

Pass Microsoft 70-461 Now with Questions & Answers

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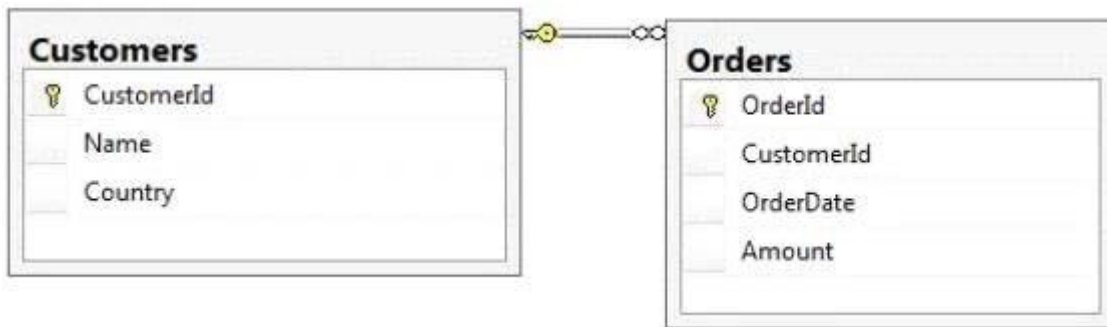
Exam Name: Querying Microsoft SQL Server 2012

For Full Set of Questions please visit: <http://www.test-papers.com/study-guide/70-461.htm>

Exam A

QUESTION 1

You administer a Microsoft SQL Server 2012 database named ContosoDb. Tables are defined as shown in the exhibit. (Click the Exhibit button.)



You need to display rows from the Orders table for the Customers row having the CustomerId value set to 1 in the following XML format:

```
<row OrderId="1" OrderDate="2000-01-01T00:00:00" Amount="3400.00"
Name="Customer A" Country="Australia" />
<row OrderId="2" OrderDate="2001-01-01T00:00:00" Amount="4300.00"
Name="Customer A" Country="Australia" />
```

Which Transact-SQL query should you use?

- A.

```
SELECT OrderId, OrderDate, Amount, Name, Country
FROM Orders INNER JOIN Customers ON Orders.CustomerId =
Customers.CustomerId
WHERE Customers.CustomerId = 1
FOR XML RAW
```
- B.

```
SELECT OrderId, OrderDate, Amount, Name, Country
FROM Orders INNER JOIN Customers ON Orders.CustomerId =
Customers.CustomerId
WHERE Customers.CustomerId = 1
FOR XML RAW, ELEMENTS
```
- C.

```
SELECT OrderId, OrderDate, Amount, Name, Country
FROM Orders INNER JOIN Customers ON Orders.CustomerId =
Customers.CustomerId
WHERE Customers.CustomerId = 1
FOR XML AUTO
```
- D.

```
SELECT OrderId, OrderDate, Amount, Name, Country
FROM Orders INNER JOIN Customers ON Orders.CustomerId =
Customers.CustomerId
WHERE Customers.CustomerId= 1
FOR XML AUTO, ELEMENTS
```
- E.

```
SELECT Name, Country, OrderId, OrderDate, Amount
FROM Orders INNER JOIN Customers ON Orders.CustomerId= Customers.CustomerId
WHERE Customers.CustomerId= 1
FOR XML AUTO
```
- F.

```
SELECT Name, Country, OrderId, OrderDate, Amount
FROM Orders INNER JOIN Customers ON Orders.CustomerId= Customers.CustomerId
WHERE Customers.CustomerId= 1
FOR XML AUTO, ELEMENTS
```
- G.

```
SELECT Name AS '@Name', Country AS '@Country', OrderId, OrderDate, Amount
FROM Orders INNER JOIN Customers ON Orders.CustomerId= Customers.CustomerId
WHERE Customers.CustomerId= 1
FOR XML PATH ('Customers')
```
- H.

```
SELECT Name AS 'Customers/Name', Country AS 'Customers/Country', OrderId,
OrderDate, Amount
FROM Orders INNER JOIN Customers ON Orders.CustomerId= Customers.CustomerId
WHERE Customers.CustomerId= 1
```

FOR XML PATH ('Customers')

