >
06         <host>
07           < baseAddresses >
08             <add      baseAddress ="http://contoso.com:8080/StockService" />
09           </ baseAddresses >
10         </host>
11       </service>
12     </services>
13     <behaviors>
14       < serviceBehaviors >
15         <behavior name=" MetadataBehavior ">
16           </behavior>
17       </ serviceBehaviors >
18     </behaviors> ...
```

You need to configure the service to publish the service metadata.

a.

Which two actions should you perform? (Each correct answer presents part of the solution. Choose two.)

A. Add the following XML segment between lines 10 and 11.

```
<endpoint address= ""
binding= " mexHttpBinding "
contract= " IMetadataExchange "
/>
```

B. Add the following XML segment between lines 10 and 11.

```
<endpoint address="""
binding= " basicHttpBinding "
contract= " IMetadataExchange " />
```

C. Add the following XML segment between lines 15 and 16.

```
< serviceDiscovery >
< announcementEndpoints >
< endpoint address="" />
</ announcementEndpoints >
</ serviceDiscovery >
```

D. Add the following XML segment between lines 15 and 16

```
< serviceMetadata httpGetEnabled = "true" />
```

Answer: A, D

Question: 31

You have an existing Windows Communication Foundation (WCF) service that exposes a service contract over HTTP using explicit binding configuration.

You need to expose that contract over HTTP and TCP.

What should you do?

A. Add a net.tcp base address to the host.

- B. Add an endpoint configured with a netTcpBinding.
- C. Add an endpoint behavior named netTcpBehavior to the existing endpoint.
- D. Add a binding configuration to the existing endpoint named netTcpBinding.

Answer: B

Question: 32

You are modifying a Windows Communication Foundation (WCF) service that issues security tokens. The service is accessible through the named pipe protocol. No endpoints are added in the service code. The configuration file for the service is as follows. (Line numbers are included for reference only.)

```
01 <configuration>
02   <system.serviceModel>
03     <services>
04       <service name="Contoso.TokenService">
05
06         <host>
07           <baseAddresses>
08
09             <add
10               baseAddress="net.pipe://www.contoso.com/tokenpipe" />
11           </baseAddresses>
12         </host>
13       </service>
14     </services>
15   </system.serviceModel>
16 </configuration>
```

You need to ensure that new and existing client applications can access the service through HTTP and named pipes. What should you do?

- A. Insert the following line at line 05.

```
<endpoint address=http://www.contoso.com
binding="wsHttpBinding"
contract="Contoso.TokenService" />
```

- B. Insert the following line at line 05.

```
<endpoint address=http://www.contoso.com
binding="basicHttpBinding"
contract="Contoso.TokenService" />
```

- C. Insert the following line at line 08.

```
<add baseAddress="http://www.contoso.com" />
```

- D. Insert the following line at line 08.

```
<add baseAddress="net.tcp://www.contoso.com:8090" />
```

Answer: C

Question: 33

You are hosting a Windows Communication Foundation (WCF) service under Microsoft Internet Information Services (IIS) 7.0.

You have set up a Web site in IIS Manager. The physical path is C:\wwwroot\Calendar. There is a Calendar.svc file in the C:\wwwroot\Calendar folder. It contains the following directive.

<%@ ServiceHost Language="C#" Debug="true" Service="Calendar.Calendar" CodeBehind="Calendar.svc.cs" %>
The Calendar.svc.cs file contains the source for the Calendar class in the Calendar namespace. You compile this code into the Calendar.dll file.

You need to deploy your service to the Web site.

What should you do?

- A. Copy the Calendar.dll file to the C:\wwwroot\Calendar\code folder.
- B. Copy the Calendar.dll file to the C:\wwwroot\Calendar\bin folder.
- C. Copy the Calendar.svc.cs file to the C:\wwwroot\Calendar\bin folder.
- D. Copy the Calendar.svc.cs file to the C:\wwwroot\Calendar\code folder.

Answer: B

Question: 34

You are creating a Windows Communication Foundation (WCF) service that implements the following service contract.

```
[ServiceContract]  
public interface IOrderProcessing  
{  
    [OperationContract]  
    void ApproveOrder(int id);  
}
```

You need to ensure that only users with the Manager role can call the ApproveOrder method.

What should you do?

- A. In the method body, check the Rights.PossessProperty property to see if it contains Manager.
- B. Add a PrincipalPermission attribute to the method and set the Roles property to Manager.
- C. Add a SecurityPermission attribute to the method and set the SecurityAction to Demand.
- D. In the method body, create a new instance of WindowsClaimSet. Use the FindClaims method to locate a claimType named Role with a right named Manager.

Answer: B

Question: 35

You are creating a Windows Communication Foundation (WCF) service that accepts messages from clients when they are started. The message is defined as follows.

```
[MessageContract]  
public class Agent  
{  
    public string CodeName { get; set; }  
    public string SecretHandshake { get; set; }  
}
```

You have the following requirements:

- The CodeName property must be sent in clear text. The service must be able to verify that the property value was not changed after being sent by the client.

- The SecretHandshake property must not be sent in clear text and must be readable by the service.

What should you do?

- A. Add a MessageBodyMember attribute to the CodeName property and set the ProtectionLevel to Sign. Add a MessageBodyMember attribute to the SecretHandshake property and set the ProtectionLevel to EncryptAndSign.
- B. Add a DataProtectionPermission attribute to the each property and set the ProtectData property to true.
- C. Add an XmlText attribute to the CodeName property and set the DataType property to Signed. Add a PasswordPropertyText attribute to the SecretHandshake property and set its value to true.
- D. Add an ImmutableObject attribute to the CodeName property and set its value property to true. Add a Browsable attribute to the SecretHandshake property and set its value to false.

Answer: A

Question: 36

You are developing a Windows Communication Foundation (WCF) service. The service needs to access out-of-process resources.

You need to ensure that the service accesses these resources on behalf of the originating caller.

What should you do?

- A. Set the value of ServiceSecurityContext.Current.WindowsIdentity.ImpersonationLevel to TokenImpersonationLevel.Impersonation.
- B. Set the value of ServiceSecurityContext.Current.WindowsIdentity.ImpersonationLevel to TokenImpersonationLevel.Delegation.
- C. Set the PrincipalPermissionAttribute on the service contract and update the binding attribute in the endpoint element of the configuration file to wsHttpBinding.
- D. Set the PrincipalPermissionAttribute on the service contract and update the bindingConfiguration attribute in the endpoint element of the configuration file to wsHttpBinding.

Answer: B

Question: 37

You are maintaining a Windows Communication Foundation (WCF) service that uses a custom UserNamePassword class to authenticate clients. The service certificate is hosted in the deployment server store for trusted root certificate authorities and has a Subject value of TaxServiceKey. Other service certificates hosted on the server also use TaxServiceKey as a Subject value.

You need to ensure that the service identifies itself with a certificate whose subject name and distinguished names are TaxServiceKey.

Which code segment should you use?

- A. HostInstance.Credentials.ServiceCertificate.SetCertificate(
 StoreLocation.LocalMachine, StoreName.My,
 X509FindType.FindBySubjectName, "CN=TaxServiceKey");
- B. HostInstance.Credentials.ServiceCertificate.SetCertificate(
 StoreLocation.LocalMachine, StoreName.AuthRoot,
 X509FindType.FindBySubjectName, "CN=TaxServiceKey");
- C. HostInstance.Credentials.ServiceCertificate.SetCertificate(
 StoreLocation.LocalMachine, StoreName.My,
 X509FindType.FindBySubjectDistinguishedName,
 "CN=TaxServiceKey");
- D. HostInstance.Credentials.ServiceCertificate.SetCertificate(
 StoreLocation.LocalMachine, StoreName.Root,

```
X509FindType.FindBySubjectDistinguishedName,  
"CN=TaxServiceKey");
```

Answer: D

Question: 38

A Windows Communication Foundation (WCF) service is required to log all authorization attempts to the Windows Event Log.

You need to configure a behavior and apply it to the service to support this requirement.

Which behavior should you configure and apply?

- A. serviceAuthenticationManager
- B. serviceAuthorization
- C. serviceCredentials
- D. serviceSecurityAudit

Answer: D

Question: 39

You are hosting a Windows Communication Foundation (WCF) service at <http://www.contoso.com> for a law enforcement agency. The agency adds operations to support sending biometric fingerprint data via non-buffered streaming. The service data is not routed between intermediaries.

The WCF binding you are using by default does not support encryption.

You need to ensure that fingerprint data is not disclosed when it is passed over the network.

What should you do?

- A. Use basicHttpBinding with message security to <https://www.contoso.com>.
- B. Use basicHttpBinding over transport security at <https://www.contoso.com>.
- C. Use wsHttpBinding over message security at <https://www.contoso.com>.
- D. Use wsHttpBinding over transport security at <http://www.contoso.com>.

Answer: B

Question: 40

You are creating a Windows Communication Foundation (WCF) service based on WSHttpBinding. New audit requirements dictate that callers must be authenticated on every call to ensure that their credentials have not been revoked.

You need to ensure that the service will not cache the security request token.

What should you do?

- A. Apply a ServiceBehavior attribute to the service implementation class with the InstanceContextMode property set to Single.
- B. In the message security configuration, change clientCredentialType from IssuedToken to UserName.
- C. In the message security configuration, set establishSecurityContext to false.
- D. At the end of every operation, call the SessionStateUtility.RaiseSessionEnd method.

Answer: C

Question: 41

You are implementing a Windows Communication Foundation (WCF) service contract named `IContosoService` in a class named `ContosoService`. The service occasionally fails due to an exception being thrown at the service. You need to send the stack trace of any unhandled exceptions to clients as a fault message. What should you do?

- A. In the application configuration file on the client, add the following XML segment to the `system.serviceModel/behaviors` configuration section group.

```
<endpointBehaviors>
<behavior name=" debug ">
<callback Debug includeExceptionDetailInFaults="true" />
</behavior>
</endpointBehaviors>
```

Associate the debug behavior with any endpoints that need to return exception details.

- B. In the application configuration file on the service and all the clients, add the following XML segment to the `system.diagnostics/sources` configuration section group.

```
<source name="System.ServiceModel" switchValue="Error" propagateActivity="true">
<listeners>
<add name="ServiceModelTraceListener"
initializeData="app_tracelog.svclog"
type="System.Diagnostics.XmlWriterTraceListener" />
</listeners>
</source>
```

- C. Apply the following attribute to the `ContosoService` class.

```
[ServiceBehavior(IncludeExceptionDetailInFaults = true)]
```

- D. For each `OperationContract` exposed by `IContosoService`, apply the following attribute.

```
[FaultContract(typeof(Exception))]
```

Answer: C

Question: 42

A Windows Communication Foundation (WCF) service has the following contract.

```
[ServiceContract(Namespace="http://contoso.com")]
public interface IShipping
{
    [OperationContract]
    string DoWork(int id);
}
```

This is one of several service contracts hosted by your application. All endpoints use SOAP 1.2 bindings with WS-Addressing 1.0. The `System.ServiceModel.MessageLogging` trace source in the `system.diagnostics` configuration section is configured with one listener.

You need to make sure that only the messages that are returned from the `DoWork` operation are logged.

Which XML segment should you add to the `system.serviceModel/diagnostics/messageLogging/filters` configuration element?

- A. `<add xmlns:addr="http://www.w3.org/2005/08/addressing"> //addr:Action[text() = 'http://contoso.com/IShipping/DoWorkResponse']</add>`

- B. <add xmlns:soap="http://www.w3.org/2003/05/soap-envelope"> //soap:Action[text()] =
'http://contoso.com/IShipping/DoWorkResponse'
</add>
- C. <add xmlns:addr="http://www.w3.org/2005/08/addressing"> //addr:Action[text()] =
'http://contoso.com/IShipping/DoWork'
</add>
- D. <add xmlns:soap="http://www.w3.org/2003/05/soap-envelope"> //soap:Action[text()] =
'http://contoso.com/IShipping/DoWork'
</add>

Answer: A

Question: 43

Your Windows Communication Foundation (WCF) client application uses HTTP to communicate with the service. You need to enable message logging and include all security information such as tokens and nonces in logged messages.

What should you do?

- A. In the application configuration file, add the logKnownPii attribute to the message logging diagnostics source and set the value of the attribute to true.

Generate the ContosoService class using the Add Service Reference wizard. Add a reference to System.ServiceModel.Routing.dll.

Add the following code segment.

```
ContosoService client = new ContosoService();
SoapProcessingBehavior behavior = new SoapProcessingBehavior();
behavior.ProcessMessages = true;
client.Endpoint.Behaviors.Add(behavior);
```

- B. In the application configuration file, add the following XML segment to the system.serviceModel configuration section group.

```
<diagnostics>
<messageLogging logMessagesAtTransportLevel="true"
logEntireMessage="true" />
</diagnostics>
```

- C. In the machine configuration file, add the following XML segment to the system.serviceModel configuration section.

```
<machineSettings enableLoggingKnownPii="true" />
```

Generate the ContosoService class using the Add Service Reference wizard.

Add the following code segment.

```
ContosoService client = new ContosoService();
client.Endpoint.Behaviors.Add(new CallbackDebugBehavior(true));
```

- D. In the machine configuration file, add the following XML segment to the system.serviceModel configuration section.

```
<machineSettings enableLoggingKnownPii="true" />
```

In the application configuration file, add the logKnownPii attribute to the message logging diagnostics source and set the value of the attribute to true. In the application configuration file, add the following XML segment to the system.serviceModel configuration section group.

```
<diagnostics>
<messageLogging logMessagesAtTransportLevel="true"/>
</diagnostics>
```

Answer: D

Question: 44

You are moving a Windows Communication Foundation (WCF) service into production.

You need to be able to monitor the health of the service. You only want to enable all performance counter instances exposed by the ServiceModelService 4.0.0.0 counter group.

Which element should you add to the system.serviceModel section in the application configuration file?

- A. <diagnostics performanceCounters="ServiceOnly" />
- B. <diagnostics wmiProviderEnabled="true" performanceCounters="Off" />
- C. <diagnostics performanceCounters="All" />
- D. <diagnostics wmiProviderEnabled="true" />

Answer: A

Question: 45

You create a Windows Communication Foundation (WCF) service and deploy it with wsHttpBinding and message security enabled.

You create an intermediate WCF service for logging messages sent to the primary service. The intermediate service is called via the clientVia endpoint behavior.

The primary service is receiving malformed data from a client application.

You need to enable inspection of the malformed data and prevent message tampering.

What should you do?

- A. Specify a protection level of None in the service contract for the intermediate service. Disable message and transport security from the client application configuration file.
- B. Specify a protection level of Sign in the service contract for the intermediate service. Disable transport security from the client application configuration file.
- C. Modify the binding on the intermediate service to use netNamedPipeBinding.
- D. Modify the binding on the intermediate service to use webHttpBinding.

Answer: B

Question: 46

You develop a Windows Communication Foundation (WCF) service. You enable all performance counters and run multiple calls to the service.

The service must isolate session data for each user.

You need to monitor the instancing behavior used in the service.

Which performance counter should you monitor?

- A. ServiceModelService 4.0.0.0\Calls
- B. ServiceModelService 4.0.0.0\Instances
- C. ASP.NET State Service\State Server Sessions Active
- D. ASP.NET State Service\State Server Sessions Total

Answer: B

Question: 47

A Windows Communication Foundation (WCF) solution uses the following contract to share a message across its clients. (Line numbers are included for reference only.)

```

01 [ServiceContract]
02 public interface ITeamMessageService
03 {
04     [OperationContract]
05     string GetMessage();
06
07     [OperationContract]
08     void PutMessage(string message);
09 }
```

The code for the service class is as follows.

```

10 public class TeamMessageService : ITeamMessageService
11 {
12     Guid key = Guid.NewGuid();
13     string message = "Today's Message";
14     public string GetMessage()
15     {
16         return string.Format("Message:{0}. Key:{1}",
17             message, key);
18     }
19     public void PutMessage(string message)
20     {
21         this.message = message;
22     }
23 }
```

The service is self-hosted. The hosting code is as follows.

```

24 ServiceHost host =
    new ServiceHost(typeof(TeamMessageService));
25 BasicHttpBinding binding =
    new BasicHttpBinding(BasicHttpSecurityMode.None);
26 host.AddServiceEndpoint(
    "MyApplication.ITeamMessageService", binding,
    "http://localhost:12345");
27 host.Open();
```

You need to ensure that all clients calling GetMessage will retrieve the updated string if the message is updated by any client calling PutMessage.

What should you do?

A. Add the following attribute to the TeamMessageService class, before line 10.

[ServiceBehavior(InstanceContextMode = InstanceContextMode.Single)]

B. Add the following attribute to the TeamMessageService class, before line 10.

[ServiceBehavior(InstanceContextMode =
 InstanceContextMode.PecSession)]

Than change che binding definition on the service at line 25, and on the client to the following.

WSHttpBinding binding = new WSHttpBinding(SecurityMode.None); binding.ReliableSession.Enabled = true;

C. Pass a service instance to the instancing code in line 24, as follows.

ServiceHost host = new ServiceHost(new TeamMessageService());

D. Redefine the message string in line 13, as follows.

```
static string message = "Today's Message";
```

Then change the implementation of PutMessage in lines 19-22 to the following.

```
public void PutMessage(string message) {  
    TeamMessageService.message = message; >
```

Answer: A

Question: 48

A WCF service code is implemented as follows. (Line numbers are included for reference only.)

```
01 [ServiceContract]  
02 [ServiceBehavior(InstanceContextMode =  
03 InstanceContextMode.Single)]  
04 public class CalculatorService  
05 {  
06     [OperationContract]  
07     public double Calculate(double op1, string op, double op2)  
08     {  
...  
24     }  
25 }
```

You need to decrease the response time of the service.

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

A. Change the service behavior to the following.

```
[ServiceBehavior(  
    InstanceContextMode = InstanceContextMode.Single, ConcurrencyMode = ConcurrencyMode.Multiple) ]
```

B. Change the service behavior to the following.

```
[ServiceBehavior(InstanceContextMode = InstanceContextMode.PerCall) ]
```

C. Require the clients use threads, the Parallel Task Library, or other mechanism to issue service calls in parallel.

D. Require the clients to use async operations when calling the service.

Answer: A, B

Question: 49

You are creating a client application and configuring it to call a Windows Communication Foundation (WCF) service.

When the application is deployed, it will be configured to send all messages to a WCF routing service.

You need to ensure that the application can consume the target service after the application is deployed.

What should you do?

A. In the client application, add a service reference to the router service. In the client binding configuration, specify the address of the router service.

B. In the client application, add a service reference to the target service. In the client binding configuration, specify the address of the target service.

C. In the client application, add a service reference to the router service. In the client binding configuration, specify the address of the target service.

D. In the client application, add a service reference to the target service. In the client binding configuration, specify the address of the router service.

Answer: D

Question: 50

You are developing a client that sends several types of SOAP messages to a Windows Communication Foundation (WCF) service method named PostDat

a.

PostData is currently defined as follows.

[OperationContract]

void PostData(Order data);

You need to modify PostData so that it can receive any SOAP message.

Which code segment should you use?

A. [OperationContract(IsOneWay = true, Action = "*", ReplyAction = "*")]

void PostData(Order data);

B. [OperationContract(IsOneWay = true, Action = "*", ReplyAction = "*")]

void PostData(BodyWriter data);

C. [OperationContract]

void PostData(BodyWriter data);

D. [OperationContract]

void PostData(Message data);

Answer: D

Question: 51

You are creating a Windows Communication Foundation (WCF) service that is implemented as follows.

(Line numbers are included for reference only.)

01|ServiceContract]

02[ServiceBehavior (includeExceptionDetailsInFaults = true) 1

03putic class OrderService

04{

05[OperationContract]

06putic void Submit Order (Order an Order)

07{

08try

09{

10...

11)

12catch (DivideByZeroException ex)

13{

14

15)

16)

17)

You need to ensure that the stack trace details of the exception are not included in the error information sent to the client.

What should you do?

A. Replace line 14 with the following line.

Throw:

- B. Replace line 14 with the following line throw new FaultException<Order>(anOrder, ex.ToString());
- C. After line 05, add the following line.
[FaultContract(typeof(FaultException<Order>))]
Replace line 14 with the following line throw ex;
- D. Alter line 05, add the following line
[FaultContract(typeof(FaultException<Order>))]
Replace line 14 with the following line. Throw new FaultException<Order>(anOrder, "Divide by zero exception");

Answer: D

Question: 52

You develop a Windows Communication Foundation (WCF) service to generate reports. Client applications call the service to initiate report generation but do not wait for the reports to be generated. The service does not provide any status to the client applications.

The service class is defined as follows. (Line numbers are included for reference only.)

```
01 [ServiceContract]
02 public class ReportGeneratorService
03 {
04
05     private int GenerateReports(int clientID)
06     {
07         ...
08         return 0;
09     }
10 }
```

You need to ensure that client applications can initiate reports without waiting for status.

Which two actions should you perform (Each correct answer presents part of the solution. Choose two.)

- A. Insert the following code at line 04.
[OperationContract(IsOneWay=true)]
- B. Insert the following code at line 04.
[OperationContract(AsyncPattern=false)]
- C. At line 05, change the GenerateReports method from private to public.
- D. Remove line 08. At line 05, change the return type of GenerateReports method to void.

Answer: A, D

Question: 53

You are creating a Windows Communication Foundation (WCF) service that implements operations in a RESTful manner. You need to add a delete operation

You implement the delete method as follows. string oid DeleteItems(string id);

You need to configure WCF to call this method when the client calls the service with the HTTP DELETE operation. What should you do?

- A. Add the WebInvoke(UriTemplate = "/Items/{id}, Method="DELETE") attribute to the operation
- B. Add the HttpDelete attribute to the operation
- C. Replace the string parameter with a RemovedActivityAction parameter

D. Replace the return type with `RemovedActivityktion`.

Answer: A

Question: 54

You create a service and deploy it on a network in a building named Building1. You will deploy the service to Building2.

The service in Building1 is configured using the following discovery scopes.

```
<scopes>
<add
scope="http://contoso.com/Chicago/Building1"/>
<add
scope="ldap://ou=Building1,ou=Chicago,o=contoso,c=us"/>
</scopes>
```

The service in Building2 will be configured using the following discovery scopes.

```
<scopes>
<add
scope="http://contoso.com/Chicago/Building2"/>
<add
scope="ldap://ou=Building2,ou=Chicago,o=contoso,c=us"/>
</scopes>
```

You need to ensure that the client application can discover the service in Building1 or the service in Building2.

Which scopes should you add to the client configuration file?

- A.

```
<scopes>
<add scope="http://contoso.com/Chicago/*"/>
</scopes>
```
- B.

```
<scopes>
<add scope="http://contoso.com/Chicago"/>
</scopes>
```
- C.

```
<scopes>
<add
scope="ldap://ou=Building,ou=Chicago,o=contoso,c=us"/>
</scopes>
```
- D.

```
<scopes>
<add
scope="ldap://ou=*,o=contoso,c=us"/>
</scopes>
```

Answer: B

Question: 55

A class named `TestService` implements the following interface.

```
[ServiceContract]
public interface ITestService {
[OperationContract]
DateTime GetServiceTime;
}
```

TestService is hosted in an ASP.NET application.

You need to modify the application to allow the GetServiceTime method to return the data formatted as JSON.

It must do this only when the request URL ends in /ServiceTime.

What should you do?

A. Add this attribute to the GetServiceTime method.

```
[WebInvoke(Method="POST")]
```

In the web.config file, add this element to system.serviceModel/behaviors/endpointBehaviors.

```
<behavior name="Json">  
<enableWebScript />  
</behavior>
```

In the web.config file, configure TestService in the system.serviceModel/services collection as follows

```
<service name="TestService">  
<endpoint address="/ServiceTime"  
contract="TestService"  
behaviorConfiguration="Json"  
binding="webHttpBinding" />  
</service>
```

B. Add this attribute to the GetServiceTime method.

```
[WebInvoke(Method = "GET",  
UriTemplate = "/ServiceTime",  
ResponseFormat = WebMessageFormat.Json)]
```

In the web.config file, configure TestService in the system.serviceModel/services collection as follows.

```
<service name="TestService">  
<endpoint address="/ServiceTime"  
contract="TestService"  
binding="webHttpBinding" />  
</service>
```

C. Add this attribute to the GetServiceTime method

```
[WebGet(  
ResponseFormat = WebMessageFormat.Json,  
UriTemplate = "/ServiceTime")]
```

Create a new svc file named JsonVersion.svc with the following content.

```
<%@ ServiceHost Service="TestService"  
Factory="System.ServiceModel.ActivationWebServiceHostFactory" %>
```

D. Add this attribute to the GetServiceTime method.

```
[WebGet(UriTemplate = "(Uson)/ServiceTime")]
```

Create a new .svc file named Jsonversion svc with the following content

```
<%@ ServiceHost Service="TestService"  
Factory="System.ServiceModel.ActivationWebServiceHostFactory" %>
```

Answer: C

Question: 56

You are developing a Windows Communication Foundation (WCF) service that contains the following operation contract.

```
[OperationContract]
```

```
CustomerNames GetCustomerNames();
```

The operation returns customer names.

You need to develop a definition for the operation contract that produces XML with the following structure.

```
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Header />
  <s:Body>
    <Names xmlns="http://tempuri.org/
      xmlns:a="http://schemas.microsoft.com/2003/10/Serialization/Arrays"
      xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
      <a:string>Customer1</a:string>
      <a:string>Customer2</a:string>
      <a:string>Customer3</a:string>
    </Names>
  </s:Body>
</s:Envelope>
```

Which code segment should you use

- A. [MessageContract(IsWrapped = false)]

```
public class CustomerNames
{
  [MessageBodyMember]
  public string[] Names;
}
```

- B. [MessageContract(WrapperName = "")]

```
public class CustomerNames
{
  [MessageBodyMember]
  public string[] Names;
}
```

- C. [DataContract]

```
public class CustomerNames
{
  [DataMember]
  public string[] Names;
}
```

- D. [DataMember]

```
public class CustomerNames
{
  [DataMember]
  public string[] Names;
}
```

- E. [DataMember]

```
public class CustomerNames
{
  [DataMember]
  public string[] Names;
}
```

- F. [DataMember(IsRequired = false)]

```
public class CustomerNames
{
  [DataMember(IsRequired = false)]
  public string[] Names;
}
```

Answer: A

Question: 57

A Windows Communication Foundation (WCF) service implements the following contract.

```
[ServiceContract] public interface IHelloService { [OperationContract] [WebGet(UriTemplate =
"hello?namee{name}")] string SayHello(string name);
}
```

The implementation is as follows.

```
public class HelloService: IHelloService { public string SayHello(string name)
{ return "Hello "+ name;
}
}
```

The service is self-hosted, and the hosting code is as follows.

```
WebServiceHost svcHost = CreateHoseO;
svcHost.OpenO;
Console. ReadLineO;
SrvHost.CloseO;
```

You need to implement CreateHost so that the service has a single endpoint hosted at <http://localhost:8000>HelloService> which code segment should you use?

- A. WebServiceHost svcHost new WebServiceHost(typeof(HelloService));
 svcHost.AddServiceEndpoint(typeof(IHelloService),
 new WebHttpBinding(WebHttpSecurityMode None),
 "http://localhost:8000/HelloService");
 return svcHost;
- B. Ur baseAddress = new Uri('http://localhost:8000');
 WebServiceHost svc Host new WebServiceHost(typeof(HelloService), baseAddress);
 svcHostAddServiceEndpoint(typeof(IHelloService),
 new WebHttpBinding(WebHttpSecurityMode. None),
 "HelloService"); return svc Host;
- C. WebServiceHost svcHost = new Web Service Host(new HelloServiceO); svcHost
 AddServiceEndpoint(typeof(IHelloService),
 new WebHttpBinding(WebHttpSecurityMode. None),
 "http://localhost: 8000/HelloService");
 return svcHost
- D. Ur baseAddress new Uri('http //localhost 8000/');
 WebServiceHost svc Host =
 new WebServiceHost(new HelloServiceO, baseAddress),
 svc Host.AddServiceEndpoint(typeof(IHelloService),
 new WebHttpBinding(WebHttpSec urityMode None),
 "HelloService");
 returnn svc Host;

Answer: A

Question: 58

You are developing a Windows Communication Foundation (WCF) service that will be hosted in Microsoft Internet Information Services (IIS) 7.0. The service must be hosted in an IIS application named Info. You need to enable this service to be hosted in IIS by changing the web.config file. Which XML segment should you add to the web.config file

- A. < serviceHostingEnvironment >
 < serviceActivations >
 <add relativeAddress =" Info.svc " service="Info" />
 </ serviceActivations >
 </ serviceHostingEnvironment >
- B. < serviceHostingEnvironment >
 < serviceActivations >
 <add relativeAddress ="Info" service=" Info.svc " />
 </ serviceActivations >
 </ serviceHostingEnvironment >
- C. < serviceHostingEnvironment >
 < transportConfigurationTypes >

```
<add name="Info" transportConfigurationType =" Info.svc " />
</ transportConfigurationTypes >
</ serviceHostingEnvironment >
D. < serviceHostingEnvironment >
< transportConfigurationTypes >
<add name=" Info.svc " transportConfigurationType =" FileNotRequired " />
</ transportConfigurationTypes >
</ serviceHostingEnvironment >
```

Answer: A

Question: 59

A Windows Communication Foundation (WCF) service is responsible for transmitting XML documents between systems.

The service has the following requirements:

- It must minimize the transmission size by attaching the XML document as is without using escape characters or base64 encoding.
- It must interoperate with systems that use SOAP but are not built on the .NET platform.

You need to configure the service to support these requirements.

Which message encoding should you use?

- A. Binary message encoding
- B. MTOM (Message Transmission Optimization Mechanism) message encoding
- C. Text message encoding with message version set to none
- D. Text message encoding with message version set to SOAP 1.2

Answer: B

Question: 60

You are developing a Windows Communication Foundation (WCF) service that contains the following code segment.

```
[ServiceContract ]
public interface ICustomerService
{
}
public class CustomerService : ICustomerService
{
}
```

The service is self-hosted in a console application. Older client applications access the service at <http://contoso.com:8080/CustomerService/V1>. Newer client applications access the service at <http://contoso.com:8080/CustomerService/V2>. You need to ensure that any client application can access the service at either address.

Which code segment should you use?

- A. Uri serviceAddress1 =
new Uri("http://contoso.com:8080/CustomerService/V1");
Uri serviceAddress2 =

```
new Uri("http://contoso.com:8080/CustomerService/V2");
ServiceHost host =
new ServiceHost(typeof(ICustomerService),
new Uri[] { serviceAddress1, serviceAddress2 });
B. Uri serviceAddress1 =
new Uri("http://contoso.com:8080/CustomerService/V1");
Uri serviceAddress2 =
new Uri("http://contoso.com:8080/CustomerService/V2");
ServiceHost host =
new ServiceHost(typeof(CustomerService),
new Uri[] { serviceAddress1, serviceAddress2 });
C. Uri serviceAddress =
new Uri("http://contoso.com:8080/");
ServiceHost host =
new ServiceHost(typeof(CustomerService),
new Uri[] { serviceAddress });
host.AddServiceEndpoint(typeof(ICustomerService),
new BasicHttpBinding(), "CustomerService/V1");
host.AddServiceEndpoint(typeof(ICustomerService),
new BasicHttpBinding(), "CustomerService/V2");
D. Uri serviceAddress =
new Uri("http://contoso.com:8080/");
ServiceHost host =
new ServiceHost(typeof(ICustomerService),
new Uri[] { serviceAddress });
host.AddServiceEndpoint(typeof(CustomerService),
new BasicHttpBinding(), "CustomerService/V1");
host.AddServiceEndpoint(typeof(CustomerService),
new BasicHttpBinding(), "CustomerService/V2");
```

Answer: C

Question: 61

Your company has an existing Windows Communication Foundation (WCF) service that allows business partners to place orders. The service uses netMsmqBinding.

You find that processing every order in its own transaction is causing a delay.

You need to ensure that the service is configured to process multiple orders in one transaction.

What should you do?

- A. Use <serviceThrottling> service behavior and set the maxConcurrentCalls attribute.
- B. Use <transactedBatching> endpoint behavior and set the maxBatchSize attribute.
- C. Use <dispatcherSynchronizationBehavior> endpoint behavior and set the maxPendingReceives attribute.
- D. Use <synchronousReceive> endpoint behavior.

Answer: B

Question: 62

You are modifying an existing Windows Communication Foundation (WCF) service that is defined as follows.

