

# PASSTCERT

QUESTION & ANSWER

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**Exam : 70-516-Csharp**

**Title : TS: Accessing Data with  
Microsoft .NET Framework 4**

**Version : DEMO**

1.You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create an application.

You create stored procedures by using the following signatures:

```
CREATE procedure [dbo].[Product_Insert](@name varchar(50),@price float)
```

```
CREATE procedure [dbo].[Product_Update](@id int, @name varchar(50), @price float)
```

```
CREATE procedure [dbo].[Product_Delete](@id int)
```

```
CREATE procedure [dbo].[Order_Insert](@productId int, @quantity int)
```

```
CREATE procedure [dbo].[Order_Update](@id int, @quantity int,@originalTimestamp timestamp)
```

```
CREATE procedure [dbo].[Order_Delete](@id int)
```

You create a Microsoft ADO.NET Entity Data Model (EDM) by using the Product and Order entities as shown in the exhibit.(Click the Exhibit button.)

You need to map the Product and Order entities to the stored procedures.

To which two procedures should you add the @productId parameter? (Each correct answer presents part of the solution.Choose two.)

A.Product\_Delete

B.Product\_Update

C.Order\_Delete

D.Order\_Update

**Answer: CD**

2.You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create an application.The application connects to a Microsoft SQL Server 2008 database.The database includes a table that contains information about all the employees.The database table has a field named EmployeeType that identifies whether an employee is a Contractor or a Permanent employee.

You declare the Employee entity base type.You create a new Association entity named Contractor that inherits the Employee base type.

You need to ensure that all Contractors are bound to the Contractor class.

What should you do?

A.Modify the .edmx file to include the following line of code.

```
<NavigationProperty Name="Type" FromRole="EmployeeType" ToRole="Contractor" />
```

B.Modify the .edmx file to include the following line of code.

```
<Condition ColumnName="EmployeeType" Value="Contractor" />
```

C.Use the Entity Data Model Designer to set up an association between the Contractor class and EmployeeType.

D.Use the Entity Data Model Designer to set up a referential constraint between the primary key of the Contractor class and EmployeeType.

**Answer: B**

3.You use Microsoft Visual Studio 2010 and Microsoft ADO.NET Framework 4 to create an application.The application connects to a Microsoft SQL Server 2008 database.

You use the ADO.NET LINQ to SQL model to retrieve data from the database.You use stored procedures to return multiple result sets.

You need to ensure that the result sets are returned as strongly typed values.

What should you do?

A.Apply the FunctionAttribute and ResultTypeAttribute to the stored procedure function.Use the

GetResult<TElement> method to obtain an enumerator of the correct type.

B.Apply the FunctionAttribute and ParameterAttribute to the stored procedure function and directly access the strongly typed object from the results collection.

C.Apply the ResultTypeAttribute to the stored procedure function and directly access the strongly typed object from the results collection.

D.Apply the ParameterAttribute to the stored procedure function.Use the GetResult<TElement> method to obtain an enumerator of the correct type.

**Answer: A**

4.You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create an application.The application connects to a Microsoft SQL Server database.The application uses the ADO.NET LINQ to SQL model to retrieve data from the database.

The application will not modify retrieved data.

You need to ensure that all the requested data is retrieved.You want to achieve this goal using the minimum amount of resources.

What should you do?

A.Set ObjectTrackingEnabled to true on the DataContext class.

B.Set ObjectTrackingEnabled to false on the DataContext class.

C.Set DeferredLoadingEnabled to true on the DataContext class.