```

[ServiceContract]
public interface IMessageProcessor {

    [OperationContract]
    void ProcessMessage();
}

public class MessageProcessor : IMessageProcessor {

    public void ProcessMessage() {
        ...
        SubmitOrder();
        ...
    }
}

```

SubmitOrder makes a call to another service. The ProcessMessage method does not perform as expected under a heavy load. You need to enable processing of multiple messages. New messages must only be processed when the ProcessMessage method is not processing requests, or when it is waiting for calls to SubmitOrder to return. Which attribute should you apply to the MessageProcessor class?

- A. CallbackBehavior (ConcurrencyMode = ConcurrencyMode.Reentrant)
- B. CallbackBehavior (ConcurrencyMode = ConcurrencyMode.Multiple)
- C. ServiceBehavior (ConcurrencyMode = ConcurrencyMode.Reentrant)
- D. ServiceBehavior (ConcurrencyMode = ConcurrencyMode.Multiple)

Answer: C

Question: 63

You have an existing Windows Communication Foundation (WCF) Web service.

The Web service is not responding to messages larger than 64 KB.

You need to ensure that the Web service can accept messages larger than 64 KB without generating errors.

What should you do?

- A. Increase the value of maxReceivedMessageSize on the endpoint binding.
- B. Increase the value of maxRequestLength on the httpRuntime element.
- C. Increase the value of maxBufferSize on the endpoint binding.
- D. Increase the value of maxBufferPoolSize on the endpoint binding.

Answer: A

Question: 64

A Windows Communication Foundation (WCF) service implements the following contract. (Line numbers are included for reference only.)

```

01 [ServiceContract]
02 public interface IDataAccessService
03 {
01     [OperationContract]

```

```
05 void PutMessage(string message);
06
07 [OperationContract]
08 [FaultContract(typeof(TimeoutFaultException)) ]
09 [FaultContract(typeof(FaultException) ) ]
10 string] SearchMessages(string search);
11 }
```

The implementation of the SearchMessages method throws TimeoutFaultException exceptions for database timeouts. The implementation of the SearchMessages method also throws an Exception for any other issue it encounters while processing the request. These exceptions are received on the client side as generic FaultException exceptions. You need to implement the error handling code for SearchMessages and create a new channel on the client only if the channel faults.

What should you do?

- A. Catch and handle both TimeoutFaultException and FaultException
- B. Catch both TimeoutFaultException and FaultException. Create a new channel in both cases.
- C. Catch and handle TimeoutFaultException.Catch FaultException and create a new channel.
- D. Catch and handle FaultException.Catch TimeoutFaultException and create a new channel.

Answer: C

Question: 65

You need to modify a client application that consumes a Windows Communication Foundation (WCF) service. The service metadata is no longer available.

You need to modify the previously generated proxy to include asynchronous calls to the service.

What should you do?

- A. Update the service reference with the Generate asynchronous operations option.
- B. Create a partial class for the previously generated proxy and include the new asynchronous methods.
- C. Create a class with the same name as the previously generated proxy and add the new asynchronous methods. Add the new class to a namespace that is different from the original proxy.
- D. Create a class with the same name as the previously generated proxy and add the new asynchronous methods as partial methods. Add the new class to a namespace that is different from the original proxy.

Answer: B

Question: 66

An ASP NET application hosts a RESTful Windows Communication Foundation (WCF) service at /ServicesContoso.svc. The service provides a JavaScript resource to clients. You have an explicit reference to the JavaScript in your page markup as follows.

```
<script type = text/javascript' src=Services/Contoso. svc/js" />
```

You need to retrieve the debug version of the service JavaScript.

What should you do?

- A. In the <%@ ServiceHost %> header for /ServicesContoso.svc, set the Debug attribute to true.
- B. In the <%@ Page %s header, set the Debug attribute to true.
- C. In the script tag, add a debug attribute and set its value to true.
- D. In the script tag, append debug to the src attribute

Answer: D

Question: 67

A Windows Communication Foundation (WCF) client configuration file contains the following XML segment in the system.serviceModel element.

```
<client>
<endpoint address=" net.tcp://server/ContosoService "
binding=" netTcpBinding "
contract=" Contoso. IContosoService "
name=" netTcp " />
<endpoint address=" net.pipe://localhost/ContosoService "
binding=" netNamedPipeBinding "
contract=" Contoso. IContosoService "
name=" netPipe " />
</client>
```

You need to create a channel factory that can send messages to the endpoint listening at net.pipe://localhost/ContosoService.

Which code segment should you use

- A. ChannelFactory < Contoso. IContosoService > factory =
new ChannelFactory < Contoso. IContosoService >(" Contoso. IContosoService ");
- B. ChannelFactory < Contoso. IContosoService > factory =
new ChannelFactory < Contoso. IContosoService >(" netNamedPipeBinding ");
- C. ChannelFactory < Contoso. IContosoService > factory =
new ChannelFactory < Contoso. IContosoService >(" netPipe ");
- D. ChannelFactory < Contoso. IContosoService > factory =
new ChannelFactory < Contoso. IContosoService >(
" net.pipe://localhost/ContosoService ");

Answer: C

Question: 68

You are consuming a Windows Communication Foundation (WCF) service. The service interface is defined as follows.

```
[DataContract(Namespace = "")]
public class Item
{
...
}
[ServiceContract(Namespace = "")]
public interface ICatalog
{
    [OperationContract]
    [WebInvoke(Method = "POST", UriTemplate = "/Item")]
    Item UpdateItem(Item item);
}
```

The client application receives a WebResponse named response with the response from the service.

You need to deserialize this response into a strongly typed object representing the return value of the method. Which

code segment should you use?

- A.

```
DataContractSerializer s = new DataContractSerializer(typeof(Item));
Item item = s.ReadObject(response.GetResponseStream()) as Item;
BinaryFormatter f = new BinaryFormatter();
```
- B.

```
Item item = f.Deserialize(response.GetResponseStream()) as Item;
XmlDictionaryReader r = JsonReaderWriterFactory.CreateJsonReader(
response.GetResponseStream(),
XmlDictionaryReaderQuotas.Max);
```
- C.

```
DataContractSerializer s = new DataContractSerializer(typeof(Item));
Item item = s.ReadObject(r) as Item;
```
- D.

```
DataContractJsonSerializer s = newDataContractJsonSerializer(typeof(Item));
Item item = s.ReadObject(response.GetResponseStream()) as Item;
```

Answer: A

Question: 69

You are developing a Windows Communication Foundation (WCF) service. The service configuration file has a <System.Diagnostics> element defined. You need to ensure that all security audit information, trace logging, and message logging failures are recorded. Which configuration segment should you add to the <System.Diagnostics> element?

A.

```
<sources>
  <source name="System.ServiceModel"
    switchValue="Information, ActivityTracing"
    propagateActivity="true" />
  <source name="System.ServiceModel.MessageLogging"
    propagateActivity="true" />
</sources>
```

B.

```
<sources>
  <source name="System.ServiceModel"
    switchValue="Information, ActivityTracing"
    propagateActivity="true" />
  <source name="System.ServiceModel.MessageLogging"
    propagateActivity="true" />
</sources>
<sharedListeners>
  <add name="xml"
    type="System.Diagnostics.XmlWriterTraceListener"
    initializeData=".." />
</sharedListeners>
```

C.

```

<sources>
  <source name="System.ServiceModel"
    switchValue="Information, ActivityTracing"
    propagateActivity="true">

    <listeners>
      <add name="xml" />
    </listeners>
  </source>
  <source name="System.ServiceModel.MessageLogging"
    propagateActivity="true">
    <listeners>
      <add name="xml" />
    </listeners>
  </source>
</sources>
<sharedListeners>
  <add name="xml"
    type="System.Diagnostics.XmlWriterTraceListener"
    initializeData="..." />
</sharedListeners>

```

D.

```

<sources>
  <source name="System.ServiceModel"
    switchValue="Information, ActivityTracing"
    propagateActivity="true">
    <listeners>
      <add name="xml" />
    </listeners>
  </source>
  <source name="System.ServiceModel.MessageLogging"
    propagateActivity="true">
    <listeners>
      <add name="text" />
    </listeners>
  </source>
</sources>

```

Answer: C

Question: 70

A Windows Communication Foundation (WCF) service only accepts messages that are signed and encrypted. A client application is not receiving expected responses from the service. You need to enable logging to verify that the messages from the client are signed and encrypted. You also need to see what each message looks like before the message body is deserialized into a .NET object. What should you do?

- A. Configure the System.ServiceModel trace source in the system.diagnostics configuration section. In the system.serviceModel configuration, add the following XML segment.

```

<diagnostics>
<messageLogging
logEntireMessage="true"
logMessagesAtServiceLevel="true"
logMessagesAtTransportLevel="true" />
</diagnostics>

```

- B. Configure the System.ServiceModel trace source in the system.diagnostics configuration section. In the system.serviceModel configuration, add the following XML segment.

```
<diagnostics>
```

```
<messageLogging  
logEntireMessage="true"  
logMessagesAtServiceLevel="true" />  
</diagnostics>
```

C. Configure the System.ServiceModel.MessageLogging trace source in the system.diagnostics configuration section. In the system.serviceModel configuration, add the following XML segment.

```
<diagnostics>  
<messageLogging  
logEntireMessage="true"  
logMessagesAtServiceLevel="true"  
logMessagesAtTransportLevel="true" />  
</diagnostics>
```

D. Configure the System.ServiceModel.MessageLogging trace source in the system.diagnostics configuration section. In the system.serviceModel configuration, add the following XML segment.

```
<diagnostics>  
<messageLogging  
logMessagesAtServiceLevel="true"  
logMessagesAtTransportLevel="true" />  
</diagnostics>
```

Answer: C

Question: 71

A Windows Communication Foundation (WCF) application exposes a service as a SOAP endpoint for consumption by cross-platform clients. During integration testing, you find that one of the clients is not generating the correct messages to the WCF application. In order to debug the issue and fix the communication, you need to configure the service to log messages received from the client. What should you do?

- A. Set an etwTracking behavior on the service and configure a listener for the System.ServiceModel trace source.
- B. Set an etwTracking behavior on the service and configure a listener for the System.ServiceModel.MessageLogging trace source.
- C. Enable messageLogging in the System.ServiceModel diagnostics element configuration and configure a listener for the System.ServiceModel.MessageLogging trace source.
- D. Enable messageLogging in the System.ServiceModel diagnostics element configuration and configure a listener for the System.ServiceModel trace source.

Answer: C

Question: 72

A Windows Communication Foundation (WCF) service interacts with the database of a workflow engine. Data access authorization is managed by the database, which raises security exceptions if a user is unauthorized to access it. You need to ensure that the application transmits the exceptions raised by the database to the client that is calling the service. Which behavior should you configure and apply to the service?

- A. routing
- B. serviceDebug
- C. serviceSecurityAudit
- D. workflowUnhandledException

Answer: B

Question: 73

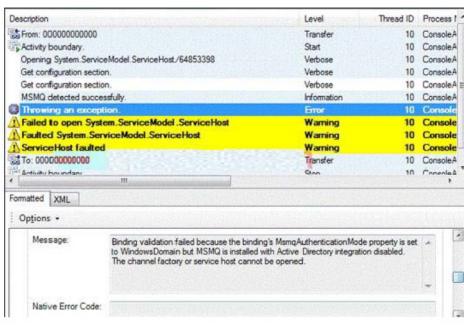
You are developing a Windows Communication Foundation (WCF) service. You must record all available information for the first 1,000 messages processed, even if they are malformed. You need to configure the message logging section of the configuration file. Which configuration segment should you use?

- A. <messageLogging logEntireMessage="true"
logMalformedMessages="true"
logMessagesAtServiceLevel="true"
logMessagesAtTransportLevel="true"
maxMessagesToLog="1000"/>
- B. <messageLogging logMessagesAtServiceLevel="true"
logMessagesAtTransportLevel="true"
maxMessagesToLog="1000"/>
- C. <messageLogging logEntireMessage="false"
logMessagesAtServiceLevel="true"
logMessagesAtTransportLevel="false"
maxMessagesToLog="1000"/>
- D. <messageLogging logMalformedMessages="true"
logMessagesAtServiceLevel="true"
logMessagesAtTransportLevel="false"
maxMessagesToLog="1000"/>

Answer: A

Question: 74

You are using tracing to diagnose run-time issues when you look at the traces for the service in Svc Trace viewer exe, you see what is shown in the exhibit (Click the Exhibit button)



The exception trace is selected in Svc Trace reviewer exe. You need to interpret the trace results to determine where the error occurred and what to do next. What should you do?

A. This issue occurred in the ServiceHost during ServiceHost Open. Enable WMI by adding the following configuration to the system.serviceModel configuration section in the application configuration file

<diagnostics wmiProviderEnabled='true'!> Restart the application and inspect the endpoints visible through WMI

B. This issue occurred in the Service Host during Service Host. Open.

Compare the security settings for any endpoints that use an MSMQ transport to the security configuration of the MSMQ queue used by the endpoint

C. This issue occurred at the Service Host when receiving a message

Compare the security configurations on the client and server to make sure that they are compatible

D. This issue occurred at the ServiceHost when accepting an initial set of messages from MSMQ. Log all messages sent between the clients and sever.

Answer: B

Question: 75

A Windows Communication Foundation (WCF) service that handles corporate accounting must be changed to comply with government regulations of auditing and accountability. You need to configure the WCF service to execute under the Windows logged-on identity of the calling application. What should you do?

A. Within the service configuration, add a ServiceAuthorization behavior to the service, and set ImpersonateCallerForAllOperations to true.

B. Within the service configuration, add a ServiceAuthenticationManager behavior to the service, and set ServiceAuthenticationManagerType to Impersonate.

C. Within the service configuration, add a serviceSecurityAudit behavior to the service, and set serviceAuthorizationAuditLevel to SuccessOrFailure

D. Within the service configuration, add a ServiceCredentials behavior to the service, and set type to Impersonate

Answer: A

Question: 76

The endpoint of a Windows Communication Foundation (WCF) service uses basicHttpBinding for its binding. Your Company's policies have changed to require that messages not be sent in clear text. You must ensure that all messages are encrypted when traveling across the network. What should you do?

- A. Set the ProtectionLevelAttribute on the service contract and update the binding attribute in the endpoint element of the configuration file to wsHttpBinding
- B. Set the ProtectionLevelAttribute on the service contract and update the bindingConfiguration attribute in the endpoint element of the configuration file to webHttpBinding
- C. Set the PrincipalPermissionAttribute on the service contract and update the binding attribute in the endpoint element of the configuration file to wsHttpBinding
- D. Set the PrincipalPermissionAttribute on the service contract and update the bindingConfiguration attribute in the endpoint element of the configuration file to wsHttpBinding.

Answer: A

Question: 77

Self-hosted Windows Communication Foundation (WCF) service uses a secure HTTP binding with a custom principal permission mode.

The binding requires users to provide their Windows logon credentials.

You need to retrieve the identity of the caller.

What are two possible properties you can use to achieve this goal? (Each correct answer presents a complete solution. Choose two)

- A. Thread.CurrentPrincipal.IdentityName
- B. HttpContext.Current.User.Identity.Name
- C. ServiceSecurityContext.Current.Primary.Identity.Name
- D. OperationContext.Current.ServiceSecurityContext.PrimaryIdentityName

Answer: C, D

Question: 78

You are creating an ASP.NET Web application that hosts several Windows Communication Foundation (WCF) services. The services have ASP.NET Compatibility Mode enabled. Users authenticate with the Web application by using a cookie-based ASP.NET Forms Authentication model.

You add a service file named Authentication.svc that contains the following code segment.

```
<%@ ServiceHost  
Service="System.Web.ApplicationServices.AuthenticationService"  
Factory="System.Web.ApplicationServices.ApplicationServicesHostFactory" %>
```

You need to ensure that users can access the WCF services without having to re-authenticate.

Which two configuration settings should you add? (Each is part of a complete solution. Choose two.)

- A. In the system.web.extensions/scripting/webServices/authenticationService element, set the enabled attribute to true.
- B. In the system.web.extensions/scripting/webServices/profileService element, set the enabled attribute to true.
- C. Add a service endpoint with basicHttpBinding for the contract

System.Web.ApplicationServices.AuthenticationService.

D. Add a custom service behavior named AuthenticationServiceTypeBehaviors with a serviceAuthenticationManager element that has serviceAuthenticationManagerType set to System.Web.Security.SqlMembershipProvider.

Answer: A, C

Question: 79

You are creating a windows Communication Foundation (WCF) service to process orders.

The data contract for the order is defined as follows:

```
[DataContract]
public class Order
{
    ...
    [DataMember]
    public string CardHolderName { get; set; }
    [DataMember]
    public string CreditCardNumber { get; set; }
}
```

You have the following requirements

- Enable the transmission of the contents of Order from the clients to the service.
- Ensure that the contents of CreditCardNumber are not sent across the network in clear text.
- Ensure that the contents of CreditCardNumber are accessible by the service to process the order.

You need to implement the service to meet these requirements. What should you do?

- Add a DataProtectionPermission attribute to the CreditCardNumber property and set the ProtectData property to true.
- Convert the DataContract to a MessageContract and set the ProtectionLevel property to SignAndEncrypt
- Change the data type of CreditCardNumber from string to SecureString
- Implement the CreditCardNumber property getter and setter. In the setter, run the value of the CreditCardNumber through the MD5CryptoServiceProvider class TransformBlock method

Answer: B

Question: 80

You are developing a Windows Communication Foundation (WCF) service that returns location information for authorized law enforcement agencies. The service contract is as follows.

```
[ServiceContract]
public interface IMappingService
{
    [OperationContract]
    long[] GetLocationCoordinates(String cityNaroe);
    [OperationContract]
    long[] GetLocationOfCitizen(String ssn) ;
}
```

Users are authenticated and impersonated. The system uses ASP.NET roles. The members of law enforcement are members of the LawEnforcement role. You need to ensure that only members of the LawEnforcement role can call these methods. What are two possible ways to achieve this goal? (Each correct answer presents a complete solution. Choose two.)

- A. Add a Princip.iIPi imissionAttribute to each method that should be available only to members of law enforcement. Set its SecurityAction to Demand and set the role equal to LawEnforcement.
- B. Use the CurrentPrincipal property of the thread. Call the IsInRole method specifying LawEnforcement as a parameter.
- C. Create a GenericPrincipal specifying Thread.CurrentPrincipal.Identity as the IIdentityParameter and LawEnforcement as the only value for the Roles parameter.
- D. At the beginning of each method, enumerate each ClaimSet in a new WindowsClaimSet. Use the FindClaims method to locate a claim type named Role with a right named LawEnforcement.

Answer: A, B

Question: 81

You have a secured Windows Communication Foundation (WCF) service. You need to track unsuccessful attempts to access the service. What should you do?

- A. Set the authorizationManagerType attribute of the serviceAuthorization behavior to Message
- B. Set the includeExceptionDetailsInFaults attribute of the serviceDebug behavior to true
- C. Set the Mode attribute of the security configuration element to Message
- D. Set the messageAuthenticationAuditLevel attribute of the serviceSecurityAudit behavior to Failure.

Answer: D

Question: 82

A client application calls a Windows Communication Foundation (WCF) service with a proxy class that was generated by Visual Studio. The service binding was changed from wsHttpBinding to basicHttpBinding. The method signatures in the service contract are changed. After these changes, the client application receives errors when calling methods on the service. You need to ensure that the client can invoke methods on the service successfully. What should you do?

- A. Update the configuration file to use basicHttpBinding.
- B. Enable anonymous authentication for the service.
- C. Copy the configuration file elements under the <system.servicemodel> element from the service back to the client.
- D. Update the service reference.

Answer: D

Question: 83

You are configuring services to be discoverable. The services must be discoverable without relying on a central server. Client applications that consume the services are on a network segment that is separate from the network segment that the services are located on. A firewall blocks all TCP ports between the two network segments, but allows other protocols to pass through. You need to ensure that the client applications can discover the services. What should you do?

- A. Use ad-hoc discovery mode over HTTP.
- B. Use ad-hoc discovery mode over UDP.
- C. Use managed discovery mode over HTTP.

D. Use managed discovery mode over UDP.

Answer: B

Explanation:

Managed discovery modes are incorrect, they require central server for discovery. By default the .NET Framework contains support for Ad-Hoc discovery over the UDP protocol

Question: 84

You are developing a Windows Communication Foundation (WCF) client application. The client application contains the following code.

```
[ServiceContract]
public interface ISocialStatus
{
    [OperationContract]
    [WebInvoke(
        UriTemplate = "/statuses/update.xml?status={text}")]
    void UpdateStatus(string text);
}

public class SocialClient
    : ClientBase<ISocialStatus>, ISocialStatus
{
    ...
}
```

The configuration file contains the following lines.

```
<system.serviceModel>
    <client>
        <endpoint name="SocialClient"
            address="http://contoso.com"
            binding="webHttpBinding"
            contract="SocialApp.ISocialStatus"
            bindingConfiguration="BindingConfig" />
    </client>
    <bindings>
        <webHttpBinding>
            <binding name="BindingConfig">
                ...
            </binding>
        </webHttpBinding>
    </bindings>
</system.serviceModel>
```

You need to ensure that the service is consumed. Which code segment should you use?

- A. var client = new SocialClient("SocialClient");
 client.Endpoint.Behaviors.Add(
 new WebHttpBehovior());
- B. var client = new SocialClient("SocialClient");
 client.Endpoint.Behaviors.Add(
 new WebScriptEnoblingBehovior());

C. var client = new Social Client ("POST") ;
client.Endpoint.Behaviors.Add(
new WebHttpBehovior());
D. var client = new Social Client ("POST");
client.Endpoint.Behaviors.Add(
new WebScriptEnoblingBehovior());

Answer: A

Question: 85

You are developing a new version of an existing message contract named CustomerDetailsVersion1. The new version of the message contract must add a Department field of type String to the SOAP header. You create a new class named CustomerDetailsVersion2 that inherits from CustomerDetailsVersion1. You need to ensure that all client applications can consume the service. Which code segment should you use?

- A. [MessageContract]
public class CustomerDetailsVersion2 : CustomerDetailsVersion1
{
[MessageHeader(MustUnderstand = true)]
public string Department;
}
B. [MessageContract]
public class CustomerDetailsVersion2 : CustomerDetailsVersion1
{
[MessageHeader(MustUnderstand = false)]
public string Department;
}
C. public class CustomerDetailsVersion2 : CustomerDetailsVersion1
{
[MessageHeader(MustUnderstand = true)]
public string Department;
}
D. public class CustomerDetailsVersion2 : CustomerDetailsVersion1
{
[MessageHeader(MustUnderstand = false)]
public string Department;
}

Answer: B

Question: 86

You are developing a Windows Communication Foundation (WCF) service. You establish that the largest size of valid messages is 8,000 bytes. You notice that many malformed messages are being transmitted. Detailed information about whether each message is malformed must be logged. You need to ensure that this information is saved in XML format so that it can be easily analyzed. What should you add to the service configuration file?

- A. <messageLogging
logMessagesAtServiceLevel="true"

```
logMessagesAtTransportLevels="true"
maxMessagesToLog="1000"
maxSizeOfMessageToLog="8000"/>
B. <roessageLogging
logEntireMessage="true"
logNalformedMessages="false"
logMessagesAtServiceLeve1="true"
logMessagesAtTransportLevel="true"
maxMessagesToLog=""1000"/>
C. <message Logging
logEntireMessage="true"
logHalformedMessages=""false"
logMessagesAtServiceLevel="true"
logMessagesAtTransportLevel="true"
maxMessagesToLog="1000"
maxSizeOfMessageToLog="8000"/>
D. <messageLogging
logEntireMessage="true"
logHalformedMessages="true"
logMessagesAtServiceLevel="true"
logMessagesAtTranspocLevel="true"
maxMessagesToLog="1000"
maxSizeOfMessageToLog="100000"/>
```

Answer: D

Explanation:

To log malformed message we should set logMalformedMessages="true", only D met this requirement

Question: 87

You are developing a Windows Communication Foundation (WCF) service that must be discoverable. You need to ensure that the ServiceHost instance supports multiple discovery versions.

What should you do?

- A.
 - Specify a unique DiscoveryVersion parameter for each endpoint constructor.
 - Use the same value for the Address property of each endpoint.
- B.
 - Use the endpoint constructor without the DiscoveryVersion parameter.
 - Use a unique value for the Address property of each endpoint.
- C.
 - Specify a unique DiscoveryVersion parameter for each endpoint constructor.
 - Use a unique value for the Address property of each endpoint.
- D.
 - Use the endpoint constructor without the DiscoveryVersion parameter.
 - Use the same value for the Address property of each endpoint.

Answer: C

Explanation:

We should specify version discovery for each endpoint constructor and use unique addresses for them,
<http://msdn.microsoft.com/en-us/library/dd456799.aspx>

Question: 88

You are developing a Windows Communication Foundation (WCF) service that allows customers to update financial data. The client applications call the service in a transaction. The service contract is defined as follows. (Line numbers are included for reference only.)

```

01 [ServiceContract]
02 public interface IDataUpdate
03 {
04     [OperationContract]
05     [TransactionFlow(TransactionFlowOption.Mandatory)]
06     void Update(string accountNumber, double amount);
07 }
08
09
10 class UpdateService : IDataUpdate
11 {
12     [OperationBehavior(TransactionScopeRequired = true,
13     TransactionAutoComplete = true)]
14     public void Update(string accountNumber,
15     double amount)
16     {
17         try
18         {
19             ...
20         }
21         catch (Exception ex)
22         {
23             WriteErrorLog(ex);
24         }
25     }
26 }
```

Customers report that the transaction completes successfully even if the Update method throws an exception. You need to ensure that the transaction is aborted if the Update method is not successful. What should you do?

A. insert the following line at line 22.

throw;

B. Insert the following line at line 09.

[ServiceBehavior(

TransactionAutoCompleteOnSessionClose = false)]

C. Replace line 12 with the following line.

[OperationBehavior(

TransactionScopeRequired = true,

TransactionAutoCoroplete - false)]

D. Insert the following line at line 09.

[ServiceBehavior(

TransactionAutoCompleteOnSessionClose = true)]

Answer: A

Question: 89

You are developing a Windows Communication Foundation (WCF) service that does not operate on a duplex channel. You find that operations do not start until all previous operations have finished. The service hosting code contains the following lines.

```
var service = new WarehouseService();
var host = new ServiceHost(service);
```

You need to ensure that new operations do not wait for previous operations to finish.

Which attribute should you use to decorate the service?

- A. [ServiceBehavior(
InstanceContextMode = InstanceContextMode.Single,
ConcurrencyMode = ConcurrencyMode.Multiple)]
- B. [CallbackBehavior(
ConcurrencyMode = ConcurrencyMode.Multiple)]
- C. [ServiceBehavior(
InstanceContextMode = InstanceContextMode.Single,
ConcurrencyMode = ConcurrencyMode.Single)]
- D. [ServiceBehavior(
InstanceContextMode = InstanceContextMode.Single,
ConcurrencyMode = ConcurrencyMode.Reentrant)]

Answer: A

Explanation:

Only ConcurrencyMode.Multiple gives as singleton service with support of multiple requests

Question: 90

You create a Windows Communication Foundation (WCF) service. It is deployed on Microsoft Internet Information Services (IIS) with an application pool running as Network Service. You enable WMI tracing before launching the service. Your IT support staff adds WMI data collection through ASP.NET WMI tracing. You need to restrict the collection of WMI data to a privileged account. What should you do in WMI Control in the Computer Management console?

- A.
 - Select the Root\ServiceModel namespace.
 - Remove Enable account permission for the Network Service account.
 - Add a custom user and grant that user Enable account permission.
- B.
 - Select the Root\aspnet namespace.
 - Remove Enable account permission for the Network Service account.
 - Add a custom user and grant that user Enable account permission.
- C.
 - Select the Root\aspnet namespace.
 - Remove Enable account permission for the Local System account.
 - Add a custom user and grant that user Enable account permission.

- D.
- Select the Root\Security namespace.
 - Remove Enable account permission for the Local System account.

Answer: A

Explanation:

<http://msdn.microsoft.com/en-us/library/ms735120.aspx> Security

Question: 91

You are creating a Windows Communication Foundation (WCF) service that uses claims-based authorization. The following code retrieves the correct claim set.

```
var claims = ServiceSecurityContext.Current.  
AuthorizationContext.ClaimSets[0];
```

You need to validate that the requesting client application has included a valid DNS value in the claim. Which code segment should you use to retrieve the claim for validation?

- A. claims.FindClaims(ClaimTypes.Dns, Rights.PossessProperty)
.FirstOrDefault();
- B. claims.FindClaims(ClaimTypes.Dns, Rights.Identity)
.FirstOrDefault();
- C. claims.Contains(Claim.CreateDnsClaim(ClaimTypes.Dns));
- D. claims.Equals(ClaimTypes.Dns);

Answer: A

Explanation:

ClaimSet can have only one Rights.Identity claim. It contains user identity information. All additional data, like DNS, stored in claims with PossessProperty rights

Question: 92

You are creating an application that consumes a Windows Communication Foundation (WCF) service. The service implements the IService contract. The client application contains the CallbackHandler class, which implements IServiceCallback. You need to ensure that a client proxy is created that can communicate with the service over a duplex channel. Which code segment should you use?

- A. var handler = new CallbackHandler();
var clientFactory = new DuplexChannelFactory<IService>{
new WSHttpContextBinding() ;
var client = clientFactory.CreateChannel(
new InstanceContext(handler), new EndpointAddress ("••• "));
- B. var handler = new CallbackHandler();
var clientFactory =
new DuplexChannelFactory<IService>{
typeof(CallbackHandler), new WSDualHttpBinding ()}; var client = clientFactory.CreateChannel(
new InstanceContext(handler), new EndpointAddress ("••• "));
- C. var handler = new CallbackHandler();
var clientFactory = new DuplexChannelFactory<IService>{

```

new WSHttpBinding());
var client = clientFactory.CreateChannel(
new InstanceContext (handler) , new EndpointAddress ("•••")) ;
C D. var handler = new CallbackHandler();
var clientFactory = new DuplexChannelFactory<IService>{
typeof(CallbackHandler), new WSDualHttpBinding());
var client = clientFactory.CreateChannel(
new EndpointAddress ("•••")) ;

```

Answer: B

Question: 93

You have a Windows Communication Foundation (WCF) service that accepts the following message contract.

```

[MessageContract (
    WrapperNamespace = "http://www.movies.com",
    ProtectionLevel = ProtectionLevel.None)]
public class Ticket
{
    [MessageBodyMember (
        Namespace = "http://www.movietheater.com",
        Order=1)]
    public DateTime ShowTime = DateTime.Now;

    [MessageBodyMember (
        Namespace = "http://www.movietheater.com")]
    public string ReservationName = "Smith";

    [MessageBodyMember (
        Namespace = "http://www.movietheater.com")]
    public int NumberOfSeats = 0;
}

```

You need to ensure that the client sends a SOAP body that is accepted by the service.

- A. <Ticket xmlns="http://www.movies.com">
<NumberOfSeats
xmlns="http://www.movietheater.com">
0
</NumberOfSeats>
<ReservationName xmlns="http://www.movietheater.com" />
<ShowTime
xmlns="http://www.movietheater.com">
2010-07-05T00:SI:10.0999304-05:00
</ShowTime>
</Ticket>
- B. <Ticket xmlns="http://www.movietheater.com">
<ShowTime
xmlns="http://www.movietheater.com">
2010-07-05T00:51:10.0999304-05:00
</ShowTime>

```
<ReservationName xmlns="http://www.movietheater.com" />
<NumberOfSeats
  xmlns="http://www.movietheater.com">
  0
</NumberOfSeats>
</Ticket>
C. <Ticket xmlns="http://www.movies.com">
  <ShowTime
    xmlns="http://www.movieheatec.com">
    2010-07-05T00:51:10.0999304-05:00
  </ShowTime>
  <Number Of Seats
    xmlns="http://www.movietheater.com"> 0
  </Number Of Seats>
<ReservationName xmlns="http://www.movietheotec.com" />
</Ticket>
D. <Ticket xmlns="http://www.movieheatec.com">
  <ShowTime
    xmlns="http://www.movietheater.com">
    2010-07-05T00:51:10.0999304-05:00
  </ShowTime>
  <NumberOfSeats
    xmlns="http://www.movieheatec.com"> 0
  </NumberOfSeats>
  <ReservationName
    xmlns="http://www.movieheatec.com" />
</Ticket>
```

Answer: C

Question: 94

You are debugging a Windows Communication Foundation (WCF) service. The service uses signed and encrypted messages. You need to configure logging so that you can read the contents of the messages. What should you do?

- A. Set maxSizeMessagesToLog to 10
- B. Set logMessageAtServiceLevel to true.
- C. Set maxMessagesToLog to 10.
- D. Set logMessageAtTransportLevel to true.

Answer: B

Question: 95

You are developing a client application that consumes a Windows Communication Foundation (WCF) service. The operation contract is as follows.

```
[OperationContract]
[FaultContract(typeof(SalesFault))]
string GetSales(string saleId);
```

The service configuration file contains the following line in the serviceBehaviors section.

```
<behavior>
<serviceDebug includeExceptionDetailInFaults="True"/>
</behavior>
```

A divide-by-zero exception is not being handled by the service.

You need to ensure that the exception is caught in the client application.

Which type of exception should the client catch?

- A. TimeoutException
- B. FaultException
- C. DivideByZeroException
- D. FaultException<SalesFault>

Answer: B

Explanation:

Because of DivideByZero exception not included into fault contract, on the client we should catch it as general fault exception

Question: 96

You are developing an application that performs file backups in the background. The background application will host a Windows Communication Foundation (WCF) service and must be active as soon as the machine is running. The background application will not have a user interface. A front-end application will consume the WCF service and will provide the user interface. You need to choose a host environment for the WCF service. Which hosting environment should you choose?

- A. Microsoft Internet Information Services (IIS) 6.0
- B. Windows Process Activation Services (WAS)
- C. a Windows Forms application
- D. a Windows Service

Answer: D

Question: 97

You are developing a Windows Communication Foundation (WCF) service. Client applications require reliable sessions to access the service. Users report that they receive ServerTooBusyException errors when their client application tries to establish a session. You need to ensure that the service can handle a minimum of 30 client connection requests. Which ReliableSessionBindingElement property should you configure?

- A. MaxRetryCount
- B. MaxTransferWindowSize
- C. MaxPendingChannels
- D. InactivityTimeout

Answer: C

Question: 98

You are developing a Windows Communication Foundation (WCF) service. You enable message logging, trace listeners, activity propagation, and tracing on the trace sources. You have the following code segment in the client application. (Line numbers are included for reference only.)

```
01 Guid multiCallActivityId = Guid.NewGuid();
02 TraceSource ts = new TraceSource("Multicall");
03 Trace.CorrelationManager.ActivityId =
    multiCallActivityId;
04
```

You encounter errors when your client application consumes the service. You need to ensure that your client application can correlate tracing information with the service. Which code segment should you add at line 04?

A.

```
ts.TraceEvent(TraceEventType.Start, 0,
    "Calling first service");
ts.TraceTransfer(100, "Transferring...", Guid.NewGuid());
...
ts.TraceEvent(TraceEventType.Stop, 0,
    "Return from first service.");
```

B.

```
ts.TraceEvent(TraceEventType.Start, 0,
    "Calling first service");
Trace.CorrelationManager.StartLogicalOperation("1");
...
ts.TraceEvent(TraceEventType.Stop, 0,
    "Return from first service.");
```

C.

```
ts.TraceEvent(TraceEventType.Start, 0,
    "Calling first service");
ts.TraceTransfer(100, "Transferring...",
    multiCallActivityId);
...
ts.TraceEvent(TraceEventType.Stop, 0,
    "Return from first service.");
```

D.

```
Trace.CorrelationManager.StartLogicalOperation("1");
...
Trace.CorrelationManager.StopLogicalOperation();
```

Answer: C

Question: 99

You are developing a Windows Communication Foundation (WCF) service.

One of the service operations contains the following code.

```
private static int counter = 0;
[OperationContract]
public void IncrementCount()
{
    counter++;
}
```

You need to set a service behavior that prevents two or more threads from incrementing the counter variable at the same time. Which code segment should you use to set the service behavior?

- A. [ServiceBehavior()
InstanceContextMode = InstanceContextMode.Single,
ConcurrencyMode = ConcurrencyMode.Single)]
- B. [ServiceBehavior()
InstanceContextMode = InstanceContextMode.PerSession,
ConcurrencyMode = ConcurrencyMode.Single)]
- C. [ServiceBehavior()
InstanceContextMode = InstanceContextMode.Single,
ConcurrencyMode = ConcurrencyMode.Multiple)]
- D. [ServiceBehavior()
InstanceContextMode = InstanceContextMode.PerCall,
ConcurrencyMode = ConcurrencyMode.Reentrant)]

Answer: A

Question: 100

You are developing a Windows Communication Foundation (WCF) service to provide shopping cart support. ASP.NET compatibility mode is not enabled. The shopping cart information must be retained across user visits to the store until the user explicitly empties the cart or submits the cart contents to order. You need to implement the service as a DurableService. Which two actions should you perform? (Each correct answer presents part of the solution. Choose two.)

- A. Use basicHttpBinding for both the client application and the service.
- B. Create the persistence provider database and configure the persistenceProvider element of the service behavior to point to that database.
- C. Use wsHttpContextBinding for both the client application and the service.
- D. In the method to add an item to the shopping cart, serialize the shopping cart contents after adding the current item and storing it in a Session variable.

Answer: B, C

Question: 101

A Windows Communication Foundation (WCF) service is deployed with netTcpBinding. This service uses a duplex message exchange pattern. You are developing the next version of the WCF service. You discover that your company's hardware load balancer performs correctly only for WCF services that use HTTP. You need to ensure that your service works with the load balancer. What should you do?

- A. Use basicHttpBinding.
- B. Create a custom binding that has the compositeDuplex, textMessageEncoding, and namedPipeTransport binding elements in this order.
- C. Create a custom binding that has the compositeDuplex, textMessageEncoding, and wsHttpTransport binding elements in this order.
- D. Use wsHttpBinding.

Answer: C

Question: 102

You are developing a Windows Communication Foundation (WCF) service that executes a long-running operation. The service is accessed from your business applications in a server transaction in which the client does not participate. You need to ensure that the transaction times out and aborts if the operation has not completed within 45 seconds. What should you do?

- A. Set the service binding sendTimeout attribute to 00:00:45.
- B. Apply `[ServiceBehavior(TransactionTimeout="00:00:45")]` to the service implementation.
- C. Set the service binding receiveTimeout attribute to 00:00:45.
- D. Apply `[OperationBehavior(TransactionScopeRequired=false)]` to the service operation.

Answer: B

Question: 103

You are developing a Windows Service. The Windows Service will host a Windows Communication Foundation (WCF) service. The Windows Service class will inherit from `ServiceBase`. You need to ensure that the WCF service starts when the Windows Service is restarted. What should you do in the Windows Service class?

- A.
 - Create a public method named `Main`.
 - Create a new `ServiceHost` in the `Main` method.
 - Override the `OnShutdown` method and close the `ServiceHost`.
- B.
 - Override the `OnStart` method and create and open a new `ServiceHost`.
 - Override the `OnStop` method and close the `ServiceHost`.
- C.
 - Override the `OnPowerEvent` method and open a new `ServiceHost`.
 - Override the `OnShutdown` method and close the `ServiceHost`.
- D.
 - Override the `OnContinue` method and open a new `ServiceHost`.
 - Override the `OnStop` method and close the `ServiceHost`.

Answer: B

Question: 104

You are developing a Windows Communication Foundation (WCF) service to provide an in-memory cache for many Web applications. The service contract is defined as follows. (Line numbers are included for reference only.)

```
01 [ServiceContract]
02 public interface IDataCache
03 {
04     ...
05 }
06
07
08 public class DataCache : IDataCache
09 {
10     ...
11 }
```

You need to ensure that all users share the cache. Which code segment should you insert at line 07?

- A. [ServiceBehavior(TransactionIsolationLevel = IsolationLevel.RepeatableRead)]
- B. [ServiceBehavior(InstanceContextMode = InstanceContextMode.Single)]
- C. [ServiceBehavior(InstanceContextMode = InstanceContextMode.PerSession)]
- D. [ServiceBehavior(TransactionIsolationLevel = IsolationLevel.ReadCommitted)]

Answer: B

Question: 105

You develop a Windows Communication Foundation (WCF) service that uses basic authentication for client credentials. This service is currently configured to use message security. The service is hosted on a server in workgroup mode. Users report that their passwords are stolen when they use public computers. You need to ensure that messages are secure and users are authenticated. You prevent the service from being called over HTTP through Microsoft Internet Information Services (IIS) configuration. What should you do next?

- A. Use the transport security mode and specify None for transport client credential type.
- B. Use the transportWithMessageCredential security mode and specify Basic for the transport client credential type.
- C. Use the message security mode and specify Basic for the transport client credential type.
- D. Use the transportWithMessageCredential security mode and specify None for the transport client credential type.

Answer: B

Question: 106

You are developing a Windows Communication Foundation (WCF) service. One of the parameters used with the service operations is a security token. The security token is not sensitive. The monitoring software tracks security tokens and can read tokens in clear text only. The company security policy requires that you validate all clear text data passed over the corporate network. You need to ensure that the service verifies that the security token is not changed during transit. What should you do?

- A. For all the security-sensitive members, set the ProtectionLevel parameter of the MessageBodyMember or MessageHeader attribute to EncryptAndSign.
- B. Implement IEndpointIdentityProvider in the message contract class.

- C. Implement ISecureConversationSession in the message contract class.
 D. For all the security-sensitive members, set the ProtectionLevel parameter of the MessageBodyMember or MessageHeader attribute to Sign.

Answer: D

Question: 107

You are developing a Windows Communication Foundation (WCF) service. The following code defines and implements the service. (Line numbers are included for reference only.)

```

01 [ServiceContract(SessionMode = SessionMode.Allowed)]
02 public interface ICatchAll
03 {
04     [OperationContract(IsOneWay = false, Action = "*",
05     ReplyAction = "*")]
05     Message ProcessMessage(Message message);
06 }
07
08 public class CatchAllService : ICatchAll
09 {
10     public Message ProcessMessage(Message message)
11     {
12
13         ...
14         return returnMsg;
15     }
16 }
```

You need to ensure that two identical copies of the received message are created in the service. Which code segment should you insert at line 12?

- A. Message msgCopy = message;
 CreateBufferedCopy(8192) as Message;
 Message returnMsg = message.
 CreateBufferedCopy(8192) as Message;
- B. MessageBuffer buffer = message.
 CreateBufferedCopy(8192);
 Message msgCopy = buffer.CreateMessage();
 Message returnMsg = buffer.CreateMessage();
- C. MessageBuffer buffer = message.
 CreateBufferedCopy(8192);
 Message msgCopy = buffer.CreateMessage();
 Message returnMsg = msgCopy;
- D. Message msgCopy = message;
 Message returnMsg = message;

Answer: B

Question: 108

You develop a Windows Communication Foundation (WCF) service. You name the service MovieService in the Movie namespace. The service is hosted in Microsoft Internet Information Services (IIS). You copy the assembly containing the service to the bin folder in the virtual directory path. You need to set up the URI that is mapped to the service. What should you do?

- A. Add the following code segment to the web.config file.

```
<serviceHostingEnvironment>
<serviceActivations>
odd relativeAddress=". /Movie" service="Movie.MovieService"/>
</serviceActivations>
</serviceHostingEnvironment>
```

- B. Add a Movie.svc file in the root of the virtual path with the following line.

```
<%&ServiceHost language="C#" Service="MovieService" %>
```

- C. Add the following code segment to the web.config file.

```
<serviceHostingEnvironment>
<serviceActivations>
odd relativeAddress=". /Movie, svc" service="Hovie.MovieService"/>
</serviceActivations>
</serviceHostingEnvironment>
```

- D. Add a Movie.svc file in the root of the virtual path with the following line.

```
<%&ServiceHost language="C#" Service="MovieService.svc" %>
```

Answer: B

Question: 109

You are developing a Windows Communication Foundation (WCF) service that is used to check the status of orders placed by customers. The following code segment is part of your service. (Line numbers are included for reference only.)

```
01  [ServiceContract]
02  public interface IStatus
03  {
04      [OperationContract]
05      int GetOrderStatus(string orderNumber);
06  }
07
08  class OrderService : IStatus
09  {
10      public int GetOrderStatus(string orderNumber)
11      {
12          ...
13      }
14  }
15
16  class Program
17  {
18      static void Main(string[] args)
19      {
20
21          host.Open();
22          ...
23      }
24  }
25 }
```

You need to ensure that the service always listens at net.pipe://SupplyChainServer/Pipe. What should you do?

A.

```
Insert the following code at line 20.  
ServiceHost host = new ServiceHost(typeof(OrderService));
```

```
Insert the following code at line 21.  
host.AddServiceEndpoint(typeof(OrderService),  
    new NetNamedPipeBinding(),  
    "net.pipe://SupplyChainServer/Pipe");
```

B.

```
Insert the following code at line 20.  
ServiceHost host = new ServiceHost(typeof(OrderService));
```

```
Insert the following code at line 21.  
host.AddServiceEndpoint(typeof(IStatus),  
    new NetNamedPipeBinding(),  
    "net.pipe://SupplyChainServer/Pipe");
```

C.

```
Insert the following code at line 20.  
ServiceHost host = new ServiceHost(typeof(IStatus));
```

```
Insert the following code at line 21.  
host.AddServiceEndpoint(typeof(IStatus),  
    new NetTcpBinding(),  
    "net.pipe://SupplyChainServer/Pipe");
```

D.

```
Insert the following code at line 20.  
ServiceHost host = new ServiceHost(typeof(IStatus));
```

```
Insert the following code at line 21.  
host.AddServiceEndpoint(typeof(OrderService),  
    new NetTcpBinding(),  
    "net.pipe://SupplyChainServer/Pipe");
```

Answer: B

Question: 110

You are configuring a routing service to call a target service. The routing service has no knowledge of the target service's data types other than the service contract. The operation contract for all of the methods of the target service specifies IsOneWay=true.

You need to specify the endpoint information for the routing service. What should you do?

- A. In the target service configuration file, specify "*" for the client endpoint contract and "*" for the service endpoint contract.
- B. In the routing service configuration file, specify "*" for the client endpoint contract and System.ServiceModel.Routing.ISimplexDatagramRouter for the service endpoint contract.
- C. In the routing service configuration file, specify "*" for the client endpoint contract and "*" for the service endpoint contract.
- D. In the routing service configuration file, specify "*" for the client endpoint contract and System.ServiceModel.Routing.IRequestReplyRouter for the service endpoint contract.

Answer: B

Question: 111

You are modifying a Windows Communication Foundation (WCF) service that provides access to report generation system. The following code segment is part of your service contract. (Line numbers are included for reference only.)

```
01 [ServiceContract]
02 public interface IAsyncReportService
03 {
04
05     IAsyncResult BeginReportGeneration(int a, int b,
06                                         AsyncCallback cb, object s);
07
08     int EndReportGeneration(IAsyncResult r);
09 }
```

Client applications are blocked while the service processes reports. You need to ensure that the service methods are asynchronous. What should you do?

- A. Insert the following code at line 04.

[OperationContract]

- Insert the following code at line 07.

[OperationContract(AsyncPattern = true)]

- B. Insert the following code at line 04.

[OperationContract(AayncPaccern = true)]

- C. Insert the following code at line 04.

[OperotionConcroct(AsyncPactern = false)]

- Insert the following code at line 07.

[OperacionConcracc(AsyncPactern = true)]

- D. Insert the following code at line 04.

[OperationContract (AsyncPattern = false)]

Answer: B

Question: 112

You are developing a Windows Communication Foundation (WCF) service. You need to enable security auditing for all events. What should you do?

- A. Set the serviceAuthorizationAuditLevel setting to Success and the messageAuthenticationAuditLevel setting to Success.
- B. Set the messageAuthenticationAuditLevel setting to Success and the auditLogLocation setting to Application.
- C. Set the serviceAuthorizationAuditLevel setting to SuccessAndFailure and the messageAuthenticationAuditLevel setting to SuccessAndFailure.
- D. Set the messageAuthenticationAuditLevel setting to SuccessAndFailure and the auditLogLocation setting to Security.

Answer: C

Question: 113

The endpoint of a Windows Communication Foundation (WCF) service uses basicHttpBinding for its binding. Your company's policies have changed to require that messages not be sent in clear text. You must ensure that all

messages are encrypted when traveling across the network. What should you do?

- A. Set the ProtectionLevel property on the service contract and update the binding attribute in the endpoint element of the configuration file to wsHttpBinding.
- B. Set the ProtectionLevel property on the service contract and update the bindingConfiguration attribute in the endpoint element of the configuration file to webHttpBinding.
- C. Set the PrincipalPermissionAttribute on the service contract and update the binding attribute in the endpoint element of the configuration file to wsHttpBinding.
- D. Set the PrincipalPermissionAttribute on the service contract and update the bindingConfiguration attribute in the endpoint element of the configuration file to wsHttpBinding.

Answer: A

Question: 114

You are developing a Windows Communication Foundation (WCF) service named CalculatorService, which implements the ICalculatorService contract. The service is configured to be discoverable through UDP. CalculatorService contains multiple endpoints. One of the endpoints is configured with the following behavior.

```
<behavior name="calculatorEndpointBehavior">
  <endpointDiscovery enabled="true">
    <extensions>
      <Information>
        ICalculatorService Endpoint.
      </Information>
      <Information>
        Udp Exposed Calculator Endpoint
      </Information>
    </extensions>
  </endpointDiscovery>
</behavior>
```

You need to log all the endpoint metadata information that is added by the service host. Which code segment should you use?

A.

```
var discoveryClient =
  new DiscoveryClient(new UdpDiscoveryEndpoint());
var findCriteria =
  new FindCriteria(typeof(ICalculatorService));
var findResponse = discoveryClient.Find(findCriteria);

foreach (var meta in findResponse.Endpoints)
{
  foreach (var xElement in meta.Extensions)
  {
    Log("Endpoint Information: "
      + xElement.Element("Information").Value);
  }
}
```

B.

```

var discoveryClient =
    new DiscoveryClient(new UdpDiscoveryEndpoint());
var findCriteria = new FindCriteria();
var findResponse = discoveryClient.Find(findCriteria);
var meta = discoveryClient.Endpoint;

foreach (var xElement in meta.Contract.Operations) {
    Log("Endpoint Information: "
        + xElementBehaviors.ToString());
}
C.

var discoveryClient =
    new DiscoveryClient(new UdpDiscoveryEndpoint());
var findCriteria =
    new FindCriteria(typeof(ICalculatorService));
var findResponse = discoveryClient.Find(findCriteria);
var meta = findResponse.Endpoints[0];

foreach (var xElement in meta.Extensions)
{
    Log("Endpoint Information: "
        + xElement.Element("Information").Value);
}
D.

var discoveryClient =
new DiscoveryClient(new UdpDiscoveryEndpoint());
var findCriteria =
new FindCriteria(typeof(ICalculatorService));
var findResponse = discoveryClient.Find(findCriteria);
foreach(var meta in findResponse.Endpoints)
{
foreach(var xElement in meta.Extensions)
{
Log("Endpoint Information: "
+ xElement.Element("Information").Value);
}
}

```

Answer: A

Question: 115

An existing Windows Communication Foundation (WCF) service uses basicHttpBinding. You are releasing updates to the service and the client application. You need to enable the client application to flow transactions to the service. What are two possible ways to achieve this goal? (Each correct answer presents a complete solution. Choose two.)

- A. Change to a custom binding that has the httpTransport, textMessageEndcoding, and transactionFlow binding elements in this order.
- B. Change to a custom binding that has the transactionFlow, textMessageEncoding, and httpTransport binding elements in this order.
- C. Change the binding to use wsHttpBinding.
- D. Change the binding to use basicHttpContextBinding.

Answer: B, C

Question: 116

You are developing a Windows Communication Foundation (WCF) service. You enable logging in the configuration file. The opening tag is defined as follows.

```
<messageLogging logEntireMessage="true"
    logMalformedMessages="true"
    logMessagesAtServiceLevel="true"
    logMessagesAtTransportLevel="true"
    maxMessagesToLog="20">
```

You need to ensure that logging is implemented so that only messages with SOAP headers are logged. What should you add to the filters element of the application configuration file?

A.

```
<add xmlns:soap="http://www.w3.org/2003/05/soap-envelope">
    soap:Header
</add>
```

B.

```
<add xmlns:soap="http://www.w3.org/2003/05/soap-envelope">
    /Action[starts-with(text(), 'soap:Header')]
</add>
```

C.

```
<add xmlns:soap="http://www.w3.org/2003/05/soap-envelope">
    /soap:Envelope/soap:Header
</add>
```

D.

```
<add xmlns:soap="http://www.w3.org/2003/05/soap-envelope">
    /Action[starts-with(text(), 'soap:Envelope')]
</add>
```

Answer: C

Question: 117

You are developing a custom service host for a Windows Communication Foundation (WCF) service. The service host is named MovieServiceHost. You need to deploy the service with the custom service host in Microsoft Internet Information Services (IIS) 7.0. What should you do?

A. Create a factory for the custom service host. Name the factory MovieServiceHostFactory. In the web.config file, add the following attribute to the <add> element within the <serviceActivations> element, factory="MovieServiceHostFactory"

B. Decorate the custom service host class with the following line.

```
<System.ServiceModel.Activation.ServiceActivationBuildProvider()>
```

C. Make sure that the service class has a default constructor. Add a public read-only property with the name ServiceHost that returns an instance of the MovieServiceHost class.

D. Create a factory for the custom service host. Name the factory MovieServiceHostFactory. In the .svc file, add the following line. <%3 ServiceHost Service="MovieServiceHostFactory" Language="VB"%>

Answer: A

Question: 118

You are modifying a Windows Communication Foundation (WCF) service that allows customers to update financial data. The service currently requires a transaction from the client application and is working correctly. The service contract is defined as follows. (Line numbers are included for reference only.)

```

01 [ServiceContract]
02 public interface IDataUpdate
03 {
04     [OperationContract]
05     [TransactionFlow(TransactionFlowOption.Mandatory)]
06     void Update(string accountNumber, double amount);
07 }
08
09
10 class UpdateService : IDataUpdate
11 {
12     [OperationBehavior(TransactionScopeRequired = true,
13     TransactionAutoComplete = true)]
13     public void Update(string accountNumber,
14     double amount)
14     {
15         try
16         {
17             ...
18         }
19         catch(Exception ex)
20         {
21             ...
22         }
23     }
24 }
25 }
26 }
```

The service must be modified so that client applications do not need to initiate a transaction when calling the operation. The service must use the client application's transaction if one is available. Otherwise it must use its own transaction. You need to ensure that the service operation is always executed within a transaction. What should you do?

A.

Replace line 12 with the following code.

```
[OperationBehavior(TransactionScopeRequired = false,
    TransactionAutoComplete = false)]
```

B.

Replace line 12 with the following code.

```
[OperationBehavior(TransactionScopeRequired = false,
    TransactionAutoComplete = true)]
```

C.

Replace line 05 with the following code.

```
[TransactionFlow(TransactionFlowOption.NotAllowed)]
```

D.

Replace line 05 with the following code.

```
[TransactionFlow(TransactionFlowOption.Allowed)]
```

Answer: D

Question: 119

Your company has an existing Windows Communication Foundation (WCF) service. The following code segment is part of the service. (Line numbers are included for reference only.)

```
01 ServiceHost host = GetServiceHost();
02
host.Open();
```

You need to ensure that AJAX client applications can access the service. Which code segment should you insert at line 02?

A.

```
NetTcpBinding binding = new NetTcpBinding();
ServiceEndpoint ep = host.AddServiceEndpoint(
    typeof(ICatalogService), binding, "ajax");
ep.Behaviors.Add(new WebHttpBehavior());
```

B.

```
WebHttpBinding binding = new WebHttpBinding();
ServiceEndpoint ep = host.AddServiceEndpoint(
    typeof(ICatalogService), binding, "ajax");
ep.Behaviors.Add(new WebScriptEnablingBehavior());
```

C.

```
NetTcpBinding binding = new NetTcpBinding();
ServiceEndpoint ep = host.AddServiceEndpoint(
    typeof(CatalogService), binding, "ajax");
ep.Behaviors.Add(new WebScriptEnablingBehavior());
```

D.

```
BasicHttpBinding binding = new BasicHttpBinding();
ServiceEndpoint ep = host.AddServiceEndpoint(
    typeof(CatalogService), binding, "ajax");
ep.Behaviors.Add(new WebScriptEnablingBehavior());
```

Answer: B

Question: 120

You develop a Windows Communication Foundation (WCF) service. It is used exclusively as an intranet application and is currently unsecured. You need to ensure that the service meets the following requirements:

- The service now must be exposed as an Internet application.
- The service must be secured at the transport level.
- Impersonation and delegation cannot be enabled.

What should you use?

- A. wsHttpBinding and HTTPS
- B. basicHttpBinding and Kerberos

- C. basicHttpBinding and HTTP
 D. wsHttpBinding and Kerberos

Answer: A

Question: 121

You are developing a Windows Communication Foundation (WCF) service to replace an existing A5MX Web service. The WCF service contains the following code segment. (Line numbers are included for reference only.)

```

01 [ServiceContract]
02
03 public interface IEmployeeService
04 {
05     [OperationContract()]
06     EmployeeInfo GetEmployeeInfo(int employeeID);
07 }
08
09 public class EmployeeService : IEmployeeService
10 {
11     public EmployeeInfo GetEmployeeInfo(int employeeID)
12     {
13         ...
14     }
15 }
16
17 public class EmployeeInfo
18 {
19
20     public int EmployeeID { get; set; }
21     public string FirstName { get; set; }
22     public string LastName { get; set; }
23 }
```

The existing Web service returns the EmployeeID as an attribute of the EmployeeInfo element in the response XML. You need to ensure that applications can consume the service without code changes in the client.

A.

Insert the following code at line 16.
 [DataContractFormat]

Insert the following code at line 19.
 [DataMember]

B.

Insert the following code at line 08.
 [XmlSerializerFormat]

Insert the following code at line 19.
 [XmlAttribute]

C.

Insert the following code at line 02.
[XmlSerializerFormat]

Insert the following code at line 19.
[XmlAttribute]

D.

Insert the following code at line 02.
[DataContractFormat]

Insert the following code at line 19.
[DataMember]

Answer: C

Question: 122

You are developing a Windows Communication Foundation (WCF) client application. You instantiate a client class that inherits from ClientBase. The client instance must always be shut down in such a way that it can free up any resources it is referencing. You need to ensure that all exceptions are caught and the instance is always properly shut down. Which code segment should you use?

A.

```
var client = new Service1Client();
try
{
    client.GetData(534);
}
catch (Exception e)
{
    client.Abort();
    ...
}
finally
{
    client.Close();
}
```

B.

```
var client = new Service1Client();
using (client)
{
    client.GetData(534);
    client.Abort();
}
```

C.

```
var client = new Service1Client();
using (client)
{
    client.GetData(534);
    client.Close();
}
```

D.

```
var client = new Service1Client();
try
{
    client.GetData(534);
    client.Close();
}
catch (Exception e)
{
    client.Abort();
    ...
}
```

Answer: D

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Question: 123

You are moving a Windows Communication Foundation (WCF) service into production. You need to be able to monitor the health of the service. You only want to enable all performance counter instances exposed by the ServiceModelService 4.0.0.0 counter group. Which element should you add to the system.serviceModel section in the application configuration file?

- A. <diagnostics performanceCounters="ServiceOnly" />
- B. <diagnostics wmiProviderEnabled="true" performanceCounters="Off" />
- C. <diagnostics performanceCounters="All" />
- D. <diagnostics wmiProviderEnabled="true" />

Answer: A

Question: 124

You create a Windows Communication Foundation (WCF) service and deploy it with wsHttpBinding and message security enabled. You create an intermediate WCF service for logging messages sent to the primary service. The intermediate service is called via the clientVia endpoint behavior.

The primary service is receiving malformed data from a client application.

You need to enable inspection of the malformed data and prevent message tampering.

What should you do?

- A. Specify a protection level of None in the service contract for the intermediate service. Disable message and transport security from the client application configuration file.
- B. Specify a protection level of Sign in the service contract for the intermediate service. Disable transport security from the client application configuration file.
- C. Modify the binding on the intermediate service to use netNamedPipeBinding.
- D. Modify the binding on the intermediate service to use webHttpBinding.

Answer: B

Question: 125

You are implementing a Windows Communication Foundation (WCF) service contract named IContosoService in a class named ContosoService. The service occasionally fails due to an exception being thrown at the service.

You need to send the stack trace of any unhandled exceptions to clients as a fault message.

What should you do?

- A. In the application configuration file on the client, add the following XML segment to the system.serviceModel/behaviors configuration section group.

```
<endpointBehaviors>
  <behavior name=" debug ">
    <callback Debug includeExceptionDetailInFaults="true" />
  </behavior>
</endpointBehaviors>
```

Associate the debug behavior with any endpoints that need to return exception details.

- B. In the application configuration file on the service and all the clients, add the following XML segment to the system.diagnostics/sources configuration section group.

```
<source name="System.ServiceModel" switchValue=" Error " propagateActivity="true">
  <listeners>
    <add name="ServiceModelTraceListener"
      initializeData="app_tracelog.svclog"
      type="System.Diagnostics.XmlWriterTraceListener" />
  </listeners>
</source>
```

- C. Apply the following attribute to the ContosoService class.

```
<ServiceBehavior.IncludeExceptionDetailInFaults:=True>
```

- D. For each OperationContract exposed by IContosoService , apply the following attribute.

```
<FaultContract(GetType(Exception))>
```

Answer: C

Question: 126

You are creating a Windows Communication Foundation (WCF) service that accepts messages from clients when they are started. The message is

defined as follows.

```
<MessageContract()
  Public Class Agent
    Public Property CodeName As String
    Public Property SecretHandshake As String
  End Class
```

You have the following requirements:

The CodeName property must be sent in clear text. The service must be able to verify that the property value was not changed after being sent by the client.

The SecretHandshake property must not be sent in clear text and must be readable by the service.

What should you do?

- A. Add a MessageBodyMember attribute to the CodeName property and set the ProtectionLevel to Sign. Add a MessageBodyMember attribute to the SecretHandshake property and set the ProtectionLevel to EncryptAndSign.

- B. Add a DataProtectionPermission attribute to the each property and set the ProtectData property to True.

- C. Add an XmlText attribute to the CodeName property and set the DataType property to Signed. Add a PasswordPropertyText attribute to the SecretHandshake property and set its value to True.

D. Add an `ImmutableObject` attribute to the `CodeName` property and set its `value` property to `True`. Add a `Browsable` attribute to the `SecretHandshake` property and set its `value` to `False`.

Answer: B

Question: 127

You develop a Windows Communication Foundation (WCF) service. You enable all performance counters and run multiple calls to the service.

The service must isolate session data for each user.

You need to monitor the instancing behavior used in the service.

Which performance counter should you monitor?

- A. `ServiceModelService 4.0.0.0\Calls`
- B. `ServiceModelService 4.0.0.0\Instances`
- C. `ASP.NET State Service\State Server Sessions Active`
- D. `ASP.NET State Service\State Server Sessions Total`

Answer: B

Question: 128

Your Windows Communication Foundation (WCF) client application uses HTTP to communicate with the service.

You need to enable message logging and include all security information such as tokens and nonces in logged messages.

What should you do?

A. In the application configuration file, add the `logKnownPii` attribute to the message logging diagnostics source and set the value of the attribute to true.

Generate the `ContosoService` class using the Add Service Reference wizard.

Add a reference to `System.ServiceModel.Routing.dll`.

Add the following code segment.

```
Dim client As ContosoService = New ContosoService()  
Dim behavior As SoapProcessingBehavior = New SoapProcessingBehavior()  
behavior.ProcessMessages = True  
client.Endpoint.Behaviors.Add(behavior)
```

B. In the application configuration file, add the following XML segment to the `system.serviceModel` configuration section group.

```
<diagnostics>  
<messageLogging logMessagesAtTransportLevel="true"  
    logEntireMessage="true" />  
</diagnostics>
```

C. In the machine configuration file, add the following XML segment to the `system.serviceModel` configuration section.

```
<machineSettings enableLoggingKnownPii="true" />
```

Generate the `ContosoService` class using the Add Service Reference wizard.

Add the following code segment.

```
Dim client As ContosoService = New ContosoService()  
client.Endpoint.Behaviors.Add(New CallbackDebugBehavior(True))
```

D. In the machine configuration file, add the following XML segment to the `system.serviceModel` configuration

section.

```
<machineSettings enableLoggingKnownPii="true" />
```

In the application configuration file, add the logKnownPii attribute to the message logging diagnostics source and set the value of the attribute to true.

In the application configuration file, add the following XML segment to the system.serviceModel configuration section group.

```
<diagnostics>
<messageLogging logMessagesAtTransportLevel="true"/>
</diagnostics>
```

Answer: D

Question: 129

A Windows Communication Foundation (WCF) solution uses the following contracts. (Line numbers are included for reference only.)

```
01 <ServiceContract(CallbackContract:=GetType(INameService))>
02 Public Interface IGreetingService
03
04   <OperationContract()>
05   Function GetMessage() As String
06 End Interface
07
08 <ServiceContract()>
09 Public Interface INamespace
10
11   <OperationContract()>
12   Function GetName() As String
13 End Interface
```

When the client calls GetMessage on the service interface, the service calls GetName on the client callback.

In the client, the class NameService implements the callback contract.

The client channel is created as follows.

```
22 Dim callbackContext As InstanceContext =
    New InstanceContext(New NameService("client"))
...
25 Dim factory As DuplexChannelFactory(Of IGreetingService) =
    New DuplexChannelFactory(Of IGreetingService) (
        GetType(NameService), binding, address)
26 Dim greetingService As IGreetingService =
    factory.CreateChannel()
```

You need to ensure that the service callback is processed by the instance of NameService.

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

A. Change line 25 to the following code segment.

```
Dim factory As DuplexChannelFactory(Of IGreetingService) =
New DuplexChannelFactory(Of IGreetingService)(
callbackContext, binding, address)
```

B. Change line 26 to the following code segment.