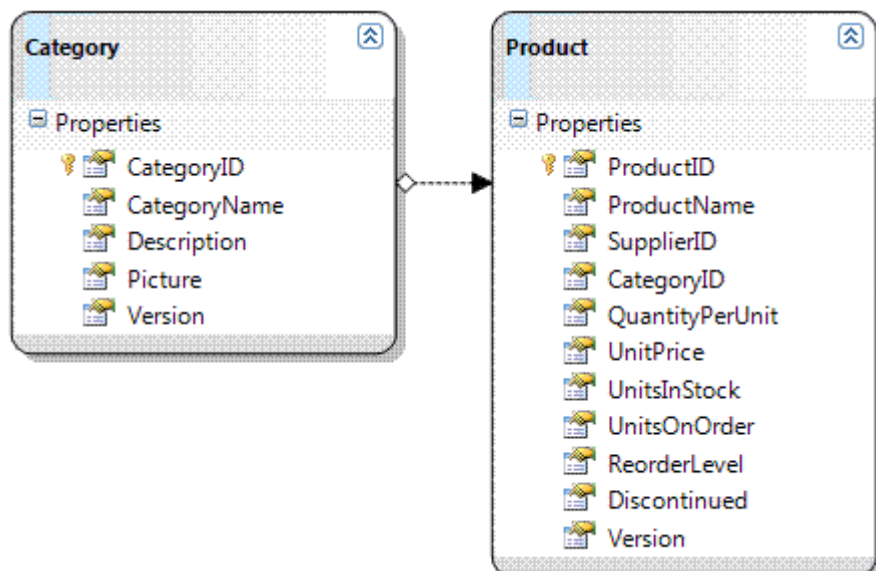
D.Set DeferredLoadingEnabled to false on the DataContext class.

**Answer: B**

5.You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create an application.The application connects to a Microsoft SQL Server database.

You use the ADO.NET LINQ to SQL model to retrieve data from the database.

The application contains the Category and Product entities, as shown in the following exhibit.



You need to ensure that LINQ to SQL executes only a single SQL statement against the database.You also need to ensure that the query retrieves the list of categories and the list of products.

Which code segment should you use?

A.using (NorthwindDataContext dc = new NorthwindDataContext())

```
{
dc.ObjectTrackingEnabled = false;
var categories = from c in dc.Categories
select c;
foreach (var category in categories)
{
Console.WriteLine("{0} has {1} products", category.CategoryName, category.Products.Count);
}
}
B.using (NorthwindDataContext dc = new NorthwindDataContext())
{
dc.DeferredLoadingEnabled = false;
DataLoadOptions dloptions = new DataLoadOptions();
?dloptions.LoadWith<Category>(c => c.Products);
dc.LoadOptions = dloptions;
var categories = from c in dc.Categories
select c;
foreach (var category in categories)
{
Console.WriteLine("{0} has {1} products", category.CategoryName, category.Products.Count);
}
}
C.using (NorthwindDataContext dc = new NorthwindDataContext())
{
dc.DeferredLoadingEnabled = false;
var categories = from c in dc.Categories
select c;
foreach (var category in categories)
{
Console.WriteLine("{0} has {1} products", category.CategoryName, category.Products.Count);
}
}
D.using (NorthwindDataContext dc = new NorthwindDataContext())
{
dc.DeferredLoadingEnabled = false;
DataLoadOptions dloptions = new DataLoadOptions();
dloptions.AssociateWith<Category>(c => c.Products);
dc.LoadOptions = dloptions;
var categories = from c in dc.Categories
select c;
foreach (var category in categories)
{
Console.WriteLine("{0} has {1} products", category.CategoryName, category.Products.Count);
}
}
```

}

**Answer: B**

6.You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create an application.The application connects to a Microsoft SQL Server 2008 database.You use the ADO.NET Entity Framework to model your entities.You use ADO.NET self-tracking entities.

You need to ensure that the change-tracking information for the self-tracking entities can be used to update the database.

WhichObjectContext method should you call after changes are made to the entities?

- A.Attach
- B.Refresh
- C.SaveChanges
- D.ApplyChanges

**Answer: D**

7.You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create an application.You use Plain Old CLR objects (POCO) to model your entities.

The application communicates with a Windows Communication Foundation (WCF) Data Services service. You need to ensure that entities can be sent to the service as XML.