```
Dim greetingService As IGreetingService =
```

```
factory.CreateChannel(callbackContext)
C. Add the following code segment after line 26.
callbackContext.IncomingChannels.Add(
    DirectCast(greetingService, IDuplexChannel))
D. Add the following code segment after line 26.
callbackContext.OutgoingChannels.Add(
    DirectCast(greetingService, IDuplexChannel))
```

Answer: A, B

Question: 130

You are developing a client application that uses the following code to consume a Windows Communication Foundation (WCF) service. (Line numbers are included for reference only.)

```
01 Dim myBinding As BasicHttpBinding =
New BasicHttpBinding()
02 Dim myEndpointAddress As EndpointAddress =
New EndpointAddress(
"http://contoso.com/TaxService.svc")
03
04 Dim client As ITaxService =
channelFactory.CreateChannel()
05 Dim data As String = client.GetData(1)
You need to consume the service.
```

Which code segment should you insert at line 03?

- A. Dim channelFactory =
New ChannelFactory(Of ITaxService)()
- B. Dim channelFactory =
New ChannelFactory(Of ITaxService)(myBinding)
- C. Dim channelFactory =
New ChannelFactory(Of ITaxService)
(myBinding, myEndpointAddress)
- D. channelFactory =
New ChannelFactory(Of ITaxService)
("http://contoso.com/TaxService.svc")

Answer: C

Question: 131

You are creating a Windows Communication Foundation (WCF) service. The service endpoints change frequently. On the service, you add a new ServiceDiscoveryBehavior to the Behaviors collection of the ServiceHost Description property.

You need to ensure that client applications can communicate with the service and discover changes to the service endpoints.

What should you do?

- A. Add a new ServiceDiscoveryBehavior to the Behaviors collection in the client application.
- B. Add a new AnnouncementClient to the Behaviors collection in the client application.

- C. Use the FindCriteria class and the UdpDiscoveryEndpoint class to set up the binding in the client application.
- D. Use the DiscoveryProxy class and the EndpointDiscoveryMetadata class to set up the binding in the client application.

Answer: C

Question: 132

You are developing a client application that consumes a Windows Communication Foundation (WCF) service. You use the svcutil.exe utility to create a proxy for the service. You use the svcutil.exe switches that generate asynchronous calls. GetFlight is a service operation that takes no parameters and returns a string. The GetFlightCallback method must be called when the service operation returns. You create an instance of the client proxy with the following code.

```
Dim client As TravelServiceClient = New TravelServiceClient()
```

You need to ensure that a callback is received when the GetFlight operation is called asynchronously. Which code segment should you use?

- A. client.BeginGetFlight(AddressOf
GetFlightCallback, Nothing) client.GetFlight()
- B. client.GetFlight()
client.BeginGetFlight(AddressOf GetFlightCallback, Nothing)
- C. AddHandler client.GetFlightCompleted,
New EventHandler(Of GetFlightCompletedEventArgs)
(AddressOf GetFlightCallback)
client.GetFlightAsync()
- D. Dim asyncResult As IAsyncResult = client.BeginGetFlight(
AddressOf GetFlightCallback, client)
client.EndGetFlight(asyncResult)

Answer: D

Question: 133

You develop a Windows Communication Foundation (WCF) service that interacts with Microsoft Message Queuing (MSMQ). The service requires sessions. You need to create a custom binding that enables messages sent to the queue to be viewed when you are using a listener tool. Which binding elements should you use?

- A. textMessageEncoding and msmqTransport in this order
- B. textMessageEncoding and msmqIntegrationTransport in this order
- C. msmqTransport and textMessageEncoding in this order
- D. msmqIntegrationTransport and textMessageEncoding in this order

Answer: A

Question: 134

You are developing an application to update a users social status. You need to consume the service using Windows

Communication Foundation (WCF).

The client configuration is as follows.

```
<system.serviceModel>
<bindings>
<webHttpBinding>
<binding name="SocialConfig">
<security mode="TransportCredentialOnly">
<transport clientCredentialType="Basic"
realm="Social API" />
</security>
</binding>
</webHttpBinding>
</bindings>
<client>
<endpoint address= " http:// contoso .com "
binding="webHttpBinding"
bindingConfiguration="SocialConfig"
contract="ISocialStatus"
name="SocialClient" />
</client>
</system.serviceModel>
```

The service contract is defined as follows.

```
<ServiceContract()
Public Interface ISocialStatus
<OperationContract()
<WebInvoke(UriTemplate:="/statuses/update.xml?status={text}")>
Sub UpdateStatus(ByVal text As String)
End Interface
```

Which code segment should you use to update the social status?

- A. Using factory As WebChannelFactory(Of ISocialStatus) =
New WebChannelFactory(Of ISocialStatus)("SocialClient")
factory.Credentials.UserName.UserName = user.Name
factory.Credentials.UserName.Password = user.Password
Dim socialChannel As ISocialStatus =
factory.CreateChannel()
socialChannel.UpdateStatus(newStatus)
End Using
- B. Using factory As ChannelFactory(Of ISocialStatus) =
New WebChannelFactory(Of ISocialStatus)(GetType(ISocialStatus))
factory.Credentials.UserName.UserName = user.Name
factory.Credentials.UserName.Password = user.Password
Dim socialChannel As ISocialStatus =
factory.CreateChannel()
socialChannel.UpdateStatus(newStatus)
End Using
- C. Using factory As ChannelFactory(Of ISocialStatus) =
New ChannelFactory(Of ISocialStatus)("POST")
factory.Credentials.Windows.ClientCredential.UserName =
user.Name
factory.Credentials.Windows.ClientCredential.SecurePassword.SetAt(

```
0, user.Password)
Dim socialChannel As ISocialStatus = factory.CreateChannel()
socialChannel.UpdateStatus(newStatus)
End Using
D. Using factory As WebChannelFactory(Of ISocialStatus) =
New WebChannelFactory(Of ISocialStatus)(GetType(ISocialClient))
factory.Credentials.Windows.ClientCredential.UserName =
user.Name
factory.Credentials.Windows.ClientCredential.SecurePassword.SetAt(
0, user.Password)
Dim socialChannel As ISocialStatus = factory.CreateChannel()
socialChannel.UpdateStatus(newStatus)
End Using
```

Answer: A

Question: 135

A Windows Communication Foundation (WCF) client application is consuming an RSS syndication feed from a blog. You have a SyndicationFeed variable named feed. The application iterates through the items as follows. (Line numbers are included for reference only.)

```
01 For Each item As SyndicationItem In feed.Items
02
03
04 Next
```

You need to display the content type and body of every syndication item to the console.
Which two lines of code should you insert between lines 02 and 03?

- A. Console.WriteLine(item.Content.Type)
 Console.WriteLine(DirectCast(item.Content,
TextSyndicationContent).Text)
- B. Console.WriteLine(item.Content.GetType())
 Console.WriteLine(DirectCast(item.Content,
TextSyndicationContent).Text)
- C. Console.WriteLine(item.Content.Type)
 Console.WriteLine(item.Content.ToString())
- D. Console.WriteLine(item.Content.GetType())
 Console.WriteLine(item.Content.ToString())

Answer: A

Question: 136

You are creating a Windows Communication Foundation (WCF) service.

You have the following requirements:

Messages must be sent over TCP.

The service must support transactions.

Messages must be encoded using a binary encoding.

Messages must be secured using Windows stream-based security.

You need to implement a custom binding for the service.

In which order should the binding stack be configured?

- A. tcpTransport
windowsStreamSecurity
transactionFlow
binaryMessageEncoding
- B. transactionFlow
binaryMessageEncoding
windowsStreamSecurity
tcpTransport
- C. windowsStreamSecurity
tcpTransport
binaryMessageEncoding t
ransactionFlow
- D. binaryMessageEncoding
transactionFlow
tcpTransport
windowsStreamSecurity

Answer: B

Question: 137

A Windows Communication Foundation (WCF) service has a callback contract. You are developing a client application that will call this service.

You must ensure that the client application can interact with the WCF service.

What should you do?

- A. On the OperationContractAttribute, set the AsyncPattern property value to True.
- B. On the OperationContractAttribute, set the ReplyAction property value to the endpoint address of the client.
- C. On the client, create a proxy derived from DuplexClientBase(Of TChannel).
- D. On the client, use GetCallbackChannel (Of T).

Answer: C

Question: 138

You are hosting a Windows Communication Foundation (WCF) service under Microsoft Internet Information Services (IIS) 7.0.

You have set up a Web site in IIS Manager. The physical path is C:\wwwroot\Calendar. There is a Calendar.svc file in the C:\wwwroot\Calendar folder. It contains the following directive.

```
<%@ ServiceHost Language="VB" Debug="true" Service="Calendar.Calendar" CodeBehind="Calendar.svc.vb" %>
```

The Calendar.svc.vb file contains the source for the Calendar class in the Calendar namespace. You compile this code into the Calendar.dll file.

You need to deploy your service to the Web site.

What should you do?

- A. Copy the Calendar.dll file to the C:\wwwroot\Calendar\code folder.
- B. Copy the Calendar.dll file to the C:\wwwroot\Calendar\bin folder.
- C. Copy the Calendar.svc.vb file to the C:\wwwroot\Calendar\bin folder.

D. Copy the Calendar.svc.vb file to the C:\wwwroot\Calendar\code folder.

Answer: B

Question: 139

A Windows Communication Foundation (WCF) service is self-hosted in a console application. The service implements the IDataAccess contract, which is defined in the MyApplication namespace.

The service is implemented in a class named DataAccessService, which implements the IDataAccess interface and also is defined in the MyApplication namespace.

The hosting code is as follows. (Line numbers are included for reference only.)

```
01 Shared Sub Main(ByVal args() As String)
02
03     Dim host As ServiceHost
04
05     host.Open()
06     Console.ReadLine()
07     host.Close()
08
09 End Sub
```

You need to create a ServiceHost instance and assign it to the host variable.

You also need to instantiate the service host.

Which line of code should you insert at line 04?

- A. host = New ServiceHost("MyApplication.DataAccessService")
- B. host = New ServiceHost("MyApplication.IDataAccess")
- C. host = New ServiceHost(GetType(IDataAccess))
- D. host = New ServiceHost(GetType(DataAccessService))

Answer: D

Question: 140

You are creating a Windows Communication Foundation (WCF) service.

You need to ensure that the service is compatible with ASP.NET to make use of the session state.

Which binding should you use?

- A. NetTcp ContextBinding
- B. BasicHttpContextBinding
- C. NetTcp Binding
- D. NetMsmqBinding

Answer: B

Question: 141

You are modifying a Windows Communication Foundation (WCF) service that issues security tokens. The service is accessible through the named pipe protocol. No endpoints are added in the service code. The configuration file for the service is as follows. (Line numbers are included for reference only.)

```

01 <configuration>
02   <system.serviceModel>
03     <services>
04       <service name="Contoso.TokenService">
05
06         <host>
07           <baseAddresses>
08
09             <add
10               baseAddress="net.pipe://www.contoso.com/tokenpipe" />
11           </baseAddresses>
12         </host>
13       </service>
14     </services>
15   </system.serviceModel>
16 </configuration>

```

You need to ensure that new and existing client applications can access the service through HTTP and named pipes. What should you do?

- A. Insert the following line at line 05.

```

<endpoint address="http://www.contoso.com"
binding="wsHttpBinding"
contract="Contoso.TokenService" />

```

- B. Insert the following line at line 05.

```

<endpoint address="http://www.contoso.com"
binding="basicHttpBinding"
contract="Contoso.TokenService" />

```

- C. Insert the following line at line 08.

```

<add baseAddress="http://www.contoso.com" />

```

- D. Insert the following line at line 08.

```

<add baseAddress="net.tcp://www.contoso.com:8090" />

```

Answer: C

Question: 142

A Windows Communication Foundation (WCF) service is self-hosted in a console application.

The service implements the ITimeService service interface in the TimeService class.

You need to configure the service endpoint for HTTP communication.

How should you define the service and endpoint tags?

- A. Define the service tag as follows.

```

<service name="ITimeService">

```

Define the endpoint tag as follows.

```

< endpoint kind ="TimeService"
address="http://localhost:8080/TimeService"
binding="wsHttpBinding"
contract="ITimeService"/>

```

- B. Define the service tag as follows.

```

<service name="TimeService">

```

Define the endpoint tag as follows.

```

< endpoint kind="TimeService"

```

```
address="http://localhost:8080/TimeService"
binding="wsHttpBinding"
contract="ITimeService"/>
```

C. Define the service tag as follows.

```
<service name="ITimeService">
Define the endpoint tag as follows.
< endpoint name="TimeService"      a
ddress="http://localhost:8080/TimeService"
binding="wsHttpBinding"
contract="ITimeService"/>
```

D. Define the service tag as follows.

```
<service name="TimeService">
Define the endpoint tag as follows.
<endpoint address="http://localhost:8080/TimeService"
binding="wsHttpBinding"
contract="ITimeService"/>
```

Answer: D

Question: 143

You are adding a Windows Communication Foundation (WCF) service to an existing application. The application is configured as follows. (Line numbers are included for reference only.)

```
01 <configuration>
02 <system.serviceModel>
03 <services>
04 <service name="Contoso.Sales.StockService"
05
behaviorConfiguration="MetadataBehavior">
06 <host>
07 <baseAddresses>
08 <add
baseAddress="http://contoso.com:8080/StockService" />
09 </baseAddresses>
10 </host>
11 </service>
12 </services>
13 <behaviors>
14 <serviceBehaviors>
15 <behavior name="MetadataBehavior">
16 </behavior>
17 </serviceBehaviors>
18 </behaviors>
```

You need to configure the service to publish the service metadata.

a.

Which two actions should you perform?

(Each correct answer presents part of the solution. Choose two.)

A. Add the following XML segment between lines 10 and 11.

```
<endpoint address=""
binding="mexHttpBinding"
contract="IMetadataExchange" />
```

B. Add the following XML segment between lines 10 and 11.

```
<endpoint address=""  
binding="basicHttpBinding"  
contract="IMetadataExchange" />
```

C. Add the following XML segment between lines 15 and 16.

```
<serviceDiscovery>  
  <announcementEndpoints>  
    <endpoint address="" />  
  </announcementEndpoints>  
</serviceDiscovery>
```

D. Add the following XML segment between lines 15 and 16

```
<serviceMetadata httpGetEnabled="true"/>
```

Answer: A, D

Question: 144

You have an existing Windows Communication Foundation (WCF) service that exposes a service contract over HTTP using explicit binding configuration.

You need to expose that contract over HTTP and TCP.

What should you do?

- A. Add a net.tcp base address to the host.
- B. Add an endpoint configured with a netTcpBinding.
- C. Add an endpoint behavior named netTcpBehavior to the existing endpoint.
- D. Add a binding configuration to the existing endpoint named netTcpBinding.

Answer: B

Question: 145

Four Windows Communication Foundation (WCF) services are hosted in Microsoft Internet Information Services (IIS). No behavior configuration exists in the web.config file.

You need to configure the application so that every service and endpoint limits the number of concurrent calls to 50 and the number of concurrent sessions to 25.

Which XML segment should you add to the system.serviceModel configuration section of the web.config file?

A. `<behaviors>
<serviceBehaviors>
 <behavior name="*">
 <serviceThrottling maxConcurrentCalls="50" maxConcurrentSessions="25"/>
 </behavior>
</serviceBehaviors>
</behaviors>`

B. `<behaviors>
<serviceBehaviors>
 <behavior name="default">
 <serviceThrottling maxConcurrentCalls="50" maxConcurrentSessions="25"/>
 </behavior>
</serviceBehaviors>
</behaviors>`

```

    </behaviors>
C. <behaviors>
    <serviceBehaviors>
        <behavior name="">
            <serviceThrottling maxConcurrentCalls="50" maxConcurrentSessions="25"/>
        </behavior>
    </serviceBehaviors>
</behaviors>
D. <behaviors>
    <serviceBehaviors>
        <behavior name="ALL">
            <serviceThrottling maxConcurrentCalls="50" maxConcurrentSessions="25"/>
        </behavior>
    </serviceBehaviors>
</behaviors>

```

Answer: C

Question: 146

A service implements the following contract. (Line numbers are included for reference only.)

```

01 <ServiceContract(SessionMode:=SessionMode.Required)>
02 Public Interface IContosoService
03
04     <OperationContract(IsOneWay:=True, IsInitiating:=True)>
05     Sub OperationOne(ByVal value As String)
06
07     <OperationContract(IsOneWay:=True, IsInitiating:=False)>
08     Sub OperationTwo(ByVal value As String)
09
10 End Interface

```

The service is implemented as follows.

```

20 Class ContosoService
21     Implements IContosoService
22
23     Public Sub OperationOne(ByVal value As String) _
24         Implements IContosoService.OperationOne
25     ...
26     End Sub
27
28     Public Sub OperationTwo(ByVal value As String) _
29         Implements IContosoService.OperationTwo
30     ...
31 End Sub
End Class

```

ContosoService uses NetMsmqBinding to listen for messages. The queue was set up to use transactions for adding and removing messages.

You need to ensure that OperationOne and OperationTwo execute under the same transaction context when they are invoked in the same session.

What should you do?

A. Insert the following attribute to OperationOne on IContosoService.

<TransactionFlow(TransactionFlowOption.Mandatory)>

Insert the following attribute to OperationTwo on IContosoService.

<TransactionFlow(TransactionFlowOption.Mandatory)>

B. Insert the following attribute to OperationOne on ContosoService.

<OperationBehavior(

TransactionScopeRequired:=True,

TransactionAutoComplete:=False)>

Insert the following attribute to OperationTwo on ContosoService.

<OperationBehavior

(TransactionScopeRequired:=True,

TransactionAutoComplete:=True)>

C. Add the following XML segment to the application config file in the system.serviceModel/bindings configuration section.

<netMsmqBinding>

<binding name="contosoTx" durable="true" receiveContextEnabled="true" />

</netMsmqBinding>

Then use the NetMsmqBinding named contosoTx to listen for messages from the clients.

D. Add the following XML segment to the application config file in the system.serviceModel/bindings configuration section.

<customBinding>

<binding name="contosoTx">

 <transactionFlow />

 <binaryMessageEncoding />

 <msmqTransport durable="true" />

 </binding>

</customBinding>

Then use the CustomBinding named contosoTx to listen for messages from the clients.

Answer: B

Question: 147

You are developing a Windows Communication Foundation (WCF) service that allows customers to update financial data.

a.

The service contract is defined as follows. (Line numbers are included for reference only.)

```

01 <ServiceContract()>
02 Public Interface IDataUpdate
03
04 <OperationContract()>
05 <TransactionFlow(TransactionFlowOption.Mandatory)>
06 Sub Update(
    ByVal accountNumber As String,
    ByVal amount As Double)
07
08 End Interface
09
10 Class UpdateService
11     Implements IDataUpdate
12
13     <OperationBehavior(
        TransactionScopeRequired:=True,
        TransactionAutoComplete:=False)>
14     Public Sub Update(
        ByVal accountNumber As String,
        ByVal amount As Double)
        Implements IDataUpdate.Update
15     ...
16     End Sub
17
End Class

```

You need to ensure that the service is invoked within a transaction.

What should you do?

- A. Replace line 01 with the following code.

```
<ServiceContract(
    SessionMode:=SessionMode.NotAllowed)>
```

- B. Replace line 01 with the following code.

```
<ServiceContract(
    SessionMode:=SessionMode.Required)>
```

- C. Insert the following code at line 09.

```
<ServiceBehavior(
    TransactionAutoCompleteOnSessionClose:=False)>
```

- D. Insert the following code at line 09.

```
<ServiceBehavior(
    ReleaseServiceInstanceOnTransactionComplete:=False)>
```

Answer: B

Question: 148

You are creating a Windows Communication Foundation (WCF) service application. The application needs to service many clients and requests simultaneously.

The application also needs to ensure subsequent individual client requests provide a stateful conversation.

You need to configure the service to support these requirements.

Which attribute should you add to the class that is implementing the service?

- A.

```
<ServiceBehavior(InstanceContextMode:=InstanceContextMode.PerSession,
ConcurrencyMode:=ConcurrencyMode.Single)>
```
- B.

```
<ServiceBehavior(InstanceContextMode:=InstanceContextMode.PerCall,
```

ConcurrencyMode:=ConcurrencyMode.Reentrant)>
C. <ServiceBehavior(InstanceContextMode:=InstanceContextMode.PerSession,
ConcurrencyMode:=ConcurrencyMode.Multiple)>
D. <ServiceBehavior(InstanceContextMode:=InstanceContextMode.PerCall,
ConcurrencyMode:=ConcurrencyMode.Multiple)>

Answer: C

Question: 149

A Windows Communication Foundation (WCF) solution exposes the following service over a TCP binding. (Line numbers are included for reference only.)

```
01 <ServiceContract ()>
02 <ServiceBehavior(ConcurrencyMode:=ConcurrencyMode.Multiple)>
03 Public Class DataAccessService
04
05   <OperationContract ()>
06   Public Sub PutMessage(ByVal message As String)
07     MessageDatabase.PutMessage(message)
08   End Sub
09
10  <OperationContract ()>
11  Public Function SearchMessages(ByVal search As String) _
12    As String()
13    Return MessageDatabase.SearchMessages(search)
14  End Function
15
16 End Class
```

MessageDatabase supports a limited number of concurrent executions of its methods.

You need to change the service to allow up to the maximum number of executions of the methods of MessageDatabase. This should be implemented without preventing customers from connecting to the service.

What should you do?

- A. Change the service behavior as follows. <ServiceBehavior(ConcurrencyMode:=ConcurrencyMode.Multiple, InstanceContextMode:=InstanceContextMode.Single)>
- B. Change the service behavior as follows. <ServiceBehavior(ConcurrencyMode:=ConcurrencyMode.Single, InstanceContextMode:=InstanceContextMode.PerSession)>
- C. Add a throttling behavior to the service, and configure the maxConcurrentCalls.
- D. Add a throttling behavior to the service, and configure the maxConcurrentSessions.

Answer: C

Question: 150

You develop a Windows Communication Foundation (WCF) service that employees use to access bonus information. You define the following service contract. (Line numbers are included for reference only.)

```
01 <ServiceContract(SessionMode:=SessionMode.Required)>
02 Public Interface IFinancialService
03
04 <OperationContract()>
05 Function Login(
  ByVal employeeID As Integer,
```

```
ByVal passwordHash As String)
As String
06
07 <OperationContract()
08 Function GetBonus(ByVal month As Integer) As Double
09
10 <OperationContract
(IsTerminating:=True)>
11 Sub Logout()
12
13 End Interface
```

Client applications can invoke methods without logging in.

You need to ensure that the client applications invoke Login before invoking any other method.

You also need to ensure that client applications cannot consume the service after invoking Logout.

Which two actions should you perform? (Each correct answer presents part of the solution. Choose two.)

A. Replace line 04 with the following code.

<OperationContract(IsInitiating:=False)>

B. Replace line 04 with the following code.

<OperationContract(IsInitiating:=True, IsTerminating:=True)>

C. Replace line 07 with the following code.

<OperationContract(IsInitiating:=False)>

D. Replace line 10 with the following code.

<OperationContract(IsInitiating:=False, IsTerminating:=True)>

Answer: C, D

Question: 151

You are developing a Windows Communication Foundation (WCF) service that is hosted by a Windows Forms application.

The ServiceHost instance is created in the Form constructor.

You need to ensure that the service is not blocked while the UI thread is busy.

What should you do?

A. Decorate the service implementation class with the following line of code.

<ServiceBehavior(

 UseSynchronizationContext:=False)>

B. Decorate the service implementation class with the following line of code.

<ServiceBehavior(

 ConcurrencyMode:=ConcurrencyMode.Multiple)>

C. Call the Invoke method of the form and supply a delegate.

D. Call the BeginInvoke method of the form and supply a delegate.

Answer: A

Question: 152

You are developing a data contract for a Windows Communication Foundation (WCF) service.

The data in the data contract must participate in round trips. Strict schema validity is not required.

You need to ensure that the contract is forward-compatible and allows new data members to be added to it. Which interface should you implement in the data contract class?

- A. ICommunicationObject
- B. IExtension(Of T)
- C. IExtensibleObject(Of T)
- D. IExtensibleDataObject

Answer: D

Question: 153

A Windows Communication Foundation (WCF) solution uses two services to manage a shopping cart. Service A processes messages containing line items that total between \$0 and \$500. Service B processes messages containing line items that total more than \$500.

All messages are of equal importance to the business logic.

You need to route incoming messages to the appropriate services by using WCF routing.

Which two message filters should you add to the router? (Each correct answer presents part of the solution. Choose two.)

- A. a message filter with a priority of 100 that will forward messages that total between \$0 and \$500 to Service A
- B. a message filter with a priority of 0 that will forward messages that total between \$0 and \$500 to Service A
- C. a message filter with a priority of 0 that will forward all messages to Service B
- D. a message filter with a priority of 100 that will forward all messages to Service B

Answer: A, C

Question: 154

You are creating a Windows Communication Foundation (WCF) service that responds using plain-old XML (POX).

You have the following requirements:

- You must enable the /catalog.svc/items operation to respond using the POX, JSON, or ATOM formats. You also must ensure that the same URL is used regardless of the result type.
- You must determine the response format by using the Accepts HTTP header.

What should you do?

- A. Implement the IChannelInitializer interface in the service class.
- B. Implement the System.Runtime.Serialization.IFormatterConverter interface in the service class.
- C. Set the BodyStyle parameter of the WebGet attribute on the operation to WebMessageBodyStyle.WrappedResponse.
- D. Set the return type of the operation to System.ServiceModel.Channels.Message. Use the current WebOperationContext methods to return the data in the required format.

Answer: D

Question: 155

A Windows Communication Foundation (WCF) service handles online order processing for your company.

You discover that many requests are being made with invalid account numbers. You create a class named

AccountNumberValidator that has a method named Validate.

Before the message is processed, you need to validate account numbers with AccountNumberValidator and reject messages with invalid account numbers.

You create a new class that implements the IParameterInspector interface. Which code segment should you use in this class?

```

A. Public Sub AfterCall(
    ByVal operationName As String,
    ByVal outputs() As Object,
    ByVal returnValue As Object,
    ByVal correlationState As Object) _ Implements
    IParameterInspector.AfterCall
    Dim accountNumber As String = GetAccountNumber(outputs)
    Dim validator As
    AccountNumberValidator =  New AccountNumberValidator()
    If (Not validator.Validate(accountNumber)) Then
        Throw New FaultException()
    End If
    End Sub
    Public Function BeforeCall(
        ByVal operationName As String,
        ByVal inputs() As Object) As Object _
        Implements IParameterInspector.BeforeCall
        Return Nothing
    End Function
B. Public Sub AfterCall(
    ByVal operationName As String,
    ByVal outputs() As Object,
    ByVal returnValue As Object,
    ByVal correlationState As
    Object) _
    Implements IParameterInspector.AfterCall
    Return
End Sub
Public Function BeforeCall(
    ByVal operationName As String,
    ByVal inputs() As Object) As Object _
    Implements IParameterInspector.BeforeCall
    Dim accountNumber As String = GetAccountNumber(inputs)
    Dim validator As AccountNumberValidator =      New AccountNumberValidator()      If (Not
    validator.Validate(accountNumber)) Then
        Throw New FaultException()
    End If
    Return Nothing
End Function
C. Public Sub AfterCall(
    ByVal operationName As String,
    ByVal outputs() As Object,
    ByVal returnValue As Object,
    ByVal correlationState As Object) _
    Implements IParameterInspector.AfterCall

```

```
Dim accountNumber As String = GetAccountNumber(outputs) Dim validator As
AccountNumberValidator =
New AccountNumberValidator()
If (Not validator.Validate(accountNumber)) Then
returnValue = New FaultException()
End If
End Sub
Public Function BeforeCall(
ByVal operationName As String,
ByVal inputs() As Object) As Object _
Implements
IParameterInspector.BeforeCall
Return Nothing
End Function
D. Public Sub AfterCall(
ByVal operationName As String,
ByVal outputs() As Object,
ByVal returnValue As Object,
ByVal correlationState As Object) _
Implements IParameterInspector.AfterCall
Return
End Sub
Public Function BeforeCall(
ByVal operationName As String,
ByVal inputs() As Object) As Object _
Implements IParameterInspector.BeforeCall Dim accountNumber As String = GetAccountNumber(inputs)
Dim validator As AccountNumberValidator =
New AccountNumberValidator()
If (Not validator.Validate(accountNumber)) Then
Return New FaultException()
End If
End Function
```

Answer: C

Question: 156

Your company has a Windows Communication Foundation (WCF) service at the URL <http://services.contoso.com/OrderLookupService.svc>.

The <system.serviceModel> section of the configuration file is as follows. (Line numbers are included for reference only.)

```
01 <system.serviceModel>
02
<behaviors>
03   <serviceBehaviors>
04     <behavior>
05       <serviceDebug
includeExceptionDetailInFaults="false"/>
06
07   </behavior>
08 </serviceBehaviors>
```

```
09 </behaviors>
10 <serviceHostingEnvironment
multipleSiteBindingsEnabled="true" />
11 </system.serviceModel>
```

You need to ensure that the service publishes the WSDL description at
<http://services.contoso.com/OrderLookupService.svc?wsdl>.

What should you do?

A. Change the serviceDebug element at line 05 as follows.

```
<serviceDebug includeExceptionDetailInFaults="true"/>
```

B. Insert the following element at line 06.

```
<serviceDiscovery>
  <announcementEndpoints>
    <endpoint name="wsdlAnnouncement" kind="udpAnnouncementEndpoint" />
  </announcementEndpoints>
</serviceDiscovery>
```

C. Insert the following element at line 06.

```
<serviceMetadata httpGetEnabled="true" />
```

D. Insert the following element at line 06.

```
<serviceMetadata httpGetEnabled="false" />
```

Answer: C

Question: 157

A Windows Communication Foundation (WCF) application uses the following data contract.

```
<DataContract ()>
Public Class Person

  <DataMember ()>
  Public firstName As String
  <DataMember ()>
  Public lastName As String
  <DataMember ()>
  Public age As Integer
  <DataMember ()>
  Public ID As Integer

End Class
```

You need to ensure that the following XML segment is generated when the data contract is serialized.

```
<Person>
  <firstName xsi:nil="true"/>
  <lastName xsi:nil="true"/>
  <ID>999999999</ID>
</Person>
```

Which code segment should you use?

A. <DataMember()>
 Public firstName As String

```
<DataMember()
  Public lastName As String
  <DataMember(EmitDefaultValue:=True)>
Public age As Integer = 0
  <DataMember(EmitDefaultValue:=True)>
  Public ID As Integer = 99999999
B. <DataMember(EmitDefaultValue:=False)>
  Public firstName As String = Nothing
  <DataMember(EmitDefaultValue:=False)>
Public lastName As String = Nothing
  <DataMember(EmitDefaultValue:=True)>
  Public age As Integer = -1
  <DataMember(EmitDefaultValue:=False)>
  Public ID As Integer = 99999999
C. <DataMember(EmitDefaultValue:=True)>
  Public firstName As String
  <DataMember(EmitDefaultValue:=True)>
Public lastName As String
<DataMember
  (EmitDefaultValue:=False)>
  Public age As Integer = -1
  <DataMember(EmitDefaultValue:=False)>
  Public ID As Integer = 99999999
D. <DataMember()
  Public firstName As String = Nothing
<DataMember()
  Public lastName As String = Nothing
  <DataMember(EmitDefaultValue:=False)>
Public age As Integer = 0
<DataMember(EmitDefaultValue:=False)>
Public ID As Integer = 99999999
```

Answer: D

Question: 158

You have an existing Windows Communication Foundation (WCF) service. You need to ensure that other services are notified when the service is started. What should you do?

- A. Add the following standard endpoint to the service.

```
<endpoint name="udpAnnouncementEndpoint"
kind="udpDiscoveryEndpoint" />
```

- B. Add the following standard endpoint to the service.

```
<endpoint name="udpDiscoveryEndpoint"
kind="udpAnnouncementEndpoint" />
```

- C. Add a service behavior with the following element.

```
<serviceDiscovery>
  <announcementEndpoints>
    <endpoint kind="udpDiscoveryEndpoint" />
  </announcementEndpoints>
</serviceDiscovery>
```

D. Add a service behavior with the following element.

```
<serviceDiscovery>
  <announcementEndpoints>
    <endpoint kind="udpAnnouncementEndpoint" />
  </announcementEndpoints>
</serviceDiscovery>
```

Answer: A

Question: 159

You are developing a Windows Communication Foundation (WCF) service.

The service operation takes a customer number as the only argument and returns information about the customer.

The service requires a security token in the header of the message.

You need to create a message contract for the service.

Which code segment should you use?

- A. <ServiceContract()>
 Public Interface IService
 <OperationContract()>
 Function GetCustomerInformation(
 ByVal header As Header,
 ByVal customerNumber As Integer)
 As CustomerInformation
 End Interface
 <DataContract()>
 Public Class CustomerInformation
 End Class
 <MessageContract()>
 Public Class Header
 <MessageHeader()>
 Public SecurityTag As String
 End Class
 B. <ServiceContract()>
 Public Interface IService
 <OperationContract()>
 Function GetCustomerInformation(
 ByVal header As Header,
 ByVal customerNumber As Integer) As CustomerInformation
 End Interface
 <MessageContract()>
 Public Class CustomerInformation
 End Class
 <MessageContract()>
 Public Class Header
 <MessageHeader()>
 Public SecurityTag As String
 End Class
 C. <ServiceContract()>
 Public Interface IService
 <OperationContract()>

```
Function GetCustomerInformation(  
    ByVal request As CustomerNumber) As CustomerInformation    End Interface    <DataContract()> Public Class  
CustomerInformation  
End Class  
<MessageContract()>  
Public Class CustomerNumber  
<MessageHeader()>  
Public SecurityTag As String  
<MessageBodyMember()>  
Public CustomerNumberElement As Integer  
End Class  
D. <ServiceContract()>  
Public Interface IService  
<OperationContract()>  
Function GetCustomerInformation(  
    ByVal request As CustomerNumber) As CustomerInformation  
End Interface  
<MessageContract()>  
Public Class CustomerInformation  
End Class  
<MessageContract()>  
Public Class  
CustomerNumber  
<MessageHeader()>  
Public SecurityTag As String  
<MessageBodyMember()>  
Public CustomerNumberElement As Integer  
End Class
```

Answer: D

Question: 160

You are creating a Windows Communication Foundation (WCF) service. You do not want to expose the internal implementation at the service layer. You need to expose the following class as a service named Arithmetic with an operation named Sum.

```
Public Class Calculator  
    Public Function Add  
        (ByVal x As Integer,  
         ByVal y As Integer) As Integer  
    End Function  
End Class
```

Which code segment should you use?

```
A. <ServiceContract(Namespace:="Arithmetic")>  
Public Class Calculator  
<OperationContract(Action:="Sum")>  
Public Function Add(ByVal x As Integer,  
                    ByVal y As Integer) As Integer  
End Function  
End Class
```

```

B. <ServiceContract(ConfigurationName:="Arithmetic")>
Public Class Calculator
<OperationContract(Action:="Sum")>
Public Function Add(ByVal x
As Integer,
ByVal y As Integer) As Integer
End Function
End Class
C. <ServiceContract(Name:="Arithmetic")>
Public Class Calculator
<OperationContract(Name:="Sum")>
Public Function Add(ByVal x As Integer,
    ByVal y As Integer) As Integer
End Function
End Class
D. <ServiceContract(Name:="Arithmetic")>
    Public Class Calculator
        <OperationContract(ReplyAction:="Sum")>
        Public Function Add(ByVal x As Integer,
            ByVal y As Integer) As Integer
    End Function
End Class

```

Answer: C

Question: 161

You are creating a Windows Communication Foundation (WCF) service that accepts messages from clients when they are started. The message is

defined as follows.

```

<MessageContract()>
Public Class Agent
    Public Property CodeName As String
    Public Property SecretHandshake As String
End Class

```

You have the following requirements:

The CodeName property must be sent in clear text. The service must be able to verify that the property value was not changed after being sent by the client.

The SecretHandshake property must not be sent in clear text and must be readable by the service.

What should you do?

- Add a MessageBodyMember attribute to the CodeName property and set the ProtectionLevel to Sign. Add a MessageBodyMember attribute to the SecretHandshake property and set the ProtectionLevel to EncryptAndSign.
- Add a DataProtectionPermission attribute to the each property and set the ProtectData property to True.
- Add an XmlText attribute to the CodeName property and set the DataType property to Signed. Add a PasswordPropertyText attribute to the SecretHandshake property and set its value to True.
- Add an ImmutableObject attribute to the CodeName property and set its value property to True. Add a Browsable attribute to the SecretHandshake property and set its value to False.

Answer: B

Question: 162

You are creating a Windows Communication Foundation (WCF) service based on WSHttpBinding. New audit requirements dictate that callers must be authenticated on every call to ensure that their credentials have not been revoked. You need to ensure that the service will not cache the security request token. What should you do?

- A. Apply a ServiceBehavior attribute to the service implementation class with the InstanceContextMode property set to Single.
- B. In the message security configuration, change clientCredentialType from IssuedToken to UserName.
- C. In the message security configuration, set establishSecurityContext to false.
- D. At the end of every operation, call the SessionStateUtility.RaiseSessionEnd method.

Answer: C

Question: 163

You are maintaining a Windows Communication Foundation (WCF) service that uses a custom UserNamePassword class to authenticate clients. The service certificate is hosted in the deployment server store for trusted root certificate authorities and has a Subject value of TaxServiceKey. Other service certificates hosted on the server also use TaxServiceKey as a Subject value. You need to ensure that the service identifies itself with a certificate whose subject name and distinguished names are TaxServiceKey. Which code segment should you use?

- A. HostInstance.Credentials.ServiceCertificate.SetCertificate
(StoreLocation.LocalMachine, StoreName.My,
X509FindType.FindBySubjectName,
"CN=TaxServiceKey")
- B. HostInstance.Credentials.ServiceCertificate.SetCertificate
(StoreLocation.LocalMachine, StoreName.AuthRoot,
X509FindType.FindBySubjectName, "CN=TaxServiceKey")
- C. HostInstance.Credentials.ServiceCertificate.SetCertificate
(StoreLocation.LocalMachine, StoreName.My,
X509FindType.FindBySubjectDistinguishedName,
"CN=TaxServiceKey")
- D. HostInstance.Credentials.ServiceCertificate.SetCertificate
(StoreLocation.LocalMachine, StoreName.Root,
X509FindType.FindBySubjectDistinguishedName,
"CN=TaxServiceKey")

Answer: D

Question: 164

A Windows Communication Foundation (WCF) service is required to log all authorization attempts to the Windows Event Log.

You need to configure a behavior and apply it to the service to support this requirement.
Which behavior should you configure and apply?

- A. serviceAuthenticationManager
- B. serviceAuthorization
- C. serviceCredentials
- D. serviceSecurityAudit

Answer: D

Question: 165

You are hosting a Windows Communication Foundation (WCF) service at <http://www.contoso.com> for a law enforcement agency. The agency adds operations to support sending biometric fingerprint data via non-buffered streaming. The service data is not routed between intermediaries.

The WCF binding you are using by default does not support encryption.

You need to ensure that fingerprint data is not disclosed when it is passed over the network.

What should you do?

- A. Use basicHttpBinding with message security to <https://www.contoso.com>.
- B. Use basicHttpBinding over transport security at <https://www.contoso.com>.
- C. Use wsHttpBinding over message security at <https://www.contoso.com>.
- D. Use wsHttpBinding over transport security at <http://www.contoso.com>.

Answer: B

Question: 166

You are creating a Windows Communication Foundation (WCF) service that implements the following service contract.

```
<ServiceContract()>
Public Interface IOrderProcessing
<OperationContract()>
Sub ApproveOrder(ByVal id As Integer)
End Interface
```

You need to ensure that only users with the Manager role can call the ApproveOrder method. What should you do?

- A. In the method body, check the Rights.PossessProperty property to see if it contains Manager.
- B. Add a PrincipalPermission attribute to the method and set the Roles property to Manager.
- C. Add a SecurityPermission attribute to the method and set the SecurityAction to Demand.
- D. In the method body, create a new instance of WindowsClaimSet. Use the FindClaims method to locate a claimType named Role with a right named Manager.

Answer: B

Question: 167

You are developing a Windows Communication Foundation (WCF) service. The service needs to access out-of-process resources.

You need to ensure that the service accesses these resources on behalf of the originating caller.

What should you do?

- A. Set the value of ServiceSecurityContext.Current.WindowsIdentity.ImpersonationLevel to TokenImpersonationLevel.Impersonation.
- B. Set the value of ServiceSecurityContext.Current.WindowsIdentity.ImpersonationLevel to TokenImpersonationLevel.Delegation.
- C. Set the PrincipalPermissionAttribute on the service contract and update the binding attribute in the endpoint element of the configuration file to wsHttpBinding.
- D. Set the PrincipalPermissionAttribute on the service contract and update the bindingConfiguration attribute in the endpoint element of the configuration file to wsHttpBinding.

Answer: B

Question: 168

You are developing a Windows Communication Foundation (WCF) service that contains the following operation contract.

```
<OperationContract()
Function GetCustomerNames() As CustomerNames
```

The operation returns customer names.

You need to develop a definition for the operation contract that produces XML with the following structure.

```
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Header />
  <s:Body>
    <Names xmlns=http://tempuri.org/
      xmlns:a="http://schemas.microsoft.com/2003/10/Serialization/Arrays"
      xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
      <a:string>Customer1</a:string>
      <a:string>Customer2</a:string>
      <a:string>Customer3</a:string>
    </Names>
  </s:Body>
</s:Envelope>
```

Which code segment should you use

A. <MessageContract(IsWrapped:=False)>

Public Class CustomerNames

B. <MessageBodyMember()>

Public Names() As String

End Class

C. <MessageContract(WrapperName:=""")>

Public Class CustomerNames

D. <MessageBodyMember()>

Public Names() As String

End Class

E. <DataContract()>

Public Class CustomerNames

<DataMember ()>

Public Names () As String

End Class

F. <DataContract()>

Public Class CustomerNames

<DataMember(IsRequired:=False)>

Public Names() As String

End Class

Answer: A

Question: 169

You are developing a client that sends several types of SOAP messages to a Windows Communication Foundation (WCF) service method named PostData. PostData is currently defined as follows

<OperationContract>

Sub PostData(Byval data As Order) You need to modify PostData so that it can receive any SOAP message.

Which code segment should you use?

- A. <OperationContract(IsOneWay True, Action ReplyAction '-)>
Sub PostData(ByVal data As Order)
- B. OperationContract(IsOneway: zTrue, Action:z'-' , ReplyAction: z"-'>
Sub PostData(ByVal data As BodyWriter)
- C. <OperationContract> Sub PostData(Byval data As BodyWriter)
- D. <OperationContract0> Sub PostData(ByVal data As Message)

Answer: A

Question: 170

You are creating a client application and configuring it to call a Windows Communication Foundation (WCF) service. When the application is deployed, it will be configured to send all messages to a WCF routing service. You need to ensure that the application can consume the target service after the application is deployed. What should you do?

- A. In the client application, add a service reference to the router service. In the client binding configuration, specify the address of the router service.
- B. In the client application, add a service reference to the target service. In the client binding configuration, specify the address of the target service.
- C. In the client application, add a service reference to the router service. In the client binding configuration, specify the address of the target service.
- D. In the client application, add a service reference to the target service. In the client binding configuration, specify the address of the router service.

Answer: D

Question: 171

You create a service and deploy it on a network in a building named Building1. You will deploy the service to Building2.

The service in Building1 is configured using the following discovery scopes.

```
<scopes>
  <add
    scope="http://contoso.com/Chicago/Building1"/>
  <add
    scope="ldap:///ou=Building1,ou=Chicago,o=contoso,c=us"/>
</scopes>
```

The service in Building2 will be configured using the following discovery scopes.

```
<scopes>
  <add
    scope="http://contoso.com/Chicago/Building2"/>
  <add
    scope="ldap:///ou=Building2,ou=Chicago,o=contoso,c=us"/>
</scopes>
```

You need to ensure that the client application can discover the service in Building1 or the service in Building2. Which scopes should you add to the client configuration file?

- A. <scopes>
<add scope="http://contoso.com/Chicago/*"/>
</scopes>
- B. <scopes>
<add scope="http://contoso.com/Chicago"/>
</scopes>
- C. <scopes>
<add
scope="ldap:///ou=Building,ou=Chicago,o=contoso,c=us"/>
</scopes>
- D. <scopes>
<add
scope="ldap:///ou=*,o=contoso,c=us"/>
</scopes>

Answer: B

Question: 172

You develop a Windows Communication Foundation (WCF) service to generate reports. Client applications call the service to initiate report generation but do not wait for the reports to be generated. The service does not provide any status to the client applications. The service class is defined as follows. (Line numbers are included for reference only.)

```
01 <ServiceContract()
02 Public Class ReportGeneratorService
03
04 Private Function GenerateReports(
05   ByVal clientID As Integer) As Integer
06   &
07   Return 0
08 End Function
09 End Class
```

You need to ensure that client applications can initiate reports without waiting for status. Which two actions should

you perform (Each correct answer presents part of the solution. Choose two.)

A. Insert the following code at line 03.

```
<OperationContract(IsOneWay:=True)>
```

B. Insert the following code at line 03.

```
<OperationContract(AsyncPattern:=False)>
```

C. At line 04, change the GenerateReports method from Private to Public.

D. Remove line 06. At line 04, change the type of GenerateReports method to Sub.
Remove the code As Integer from the method definition.

Answer: A, D

Question: 173

A class named TestService implements the following interface.

```
<ServiceContract()>
Public Interface ITestService

<OperationContract()>
Function GetServiceTime() As DateTime

End Interface
```

TestService is hosted in an ASP.NET applicator.

You need to modify the application to allow the GetServiceTime method to return the data formatted as JSON.

It must do this only when the request URL ends in IServiceTime.

What should you do?

A. Add this attribute to the GetServiceTime method

```
<webinvoke(Method "POST")>
```

In the bconfig file, add this element to systemserviceModel/behaviors/endpointBehaviors. <behavior names"Json">e

```
<enableWebScript
```

```
c/behavior>
```

In the web.config file, configure TestService in the system.serviceModel/services collection as follows.

```
<service name"TestService">s
```

```
<endpoint address/ServiceTime"
```

```
contract-"TestSerAce""
```

```
behaviorConlfgurationz'Json
```

```
bindinge"webHttpBinding"!> <!services
```

B. Add this attribute to the GetServiceTime method

```
<Webinvoke(Method PGETw,
```

```
UrTemplate:eiSeneiceTim&, ResponseFormat: WebMessageFormatJson)>
```

In the bconfig file, configure TestService in the system.erviceModel/services collection as follows. <service

```
namee"TestService"> <endpoint ad&esse"ISer,iceTime"r
```

```
contracte"TestSence' bindingewebHttpBindngw />
```

```
c/service>
```

C. Add this attribute to the GetServiceTime method

```
<webGet(
```

```
ResponseFormat WebMessageFormatJson,
```

```
UnTemplate:eJServiceTime")>?
```

Create a new svc file named Jsonconversion.svc with the following contract <%@ ServiceHost
Service="TessService" %>
Factory="System.ServiceModel.WebServiceHostFactory" %>
D. Add this attribute to the GetServiceTime method
<WebGet(UriTemplate: "z'{Json}/ServiceTime")>
Create a new svc file named Jsonversion.svc with the following content <%@ ServiceHost
Service="TestService" %>
Factory="System.ServiceModel.WebServiceHostFactory" %>

Answer: C

Question: 174

You are creating a Windows Communication Foundation (WCF) service that is implemented as follows. (Line numbers are included for reference only.)

```
01 <ServiceContract()
02 <ServiceBehavior(IncludeExceptionDetailInFaults: Time)>
03 Public Class OrderService
04
05 <OperationContract()
06 PutSub Submit Order(ByVal anOrder As Order)
07
08 Try
09.
10 Catch ex As DivideByZeroException
11
12 End Try
13 End Sub
14
15 End Class
```

You need to ensure that the stack trace details of the exception are not included in the error information sent to the client. What should you do?

- A. Replace line 11 with the following line.
Throw
- B. Replace line 11 with the following line.
Throw New FaultException(C Order)(anOrder, ex.ToString())
- C. After line 05, add the following line.
<cFaultContract(GetType(FaultException(Of Order)))>
Replace line 11 with the following line.
Throw ex
- D. After line 05, add the following line.
<FaultContract(GetType(FaultException(CX Order)))>
Replace line 11 with the following line.
Throw New FaultException(CX Order)(
anOrder, "Divide by zero exception")

Answer: D

Question: 175

You are creating a Windows Communication Foundation (WCF) service that implements operations in a RESTful manner. You need to add a delete operation. You implement the delete method as follows.

Sub DeleteItems (ByVal id As String)

You need to configure WCF to call this method when the client calls the service with the HTTP DELETE operation.

What should you do?

- A. Add the WebInvoke(UriTemplate: = "/Items/{id}", Method: = "DELETE") attribute to the operation.
- B. Add the HttpDelete attribute to the operation.
- C. Replace the string parameter with a RemovedActivityAction parameter.
- D. Change the Sub statement to Function and specify RemovedActivityAction as the return type.

Answer: A

Question: 176

You are developing a Windows Communication Foundation (WCF) service that reads messages from a public non-transactional MSMQ queue.

You need to configure the service to read messages from the failed-delivery queue.

Which URI should you specify in the endpoint configuration settings of the service?

- A. net.msmq://localhost/msmq\$;FailedMessages
- B. net.msmq://localhost/msmq\$;DeadLetter
- C. net.msmq://localhost/system\$;DeadXact
- D. net.msmq://localhost/system\$;DeadLetter

Answer: D

Question: 177

A Windows Communication Foundation (WCF) service implements the following contract.

<ServiceContract>?

Public Interface IHelloService <operationContract>

<WebGet(UriTemplate: ="helloname={name}")>

Function SayHello(ByVal name As String) As String End Interface

The implementation is as follows

Public Class HelloService

Implements IHelloService

Public Function SayHello(ByVal name As String) As String - Implements IHelloServiceSayHello

Return "Hello "& name

End Function

End Class

The service is self-hosted, and the hosting code is as follows.

Dim stHost As WebServiceHost = CreateHost()

svcHost Open()

Console.ReadLine()

svcHostClose()

You need to implement CreateHost so that the service has a single endpoint hosted

http://localhost8000/HelloService.

Which code segment should you use?

A. Dim svc Host As WebServiceHost = New WebServiceHost(GetType(HdloService))
svc HotsAddServiceEndpoint(GdType(IHelloService),
New WebHttpBinding(WebHttpSecurityModeNone),
"http://lbc alhost 8000!HelloService")
Return svc Host

B. Dim baseAddress As Ur New Uri("http://localhost:8000r) Dim svcHo As WebServiceHost =
New WebServiceHost(GetType(HelloService), baseAddress)
svc Host.AddServiceEndpoint(GdType(IHelloService),?
New Web Http Binding (WebHttpSec urityMode None),
HelloService)
Return svc Host

C. Dim svc Host As WebServiceHost = New WebServiceHost(New HelloSennceO)
svcHost.AddServiceEndpoint(GetType(IHelloService),
New WebHttpBinding(WebHttpSecurityModeNone),
Thttp://bc aihost: 8000/HelloSennce")
Return svc Host

D. Dim baseAddress As Ur = New Uri("http/l1ocahost 800OP Dim svcHo As WebServiceHost = New
WebServiceHost(New HelloService0, baseAddress)
svc HostAddServiceEndpoint(GdType(IHelloService),
New WebHttpBinding(WebHttpSecuntyMode None),
"HelloService")
Return svc Host

Answer: B

Question: 178

Your company has an existing Windows Communication Foundation (WCF) service that allows business partners to place orders. The service uses netMsmqBinding.

You find that processing every order in its own transaction is causing a delay.

You need to ensure that the service is configured to process multiple orders in one transaction.

What should you do?

- A. use <serviceThrottling> service behavior and set the maxConcurrentCalls attribute.
- B. Use <transactedbatching> endpoint behavior and set the maxBatchSize attribute.
- C. Use <dispatcherSynchronizationBehavior> endpoint behavior and set the maxPendingReceives attribute.
- D. Use <synchronousReceive> endpoint behavior.

Answer: B

Question: 179

You are developing a Windows Communication Foundation (WCF) service that contains the following code segment.

```
<ServiceContract()>
Public Interface ICustomerService
...
End Interface
Public Class CustomerService
Implements ICustomerService
```

...
End Class
The service is self-hosted in a console application. Older client applications access the service at <http://contoso.com:8080/CustomerService/V1>. Newer client applications access the service at <http://contoso.com:8080/CustomerService/V2>.
You need to ensure that any client application can access the service at either address.
Which code segment should you use?

- A. Dim serviceAddress1 As Uri =
New Uri("http://contoso.com:8080/CustomerService/V1")
Dim serviceAddress2 As Uri =
New Uri("http://contoso.com:8080/CustomerService/V2")
Dim host As ServiceHost =
New Service Host(GetType(ICustomerService),
New Uri() {serviceAddress1, serviceAddress2})
B. Dim serviceAddress1 As Uri =
New Uri("http://contoso.com:8080/CustomerService/V1")
Dim serviceAddress2 As Uri =
New Uri("http://contoso.com:8080/CustomerService/V2")
Dim host As ServiceHost =
New ServiceHost(GetType(CustomerService),
New Uri() {serviceAddress1, serviceAddress2})
C. Dim serviceAddress As Uri =
New Uri("http://contoso.com:8080/")
Dim host As ServiceHost =
New ServiceHost(GetType(CustomerService),
New Uri() {serviceAddress})
host.AddServiceEndpoint(GetType(ICustomerService),
New BasicHttpBinding(), "CustomerService/V1")
host.AddServiceEndpoint(GetType(ICustomerService),
New BasicHttpBinding(), "CustomerService/V2")
D. Dim serviceAddress As Uri =
New Uri("http://contoso.com:8080/")
Dim host As ServiceHost =
New Service Host(GetType(ICustomerService),
New Uri() {serviceAddress})
host.AddServiceEndpoint(GetType(CustomerService),
New BasicHttpBinding(), "CustomerService/V1")
host.AddServiceEndpoint(GetType(CustomerService),
New BasicHttpBinding(), "CustomerService/V2")

Answer: D

Question: 180

You have an existing Windows Communication Foundation (WCF) Web service.
The Web service is not responding to messages larger than 64 KB.
You need to ensure that the Web service can accept messages larger than 64 KB without generating errors.
What should you do?

- A. Increase the value of maxReceivedMessageSize on the endpoint binding.

- B. Increase the value of maxRequestLength on the httpRuntime element.
- C. Increase the value of maxBufferSize on the endpoint binding.
- D. Increase the value of maxBufferPoolSize on the endpoint binding.

Answer: A

Question: 181

A Windows Communication Foundation (WCF) service is responsible for transmitting XML documents between systems. The service has the following requirements:

- It must minimize the transmission size by attaching the XML document as is without using escape characters or base64 encoding.
- It must interoperate with systems that use SOAP but are not built on the .NET platform.

You need to configure the service to support these requirements.

Which message encoding should you use?

- A. Binary message encoding
- B. MTOM (Message Transmission Optimization Mechanism) message encoding.
- C. Text message encoding with message version set to none.
- D. Text message encoding with message version set to SOAP 1.2.

Answer: B

Question: 182

You are modifying an existing Windows Communication Foundation (WCF) service that is defined as follows;

```
<ServiceContract()>
Public Interface IMesssageProcessor

<OperationContract()>
Sub ProcessMessage()

End Interface

Public Class MessageProcessor
Implements IMesssageProcessor

Public Sub ProcessMessage() _
Implements IMesssageProcessor.ProcessMessage
...
SubmitOrder()
...
End Sub

End Class
```

SubmitOrder makes a call to another service.

The ProcessMessage method does not perform as expected under a heavy load you need to enable processing of multiple messages.

New messages must only be processed when the ProcessMessage method is not processing requests, or when it is

waiting for calls to SubmitOrder to return.
Which attribute should you apply to the MessageProcessor class?

- A. CallbackBehavior (ConcurrencyMode: ConcurrencyMode Reentrant)
- B. CallbackBehavior (ConcurrencyMode:=ConcurrencyModeMultiple)
- C. ServiceBehavior (ConcurrencyMode: =ConcurrencyMode. Reentrant)
- D. ServiceBehavior (ConcurrencyMode ConcurrencyMode Multiple)

Answer: A

Question: 183

The endpoint of a Windows Communication Foundation (WCF) service uses basicHttpBinding for its binding. Your company's policies have changed to require that messages not be sent in clear text.
You must ensure that all messages are encrypted when traveling across the network.
What should you do?

- A. Set the ProtectionLevel property on the service contract and update the binding attribute in the endpoint element of the configuration file to wsHttpBinding.
- B. Set the ProtectionLevel property on the service contract and update the bindingConfiguration attribute in the endpoint element of the configuration file to webHttpBinding.
- C. Set the PrincipalPermissionAttribute on the service contract and update the binding attribute in the endpoint element of the configuration file to wsHttpBinding.
- D. Set the PrincipalPermissionAttribute on the service contract and update the bindingConfiguration attribute in the endpoint element of the configuration file to wsHttpBinding.

Answer: A

Question: 184

A self-hosted Windows Communication Foundation (WCF) service uses a secure HTTP binding with a custom principal permission mode. The binding requires users to provide their Windows logon credentials.
You need to retrieve the identity of the caller.
What are two possible properties you can use to achieve this goal? (Each correct answer presents a complete solution. Choose two.)

- A. Thread.CurrentPrincipal.Identity.Name
- B. HttpContext.Current.User.Identity.Name
- C. ServiceSecurity Context.Current.Primary Identity.Name
- D. OperationContext.Current.ServiceSecurity Context.Primary Identity.Name

Answer: C, D

Question: 185

You are developing a Windows Communication Foundation (WCF) service that returns location information for authorized law enforcement agencies. The service contract is as follows.

```
<ServiceContract()>
Public Interface IMappingService

    <OperationContract()>
    Function GetLocationCoordinates(
        ByVal cityName As String) As Long()
    <OperationContract()>
    Function GetLocationOfCitizen(
        ByVal ssn As String) As Long()

End Interface
```

Users are authenticated and impersonated. The system uses ASP.NET roles. The members of law enforcement are members of the LawEnforcement role.

You need to ensure that only members of the LawEnforcement role can call these methods.

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

- A. Add a PrincipalPermissionAttribute to each method that should be available only to members of law enforcement. Set its SecurityAction to Demand and set the role equal to LawEnforcement.
- B. Use the CurrentPrincipal property of the thread. Call the IsInRole method specifying LawEnforcement as a parameter.
- C. Create a GenericPrincipal specifying Thread.CurrentPrincipal.Identity as the IIdentityParameter and LawEnforcement as the only value for the Roles parameter.
- D. At the beginning of each method, enumerate each ClaimSet in a new WindowsClaimSet. Use the FindClaims method to locate a claim type named Role with a right named LawEnforcement.

Answer: A, B

Question: 186

You have a secured Windows Communication Foundation (WCF) service.

You need to track unsuccessful attempts to access the service.

What should you do?

- A. Set the serviceAuthorizationManagerType attribute of the serviceAuthorization behavior to Message.
- B. Set the includeExceptionDetailInFaults attribute of the serviceDebug behavior to true.
- C. Set the Mode attribute of the security configuration element to Message.
- D. Set the messageAuthenticationAuditLevel attribute of the serviceSecurityAudit behavior to Failure.

Answer: D

Question: 187

You are creating a windows Communication Foundation (WCF) service to process orders.

The data contract for the order is defined as follows:

```
[DataContract]
public class Order
{
    [DataMember()]
    public string CardHolderName { get; set; }
    [DataMember]
    public string CreditCardNumber { get; set; }
```

-)
You have the following requirements:
• Enable the transmission of the contents of Order from the clients to the service.
• Ensure that the contents of CreditCardNumber are not sent across the network in clear text.
• Ensure that the contents of CreditCardNumber are accessible by the service to process the order.

You need to implement the service to meet these requirements

What should you do?

- A. Add a DataProtectionPermission attribute to the CreditCardNumber property and set the ProtectData property to true.
B. Convert the DataContract to a MessageContract and set the ProtectionLevel property to SignAndEncrypt
C. Change the data type of CreditCardNumber from string to SecureString
D. Implement the CreditCardNumber property getter and setter

In the setter, run the value of the CreditCardNumber through the MD5CryptoServiceProvider class TransformBlock method

Answer: B

Question: 188

You are creating an ASP.NET web application that hosts several Windows Communication Foundation (WCF) services. The services have ASP.NET Compatibility Mode enabled.

Users authenticate with the Web application by using a cookie-based ASP.NET Forms Authentication model. You add a service file named Authentication.svc that contains the following code segment

```
<%@ ServiceHost Service="System
Web" Application="Application" Services="Services" Authentication="Authentication"
ServiceFactory="System.Web.ApplicationServices.ApplicationServicesHostFactory" %> You need to ensure that users
can access the WCF services without having to re-authenticate. Which two configuration settings should you add?
(Each is part of a complete solution. Choose two.)
```

- A. In the system.web.extensions/scripting/webServices/authenticationService element, set the enabled attribute to true.
B. In the system.web.extensions/scripting/webServices/profileService element, set the enabled attribute to true.
C. Add a service endpoint with basicHttpBinding for the contract System.WebApplicationServices.AuthenticationService.
D. Add a custom service behavior named AuthenticationServiceTypeBehaviors with a serviceAuthenticationManager element that has serviceAuthenticationManagerType set to System.Web.Security.SQLMembershipProvider

Answer: A, C

Question: 189

A Windows Communication Foundation (WCF) service that handles corporate accounting must be changed to comply with government regulations of auditing and accountability.

You need to configure the WCF service to execute under the Windows logged-on identity of the calling application. What should you do?

- A. Within the service configuration, add a serviceAuthorization behavior to the service, and set impersonateCallerForAllOperations to true.
B. Within the service configuration, add a serviceAuthenticationManager behavior to the service, and set

- serviceAuthenticationManagerType to Impersonate.
- C. Within the service configuration, add a serviceSecurityAudit behavior to the service, and set serviceAuthorizationAuditLevel to SuccessOrFailure.
- D. Within the service configuration, add a serviceCredentials behavior to the service, and set type to Impersonate.

Answer: A

Question: 190

A Windows Communication Foundation (WCF) solution uses the following contract to share a message across its clients. (Line numbers are included for reference only.)

```

01 <ServiceContract()>
02 Public Interface ITeamMessageService
03
04 <OperationContract()>
05 Function GetMessage() As String
06
07 <OperationContract()>
08 Sub PutMessage(ByVal message As String)
09 End Interface

```

The code for the service class is as follows.

```

10 Public Class TeamMessageService
11 Implements ITeamMessageService
12
13 Dim key As Guid = Guid.NewGuid()
14 Dim message As String = "Today s Message"
15
16 Public Function GetMessage() As String _
17 Implements ITeamMessageService.GetMessage
18
19 Return String.Format("Message:{0}. Key:{1}", message, key)
20 End Function
21
22 Public Sub PutMessage(ByVal message As String) _
23 Implements ITeamMessageService.PutMessage
24
25 Me.message = message
26 End Sub
27
28 End Class

```

The service is self-hosted. The hosting code is as follows.

```

29 Dim host As ServiceHost =
  New ServiceHost(GetType(TeamMessageService))
30 Dim binding As BasicHttpBinding =
  New BasicHttpBinding(BasicHttpSecurityMode.None)
31 host.AddServiceEndpoint(
  "MyApplication.ITeamMessageService", binding,
  "http://localhost:12345")
32 host.Open()

```

You need to ensure that all clients calling GetMessage will retrieve the updated string if the message is updated by any client calling PutMessage.

What should you do?

A. Add the following attribute to the TeamMessageService class, before line 10.

```
<ServiceBehavior(InstanceContextMode:=InstanceContextMode.Single)>
```

B. Add the following attribute to the TeamMessageService class, before line 10002E

```
<ServiceBehavior(InstanceContextMode:=  
InstanceContextMode.PerSession)>
```

C. Pass a service instance to the instancing code in line 29, as follows.

```
Dim host As ServiceHost = New ServiceHost(New TeamMessageService())
```

D. Redefine the message string in line 14, as follows.

```
Shared message As String = "Today s Message"
```

E. Then change the implementation of PutMessage in lines 22-26 to the following.

```
Public Sub PutMessage(ByVal message As String) _
```

```
Implements ITeamMessageService.PutMessage
```

```
TeamMessageService.message = message
```

```
End Sub
```

Answer: A

Question: 191

A WCF service code is implemented as follows. (Line numbers are included for reference only.)

```
01 <ServiceContract()>  
02 <ServiceBehavior(  
03 InstanceContextMode:=InstanceContextMode.Single)>  
04 Public Class CalculatorService  
05  
06 <OperationContract()>  
07 Public Function Calculate(ByVal op1 As Double,  
08 ByVal op As String, ByVal op2 As Double) As Double  
&  
24 End Function  
25  
26 End Class
```

You need to decrease the response time of the service.

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

A. Change the service behavior to the following.

```
<ServiceBehavior(  
InstanceContextMode:=InstanceContextMode.Single,  
ConcurrencyMode:=ConcurrencyMode.Multiple)>
```

B. Change the service behavior to the following.