What should you do?

- A.Apply the virtual keyword to the entity properties.
- B.Apply the [Serializable] attribute to the entities.
- C.Apply the [DataContract(IsReference = true)] attribute to the entities.
- D.Apply the [DataContract(IsReference = false)] attribute to the entities.

**Answer: C**

8.You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create an application.The application uses the ADO.NET Entity Framework to manage Plain Old CLR Objects (POCO) entities.

You create a new POCO class.

You need to ensure that the class meets the following requirements:

It can be used by an ObjectContext.

It is enabled for change-tracking proxies.

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

- A.Modify each mapped property to contain sealed and protected accessors.
- B.Modify each mapped property to contain non-sealed, public, and virtual accessors.
- C.Configure the navigation property to return a type that implements the ICollection interface.
- D.Configure the navigation property to return a type that implements the IQueryable interface.
- E.Configure the navigation property to return a type that implements the IEntityWithRelationships interface.

**Answer: BC**

9.You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create an application.The application uses the ADO.NET Entity Framework to model entities.

You define a Category class by writing the following code segment.(Line numbers are included for

reference only.)

```
01public class Category
02{
03public int CategoryID { get; set; }
04public string CategoryName { get; set; }
05public string Description { get; set; }
06public byte[] Picture { get; set; }
07
08}
```

You need to add a collection named Products to the Category class. You also need to ensure that the collection supports deferred loading.

Which code segment should you insert at line 07?

- A. public static List<Product> Products { get; set; }
- B. public virtual List<Product> Products { get; set; }
- C. public abstract List<Product> Products { get; set; }
- D. protected List<Product> Products { get; set; }

**Answer: B**

10. You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create an application. The application connects to a Microsoft SQL Server database.

The Data Definition Language (DDL) script of the database contains the following code segment.

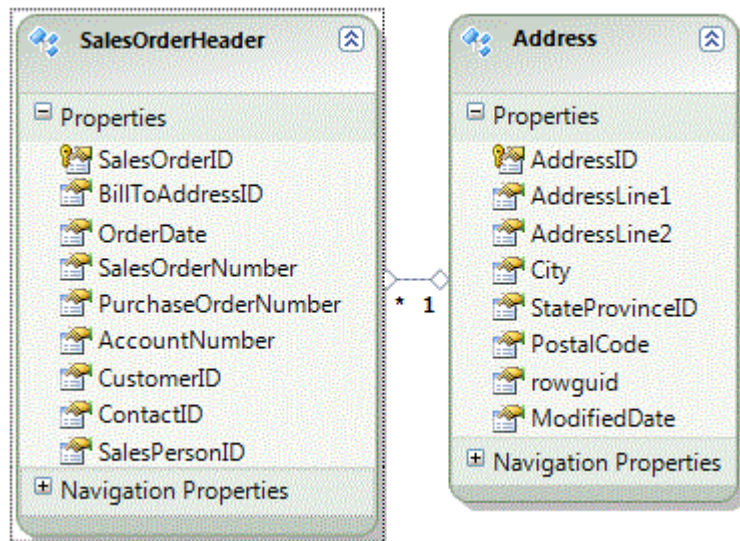
```
CREATE TABLE [Sales].[SalesOrderHeader](
[SalesOrderID] [int] IDENTITY(1,1) NOT NULL,
[BillToAddressID] [int] NOT NULL,
CONSTRAINT [PK_SalesOrderHeader_SalesOrderID]
PRIMARY KEY CLUSTERED ([SalesOrderID] ASC)
)
ALTER TABLE [Sales].[SalesOrderHeader]
WITH CHECK ADD CONSTRAINT [FK_SalesOrderHeader_Address]
FOREIGN KEY([BillToAddressID])
REFERENCES [Person].[Address] ([AddressID])
```

You create an ADO.NET Entity Framework model.