```
<ServiceBehavior(InstanceContextMode:=InstanceContextMode.PerCall)>
```

C. Require the clients use threads, the Parallel Task Library, or other mechanism to issue service calls in parallel.

D. Require the clients to use async operations when calling the service.

Answer: A, B

Question: 192

A Windows Communication Foundation (WCF) application exposes a service as a SOAP endpoint for consumption by cross-platform clients. During integration testing, you find that one of the clients is not generating the correct messages to the WCF application.

In order to debug the issue and fix the communication, you need to configure the service to log messages received from the client.

What should you do?

- A. Set an etwTracking behavior on the service and configure a listener for the System.ServiceModel trace source.
- B. Set an etwTracking behavior on the service and configure a listener for the System.ServiceModel.MessageLogging trace source.
- C. Enable messageLogging in the System.ServiceModel diagnostics element configuration and configure a listener for the System.ServiceModel.MessageLogging trace source.
- D. Enable messageLogging in the System.ServiceModel diagnostics element configuration and configure a listener for the System.ServiceModel trace source.

Answer: C

Question: 193

A Windows Communication Foundation (WCF) service only accepts messages that are signed and encrypted a client application is not receiving expected responses from the service.

You need to enable logging to verify that the messages from the client are signed and encrypted.

You also need to see what each message looks like before the message body is deserialized into a .NET object what should you do?

- A. Configure the System Service Model trace source in the system diagnostics configuration section.

In the system service Model configuration add the following xML segment

```
<diagnostics>
<message Logging log Entire Messages" true
logMessagesAtServiceLeveletrue"
logMessagesAtTransportLeveletrue" />
</diagnostics>
```

- B. Configure the System. Service Model trace source in the system diagnostics configuration section

In the system.serviceModel configuration, add the following XML segment,

```
<diagnostics>
<message Logging log Entire Message="
true log Messages t Service Level=true' Is
<diagnostics>
```

- C. Configure the System. Service Model Message Logging trace source in the system diagnostics configuration sectionIn the system. service Model configuration, add the following XML segment.

```
<diagnostics>
<message Logging log Entire Message='
true log Messages At Service Level true"
log Messages At Transport Level=true" I>
<ldiagnostics>
```

- D. Configure the System. Service Model Message Logging trace source in the system. diagnostics configuration section.

In the system service Model configuration, add the following xML segment

```
<diagnostics>
<message Logging log Messages At Service Levele true"
log Messages At Transport Levele"true" 1>
```

</diagnostics>

Answer: C

Question: 194

A Windows Communication Foundation (WCF) service interacts with the database of a workflow engine. Data access authorization is managed by the database, which raises security exceptions if a user is unauthorized to access it. You need to ensure that the application transmits the exceptions raised by the database to the client that is calling the service.

Which behavior should you configure and apply to the service?

- A. routing
- B. serviceDebug
- C. serviceSecurityAudit
- D. workflowUnhandledException

Answer: B

Question: 195

You are developing a Windows Communication Foundation (WCF) service. The service configuration file has a <System.Diagnostics> element defined. You need to ensure that all security audit information, trace logging, and message logging failures are recorded. Which configuration segment should you add to the <System.Diagnostics> element?

A.

```
<sources>
  <source name="System.ServiceModel"
    switchValue="Information, ActivityTracing"
    propagateActivity="true" />
  <source name="System.ServiceModel.MessageLogging"
    propagateActivity="true" />
</sources>
```

B.

```
<sources>
  <source name="System.ServiceModel"
    switchValue="Information, ActivityTracing"
    propagateActivity="true" />
  <source name="System.ServiceModel.MessageLogging"
    propagateActivity="true" />
</sources>
<sharedListeners>
  <add name="xml"
    type="System.Diagnostics.XmlWriterTraceListener"
    initializeData="..." />
</sharedListeners>
```

C.

```

<sources>
  <source name="System.ServiceModel"
    switchValue="Information, ActivityTracing"
    propagateActivity="true">

    <listeners>
      <add name="xml" />
    </listeners>
  </source>
  <source name="System.ServiceModel.MessageLogging"
    propagateActivity="true">
    <listeners>
      <add name="xml" />
    </listeners>
  </source>
</sources>
<sharedListeners>
  <add name="xml"
    type="System.Diagnostics.XmlWriterTraceListener"
    initializeData="..." />
</sharedListeners>
D.

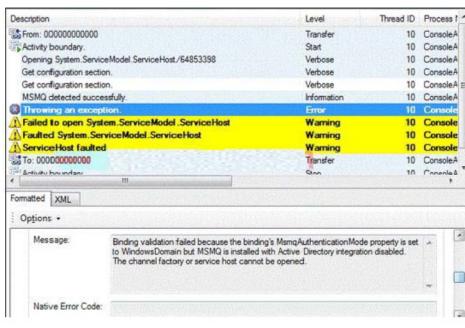
<sources>
  <source name="System.ServiceModel"
    switchValue="Information, ActivityTracing"
    propagateActivity="true">
    <listeners>
      <add name="xml" />
    </listeners>
  </source>
  <source name="System.ServiceModel.MessageLogging"
    propagateActivity="true">
    <listeners>
      <add name="text" />
    </listeners>
  </source>
</sources>

```

Answer: C

Question: 196

You are using tracing to diagnose run-time issues when you look at the traces for the service in Svc Trace viewer exe, you see what is shown in the exhibit (Click the Exhibit button)



The exception trace is selected in Svc Trace reviewer exe.

You need to interpret the trace results to determine where the error occurred and what to do next.

What should you do?

- A. This issue occurred in the ServiceHost during ServiceHost Open. Enable WMI by adding the following configuration to the system.serviceModel configuration section in the application configuration file
`<diagnostics wmiProviderEnabled=true>` Restart the application and inspect the endpoints visible through WMI
- B. This issue occurred in the Service Host during Service Host. Open.
 Compare the security settings for any endpoints that use an MSMQ transport to the security configuration of the MSMQ queue used by the endpoint
- C. This issue occurred at the Service Host when receiving a message
 Compare the security configurations on the client and server to make sure that they are compatible
- D. This issue occurred at the ServiceHost when accepting an initial set of messages from MSMQ. Log all messages sent between the clients and sever.

Answer: B

Question: 197

An ASP.NET application hosts a RESTful Windows Communication Foundation (WCF) service at /Services/Contoso.svc . The service provides a JavaScript resource to clients. You have an explicit reference to the JavaScript in your page markup as follows.

```
<script type="text/JavaScript" src="/Services/Contoso.svc/js" />
```

You need to retrieve the debug version of the service JavaScript.

What should you do?

- A. In the <to@ ServiceHost /o> header for /Services/Contoso.svc, set the Debug attribute to true.

- B. In the <>H>@ Page <*>to header, set the Debug attribute to true.
- C. In the script tag, add a debug attribute and set its value to true.
- D. In the script tag, append debug to the src attribute.

Answer: D

Question: 198

A Windows Communication Foundation (WCF) client configuration file contains the following XML segment in the system.serviceModel element.

```
<client>
<endpoint address=" net.tcp://server/ContosoService "
binding=" netTcpBinding "
contract=" Contoso. IContoso Service "
name=" netTcp " />
<endpoint address=" net.pipe://localhost/ContosoService "
binding=" netNamedPipeBinding "
contract=" Contoso. IContoso Service "
name=" netPipe " />
</client>
```

You need to create a channel factory that can send messages to the endpoint listening at net.pipe://localhost/ContosoService.

Which code segment should you use

- A. Dim factory As ChannelFactory(Of Contoso. IContosoService) =
New ChannelFactory(Of Contoso. IContosoService)(" Contoso. IContosoService ")
- B. Dim factory As ChannelFactory(Of Contoso. IContosoService) =
New ChannelFactory(Of Contoso. IContosoService)(" netNamedPipeBinding ")
- C. Dim factory As ChannelFactory(Of Contoso. IContosoService) =
New ChannelFactory(Of Contoso. IContosoService)(" netPipe ")
- D. Dim factory As ChannelFactory(Of Contoso. IContosoService) =
New ChannelFactory(Of Contoso. IContosoService)()
" net.pipe://localhost/ContosoService ")

Answer: D

Question: 199

You need to modify a client application that consumes a Windows Communication Foundation (WCF) service. The service metadata is no longer available.

You need to modify the previously generated proxy to include asynchronous calls to the service.

What should you do?

- A. Update the service reference with the Generate asynchronous operations option.
- B. Create a partial class for the previously generated proxy and include the new asynchronous methods.
- C. Create a class with the same name as the previously generated proxy and add the new asynchronous methods. Add the new class to a namespace that is different from the original proxy.
- D. Create a class with the same name as the previously generated proxy and add the new asynchronous methods as partial methods. Add the new class to a namespace that is different from the original proxy.

Answer: B

Question: 200

A Windows Communication Foundation (WCF) service implements the following contract. (Line numbers are included for reference only.)

```
01 <ServiceContract()>
02 Public Interface IDataAccessService
03
04 <OperationContract()>
05 Sub PutMessage(ByVal message As String)
06
07 <OperationContract()>
08 <FaultContract(GetType(TimeoutFaultException))>
09 <FaultContract(GetType(FaultException))>
10 Function SearchMessages(ByVal search As String) As String ()
11
12 End Interface
```

The implementation of the SearchMessages method throws TimeoutFaultException exceptions for database timeouts. The implementation of the SearchMessages method also throws an Exception for any other issue it encounters while processing the request. These exceptions are received on the client side as generic FaultException exceptions.

You need to implement the error handling code for SearchMessages and create a new channel on the client only if the channel faults.

What should you do?

- A. Catch and handle both TimeoutFaultException and FaultException.
- B. Catch both TimeoutFaultException and FaultException. Create a new channel in both cases.
- C. Catch and handle TimeoutFaultException. Catch FaultException and create a new channel.
- D. Catch and handle FaultException. Catch TimeoutFaultException and create a new channel.

Answer: C

Question: 201

You are developing a Windows Communication Foundation (WCF) service that will be hosted in Microsoft Internet Information Services (IIS) 7.0.

The service must be hosted in an IIS application named Info. You need to enable this service to be hosted in IIS by changing the web.config file.

Which XML segment should you add to the web.config file

- A. < serviceHostingEnvironment >
< serviceActivations >
<add relativeAddress =" Info.svc " service="Info" />
</ serviceActivations >
</ serviceHostingEnvironment >
- B. < serviceHostingEnvironment >
< serviceActivations >
<add relativeAddress ="Info" service=" Info.svc " />
</ serviceActivations >
</ serviceHostingEnvironment >

C. < serviceHostingEnvironment >
 < transportConfigurationTypes >
<add name="Info" transportConfigurationType =" Info.svc " />
</ transportConfigurationTypes >
</ serviceHostingEnvironment >
D. < serviceHostingEnvironment >
< transportConfigurationTypes >
<add name=" Info.svc " transportConfigurationType =" FileNotRequired " />
</ transportConfigurationTypes >
</ serviceHostingEnvironment >

Answer: A

Question: 202

You are modifying a Windows Communication Foundation (WCF) service that allows customers to update financial data. The service currently requires a transaction from the client application and is working correctly. The service contract is defined as follows. (Line numbers are included for reference only.)

```

01  <ServiceContract()>
02  Public Interface IDataUpdate
03
04    <OperationContract()>
05    <TransactionFlow(TransactionFlowOption.Mandatory)>
06    Sub Update(ByVal accountNumber As String,
07      ByVal amount As Double)
08
09  End Interface
10
11  Class UpdateService
12    Implements IDataUpdate
13
14    <OperationBehavior(TransactionScopeRequired:=True,
15      TransactionAutoComplete:=True)>
16    Public Sub Update(ByVal accountNumber As String,
17      ByVal amount As Double) Implements IDataUpdate.Update
18
19    Try
20      ...
21
22    Catch ex As Exception
23      ...
24
25    End Try
26
27  End Sub
28
29  End Sub
30
31 End Class

```

The service must be modified so that client applications do not need to initiate a transaction when calling the operation. The service must use the client application's transaction if one is available. Otherwise it must use its own transaction.

You need to ensure that the service operation is always executed within a transaction.

What should you do?

A. Replace line 05 with the following code.

```
<TransactionFlow(
    TransactionFlowOption.NotAliowed)>
```

B. Replace line 13 with the following code.

```
<OperationBehavior(
    TransactionScopeRequired:"False,
    TransactionAutoComplete:-True)>
```

C. Replace line 05 with the following code.

```
<TransactionFlow(
    TransactionFlowOption.Allowed) >
```

D. Replace line 13 with the following code.

```
<OperationBehavior(
    TransaetionScopeRequired:"False,
    TransactionAutoComplete:"False)>
```

Answer: B

Question: 203

You are developing a Windows Communication Foundation (WCF) service. The following code defines and implements the service. (Line numbers are included for reference only.)

```

01  <ServiceContract(SessionMode:=SessionMode.Allowed)>
02  Public Interface ICatchAll
03
04      <OperationContract(
05          IsOneWay:=False, Action:="*", ReplyAction:="*")>
06      Function ProcessMessage(
07          ByVal message As Message) As Message
08
09  End Interface
10
11  Public Class CatchAllService
12      Implements ICatchAll
13
14      Public Function ProcessMessage(
15          ByVal message As Message) As Message _
16          Implements ICatchAll.ProcessMessage
17
18      ...
19      Return returnMsg
20  End Class
```

You need to ensure that two identical copies of the received message are created in the service.

Which code segment should you insert at line 14?

- A. Dim msgCopy As Message = TryCast(
 TryCast(message.CreateBufferedCopy(8192), Object), Message)
 Dim returnMsg As Message = TryCast(
 TryCast(message.CreateBufferedCopy(8192), Object), Message)
- B. Dim buffer As MessageBuffer = message.
 CreateBufferedCopy(8192)

```
Dim msgCopy As Message = buffer.CreateMessage()
Dim returnMsg As Message » msgCopy
C. Dim msgCopy As Message = message
Dim returnMsg As Message = message
D. Dim buffer As MessageBuffer = message.
CreateBufferedCopy(8192)
Dim msgCopy As Message = buffer.CreateMessage()
Dim returnMsg As Message = buffer.CreateMessage()
```

Answer: B

Question: 204

You are developing a Windows Communication Foundation (WCF) service.

You need to enable security auditing for all events.

What should you do?

- A. Set the serviceAuthorizationAuditLevel setting to Success and the messageAuthenticationAuditLevel setting to Success.
- B. Set the messageAuthenticationAuditLevel setting to Success and the auditLogLocation setting to Application.
- C. Set the serviceAuthorizationAuditLevel setting to SuccessAndFailure and the messageAuthenticationAuditLevel setting to SuccessAndFailure.
- D. Set the messageAuthenticationAuditLevel setting to SuccessAndFailure and the auditLogLocation setting to Security.

Answer: C

Question: 205

You are developing a Windows Communication Foundation (WCF) service that executes a long-running operation.

The service is accessed from your business applications in a server transaction in which the client does not participate.

You need to ensure that the transaction times out and aborts if the operation has not completed within 45 seconds.

What should you do?

- A. Set the service binding sendTimeout attribute to 00:00:45.
- B. Apply <OperationBehavior (TransactionScopeRequired:=False) > to the service operation.
- C. Set the service binding receiveTimeout attribute to 00:00:45.
- D. Apply OserviceBehavior (TransactionTiitieout: = "00:00:45")> to the service implementation.

Answer: D

Question: 206

You develop a Windows Communication Foundation (WCF) service that uses basic authentication for client credentials. This service is currently configured to use message security.

The service is hosted on a server in workgroup mode.

Users report that their passwords are stolen when they use public computers.

You need to ensure that messages are secure and users are authenticated.

You prevent the service from being called over HTTP through Microsoft Internet Information Services (IIS)

configuration. What should you do next?

- A. Use the transportWithMessageCredential security mode and specify Basic for the transport client credential type.
- B. Use the message security mode and specify Basic for the transport client credential type.
- C. Use the transport security mode and specify None for transport client credential type.
- D. Use the transportWithMessageCredential security mode and specify None for the transport client credential type.

Answer: B

Question: 207

You are developing a Windows Communication Foundation (WCF) REST service to provide access to a library book catalog. The following code segment defines the service contract. (Line numbers are included for reference only.)

```
01 <ServiceContract()>
02 <AspNetCompatibilityRequirements(
    RequirementsMode:=AspNetCompatibilityRequirementsMode.Allowed)>
03 Public Class LibraryService
04
05     Public Function GetBookByTitle(ByVal title As String) As Book
06
07     ...
08
09     End Function
10
11     <WebGet(UriTemplate:="Book/{id}")>
12     Public Function GetBookById(ByVal id As String) As Book
13
14     ...
15
16     End Function
17
End Class
```

Library patrons want the ability to search the catalog by title.

You need to ensure that the GetBookByTitle method is exposed as a service method.

Which code segment should you insert at line 04?

- A. <WebGet(UriTemplate:="Book/{title}")>
- B. <WebGet(UriTemplate:="BookByTitle/{title}")>
- C. <WebGet(UriTemplate:="Book/{titleToSearch}")>
- D. <WebGet(UriTemplate:="{titleToSearch}")>

Answer: B

Question: 208

You are creating an application using Visual Studio 2010. The application consumes a Windows Communication Foundation (WCF) service.

You are adding a service reference to the WCF service.

You need to ensure that the generated proxy does not block the calling thread when executing a service method.

What should you do when adding the service reference?

- A. Set the Collection type to ObservableCollection.
- B. Select the Reuse types in all referenced assemblies option.
- C. Select the Generate asynchronous operations option.
- D. Select the Always generate message contracts option.

Answer: C

Question: 209

You are developing a Windows Communication Foundation (WCF) service that allows customers to update financial data

- a. The client applications call the service in a transaction. The service contract is defined as follows. (Line numbers are included for reference only.)

```

01 <ServiceContract()
02 Public Interface IDatallpdate
03
04 <OperationContract()
05 <TransactionFlow(TransactionFlowOption.Handatocy)>
06 Sub Update (ByVal accountNumber As String,
ByVal amount As Double)
07
08 End Interface
09
10 Class UpdateService
11 Implements IDataUpdate
12
13 <OperationBehavior(
TransactionScopeRequired:=True, TransactionAutoComplete:=True)>
14 Public Sub Update(ByVal accountNumber As String,
 ByVal amount As Double)
Implements IDataUpdate.Update IS
16 Try
17
18     Catch ex As Exception
19         WriteErrorLog(ex) 20
21     End Try
22
23 End Sub
24
25 End Class

```

Customers report that the transaction completes successfully even if the Update method throws an exception. You need to ensure that the transaction is aborted if the Update method is not successful. What should you do?

- A. insert the following line at line 20.

Throw

- B. Replace line 13 with the following line.

```
<OperationBehavior(
TransactionScopeRequired:MTtrue,
TransactionAutoComplece:"False")>
```

- C. Insert the following line at line 09.

```
<ServiceBehavlor(
TransactionAutoCoropleteOnSessionClose:"False) >
```

D. Insert the following line at line 09.

```
<ServiceBehavior(  
    TransactionAutoCompleteOnSessionClose:"True") >
```

Answer: A

Question: 210

You are developing a Windows Communication Foundation (WCF) service that contains the following service contract.

```
<ServiceContract() >  
Public Interface IPaymentService  
<OperationContract() >  
Sub RecordPayments(ByVal person As Person)  
End Interface  
Public Class Person  
End Class  
Public Class Employee Inherits Person  
End Class  
Public Class Customer Inherits Person  
End Class
```

You need to ensure that RecordPayments can correctly deserialize into an Employee or a Customer object.

What should you do?

- A. Add the following KnownType attribute to the Employee class and to the Customer class.
<KnownType(GetType(Person))>
- B. Implement the IExtensibleDataObject interface in the Person class.
- C. Implement the IExtension(Of T) interface in the Person class.
- D. Add the following KnownType attributes to the Person class. <KnownType(GetType(Employee))>
<KnownType(GetType(Customer))>

Answer: D

Question: 211

You are developing a Windows Communication Foundation (WCF) service. One of the parameters used with the service operations is a security token. The security token is not sensitive. The monitoring software tracks security tokens and can read tokens in clear text only.

The company security policy requires that you validate all clear text data passed over the corporate network.

You need to ensure that the service verifies that the security token is not changed during transit.

What should you do?

- A. Implement IEndpointIdentityProvider in the message contract class.
- B. For all the security-sensitive members, set the ProtectionLevel parameter of the MessageBodyMember or MessageHeader attribute to EncryptAndSign.
- C. For all the security-sensitive members, set the ProtectionLevel parameter of the MessageBodyMember or MessageHeader attribute to Sign.
- D. Implement ISecureConversationSession in the message contract class.

Answer: C

Question: 212

You are developing a client application that consumes a Windows Communication Foundation (WCF) service. The operation contract is as follows.

```
<OperationContract()
<FaultContract(GetType(SalesFault))>
Function GetSales(ByVal saield As String) As String
```

The service configuration file contains the following line in the serviceBehaviors section.

```
<behovior>
oerviceDebug includeExceptionDetoillnFaults="True'V> </behavior>
```

A divide-by-zero exception is not being handled by the service.

You need to ensure that the exception is caught in the client application.

Which type of exception should the client catch?

- A. TimeoutException
- B. FaultException
- C. FaultException(Of SalesFault)
- D. DivideByZeroException

Answer: B

Question: 213

You are developing a Windows Communication Foundation (WCF) client application.

The client application contains the following code.

```
<ServiceContract()
Public Interface ISocialStatus

    <OperationContract()
    <WebInvoke(
        UriTemplate:="/statuses/update.xml?status={text}")>
    Sub UpdateStatus(ByVal text As String)

End Interface

Public Class SocialClient
    Inherits ClientBase(Of ISocialStatus)
    Implements ISocialStatus

    ...
End Class
```

The configuration file contains the following lines.

```

<system.serviceModel>
  <client>
    <endpoint name="SocialClient"
      address="http://contoso.com"
      binding="webHttpBinding"
      contract="SocialApp.ISocialStatus"
      bindingConfiguration="BindingConfig" />
  </client>
  <bindings>
    <webHttpBinding>
      <binding name="BindingConfig">
        ...
      </binding>
    </webHttpBinding>
  </bindings>
</system.serviceModel>

```

You need to ensure that the service is consumed.

Which code segment should you use?

- A. Dim client As SocialClient =
New SocialClient("POST")
client.Endpoint.Behaviors.Add(
New WebHttpBehavior())
- B. Dim client As SocialClient =
New SocialClient("SocialClient")
client.Endpoint.Behaviors.Add(
New WebHttpBehavior())
- C. Dim client As SocialClient =
New SocialClient("SocialClient")
client.Endpoint.Behaviors.Add(
New WebScriptEnablingBehavior())
- D. Dim client As SocialClient =
New SocialClient("POST")
client.Endpoint.Behaviors.Add(
New WebScriptEnablingBehavior())

Answer: B

Question: 214

You are developing a Windows Communication Foundation (WCF) service that does not operate on a duplex channel. You find that operations do not start until all previous operations have finished. The service hosting code contains the following lines.

```

Dim service = New WarehouseService()
Dim host = New ServiceHost(service)

```

You need to ensure that new operations do not wait for previous operations to finish.

Which attribute should you use to decorate the service?

- A. <ServiceBehavior(

InstanceContextMode:=InstanceContextMode.Single, ConcurrencyMode:=ConcurrencyMode.Single) >
B. <CallbackBehavior(
ConcurrencyMode:=ConcurrencyMode.Multiple)>
C. <ServiceBehavior(
InstanceContextMode:=InstanceContextMode.Single, ConcurrencyMode:=ConcurrencyMode.Reentrant)>
D. <ServiceBehovior(
InstanceContextMode:=InstanceContextMode.Single, ConcurrencyMode:=ConcurrencyMode.Multiple)>

Answer: D

Question: 215

You are developing a Windows Communication Foundation (WCF) service to provide an in-memory cache for many Web applications. The service contract is defined as follows. (Line numbers are included for reference only.)

01 <ServiceContract()>

02 Public Interface IDataCache

03

04 ...

05 End Interface

06

07

08 Public Class DataCache

09 Implements IDataCache

10

11 ...

12 End Class

You need to ensure that all users share the cache.

Which code segment should you insert at line 07?

A. <ServiceBehavior (InstanceContextMode :=
InstanceContextMode.PerSession)>

B. <ServiceBehavior(TransactionIsolationLevel:=
IsolationLevel.RepeatableRead)>

C. <ServiceBehavior(TransactionIsolationLevel:=
IsolationLevel.ReadCommitted)>

D. <ServiceBehavior(InstanceContextMode:=
InstanceContextMode.Single)>

Answer: D

Question: 216

You are consuming a Windows Communication Foundation (WCF) service. The service interface is defined as follows.

<DataContract(Namespace:="")> Public Class Item
End Class

ServiceContract (Namespace: = "") > Public Interface ICatalog

<OperationContract()>

<WebInvoke(Method:="POST*", UriTemplate:="/Item") >

Function UpdateItem(ByVal item As Item) As Item

End Interface

The client application receives a WebResponse named response with the response from the service. You need to deserialize this response into a strongly typed object representing the return value of the method. Which code segment should you use?

- A. Dim r As XmlDictionaryReader =


```
JsonReaderWriterFactory.CreateJsonReader(
    response.GetResponseStream(),
    XmlDictionaryReaderQuotas.Max)
```
- Dim s As DataContractSerializer =


```
New DataContractSerializer(GetType(Item))
```
- Dim item As Item = DirectCast(s.ReadObject(r), Item)
- B. Dim s As DataContractSerializer =


```
New DataContractSerializer(GetType(Item))
```
- Dim item As Item =


```
DirectCast(s.ReadObject(response.GetResponseStream()), Item)
```
- C. Dim s As DataContractJsonSerializer =


```
New DataContractJsonSerializer(
    GetType(Item))
```
- Dim item As Item =


```
DirectCast(s.ReadObject(
    response.GetResponseStream()), Item)
```
- D. Dim f As BinaryFormatter = New BinaryFormatter()


```
Dim item As Item =
    DirectCast(f.Deserialize(response.GetResponseStream()), Item)
```

Answer: C

Question: 217

You are developing a Windows Communication Foundation (WCF) service. You must record all available information for the first 1,000 messages processed, even if they are malformed. You need to configure the message logging section of the configuration file. Which configuration segment should you use?

- A.


```
<messageLogging logMessagesAtServiceLevel="true"
    logMessagesAtTransportLevel="true"
    maxMessagesToLog="1000"/>
```
- B.


```
<messageLogging logMalformedMessages="true"
    logMessagesAtServiceLevel="true"
    logMessagesAtTransportLevel="false"
    maxMessagesToLog="1000"/>
```
- C.


```
<messageLogging logEntireMessage="false"
    logMessagesAtServiceLevel="true"
    logMessagesAtTransportLevel="false"
    maxMessagesToLog="1000"/>
```
- D.

```
<messageLogging logEntireMessage="true"
logMalformedMessages="true"
logMessagesAtServiceLevel="true"
logMessagesAtTransportLevel="true"
maxMessagesToLog="1000"/>
```

Answer: D

Question: 218

You are creating an application that consumes a Windows Communication Foundation (WCF) service. The service implements the IService contract. The client application contains the CallbackHandler class, which implements IServiceCallback. You need to ensure that a client proxy is created that can communicate with the service over a duplex channel. Which code segment should you use?

A. Dim handler = New CallbackHandler()

```
Dim clientFactory =
New DuplexChannelFactory(Of IService)(
New WSHttpBinding() )
Dim client = clientFactory.CreateChannel( New InstanceContext(handler),
New EndpointAddress ("•••"))
B. Dim handler = New CallbackHandler()
```

```
Dim clientFactory =
New DuplexChannelFactory( Of IService)(
GetType(CallbackHandler),
New USDualHttpBindingO )
Dim client = clientFactory.CreateChannel(
New InstanceContext (handler) ,
New EndpointAddress ("•••") )
```

C. Dim handler - New CallbackHandler()

```
Dim clientFactory =
New DuplexChannelFactory(Of IService)(
GetType(CallbackHandler),
New HSDualHttpBindingO ) Dim client = clientFactory.CreateChannel( New EndpointAddress ("•••") )
```

D. Dim handler = New CallbackHandler()

```
Dim clientFactory =
New DuplexChannelFactory(Of IService)( New WSHttpBinding())
Dim client = clientFactory.CreateChannel(
New InstanceContext(handler),
New EndpointAddress ("•••"))
```

Answer: B

QUESTIO NO: 98

You develop a Windows Communication Foundation (WCF) service. It is used exclusively as an intranet application and is currently unsecured.

You need to ensure that the service meets the following requirements:

- The service now must be exposed as an Internet application.
- The service must be secured at the transport level.
- Impersonation and delegation cannot be enabled.

What should you use?

- A. basicHttpBinding and HTTP
- B. basicHttpBinding and Kerberos
- C. wsHttpBinding and Kerberos
- D. wsHttpBinding and HTTPS

Answer: D

Question: 219

You are developing a custom service host for a Windows Communication Foundation (WCF) service. The service host is named MovieServiceHost. You need to deploy the service with the custom service host in Microsoft Internet Information Services (IIS) 7.0. What should you do?

- A. Create a factory for the custom service host. Name the factory MovieServiceHostFactory. In the web.config file, add the following attribute to the <add> element within the <serviceActivations> element, factory="MovieServiceHostFactory"
- B. Decorate the custom service host class with the following line.
<System.ServiceModel.Activation.ServiceActivationBuildProvider()>
- C. Make sure that the service class has a default constructor. Add a public read-only property with the name ServiceHost that returns an instance of the MovieServiceHost class.
- D. Create a factory for the custom service host. Name the factory MovieServiceHostFactory. In the .svc file, add the following line. <%3 ServiceHost Service="MovieServiceHostFactory" Language="VB"%>

Answer: A

Question: 220

You are developing a new version of an existing message contract named CustomerDetailsVersion1. The new version of the message contract must add a Department field of type String to the SOAP header. You create a new class named CustomerDetailsVersion2 that inherits from CustomerDetailsVersion1. You need to ensure that all client applications can consume the service. Which code segment should you use?

- A. <MessageContract()>
Public Class CustomerDetailsVersion2 Inherits CustomerDetailsVersion1
<MessageHeader(HustUnderstand:=False)>
Public Department As String
End Class
- B. Public Class CustomerDetailsVersion2 Inherits CustomerDetailsVersion1
<MessageHeader(MustUnderstand:=True)> Public
Department As String
End Class
- B. Public Class CustomerDetailsVersion2 Inherits CustomerDetailsVersion1
<MessageHeader(HustUnderstand:=True)> Public Department As String
End Class
- C. Public Class CustomerDetailsVersion2 Inherits CustomerDetailsVersion1
<MessageHeader(HustUnderstand:=False)> Public
Department As String
End Class

```
D. <MessageContract()>
Public Class CustomerDetailsVersion2 Inherits
CustomerDetailsVersion1
<MessageHeader(HustUnderstand:=True)> Public
Department As String
End Class
```

Answer: A

Question: 221

You are developing a Windows Communication Foundation (WCF) service that must be discoverable. You need to ensure that the ServiceHost instance supports multiple discovery versions. What should you do?

- A.
 - Specify a unique DiscoveryVersion parameter for each endpoint constructor.
 - Use the same value for the Address property of each endpoint.
- B.
 - Use the endpoint constructor without the DiscoveryVersion parameter.
 - Use a unique value for the Address property of each endpoint.
- C.
 - Specify a unique DiscoveryVersion parameter for each endpoint constructor.
 - Use a unique value for the Address property of each endpoint.
- D.
 - Use the endpoint constructor without the DiscoveryVersion parameter.
 - Use the same value for the Address property of each endpoint.

Answer: C

Question: 222

You are developing a Windows Communication Foundation (WCF) service to replace an existing ASMX Web service. The WCF service contains the following code segment. (Line numbers are included for reference only.)

```

01 <ServiceContract()>
02
03 Public Interface IEmployeeService
04
05     <OperationContract()>
06     Function GetEmployeeInfo(
07         ByVal employeeID As Integer) As EmployeeInfo
08 End Interface
09
10 Public Class EmployeeService
11     Implements IEmployeeService
12
13     Public Function GetEmployeeInfo(
14         ByVal employeeID As Integer) As EmployeeInfo _
15         Implements IEmployeeService.GetEmployeeInfo
16
17     ...
18
19     End Function
20 End Class
21
22 Public Class EmployeeInfo
23
24     Public Property EmployeeID As Integer
25     Public Property FirstName As String
26     Public Property LastName As String
27 End Class

```

The existing Web service returns the EmployeeID as an attribute of the EmployeeInfo element in the response XML. You need to ensure that applications can consume the service without code changes in the client. What should you do?

A. Insert the following code at line 02.

<DataContractFormat()>

Insert the following code at line 22.

<DataMember ()>

B. Insert the following code at line 02.

<XmlSerializerFormat()>

Insert the following code at line 22.

<XmlAttribute()>

C. Insert the following code at line 09.

<XmlSerializerFormat()>

Insert the following code at line 22.

<XmlAttribute()>

D. Insert the following code at line 20.

<DataContractFormat()>

Insert the following code at line 22.

<DataMember()>

Answer: D

Question: 223

You create a Windows Communication Foundation (WCF) service. It is deployed on Microsoft Internet Information Services (IIS) with an application pool running as Network Service. You enable WMI tracing before launching the service. Your IT support staff adds WMI data collection through ASP.NET WMI tracing. You need to restrict the collection of WMI data to a privileged account. What should you do in WMI Control in the Computer Management console?

- A.
 - Select the Root\aspnet namespace.
 - Remove Enable account permission for the Network Service account.
 - Add a custom user and grant that user Enable account permission.
- B.
 - Select the Root\aspnet namespace.
 - Remove Enable account permission for the Local System account.
 - Add a custom user and grant that user Enable account permission.
- C.
 - Select the Root\Security namespace.
 - Remove Enable account permission for the Local System account.
- D.
 - Select the Root\ServiceModel namespace.
 - Remove Enable account permission for the Network Service account.
 - Add a custom user and grant that user Enable account permission.

Answer: D

Question: 224

You are developing a Windows Communication Foundation (WCF) service to provide an in-memory cache. The following code is part of your solution. (Line numbers are included for reference only.)

```
01
02 Public Interface IInMemoryCacheService
03
04 <OperationContract()
05 Function GetCachedItem(
06 ByVal key As String) As String
07
08 <OperationContract() >
09 Sub CacheItem(
10 ByVal key As String,
11 ByVal item As String)
12
13 End Interface
14
15 <ServiceBehavior(
16 InstanceContextMode:=InstanceContextMode.Single)>
17
18 Public Class CacheService
19     Implements IInMemoryCacheService
20
21     Dim cache As Hashtatale - New Hashtable>
22
23     Public Function GetCachedItem(
24 ByVal key As String) As String
```

```

    implements IInMemoryCacheService.GetCachedItem
19
20      Return cache (key) .ToString()
21
22  End Function
23
24  Public Sub CacheItem(
25      ByVal key As String,
26      ByVal item As String)
27  Implements IInMemoryCacheService.CacheItem
28  Then
29
30  If (cache.Contains(key))
31      cache.Remove(key)
32  End If
33
34  cache.Add(key, item)
35
36 End Sub
37
38 End Class

```

Users report that the cache is getting updated with cache changes of other users. You need to ensure that each user's cache is maintained and isolated from other users. Which two actions should you perform? (Each correct answer presents part of the solution. Choose two.)

A. Insert the following code at line 01.

<ServiceContract(SessionMode:=SessionMode.NotAllowed)>

B. At line 12, replace InstanceContextMode.Single with InstanceContextMode.PerSession.

C. At line 12, replace InstanceContextMode.Single with InstanceContextMode.PerCall.

D. Insert the following code at line 01.

<ServiceContract(SessionMode:=SessionMode.Required)>

Answer: B, D

Question: 225

You develop a Windows Communication Foundation (WCF) service. You name the service MovieService in the Movie namespace. The service is hosted in Microsoft Internet Information Services (IIS). You copy the assembly containing the service to the bin folder in the virtual directory path. You need to set up the URI that is mapped to the service. What should you do?

A. Add a Movie.svc file in the root of the virtual path with the following line. <*8ServiceHost language=""VB" Service "MovieService.svc "*>

B. Add the following code segment to the web.config file.

```

<ServiceHostingEnvironment>
<serviceActivations>
<add relativeAddress="./Movie.svc"
service="Movie.MovieService"/>
</serviceActivations>
</ServiceHostingEnvironment>

```

C. Add a Movie.svc file in the root of the virtual path with the following line.

```
<%@ServiceHost language="VB" Service="MovieService"%>
```

D. Add the following code segment to the web.config file.

```
<serviceHostingEnvironment>
<serviceActivations>
<add relativeAddress="./Movie"
service="Movie.MovieService"/>
</serviceActivations>
</serviceHostingEnvironment>
```

Answer: B

Question: 226

You are developing a Windows Communication Foundation (WCF) service. You enable message logging, trace listeners, activity propagation, and tracing on the trace sources. You have the following code segment in the client application. (Line numbers are included for reference only.)

```
01 Guid multiCallActivityId = Guid.NewGuid();
02 TraceSource ts = new TraceSource("Multicall");
03 Trace.CorrelationManager.ActivityId =
    multiCallActivityId;
04
```

You encounter errors when your client application consumes the service. You need to ensure that your client application can correlate tracing information with the service. Which code segment should you add at line 04?

A.

```
ts.TraceEvent(TraceEventType.Start, 0,
    "Calling first service");
ts.TraceTransfer(100, "Transferring...", Guid.NewGuid());
...
ts.TraceEvent(TraceEventType.Stop, 0,
    "Return from first service.");
```

B.

```
ts.TraceEvent(TraceEventType.Start, 0,
    "Calling first service");
Trace.CorrelationManager.StartLogicalOperation("1");
...
ts.TraceEvent(TraceEventType.Stop, 0,
    "Return from first service.");
```

C.

```
ts.TraceEvent(TraceEventType.Start, 0,
    "Calling first service");
ts.TraceTransfer(100, "Transferring...",
    multiCallActivityId);
...
ts.TraceEvent(TraceEventType.Stop, 0,
    "Return from first service.");
```

D.

```
Trace.CorrelationManager.StartLogicalOperation("1");
...
Trace.CorrelationManager.StopLogicalOperation();
```

Answer: C

Question: 227

A Windows Communication Foundation (WCF) service has the following contract.

```
<ServiceContract(Namespace:="http://contoso.com")>
Public Interface IShipping

<OperationContract()
Function DoWork(ByVal id As Integer) As String

End Interface
```

This is one of several service contracts hosted by your application. All endpoints use SOAP 1.2 bindings with WS-Addressing 1.0. The System.ServiceModel.MessageLogging trace source in the system.diagnostics configuration section is configured with one listener. You need to make sure that only the messages that are returned from the DoWork operation are logged. Which XML segment should you add to the system.serviceModel/diagnostics/messageLogging/filters configuration element?

- A. `<add xmlns:soap="http://www.w3.org/2003/05/soap-envelope">
//soap:Action[text() =
'http://contoso.com/IShipping/DoWorkResponse']
</add>`
- B. `<add xmlns:addr="http://www.w3.org/2005/08/addressing">
//addr:Action[text() -
'http://contoso.com/IShipping/DoWorkResponse']
</add>`
- C. `<add xmlns:addr="http://www.w3.org/2005/Q8/addressing">
//addr:Action[text() =
'http://contoso.com/IShipping/DoUork']
</add>`
- D. `<add xmlns:soap="http://www.w3.org/2003/05/soap-envelope">
//soap:Action[text() =
1http://contoso.com/IShipping/DoWork']
</add>`

Answer: A

Question: 228

You are configuring a routing service to call a target service. The routing service has no knowledge of the target service's data types other than the service contract. The operation contract for all of the methods of the target service specifies `IsOneWay=true`. You need to specify the endpoint information for the routing service. What should you do?

- A. In the target service configuration file, specify "*" for the client endpoint contract and "*" for the service endpoint contract.
- B. In the routing service configuration file, specify "*" for the client endpoint contract and `System.ServiceModel.Routing.ISimplexDatagramRouter` for the service endpoint contract.
- C. In the routing service configuration file, specify "*" for the client endpoint contract and "*" for the service endpoint contract.
- D. In the routing service configuration file, specify "*" for the client endpoint contract and `System.ServiceModel.Routing.IRequestReplyRouter` for the service endpoint contract.

Answer: B

Question: 229

You are modifying a Windows Communication Foundation (WCF) service that provides access to report generation system. The following code segment is part of your service contract. (Line numbers are included for reference only.)

```
01 <ServiceContract()>
02 Public Interface IAsyncReportService
03
04     Function BeginReportGeneration(ByVal a As Integer,
05             ByVal b As Integer,
06             ByVal cb As AsyncCallback,
07             ByVal s As Object) As IAsyncResult
08
09
10 End Interface
```

Client applications are blocked while the service processes reports. You need to ensure that the service methods are asynchronous. What should you do?

- A. Insert the following code at line 04.

[OperationContract]

Insert the following code at line 07.

[OperationContract(AsyncPattern = true)]

- B. Insert the following code at line 04.

[OperationContract(AayncPaccern = true)]

- C. Insert the following code at line 04.

[OperotionConcroct(AsyncPactern = false)]

Insert the following code at line 07.

[OperacionConracc(AsyncPactern = true)]

- D. Insert the following code at line 04.

[OperationContract (AsyncPattern = false)]

Answer: B

Question: 230

You are developing a Windows Communication Foundation (WCF) service. You establish that the largest size of valid messages is 8,000 bytes. You notice that many malformed messages are being transmitted. Detailed information about whether each message is malformed must be logged. You need to ensure that this information is saved in XML format so that it can be easily analyzed. What should you add to the service configuration file?

- A. <messageLogging
logMessagesAtServiceLevel="true"
logMessagesAtTransportLevels="true"
maxMessagesToLog="1000"

```

maxSizeOfMessageToLog="8000"/>
B. <roessageLogging
logEntireMessage="true"
logNalformedMessages="false"
logMessagesAtServiceLeve1="true"
logMessagesAtTransportLevel="true"
maxMessagesToLog=""1000"/>
C. <message Logging
logEntireMessage="true"
logHalformedMessages=""false"
logMessagesAtServiceLevel- "true"
logMessagesAtTransportLevel- "true"
maxMessagesToLog="1000"
maxSizeOfMessageToLog="8000"/>
D. <messageLogging
logEntireMessage="true"
logHalformedMessages="true"
logMessagesAtServiceLevel="true"
logMessagesAtTranspocLevel="true"
maxMessagesToLog="1000"
maxSizeOfMessageToLog="100000"/>

```

Answer: D

Explanation:

To log malformed message we should set logMalformedMessages="true", only D met this requirement

Question: 231

You have a Windows Communication Foundation (WCF) service that accepts the following message contract.

```

<MessageContract(WrapperNamespace:="http://www.movies.com",
 ProtectionLevel:=ProtectionLevel.None)>
Public Class Ticket

    <MessageBodyMember(
        Namespace:="http://www.movietheater.com", Order:=1)>
    Public ShowTime As DateTime = DateTime.Now

    <MessageBodyMember(
        Namespace:="http://www.movietheater.com")>
    Public ReservationName As String = "Smith"

    <MessageBodyMember(
        Namespace:="http://www.movietheater.com")>
    Public NumberOfSeats As Integer = 0

End Class

```

You need to ensure that the client sends a SOAP body that is accepted by the service.

A. <Ticket xmlns="http://www.movies.com">
<NumberOfSeats
xmlns="http://www.movietheater.com">
0
</NumberOfSeats>

```
<ReservationName xmlns="http://www.movietheater.com" />
<ShowTime
  xmlns="http://www.movietheater.com">
  2010-07-05T00:51:10.0999304-05:00
</ShowTime>
</Ticket>
B. <Ticket xmlns="http://www.movietheater.com">
<ShowTime
  xmlns="http://www.movietheater.com">
  2010-07-05T00:51:10.0999304-05:00
</ShowTime>
<ReservationName xmlns="http://www.movietheater.com" />
<NumberOfSeats
  xmlns="http://www.movietheater.com">
  0
</NumberOfSeats>
</Ticket>
C. <Ticket xmlns="http://www.movies.com">
<ShowTime
  xmlns="http://www.movietheatec.com">
  2010-07-05T00:51:10.0999304-05:00
</ShowTime>
<Number Of Seats
  xmlns="http://www.movietheater.com"> 0
</NumbecOfSeats>
<ReservationName xmlns="http://www.movietheotec.com" />
</Ticket>
D. <Ticket xmlns="http://www.movietheatec.com">
<ShowTime
  xmlns="http://www.movietheater.com">
  2010-07-05T00:51:10.0999304-05:00
</ShowTime>
<NumberOfSeats
  xmlns="http://www.movietheatec.com"> 0
</NumberOfSeats>
<ReservationName
  xmlns="http://www.movietheatec.com" />
</Ticket>
```

Answer: C

Question: 232

You are configuring services to be discoverable. The services must be discoverable without relying on a central server. Client applications that consume the services are on a network segment that is separate from the network segment that the services are located on. A firewall blocks all TCP ports between the two network segments, but allows other protocols to pass through. You need to ensure that the client applications can discover the services. What should you do?

- A. Use ad-hoc discovery mode over HTTP.
- B. Use ad-hoc discovery mode over UDP.

- C. Use managed discovery mode over HTTP.
- D. Use managed discovery mode over UDP.

Answer: B

Question: 233

You are debugging a Windows Communication Foundation (WCF) service. The service uses signed and encrypted messages. You need to configure logging so that you can read the contents of the messages. What should you do?

- A. Set maxSizeMessagesToLog to 10
- B. Set logMessageAtServiceLevel to true.
- C. Set maxMessagesToLog to 10.
- D. Set logMessageAtTransportLevel to true.

Answer: B

Question: 234

An existing Windows Communication Foundation (WCF) service uses basicHttpBinding. You are releasing updates to the service and the client application.

You need to enable the client application to flow transactions to the service.

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

- A. Change to a custom binding that has the httpTransport, textMessageEndcoding, and transactionFlow binding elements in this order.
- B. Change to a custom binding that has the transactionFlow, textMessageEncoding, and httpTransport binding elements in this order.
- C. Change the binding to use wsHttpBinding.
- D. Change the binding to use basicHttpContextBinding.

Answer: B, C

Question: 235

You are developing a Windows Communication Foundation (WCF) service to provide shopping cart support. ASP.NET compatibility mode is not enabled.

The shopping cart information must be retained across user visits to the store until the user explicitly empties the cart or submits the cart contents to order.

You need to implement the service as a DurableService.

Which two actions should you perform? (Each correct answer presents part of the solution. Choose two.)

- A. Use basicHttpBinding for both the client application and the service.
- B. Create the persistence provider database and configure the persistenceProvider element of the service behavior to point to that database.
- C. Use wsHttpContextBinding for both the client application and the service.
- D. In the method to add an item to the shopping cart, serialize the shopping cart contents after adding the current item and storing it in a Session variable.

Answer: B, C**Question: 236**

You are developing a Windows Communication Foundation (WCF) service that is used to check the status of orders placed by customers. The following code segment is part of your service. (Line numbers are included for reference only.)

```
01 <ServiceContract()>
02 Public Interface IStatus
03
04 <OperationContract()>
05 Function GetOrderStatus(
06     ByVal orderNumber As String) As Integer
07 End Interface
08
09 Class OrderService
10     Implements IStatus
11
12     Public Function GetOrderStatus(
13         ByVal orderNumber As String) As Integer
14         Implements IStatus.GetOrderStatus13
15         ...
16     End Function
17
18 End Class
19
20 Class Program
21
22     Sub Main(ByVal args() As String)
23
24         host.Open()
25     ...
26     ...
27
28 End Sub
29
30 End Class
```

You need to ensure that the service always listens at net.pipe://SupplyChainServer/Pipe.

What should you do?

A.

Insert the following code at line 23.

```
Dim host As New ServiceHost(GetType(IStatus))
```

Insert the following code at line 24.

```
host.AddServiceEndpoint(GetType(OrderService),
    New NetTcpBinding(),
    "net.pipe://SupplyChainServer/Pipe")
```

B.

Insert the following code at line 23.

```
Dim host As New ServiceHost(GetType(IStatus))
```

Insert the following code at line 24.

```
host.AddServiceEndpoint(GetType(IStatus),  
    New NetTcpBinding(),  
    "net.pipe://SupplyChainServer/Pipe")
```

C.

Insert the following code at line 23.

```
Dim host As New ServiceHost(GetType(OrderService))
```

Insert the following code at line 24.

```
host.AddServiceEndpoint(GetType(IStatus),  
    New NetNamedPipeBinding(),  
    "net.pipe://SupplyChainServer/Pipe")
```

D.

Insert the following code at line 23.

```
Dim host As New ServiceHost(GetType(OrderService))
```

Insert the following code at line 24.

```
host.AddServiceEndpoint(GetType(OrderService),  
    New NetNamedPipeBinding(),  
    "net.pipe://SupplyChainServer/Pipe")
```

Answer: C

Question: 237

Your company has an existing Windows Communication Foundation (WCF) service. The following code segment is part of the service. (Line numbers are included for reference only.)

```
01 Dim host As ServiceHost = GetServiceHost()  
02  
03 host.Open()
```

You need to ensure that AJAX client applications can access the service. Which code segment should you insert at line 02?

A.

```
Dim binding As WebHttpBinding = New WebHttpBinding()  
Dim ep As ServiceEndpoint = host.AddServiceEndpoint(  
    GetType(ICatalogService), binding, "ajax")  
ep.Behaviors.Add(New WebScriptEnablingBehavior())
```

B.

```
Dim binding As NetTcpBinding = New NetTcpBinding()  
Dim ep As ServiceEndpoint = host.AddServiceEndpoint(  
    GetType(CatalogService), binding, "ajax")  
ep.Behaviors.Add(New WebScriptEnablingBehavior())
```

C.

```
Dim binding As BasicHttpBinding = New BasicHttpBinding()
Dim ep As ServiceEndpoint = host.AddServiceEndpoint(
    GetType(CatalogService), binding, "ajax")
ep.Behaviors.Add(New WebScriptEnablingBehavior())
D.

Dim binding As NetTcpBinding = New NetTcpBinding()
Dim ep As ServiceEndpoint = host.AddServiceEndpoint(
    GetType(ICatalogService), binding, "ajax")
ep.Behaviors.Add(New WebHttpBehavior())
```

Answer: A

Question: 238

You are developing a Windows Communication Foundation (WCF) service. You enable logging in the configuration file. The opening tag is defined as follows.

```
<messageLogging logEntireMessage="true"
    logMalformedMessages="true"
    logMessagesAtServiceLevel="true"
    logMessagesAtTransportLevel="true"
    maxMessagesToLog="20">
```

You need to ensure that logging is implemented so that only messages with SOAP headers are logged. What should you add to the filters element of the application configuration file?

A.

```
<add xmlns:soap="http://www.w3.org/2003/05/soap-envelope">
    /soap:Envelope/soap:Header
</add>
```

B.

```
<add xmlns:soap="http://www.w3.org/2003/05/soap-envelope">
    /Action[starts-with(text(), 'soap:Envelope')]
</add>
```

C.

```
<add xmlns:soap="http://www.w3.org/2003/05/soap-envelope">
    soap:Header
</add>
```

D.

```
<add xmlns:soap="http://www.w3.org/2003/05/soap-envelope">
    /Action[starts-with(text(), 'soap:Header')]
</add>
```

Answer: A

Question: 239

You are developing a Windows Communication Foundation (WCF) client application. You instantiate a client class that inherits from ClientBase. The client instance must always be shut down in such a way that it can free up any resources it is referencing. You need to ensure that all exceptions are caught and the instance is always properly shut down.

Which code segment should you use?

A.

```
Dim client As Service1Client = New Service1Client()
Using (client)
    client.GetData(534)
    client.Abort()
End Using
```

B.

```
Dim client As Service1Client = New Service1Client()
Try
    client.GetData(534)
    client.Close()
Catch ex As Exception
    client.Abort()
    ...
End Try
```

C.

```
Dim client As Service1Client = New Service1Client()
Try
    client.GetData(534)
Catch ex As Exception
    client.Abort()
    ...
Finally
    client.Close()
End Try
```

D.

```
Dim client As Service1Client = New Service1Client()
Using (client)
    client.GetData(534)
    client.Close()
End Using
```

Answer: B

Question: 240

You are developing a Windows Communication Foundation (WCF) service named CalculatorService, which implements the ICalculatorService contract. The service is configured to be discoverable through UDP. CalculatorService contains multiple endpoints. One of the endpoints is configured with the following behavior.

```
<behavior name="calculatorEndpointBehavior">
  <endpointDiscovery enabled="true">
    <extensions>
      <Information>
        ICalculatorService Endpoint.
      </Information>
      <Information>
        Udp Exposed Calculator Endpoint
      </Information>
    </extensions>
  </endpointDiscovery>
</behavior>
```

You need to log all the endpoint metadata information that is added by the service host. Which code segment should you use?

A.

```
Dim discoveryClient =
  New DiscoveryClient(New UdpDiscoveryEndpoint())
Dim findCriteria =
  New FindCriteria(GetType(ICalculatorService))
Dim findResponse = discoveryClient.Find(findCriteria)
Dim meta = findResponse.Endpoints(0)

For Each xElement In meta.Extensions
  Log("Endpoint Information: " +
    xElement.Element("Information").Value)
Next
```

B.

```
Dim discoveryClient =
  New DiscoveryClient(New UdpDiscoveryEndpoint())
Dim findCriteria =
  New FindCriteria(GetType(ICalculatorService))
Dim FindResponse = discoveryClient.Find(findCriteria)

For Each meta In FindResponse.Endpoints

  For Each xElement In meta.Extensions
    Log("Endpoint Information: " +
      xElement.Element("Information").Value)
  Next

Next
```

C.

```

Dim discoveryClient =
    New DiscoveryClient(New UdpDiscoveryEndpoint())
Dim findCriteria = New FindCriteria()
Dim findResponse = discoveryClient.Find(findCriteria)

For Each meta In findResponse.Endpoints

    For Each xElement In meta.Extensions
        Log("Endpoint Information: " +
            xElement.Element("Information").Value)
    Next

Next
D.

Dim discoveryClient =
    New DiscoveryClient(New UdpDiscoveryEndpoint())
Dim findCriteria =
    New FindCriteria()
Dim findResponse = discoveryClient.Find(findCriteria)
Dim meta = discoveryClient.Endpoint

For Each xElement In meta.Contract.Operations
    Log("Endpoint Information: " +
        xElement.Behaviors.ToString())
Next

```

Answer: B

Question: 241

You are developing a Windows Communication Foundation (WCF) service. One of the service operations contains the following code.

```

Private Shared counter As Integer = 0

<OperationContract()>
Public Sub IncrementCount()

    counter += 1

```

End Sub

You need to set a service behavior that prevents two or more threads from incrementing the counter variable at the same time. Which code segment should you use to set the service behavior?

A.

```
<ServiceBehavior(
    InstanceContextMode:=InstanceContextMode.PerSession,
    ConcurrencyMode:=ConcurrencyMode.Single)>
```

B.

```
<ServiceBehavior(
    InstanceContextMode:=InstanceContextMode.PerCall,
    ConcurrencyMode:=ConcurrencyMode.Reentrant)>
```

C.

```
<ServiceBehavior(
    InstanceContextMode:=InstanceContextMode.Single,
    ConcurrencyMode:=ConcurrencyMode.Single)>
```

D.

```
<ServiceBehavior(
    InstanceContextMode:=InstanceContextMode.Single,
    ConcurrencyMode:=ConcurrencyMode.Multiple)>
```

Answer: C

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Question: 242

Windows Communication Foundation (WCF) application uses a data contract that has several data members. You need the application to throw a Serialization Exception if any of the data members are not present when a serialized instance of the data contract is deserialized. What should you do?

- A. Add the Known Type attribute to the data contract.
Set a default value in each of the data member declarations.
- B. Add the Known Type attribute to the data contract.
Set the Order property of each data member to unique integer value.
- C. Set the Emit Default Value property of each data member to false.
- D. Set the IsRequired property of each data member to true.

Answer: D

Question: 243

The following is an example of a SOAP envelope.

```
<s:Envelope xmlns:se='http://schemas.xmlsoporg/soap/envelope'>
<s: Header> <h:StoreId xmlns:he="http://www.contoso.com">s
6495
<lh: StoreId>
</s:Header>
<s:Body>
<CheckStockRequest xmlns="http://www.corlosocom">
<ItemId>2469 <ItemID>4
</CheckStockRequest>
<s: Body>
<s: Envelope>
```

You need to create a message contract that generates the SOAP envelope.

Which code segment should you use?

- A. [MessageContract(WrapperName="http://www. contoso. comn")]
public class CheckStockRequest {
[MessageHeader(Name="http://www.contoso.com")] public int StoreId{get; set;}
[MessageBodyMember(Name="http://www..contoso.com")] public int itemId{get set;}
}

B. [MessageContract(WrapperNamespace="http://www.contoso.comn")] public class CheckStockRequest

```

{
[MessageHeader(Namespace="http://www.contosocom")]
public int StoreId{get; set;}
[MessageBodyMember(Namespace="http://www. contoso . comn")]
public int ItemId{get; set;}
}
```

C. [MessageContract(WrapperNamespace="http://www. contosocom")] public class CheckStockRequest

```

{
[MessageHeader(Namespace="http://wwwcontoso. comn")]
public int StoreId{get; set;}
public int ItemId{get; set;}
}
```

D. [MessageContract(WrapperNamespace="http://www. contoso.com")] public class CheckStockRequest

```

{
[MessageHeader(Namespace="http://www. contoso. comn")]
public int StoreId{get; set;}
[MessageBodyMember]
public int ItemId{get; set;}
}
```

Answer: B

Question: 244

The following is an example of a SOAP envelope:

```

<s:Envelope xmlns:sshttp="http://schemas.xmlsoap.org/soap/envelope"> <s:Header>
<h:StoreId xmlns:h="http://www.contoso.com">
6495 <!h:StoreId>
<s:Header>
<s:Body>
<CheckStockRequest xmlns="http://www.contoso.com">
<ItemID>2469</ItemID>
</CheckStockRequest>
<s:Body>
<s:Envelope>
```

You need to create a message contract that generates the SOAP envelope Which code segment should you use?

- A. <MessageContract(WrapperName: ="http://www.contoso.com")> Public Class CheckStockRequest
 <MessageHeader(Name http://www.contoso.comn')>
 Public Property StoreId As Integer
 <MessageBodyMenter(Name: =Thttp://www.contoso.com')> Public Property ItemId As Integer
 End Class
- B. <MessageContract(WrapperNamespace Thttp://www. contoso.com">) Public Class CheckStockRequest
 <MessageHeader(Namespace:="http://www.contoso. comn')> Public Property StoreId As Integer
 <MessageBodyMember(Namespace:='http://www.contoso.com")> Public Property ItemId As Integer
 End Class
- C. <MessageContract(WrapperNamespace: =http://www.cortoso.comn")>
 Public Class CheckStockRequest
 <MessageHeader(Namespace: 'http://www.contoso.com')>
 Public Property StoreId As Integer

```
Public Property ItemId As Integer
End Class
D. <MessageContract(WrapperNamespace: http://www.conoso.comn"> Public Class CheckStockRequest
<MessageHeader(Namespace:z'http://www.contoso.com")> Public Property StoreId As Integer
cMessageBodyMernber0>a
Public Property ItemId As Integer
End Class
```

Answer: B

Question: 245

You are developing a client that sends several types of SOP? messages to a Windows Communication Foundation (WCF) service method named PostData PostData is currently defined as follows:

```
[OperationContract]
void PostData(Order data);
You need to modify PostData so that it can receive any SO6P message which code segment should you use
```

- A. [OperaionContract0sOneWay true, Action = 'v', ReplyAction void PostData(Order data);
- B. (OperationContract1sOneWay = true, Action "v", ReplyAction = ".")J addPostData(BodyWriterdata);
- C. [OperaionContract] void PostDaa(BodyWriter data);
- D. [OperationContract] void PostDaa(Message data);

Answer: D

Question: 246

A Windows Communication Foundation (WCF) service uses the following service contract.

```
[ServiceContract]
public interface IService
{
    [OperationContract]
    string Operation 1 (string s);
}
```

You need to ensure that the operation contract Operationi responds to HTTP POST requests.

Which code segment should you use?

- A. [OperationContract] [WebInvoke(Method POST)]
 string Operationl(string s);
- B. [OperationContract] [WebGet(UriTemplate = POST')]
 string Operation 1 (string s);
- C. [OperationContract(ReplyAction z 'POST')]
 string Operationi (string s);
- D. [OperationContract(Action WPOST)1
 string Operationl(string s);

Answer: A

Question: 247

A Windows Communication Foundation (WCF) service uses the following service contract.

```
<ServiceContract>
Public Interface IService <OperationContract0>?
Function Operation 1 (RyVal s As String) As String
End Interface You need to ensure that the operation contract Operation 1 responds to HTTP POST requests.
Which code segment should you use?
```

- A. <OperationContract0> <WebInvoke(Method:'POST')>
Function Operation 1 (ByVal s As String) As String
- B. <OperationContract0> <WebGet(UriTemplate: "POST')>
Function Operation 1 (ByVal s As String) As String
- C. <OperationContract(ReplyAction: 'POST")>
Function Operation 1 (ByVal s As String) As String
- D. <OperationContract(Action:z"POST")>
Function Operation 1 (ByVal s As String) As String

Answer: A

Question: 248

A Windows Communication Foundation (WCF) service implements a contract with one-way and requestreply operations. The service is exposed over a TCP transport.

Clients use a router to communicate with the service. The router is implemented as follows.

(Line numbers are included for reference only.)

```
01 ServiceHost host = new ServiceHost(typeof(RoutingService));
02 host.AddServiceEndpoint(
03 typeof(ISimplexDatagramRouter),
04 new NetTcpBinding0, "net.tcp://localhost\Router"
05);
06 List <ServiceEndpoints lep new List <ServiceEndpoint>0;t
07 lep.Add(
08 new ServiceEndpoint(
09 ContractDescription.GetContract(
10 typeof(ISimplexDatagramRouter)
11),
12 new NetTcpBinding0,
13 new EndpointAddress('nettcp://localhost: 8080/Logger")
14)
15);
16 RoutingConfiguration rc new RoutingConfiguration0;
17 rC. FilterTable.Add(new MatchAllMessageFilter0, lep);
18 host. Description. Behaviors. Add(new RoutingBehavior(rc));
```

Request-reply operations are failing.

You need to ensure that the router can handle one-way and request-reply operations. What should you do?

- A. Change line 03 as follows.

```
typeof(I RequestReplyRouter),
```

- B. Change line 03 as follows.

- typeof(IDuplexSessionRouter),
C. Change line 10 as follows. typeof(IRequestReplyRouter)
D. Change line 10 as follows. typeof(IDuplexSessionRouter)

Answer: B

Question: 249

A Windows Communication Foundation (WCF) service implements a contract with one-way and request-reply operations. The service is exposed over a TCP transport. Clients use a router to communicate with the service. The router is implemented as follows.

(Line numbers are included for reference only.)

```
01 Dim host As ServiceHost =  
02 New ServiceHost(GetType(RoutingService))  
03 host.AddServiceEndpoint(  
04 GetType(ISimplexDatagramRouter),  
05 New NetTcpBinding0, "net.tcp://localhost/Router"  
06)  
07 Dim lep As List(Of ServiceEndpoint) =  
08 New List(Of ServiceEndpoint)  
09 lep.Add(  
10 New ServiceEndpoint(  
11 ContractDescription.GetContract(  
12 GetType(ISimplexDatagramRouter)  
13)  
14 New NetTcpBinding0,  
15 New EndpointAddress("net.tcp://localhost:8080/Logger")  
16)  
17)  
18 Dim rc As RoutingConfiguration = New RoutingConfiguration()  
19 rc.FitterTable.Add(New Matctf4IMessageFilter0, lep)  
20 host.Description.Behaviors.Add(New RoutingBehavior(rc)) Request-reply operations are failing.  
You need to ensure that the router can handle one-way and request-reply operations. What should you do?
```

A. Change line 04 as follows.

Get Type(IRequestReplyRouter),

B. Change line 04 as follows

Get Type(IDuplexSessionRouter),

C. Change line 12 as follows

GetType(IRequestReplyRouter)

D. Change line 12 as follows.

Get Type(IDuplexSessionRouter)

Answer: B

Question: 250

A Windows Communication Foundation (WCF) service listens for messages at net
tcp://www.contoso.com/MyService.

It has a logical address at http://www.contosocorn/MyService

The configuration for the WCF client is as follows

```
<endpoint address="http://www.contosocom/MyService"
binding="netTc pBinding"
bindingConfiguration="NetTc pBinding_IMyService"
contract="ServiceReference1. IMyService"
name="NetTcpBinding_IIlyService"/>
```

The generated configuration does not provide enough information for the client to communicate with the server. You need to update the client so that it can communicate with the server what should you do

- A. In the client configuration. Change the value of the address attribute to `nettcp://www.contosocom/MyService`
- B. In the client configuration, change the value of the address attribute to `net.tcp://www.contosocom/MyService`.
- C. After instantiating the client and before invoking any service operation, add this line of code `client.Endpoint BehaviorsAdd(new EndpointDiscoveryBehavior{ Enabled true });`
- D. After instantiating the client and before invoking any service operation, add this line of code. `client.Endpoint BehaviorsAdd(new ClientViaBehavior(new Uhcnet.tc pifwww.contoso. comIMyService))`

Answer: D

Question: 251

You are building a client for a Windows Communication Foundation (WCF) service. You need to create a proxy to consume this service which class should you use?

- A. ChannelFactory <TChannel>
- B. ServiceHost
- C. ClientRuntime
- D. CommunicationObject

Answer: A

Question: 252

You are working with a Windows Communication Foundation (WCF) client application that has a generated proxy named `SampleServiceProxy`. When the client application is executing, in line 02 of the following code, the channel faults (Line numbers are included for reference only.)