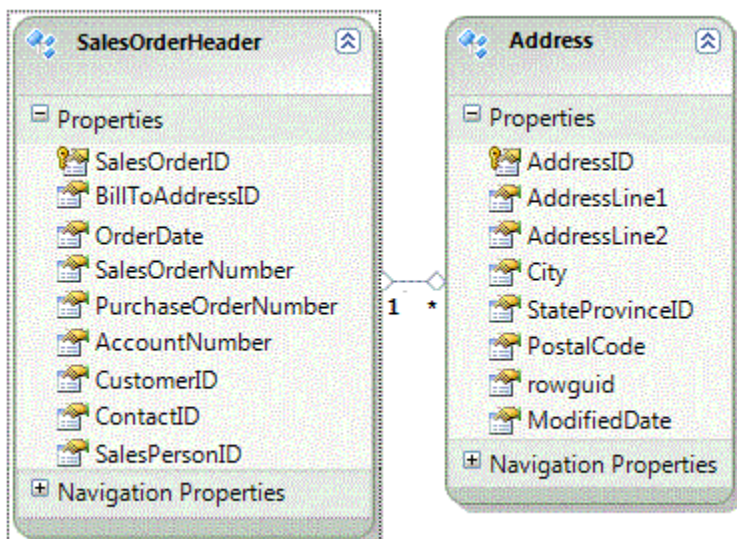
You need to ensure that the entities of the model correctly map to the DDL of the database.

What should your model contain?

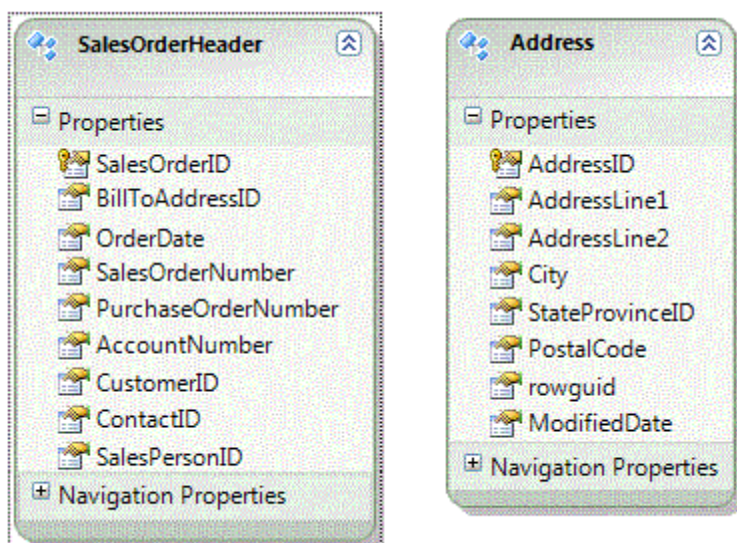
A.



B.

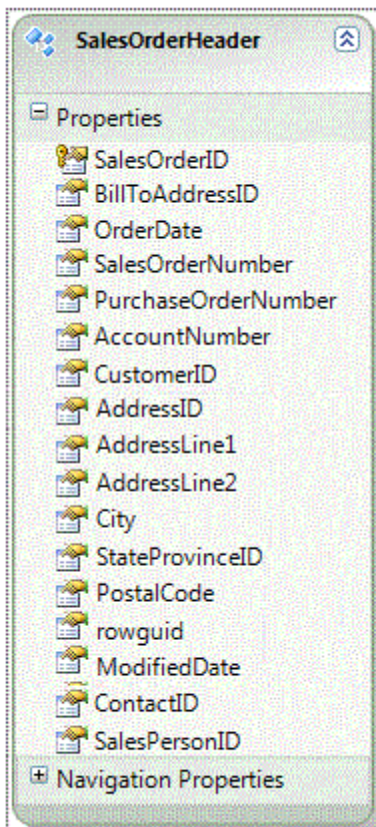


C.





D.



**Answer: A**

11.You use Microsoft Visual Studio 2010 and Microsoft.NET Framework 4 to create an application.The application connects to a Microsoft SQL Server database.You use Entity SQL of the ADO.NET Entity Framework to retrieve data from the database.

You need to define a custom function in the conceptual model.You also need to ensure that the function calculates a value based on properties of the object.

Which two XML element types should you use? (Each correct answer presents part of the solution.Choose two.)

- A.Function
- B.FunctionImport
- C.Dependent
- D.Association
- E.DefiningExpression

**Answer: AE**

12.You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create an application.The application connects to a Microsoft SQL Server database.You use the ADO.NET Entity Framework to model entities.

You need to add a new type to your model that organizes scalar values within an entity.You also need to map stored procedures for managing instances of the type.

What should you do?

- A.Add the stored procedures in the SSDL file along with a Function attribute.  
Define a complex type in the CSDL file.  
Map the stored procedure in the MSL file with a ModificationFunctionElement.
- B.Add the stored procedures in the SSDL file along with a Function attribute.  
Define a complex type in the CSDL file.  
Map the stored procedure in the MSL file with an AssociationEnd element.
- C.Use the edmx designer to import the stored procedures.  
Derive an entity class from the existing entity as a complex type.  
Map the stored procedure in the MSL file with an AssociationEnd element.
- D.Add the stored procedures in the SSDL file along with a Function attribute.  
Derive an entity class from the existing entity as a complex type.  
Map the stored procedure in the MSL file with a ModificationFunctionElement.

**Answer: A**

13.The Entity Data Model file (.edmx file) must be updated to support inheritance mapping for Products and Components.

You need to add the following code to the \Model\Model.edmx file:

the code in line EX243 that maps the Product type

the code in line EX250 that maps the Component type

What should you do?

A.Insert the following code at line EX243:

```
<Condition ColumnName="ProductType" IsNull="true" />
```

Insert the following code at line EX250:

```
<Condition ColumnName="PartType" IsNull="true" />
```

B.Insert the following code at line EX243:

```
<Condition ColumnName="ProductType" IsNull="true" />
```

Insert the following code at line at EX250:

```
<Condition ColumnName="PartType" IsNull="true" />
```

C.Insert the following code at line EX243:

```
<Condition ColumnName="ProductType" IsNull="false" />
```

Insert the following code at line at EX250:

```
<Condition ColumnName="PartType" IsNull="false" />
```

D.Insert the following code at line EX243:

```
<Condition ColumnName="ProductType" IsNull="false" />
```

Insert the following code at line at EX250:

```
<Condition ColumnName="PartType" IsNull="true" />
```

**Answer: C**

14.The entity data model must be configured to provide a way to call the sp\_FindObsolete stored procedure.The returned data must implement the Descendants property.

In Visual Studio 2010, you open the Add Function Import dialog box from the EDMX diagram and enter the information shown in the following graphic.

You need to complete the configuration in the dialog box.

What should you do?

- A. In the Returns a Collection Of area, click Scalars and then, in the Scalars list, click Int32.
- B. In the Returns a Collection Of area, click Scalars and then, in the Scalars list, click string.
- C. In the Returns a Collection Of area, click Entities and then, in the Entities list, click Component.
- D. Click the Get Column Information button, click Create New Complex Type and then, in the Complex box, enter Parts.

**Answer: C**

15. You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create an application. You use the ADO.NET Entity Framework to model your entities. The application connects to a Microsoft SQL Server 2008 database named AdventureWorks by using Windows Authentication.

Information about the required Entity Data Model (EDM) is stored in the following files:

model.csdl

model.ssdl

model.msl

These files are embedded as resources in the MyCompanyData.dll file.

You need to define the connection string that is used by the application.

Which connection string should you add to the app.config file?