```
01 SampleServiceProxy proxy = new SampleServiceProxy();
02 try
03 {
04     proxy.ProcessInvoice(invoice);
05 }
06 catch
07 {
08     if (proxy.State == CommunicationState.Faulted)
09     {
10         // ...
11     }
12 }
13 proxy.UpdateCustomer(customer);
```

You need to return proxy to a state in which it can successfully execute the call in line 13.

Which code segment should you use at line 10?

- A. proxy.Close();
- B. proxy new SampleServiceProxy();
- C. proxy.Abort();
- D. proxy.Open()

Answer: C

Question: 253

A Windows Communication Foundation (WCF) client uses the following service contract.

(Line numbers are included for reference only.)

```
01 [ServiceContract]  
02 public interface IService  
03 {  
04     [OperationContract]  
05     string Operation1();  
06     [OperationContract]  
07     string Operation2();  
08 }
```

You need to ensure that all calls to Operation 1 and Operation2 from the client are encrypted and signed. What should you do?

- A. Set the ProtectionLevel property in line 01 to EncryptAndSign.
- B. Set the ProtectionLevel property in line 04 and line 06 to Sign.
- C. Add a SecurityCriticalAttribute for each operation.
- D. Add a SecuritySafeCriticalAttribute for each operation.

Answer: A

Question: 254

A Windows Communication Foundation (WCF) service exposes two operations: OpA and OpB. OpA needs to execute under the client's identity, and OpB needs to execute under the service's identity. You need to configure the service to run the operations under the correct identity. What should you do?

- A. Set the ImpersonateCallerForAllOperations property of the service's ServiceAuthorizationBehavior to true.
Apply an OperationBehavior attribute to OpA and set the Impersonation property to ImpersonationOption Required
Apply an OperationBehavior attribute to OpB and set the Impersonation property to ImpersonationOptionAulowed.
- B. Set the ImpersonateCallerForAllOperations property of the service's ServiceAuthorizationBehavior to true.
Apply an OperationBehavior attribute to OpA and set the Impersonation property to ImpersonationOption.Allowed
Apply an OperationBehavior attribute to OpB and set the Impersonation property to ImpersonationOptionNotAllowed
- C. Set the ImpersonateCallerForAllOperations property of the service's ServiceAuthorizationBehavior to false.
Apply an OperationBehavior attribute to OpA and set the Impersonation property to ImpersonationOptionAllowed.
Apply an OperationBehavior attribute to OpB and set the Impersonation property to ImpersonationOptionNotAllowed

NotAllowed

D. Set the ImpersonateCallerForAllOperations property of the service's ServiceAuthorizationBehavior to false. Apply an OperationBehavior attribute to OpA and set the Impersonation property to ImpersonationOption.Required. Apply an OperationBehavior attribute to OpB and set the Impersonation property to ImpersonationOption.Allowed.

Answer: D

Question: 255

A Windows Communication Foundation (WCF) solution uses the following contract to share a message across its clients.

(Line numbers are included for reference only.)

```
01 [ServiceContract]
02public interface ITeamMessageService
03{
04 [OperationContract]
05string GetMessage0;n
06
07 [OperationContract]
08void PutMessage(string message);
09)
```

The code for the service class is as follows

```
10 public class TeamMessageService: ITeamMessageService
11{
12Guid key = Guid.NewGuid();
13string message = "Today's Message";
14public string GetMessage()
15{
16 return string.Format("Message:{0} Key:{1}",
message, Key);
1n
18
19public void PutMessage(string message)
20{
21this.message = message;
22}
23)
```

The service is self-hosted. The hosting code is as follows.

```
24 ServiceHost host =
25BasicHttpBinding binding =
new BasicHttpBinding(BasicHttpSecurityMode.None):
26 host AddServiceEndpoint(
HMyApplication ITeamMessageService, binding,
"http://localhost: 12345w");
27 host Open0;)
```

You need to ensure that all clients calling GetMessage will retrieve the same string, even if the message is updated by clients calling PutMessage. What should you do?

A. Add the following attribute to the TeamMessageService class, before line 10.

[ServiceBehavior(InstanceContextMode = InstanceContextMode. Single)]
B. Add the following attribute to the TeamMessageService class, before line 10.
[ServiceBehavior(InstanceContextMode = InstanceContextModePerSession)] Then change the binding definition on the service at line 25, and on the client to the following WSHttpBinding binding new
WSHttpBinding(SecurityModeNone);
binding ReliableSession. Enabled true;
C. Pass a service instance to the instancing code in line 24, as follows.
ServiceHost host = new ServiceHost(new TeamMessageService());
D. Redefine the message string in line 13, as follows
static string message = 'Today's Message':
Then change the implementation of PutMessage in lines 19-22 to the following
public void PutMessage(string message) { TeamMessageService message,
}

Answer: A

Question: 256

A Windows Communication Foundation (WCF) solution uses the following contract to share a message across its clients (Line numbers are included for reference only)

```
01 <ServiceContract0>
02 PuElc Interface ITeamMessageService
03
04 <OperationContract0>
05 Function GetMessage() As String
06
07 <OperationContract0>
08 Sub PutMessage(Byval message As String)
09 End Interface
```

The code for the serAce class is as follows.

```
10 Public Class TeamMessageService0
11 Implements ITearmt4essageService
12
13 Dim key As Guid = Guid.NewGuid()
14 Dim message As String = "Today's Message"
15
16 PuUic Function GetMessage0As String -
17 Implements ITearm*AessageServiceGetMessage
18
19 Retun String. Fommat("Message:{0} Key:{ 1}", message, key)
20 End Function
```

```
21
22 Public Sub PutMessage(ByV message As Stnng) -
23 Implements ITearrlessageService PutMessage
24
25 Me message = message
26 End Sub
27
28 End Class
```

The service is self-hosted The hosting code rs as follows
29Dim host As ServiceHost =

New ServiceHost(GetType(TearrwiessageSeMce))?

30Dim binding As BasicHttpBinding

New BasicHttpBinding(BasicHttpSecurityMode. None) 31 host.AddServiceEndpoint(

“MyApplication. ITearrTessageService”, binding

Thttp /Iac aihost. 1 2345)

32host Open()

You need to ensure that all clients calling GetMessage will retrieve the same string, even if the message is updated by clients calling PutMessage what should you do?

A. Add the following attribute to the TeamMessageService class, before line 10.

<ServiceBehavior(InstanceContextMode InstanceContextMode. Single)>

B. Add the following attribute to the TeamMessageService class, before line 1 0002E

<ServiceBehavior(InstanceContextMode. = InstanceContextMode. PerSession)>

C. Pass a service instance to the instancing code in line 29, as follows.

Dim host As ServiceHost = New ServiceHost(New TeamMessageService())

D. Redefine the message string in line 14, as follows.

Shared message As String “Today's Message”

Then change the implementation of PutMessage in lines 22-26 to the following

Public Sub PutMessage(ByVal message As String) - Implements ITearrMessageService.PutMessage

TeamMessageService.message = message End Sub

Answer: A

Question: 257

A Windows Communication Foundation (WCF) solution provides a session-based counter.

The service is self-hosted. The hosting code is as follows.

Dim host As ServiceHost = New ServiceHost(GetType(CounterService))

Dim binding As NetTcpBinding =

New NetTcpBinding(SecurityMode.None)

host.AddServiceEndpoint("MyApplication. ICounterService",

binding, "net.tcp://localhost:23456")

host. Open()

This service is currently exposed over TCP, but needs to be exposed to external clients over HTTP.

Therefore, a new service endpoint is created with the following code.

host.AddServiceEndpoint("MyApplication. ICounterService",

binding2, "http://localhost:12345")

You need to complete the implementation and ensure that the session-based counter will perform over HTTP as it does over TCP.

What should you do?

A. Define binding2 as follows.

Dim binding2 As WS2007HttpBinding =

New WS2007HttpBinding(SecurityMode. None) Configure binding2 as follows.

binding2.ReliableSession.Enabled = True

B. Define binding2 as follows.

Dim binding2 As WSHtpBinding = — New WSHtpBinding(SecurityMode. None) Add the following behavior to the service implementation. <ServiceBehavior(InstanceContextMode: 1InstanceContextMode. PerSession)>

C. Define binding2 as follows.

Dim binding2 As BasicHttpBinding = New BasicHttpBinding(BasicHttpSecurityMode. None) Enable cookies for binding2.

```
binding2.AllowCookies = True  
D. Define binding2 as follows.  
Dim binding2 As BasicHttpBinding = New BasicHttpBinding(BasicHttpSecurityMode. None) add the following behavior  
to the service implementation.  
<ServiceBehavior(InstanceContextMode:  
1instanceContextMode.Single)>
```

Answer: A

Question: 258

A Windows Communication Foundation (WCF) solution uses the following contract.
[ServiceContract(SessionMode SessionModeAllowed)] public interface IMyService {
[OperaionContractQsTerminating false] void InitializeO;
[OperaionContractQsInitiating false)] Void DoSomethingO;
[OperaionContractQsTerminating true)J void TerminateO;
}

You need to change this interface so that:

'Initialize is allowed to be called any time before Terminate is called

"DoSomething is allowed to be called only after Initialize is called, and n allowed to be called after Terminate is called

"Terminate will be lowed to be called only after Initialize is called. Which two actions should you perform (Each correct answer presents part of the solution. Choose two)

A. Change the ServiceContract attribute of the IMyService interface to the following.

ServiceContract(SessionMode = SessionMode Required)

B. Change the ServiceContract attribute of the IMyService interface to the following

ServiceContract(SessionMode SessionMode Allowed)

C. Change the OperationContract attribute of the Initialize operation to the following.

OperationContract(initiating = true, IsTerminating = false)

D. Change the OperationContract attribute of the Terminate operation to the following

OperationContract(klInitiating = fase, IsTerminating = true)

Answer: D

Question: 259

A Windows Communication Foundation (WCF) solution uses the following contract.

```
<ServiceContract(SessionMode:=SessionMode Allowed)  
Public Interface IMyService <OperationContract(IsTerminating:sFalse)s  
Sub Initialize ()  
<OperationContract(IsInitiating:sFalse)>s  
Sub DoSomething()  
<OperationContract(IsTerminating:=True)>  
Sub Terminate ()
```

End Interface You need to change this interface so that:

"Initialize is allowed to be called at any time before Terminate is called.

"DoSomething is allowed to be called only after Initialize is called, and not allowed to be called after
Terminate is called. "Terminate will be allowed to be called only after Initialize is called. Which two actions should you
perform? (Each correct answer presents part of the solution. Choose two.)

- A. Change the ServiceContract attribute of the IMyService interface to the following.
ServiceContract(SessionMode:sSessionMode. Required)
- B. Change the ServiceContract attribute of the IMyService interface to the following.
ServiceContract(SessionMode:sSessionModeAllowed)?
- C. Change the OperationContract attribute of the Initialize operation to the following.
OperationContract(IsInitiating: 'True, IsTerminating: 'False)
- D. Change the OperationContract attribute of the Terminate operation to the following.
OperationContract(IsInitiating:False, IsTerminating: 'True)

Answer: A, D

Question: 260

A Windows Communication Foundation (WCF) client and service share the following service contract interface.

```
[ServiceContract]  
public interface IContosoService {  
[OperationContract]  
void SavePerson(Person person);  
}
```

They also use the following binding.

```
NetTcpBinding binding new NetTcpBinding { TransactionFlow = true };
```

The client calls the service with the following code

```
using (TransactionScope ts = new TransactionScope(TransactionScopeOption.Required))  
{ IContosoService client = factory.CreateChannel();  
client.SavePerson(person);  
Console.WriteLine(  
    Transaction.Current.TransactionInformation.  
    DistributedIdentifier);  
ts.Complete();  
}
```

The service has the following implementation for SavePerson

```
public void IContosoService.SavePerson(Person person)  
{ person.Save();  
Console.WriteLine(Transaction.Current.TransactionInformation.  
    DistributedIdentifier);  
}
```

The distributed identifiers do not match on the client and the server. You need to ensure that the client and server enlist in the same distributed transaction. What should you do?

- A. Add the following attributes to the SavePerson operation on IContosoService.

```
[OperationBehavior(TransactionScopeRequired = true)] [TransactionFlow(TransactionFlowOption.  
Mandatory)]
```

- B. Add the following attributes to the SavePerson operation on IContosoService

```
[TransactionFlow(TransactionFlowOption.Mandatory)] [OperationBehavior(TransactionScopeRequired = true)]
```

- C. Add the following attribute to the SavePerson operation on IContosoService

```
[OperationBehavior(TransactionScopeRequired = true)] Add the following attribute to the implementation of  
SavePerson. ITxnsFlow(TransactionFlowOption.Allowed)]
```

- D. Add the following attribute to the SavePerson operation on IContosoService

```
[TransactionFlow(TransactionFlowOption.Allowed)] Add the following attribute to the implementation of  
SavePerson. [OperationBehavior(TransactionScopeRequired = true)]
```

Answer: D

Question: 261

A Windows Communication Formation (WCF) client and service share the following service contract interface
<ServiceContract>
Public Interface IContosoService <OperationContract>
Sub SasePerson(BWal person As Person) End Interface They also use the following binding.
Dim binding As NetTcpBinding = New NetTcpBinding With {TransactionFlow = True} The client cals the service with the
(following code using (mransactionScope ts = new TransactionScope(TransactionScopeOption
Required))
{
IContosoService client = factoryCreateChannelO;
client SavePerson(person);
Consd. WriteLine(
Transaction. CurreriTransactioninformation
DistnbutedIdentifierX
ts CorpleteO;
)
The service has the following implemtation for SavePerson
Public Sub SavePerson(ByVal person As Perwn) — implements IContosoService SavePerson person Save()
ConsdWriteLine(Transaction .Current TransactionInforamaiona
DistributedIdentifier)
End Sit
The distributed identifiers do not match on the client and the server. You need to ensure that the client and server
enlist in the same distributed transaction. What should you do?

- A. Add the following attributes to the SavePerson operation on IContosoService
eOperationBehavior(TransactionSc opeRequired =True)>
<TransactionFlow(TransactionFbwOption Madatory)>
- B. Add the following attributes to the SavePerson operation on IContosoSewvice
<TransactionFlow(TransactionFbwOption Maidatory)>
eOperationBehavior(TransactionSc opeRequired zTrue)>
- C. Add the following attribute to the SavePerson operation on KContosoService.
<OperationBehavior(TransachonSc opeRequired True)>
Add the following attribute to the implementation of SavePeson. <TransactionFlow(TransactionFbwOption
Allowed)>
- D. Add the following attribute to the SavePerson operation on KOontosoService.
<TransactionFlow(TransactionFbwOption Allowed)>
Add the following attribute to the implementation of SavePeson. eOperationBehavior(TransactionSc
opeRequired True)>

Answer: D

Question: 262

A WCF service code is implemented as follows. (Line numbers are included for reference only)
01 [ServiceContract]
02 [ServiceBehavior(InstanceContextMode =
03 InstanceContextModeSingle)]

```

04 public class CalculatorService
05 {
06 [OperationContract]
07 public double Calculate(double op1, string op, double op2)
08 {
09 }
10 }
11 }
```

You need to increase the rate by which clients get the required response from the service.

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

A. Change the service behavior to the following.

```
[ServiceBehavior(
InstanceContextMode = InstanceContextModeSingle,
ConcurrencyMode = ConcurrencyMode. Multiple)]c
```

B. Change the service behavior to the following.

```
[ServiceBehavior(InstanceContextMode = InstanceContextMode.PerCall)]
```

C. Require the clients use threads, the Parallel Task Library, or other mechanism to issue service calls in parallel.

D. Require the clients to use async operations when calling the service.

Answer: A, B

Question: 263

A Windows Communication Foundation (WCF) solution uses the following contracts
(Line numbers are included for reference only)

```
01 <ServiceContract>(Callback contract: GetType(INameService))>
```

```
02 Public Interface IMeetingService
```

```
03
```

```
04 <OperationContract>
```

```
05 Function GetMessage() As String
```

```
06
```

```
07 End Interface
```

```
08
```

```
09 <ServiceContract>
```

```
10 Public Interface INameService
```

```
11
```

```
12 <OperationContract>
```

```
13 Function GetName() As String
```

```
14
```

```
15 End Interface
```

The code that implements the GreetingService interface is as follows.

```
20 Public Class GreetingService
```

```
21 Implements IGreetingService
```

```
22
```

```
23 Public Function GetMessage() As String -
```

```
24 Implements IGreetingService. GetMessage
```

```
25
```

```
26 Dim clientChan As INameService =
```

```
27 OperationContext. Current.
```

```
28 GetCallbackChannel(Of INameService)()
```

```
29Dim clientName As String = clientChannelGetName()
30 Return String.Format("Hello {0}", clientName)
31
32End Function
33End Class
```

The service is self-hosted. The hosting code is as follows.

```
35Dim host As ServiceHost =
36New ServiceHost(GetType(GreetingService))?
37Dim binding As NetTcpBinding =
38New NetTcpBinding(SecurityMode. None)
39host.AddServiceEndpoint("Myapplication IGreetingService".
40, net.tcp://localhost: 12345W)
41 HostOpen()
```

The code that implements the INamespace interface is as follows.

```
42Class NameService
43Implements INamespace
44
45Dim name As String
46
47Public Sub NameService(ByValue name As String)
48Me.name = name
49End Sub
50
51 Public Function GetName() As String -
52Implements INamespace. GetName
53
54Return name
55End Function
```

56End Class Currently, this code fails at runtime, and an Invalid Operation Exception is thrown at line 25. You need to correct the code so that the call from the service back to the client completes successfully. What are two possible ways to achieve this goal? (Each correct answer presents a complete solution. Choose two.)

A. Change the service contract definition in line 01 as follows.

<ServiceContract(CallbackContract: sGetType(INamespace), SessionMode =SessionMode Required)>

B. Add the following attribute to the NameService class, before line 42.

<ServiceBehavior(ConcurrencyMode ConcurrencyMode. Reentrant)>

C. Add the following attribute to the GreetingService class, before line 20. <ServiceBehavior(ConcurrencyMode: zConcurrencyMode Reentrant)>

D. Add the following attribute to the GreetingService class, before line 20. <ServiceBehavior(ConcurrencyMode: ConcurrencyMode. Multiple)>

Answer: C, D

Question: 264

A Windows Communication Foundation (WCF) service has the following contract.

```
[ServiceContract]
public class ContosoService
{
[OperationContract] [TransactionFlow(TransactionFlowOperation. Mandatory)]
[OperationBehavior(TransactionScopeRequired true,
```

```
TransactionAutoCorrolete = false)
void TxOp 1 (string value) { } [OperationContract(IsTerminating—true)]
[TransactionFlow(TransactionFlowOption Mandatory)] [OperationBehavior(TransactionScopeRequired true,
TransationAutoCormplete = false)]
void TxOp2(string value) {.. OperationContext. Current. SetTransactionCompleteO;
}
}
```

The rvice and the clients that call the service use NetTcpBinding with transaction flow enabled. You need to configure the service so that when TxOp1 and TxOp2 are invoked under the same client session, they run under the same transaction context. What should you do?

A. Update the service contract to read as follows.

```
[ServiceContract(SessionMode SessionMode Required)] Add the following behavior to the service implementation
[ServiceBehavior(InstanceCoritextMode = Instance ContextMode. PerSession)]
```

B. Update the service contract to read as follows.

```
[ServiceContract(SessionMode = SessionModeAllowed)] Add the following behavior to the service implementation.
[ServiceBehavior(InstanceContextMode = Instance ContextMode Single,
ReleaseServiceInstanceOnTransactionComplete false)]
```

C. Update the service contract to read as follows

```
[ServiceContract(SessionMode = SessionMode.Allow)] Add the following behavior to the service implementation.
[ServiceBehavior(InstanceContextMode Instance ContextMode. Single)]
```

D. Update the service contract to read as follows.

```
[ServiceContract(SessionMode = SessionMode.Required)] Add the following behavior to the service implementation.
[ServiceBehavior(InstanceContextMode = InstanceContextMode. PerCall)]
```

Answer: A

Question: 265

You are integrating a Windows Communication Foundation (WCF) service within an enterprise-wide Service Oriented Architecture (SOA)

Your service has the following service contract.

```
[ServiceContract]
```

```
public class CreditCardConfirmationService { [OperationContract] public Boolean ConfirmCreditCard(string cc Number
double orderAmount, string orderNumber) { }
```

You need to allow the code in the ConfirmCreditCard method to participate automatically in existing transactions. If there is no existing transaction, a new transaction must be created automatically. What should you do?

A. Inside the ConfirmCreditCard method, surround the code that must participate in the transaction with a using(new TransactionScopeO) block

B. Inside the ConfirmCreditCard method, surround the code that must participate in the transaction with a using(new CommitableTransactionO) block.

C. Add an [OperationBehavior(TransactionScopeRequired true)] attribute to the ConfirmCreditCard method.

D. Add an [OperationBehavior(TransactionAutoComplete true)] attribute to the ConfirmCreditCard method.

Answer: C

Question: 266

A Windows Communication Foundation (WCF) service is generating a separate namespace declaration for each body member of a message contract, even though all body members share the same namespace. You need to simplify the XML representation of your message contract so that the namespace is only declared once. What should you do?

- A. Declare a wrapper namespace for the message contract by using the `WrapperNamespace` property of the `MessageContract` attribute
- B. Explicitly set the `Namespace` property of all the `MessageBodyMember` attributes to the same namespace.
- C. Declare all the body members as properties of a `DataContract` class and use the class as the only body member of the message contract.
- D. Declare all of the body members as properties of a separate `MessageContract` class and use the class as the only body member of the message contract.

Answer: C

Question: 267

You are developing a Windows Communication Foundation (WCF) service. You write a method named `Submit` that accepts messages of the type `System.ServiceModel.Channels.Message`. You need to process the body of the incoming messages multiple times in the method. Which two actions should you perform? (Each correct answer presents part of the solution. Choose two.)

- A. Use the `GetBody` method of the `Message` class to read the content of the messages.
- B. Use the `CreateBufferedCopy` method of the `Message` class to load the messages into memory.
- C. Use the `WriteBodyContents` method of the `BodyWriter` class to make a copy of the messages.
- D. Use the `CreateMessage` method of the `MessageBuffer` class to make a copy of the messages.

Answer: B, D

Question: 268

Windows Communication Foundation (WCF) service will be hosted in Microsoft Internet Information Services (IIS). You create a new application in IIS to host this service and copy the service DLL to the bin directory of the application. You need to complete the deployment of this service to IIS. What should you do next?

- A. Create an `asmx` file and add a `@ServiceHost` directive to this file.
Copy the file to the root of the application directory.
- B. Create an `.asmx` file and add a `@Register` directive to this file.
Copy the file to the bin directory of the application.
- C. Create a `svc` file and add a `@ServiceHost` directive to this file
Copy the file to the root of the application directory.
- D. Create a `.svc` file and add a `@Register` directive to this file.
Copy the file to the bin directory of the application.

Answer: C

Question: 269

You are developing a windows Communication Foundation (WCF) service that will be hosted in Microsoft Internet Information Services (IIS) 7.0. The service must be hosted in an IIS application named `Info`. You need to enable this

service to be hosted in IIS by changing the web.config file. Which XML segment should you add to the web.config file?

A.

```
<serviceHostingEnvironment>
  <transportConfigurationTypes>
    <add name="Info.svc" transportConfigurationType="FileNotRequired" />
  </transportConfigurationTypes>
</serviceHostingEnvironment>
```

B.

```
<serviceHostingEnvironment>
  <serviceActivations>
    <add relativeAddress="Info.svc" service="Info" />
  </serviceActivations>
</serviceHostingEnvironment>
```

C.

```
<serviceHostingEnvironment>
  <transportConfigurationTypes>
    <add name="Info" transportConfigurationType="Info.svc" />
  </transportConfigurationTypes>
</serviceHostingEnvironment>
```

D.

```
<serviceHostingEnvironment>
  <serviceActivations>
    <add relativeAddress="Info" service="Info.svc" />
  </serviceActivations>
</serviceHostingEnvironment>
```

Answer: B

Question: 270

A Windows Communication Foundation (WCF) client communicates with a service. You created the client proxy by using Add Service Reference in Microsoft Visual Studio. You need to ensure that the client accepts responses of up to 5 MB in size. What should you change in the configuration file?

- A. the value of the maxBufferSize attribute to 5242880
- B. the value of the maxReceivedMessageSize attribute to 5242880
- C. the value of the maxBytesPerRead attribute to 5242880
- D. the value of the maxBufferPoolSize attribute to 5242880

Answer: B

Question: 271

You are implementing a Windows Communication Foundation (WCF) client application that consumes the ICatalog and ICatalog2 service interfaces. You need to ensure that the client discovers services implementing these interfaces. The services may already be online or may come online within a 30 second time limit. How should you use WCF Discovery to accomplish this?

- A. Create one FindCriteria object for each interface and set the Duration of each FindCriteria to 30 seconds. Call the FindAsync method of the DiscoveryClient class twice, one time for each of the FindCriteria objects, to search for the services.
- B. Create one FindCriteria object for each interface and set the Duration of each FindCriteria to two seconds. Create a loop that calls the Find method of the DiscoveryClient class to search for the services. Within each loop iteration, call the Find method of the DiscoveryClient class once for each of the FindCriteria objects.

Run the loop until a service is found or 30 seconds pass.

C. Create a single FindCriteria object and add both interfaces to its ContractTypeNames collection. Set the criteria's Duration to two seconds.

Create a loop that calls the Find method of the DiscoveryClient class to search for the services.

Within each loop iteration, call the Find method of the DiscoveryClient class to search for the services Run the loop until a service is found or 30 seconds pass.

D. Create a single FindCriteria object and add both interfaces to the ContractTypeNames collection. Set the Duration to 30 seconds and use the FindAsync method of the DiscoveryClient class to search for the services.

Answer: B

Question: 272

A Windows Communication Foundation (WCF) service sends notifications when the service is started and stopped. You need to implement a client that logs these notifications. Which class should you use?

- A. AnnouncementService
- B. AnnouncementClient
- C. DiscoveryClient
- D. HttpListener

Answer: A

Question: 273

You are using windows Communication Foundation (WCF) to create a service. You need to implement a custom message-level security binding element. Which binding element should you use?

- A. TransportSecurityElement
- B.HttpsTransportBindingElement
- C. SslStreamSecurityBindingElement
- D. WindowsStreamSecurityBindingElement

Answer: A

Question: 274

You have a self-hosted Windows Communication Foundation (WCF) service. You need to configure the service to provide an X.509 certificate during authentication. What should you use to configure the service?

- A. the Certificate property of the X509CertificateInitiatorServiceCredential class
- B. the SetCertificate method of the X509CertificateInitiatorServiceCredential class
- C. the SetCertificate method of the X509CertificateRecipientServiceCredential class
- D. the TrustedStoreLocation property of the X509CertificateRecipientServiceCredential class

Answer: C

Question: 275

You are creating a Windows Communication Foundation (WCF) service that accepts claims-based tokens. You need to ensure that the service can use claims from trading partners even though there are variations on naming for the same elements. Which two actions should you perform? (Each correct answer presents part of the solution. Choose two.)

- A. Register a custom Service Authorization Manager that implements Check Access In this method, use System. Convert. Change Type to transform the incoming claim set to a Windows Claim Set type.
- B. Apply a Principal Permission attribute on the operation with the required claims listed in the Roles property.
- C. Within the operation, verify the presence of the required claims in the current Authorization Context
- D. Register an Authorization Policy that maps external claims to an internal Claim Set.

Answer: C, D

Question: 276

A Windows Communication Foundation (WCF) service uses a list of application-defined roles for operations. These roles are stored in a database. You need to authorize calls against the list of roles retrieved from the database. Which service behavior should you use to authorize the calls?

- A. <serviceAuthorization principalPermissionMode="None" roleProviderNames="SqlProvider" />
- B. <serviceAuthorization principalPermissionMode="None" roleProviderName="SqlProvider" Is
- C. <serviceAuthorization principalPermissionModes="None" roleProviderNames="SqlProvider" I>
- D. <serviceAuthorization principalPermissionMode="None" roleProviderNamez="SqlProvider" />

Answer: B

Question: 277

You want to debug the Windows Communication Foundation (WCF) client and server interaction through message and application tracing. You need to correlate traces generated on the client and the server. Which XML segment should you add to the system. diagnostics configuration element in the client and server application configuration file?

- A. <sources> <source propagateActivity="true" name="System Service Model" switchValues="Warning, ActivityTracing"> <listeners> <add name="ServiceModelTraceListener" /> </listeners> </source> </sources>
- B. <sources> <source name="System Service Model. MessageLogging" switchValue="Verbose"> <listeners> <add name="ServiceModelTraceListener" /> <Listeners> </source> </sources>
- C. <sources> <source name="System. Service Model Message Logging" propagateActivity="true" switch Values=" Warning, ActivityTracing'5 <listeners> <add name="ServiceModelTraceListener" I> </listeners> </source> </sources>
- D. <sources> <source name="System. Service Model" switchValues="VerboseActivityTracing"> <listeners> <add name="ServiceModelTraceListener" /> </listeners> </source> </sources>

Answer: A

Question: 278

You are creating a Windows Communication Foundation (WCF) service that implements operations in a RESTful manner. You need to add a delete operation.

You implement the delete method as follows.

```
void DeleteItems(string id);
```

You need to configure WCF to call this method when the client calls the service with the HTTP DELETE operation.

What should you do?

- A. Add the WebInvoke(UriTemplate = "/Items/{id}", Method="DELETE") attribute to the operation.
- B. Add the HttpDelete attribute to the operation.
- C. Replace the string parameter with a RemovedActivityAction parameter.
- D. Replace the return type with RemovedActivityAction.

Answer: A

Question: 279

You are developing an application to update a user's social status. You need to consume the service using Windows Communication Foundation (WCF).

The client configuration is as follows.

```
<system.serviceModel>
<bindings>
<webHttpBinding>
<binding name="SocialConfig">
<security mode="TransportCredentialOnly">
<transport clientCredentialType="Basic"
realm="Social API" />
</security>
</binding>
</webHttpBinding>
</bindings>
<client>
<endpoint address= " http:// contoso .com "
binding="webHttpBinding"
bindingConfiguration="SocialConfig"
contract="ISocialStatus"
name="SocialClient" />
</client>
</system.serviceModel>
```

The service contract is defined as follows.

```
<ServiceContract()
Public Interface ISocialStatus
<OperationContract()
<WebInvoke(UriTemplate:="/statuses/update.xmlstatus={text}")>
Sub UpdateStatus(ByVal text As String)
End Interface
```

Which code segment should you use to update the social status?

```
A. Using factory As WebChannelFactory(Of ISocialStatus) =  
New WebChannelFactory(Of ISocialStatus)("SocialClient")  
factory.Credentials.UserName.UserName = user.Name  
factory.Credentials.UserName.Password = user.Password  
Dim socialChannel As ISocialStatus = factory.CreateChannel()  
socialChannel.UpdateStatus(newStatus)  
End Using  
B. Using factory As ChannelFactory(Of ISocialStatus) =  
New WebChannelFactory(Of ISocialStatus)(GetType(ISocialStatus))  
factory.Credentials.UserName.UserName = user.Name  
factory.Credentials.UserName.Password = user.Password  
Dim socialChannel As ISocialStatus = factory.CreateChannel()  
socialChannel.UpdateStatus(newStatus)  
End Using  
C. Using factory As ChannelFactory(Of ISocialStatus) =  
New ChannelFactory(Of ISocialStatus)("POST")  
factory.Credentials.Windows.ClientCredential.UserName =  
user.Name  
factory.Credentials.Windows.ClientCredential.SecurePassword.SetAt(  
0, user.Password)  
Dim socialChannel As ISocialStatus = factory.CreateChannel()  
socialChannel.UpdateStatus(newStatus)  
End Using  
D. Using factory As WebChannelFactory(Of ISocialStatus) =  
New WebChannelFactory(Of ISocialStatus)(GetType(ISocialClient))  
factory.Credentials.Windows.ClientCredential.UserName =  
user.Name  
factory.Credentials.Windows.ClientCredential.SecurePassword.SetAt(  
0, user.Password)  
Dim socialChannel As ISocialStatus = factory.CreateChannel()  
socialChannel.UpdateStatus(newStatus)  
End Using
```

Answer: B

Question: 280

An ASP.NET application hosts a RESTful Windows Communication Foundation (WCF) service at /Services/Contoso.svc. The service provides a JavaScript resource to clients. You have an explicit reference to the JavaScript in your page markup as follows.

```
<script type="text/javascript" src="/Services/Contoso.svc/js" />
```

You need to retrieve the debug version of the service JavaScript. What should you do?

- A. In the <%@ ServiceHost %> header for /Services/Contoso.svc, set the Debug attribute to true.
- B. In the <%@ Page %> header, set the Debug attribute to true.
- C. In the script tag, append debug to the src attribute.
- D. In the script tag, add a debug attribute and set its value to true.

Answer: C