A. <add name="AdventureWorksEntities"

connectionString="metadata=res://MyCompany.Data,Culture=neutral,PublicKeyToken=null/model.csdl|

res://MyCompany.Data,Culture=neutral,PublicKeyToken=null/model.ssdl|

res://MyCompany.Data,Culture=neutral,PublicKeyToken=null/model.msl;

provider=System.Data.EntityClient;provider connection string='Data Source=localhost;

Initial Catalog=AdventureWorks;Integrated Security=True;multipleactiveresultsets=true"

providerName="System.Data.SqlClient" />

B. <add name="AdventureWorksEntities"

connectionString="metadata=res://MyCompany.Data,Culture=neutral,PublicKeyToken=null/model.csdl|

res://MyCompany.Data,Culture=neutral,PublicKeyToken=null/model.ssdl|

res://MyCompany.Data,Culture=neutral,PublicKeyToken=null/model.msl;

provider=System.Data.SqlClient;provider connection string='Data Source=localhost;

Initial Catalog=AdventureWorks;Integrated Security=True;multipleactiveresultsets=true"

providerName="System.Data.EntityClient" />

C. <add name="AdventureWorksEntities"

connectionString="metadata=res://MyCompany.Data.model.csdl|

res://MyCompany.Data.model.ssdl|

res://MyCompany.Data.model.msl;

provider=System.Data.SqlClient;provider connection string='Data Source=localhost;

Initial Catalog=AdventureWorks;Integrated Security=SSPI;multipleactiveresultsets=true"

providerName="System.Data.EntityClient" />

D. <add name="AdventureWorksEntities"

connectionString="metadata=res://MyCompany.Data,Culture=neutral,PublicKeyToken=null/model.csdl|

res://MyCompany.Data,Culture=neutral,PublicKeyToken=null/model.ssdl|

res://MyCompany.Data,Culture=neutral,PublicKeyToken=null/model.msl;

provider=System.Data.OleDbClient;provider connection string='Provider=sqloledb;Data Source=localhost;

```
Initial Catalog=AdventureWorks;Integrated Security=SSPI;multipleactiveresultsets=true"
providerName="System.Data.EntityClient" />
```

**Answer: B**

16.You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create a Microsoft ASP.NET application.

You want to connect the application to a Microsoft SQL Server Express 2008 database named MyDatabase.The primary database file is named MyDatabase.mdf and it is stored in the App\_Data folder. You need to define the connection string.

Which connection string should you add to the Web.config file?

- A.Data Source=localhost; Initial Catalog=MyDataBase; Integrated Security=SSPI; User Instance=True
- B.Data Source=.\SQLEXPRESS; Initial Catalog=MyDataBase; Integrated Security=True; User Instance=True
- C.Data Source=.\SQLEXPRESS; AttachDbFilename=|DataDirectory|\MyDatabase.mdf; Integrated Security=True; User Instance=True
- D.Data Source=SQLEXPRESS; AttachDbFilename=|DataDirectory|\App\_Data\MyDatabase.mdf; Integrated Security=SSPI; User Instance=True

**Answer: C**

17.You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create an application.

You are creating the data layer of the application.

You write the following code segment.(Line numbers are included for reference only.)

```
01public static SqlDataReader GetDataReader(string sql){
02SqlDataReader dr = null;
03
04return dr;
05}
```

You need to ensure that the following requirements are met:

The SqlDataReader returned by the GetDataReader method can be used to retrieve rows from the database.

SQL connections opened within the GetDataReader method will close when the SqlDataReader is closed.

Which code segment should you insert at line 03?

- A.using (SqlConnection cnn = new SqlConnection(strCnn)) {  
try {  
SqlCommand cmd = new SqlCommand(sql, cnn);  
cnn.Open();  
dr = cmd.ExecuteReader();  
}  
catch {  
throw;  
}  
}
- B.SqlConnection cnn = new SqlConnection(strCnn);  
SqlCommand cmd = new SqlCommand(sql, cnn);

```
cnn.Open();
try {
dr = cmd.ExecuteReader();
}
finally {
cnn.Close();
}
C.SqlConnection cnn = new SqlConnection(strCnn);
SqlCommand cmd = new SqlCommand(sql, cnn);
cnn.Open();
try {
dr = cmd.ExecuteReader();
cnn.Close();
}
catch {
throw;
}
D.SqlConnection cnn = new SqlConnection(strCnn);
SqlCommand cmd = new SqlCommand(sql, cnn);
cnn.Open();
try {
dr = cmd.ExecuteReader(CommandBehavior.CloseConnection);
}
catch {
cnn.Close();
throw;
}
}
```

**Answer: D**

18.You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create an application. The application contains the following code segment.(Line numbers are included for reference only.)

```
01class DataAccessLayer
02{
03private static string connString;
04
05...
06public static DataTable GetDataTable(string command){
07
08...
09}
10}
```

You need to define the connection life cycle of the DataAccessLayer class.You also need to ensure that the application uses the minimum number of connections to the database.

What should you do?

A.Insert the following code segment at line 04.

```
private static SqlConnection conn = new SqlConnection(connString);  
public static void Open(){  
    ?conn.Open();  
}  
public static void Close(){  
    conn.Close();  
}
```

B.Insert the following code segment at line 04.

```
private SqlConnection conn = new SqlConnection(connString);  
public void Open(){  
    conn.Open();  
}  
public void Close(){  
    conn.Close();  
}
```

C.Replace line 01 with the following code segment.

```
class DataAccessLayer : IDisposable  
Insert the following code segment to line 04.  
private SqlConnection conn = new SqlConnection(connString);  
public void Open(){  
    conn.Open();  
}  
public void Dispose(){  
    conn.Close();  
}
```

D.Insert the following code segment at line 07.

```
using (SqlConnection conn = new SqlConnection(connString)){  
    conn.Open();  
}
```

**Answer: D**

19.You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create an application.The application connects to a Microsoft SQL Server 2008 database.

The application uses a Microsoft ADO.NET SQL Server managed provider.When a connection fails, the application logs connection information, including the full connection string.The information is stored as plain text in a .config file.

You need to ensure that the database credentials are secure.

Which connection string should you add to the .config file?

A.Data Source=myServerAddress; Initial Catalog=myDataBase; Integrated Security=SSPI; Persist Security Info=false;

B.Data Source=myServerAddress; Initial Catalog=myDataBase; Integrated Security=SSPI; Persist Security Info=true;

C.Data Source=myServerAddress; Initial Catalog=myDataBase; User Id = myUsername; Password =

```
myPassword; Persist Security Info=false;
```

```
D.Data Source=myServerAddress; Initial Catalog=myDataBase; User Id = myUsername; Password = myPassword; Persist Security Info=true;
```

**Answer: A**

20.You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create a Windows Forms application.

You plan to deploy the application to several shared client computers.

You write the following code segment.(Line numbers are included for reference only.)

```
01 Configuration config = ConfigurationManager.OpenExeConfiguration(exeConfigName);
```

```
02
```

```
03 config.Save();
```

```
04...
```

You need to encrypt the connection string stored in the .config file.

Which code segment should you insert at line 02?

A.ConnectionStringsSection section =

```
config.GetSection("connectionString") as ConnectionStringsSection;
```

```
section.SectionInformation.ProtectSection("DataProtectionConfigurationProvider");
```

B.ConnectionStringsSection section =

```
config.GetSection("connectionStrings") as ConnectionStringsSection;
```

```
section.SectionInformation.ProtectSection("DataProtectionConfigurationProvider");
```

C.ConnectionStringsSection section =

```
config.GetSection("connectionString") as ConnectionStringsSection;
```

```
section.SectionInformation.ProtectSection("RsaProtectedConfigurationProvider");
```

D.ConnectionStringsSection section =

```
config.GetSection("connectionStrings") as ConnectionStringsSection;
```

```
section.SectionInformation.ProtectSection("RsaProtectedConfigurationProvider");
```

**Answer: D**