Correct Answer: A

Section: (none)

Explanation

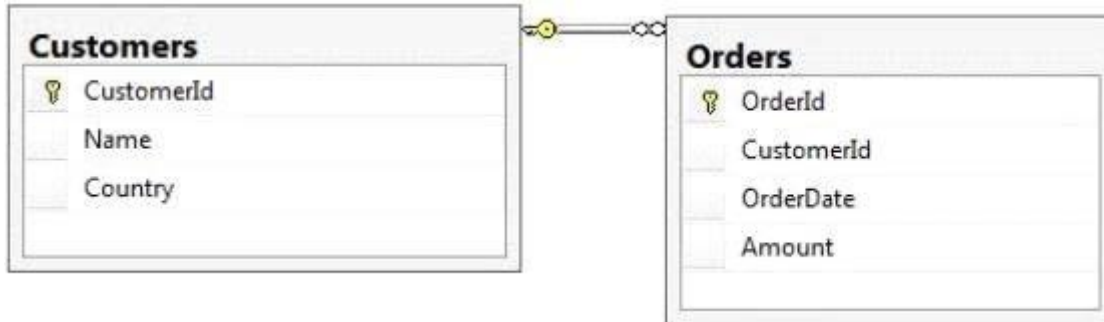
Explanation/Reference:

Verified answer as correct.

Reference: <http://msdn.microsoft.com/en-us/library/bb510464.aspx>

QUESTION 2

You administer a Microsoft SQL Server 2012 database named ContosoDb. Tables are defined as shown in the exhibit. (Click the Exhibit button.)



You need to display rows from the Orders table for the Customers row having the CustomerId value set to 1 in the following XML format.

```
<CUSTOMERS Name="Customer A" Country="Australia">
  <ORDERS OrderID="1" OrderDate="2001-01-01" Amount="3400.00" />
  <ORDERS OrderID="2" OrderDate="2002-01-01" Amount="4300.00" />
</CUSTOMERS>
```

Which Transact-SQL query should you use?

- A.

```
SELECT OrderId, OrderDate, Amount, Name, Country
FROM Orders INNER JOIN Customers ON Orders.CustomerId =
Customers.CustomerId
WHERE Customers.CustomerId = 1
FOR XML RAW
```
- B.

```
SELECT OrderId, OrderDate, Amount, Name, Country
FROM Orders INNER JOIN Customers ON Orders.CustomerId =
Customers.CustomerId
WHERE Customers.CustomerId = 1
FOR XML RAW, ELEMENTS
```
- C.

```
SELECT OrderId, OrderDate, Amount, Name, Country
FROM Orders INNER JOIN Customers ON Orders.CustomerId = Customers.CustomerId
WHERE Customers.CustomerId = 1
FOR XML AUTO
```
- D.

```
SELECT OrderId, OrderDate, Amount, Name, Country
FROM Orders INNER JOIN Customers ON Orders.CustomerId - Customers.CustomerId
WHERE Customers.CustomerId= 1
FOR XML AUTO, ELEMENTS
```
- E.

```
SELECT Name, Country, OrderId, OrderDate, Amount
FROM Orders INNER JOIN Customers ON Orders.CustomerId= Customers.CustomerId
WHERE Customers.CustomerId= 1
FOR XML AUTO
```
- F.

```
SELECT Name, Country, OrderId, OrderDate, Amount
FROM Orders INNER JOIN Customers ON Orders.CustomerId= Customers.CustomerId
WHERE Customers.CustomerId= 1
FOR XML AUTO, ELEMENTS
```
- G.

```
SELECT Name AS '@Name', Country AS '@Country', OrderId, OrderDate, Amount
```

```
FROM Orders INNER JOIN Customers ON Orders.CustomerId= Customers.CustomerId
WHERE Customers.CustomerId= 1
FOR XML PATH ('Customers')
```

- H. SELECT Name AS 'Customers/Name', Country AS 'Customers/Country', OrderId, OrderDate, Amount
FROM Orders INNER JOIN Customers ON Orders.CustomerId= Customers.CustomerId
WHERE Customers.CustomerId= 1
FOR XML PATH ('Customers')

Correct Answer: E

Section: (none)

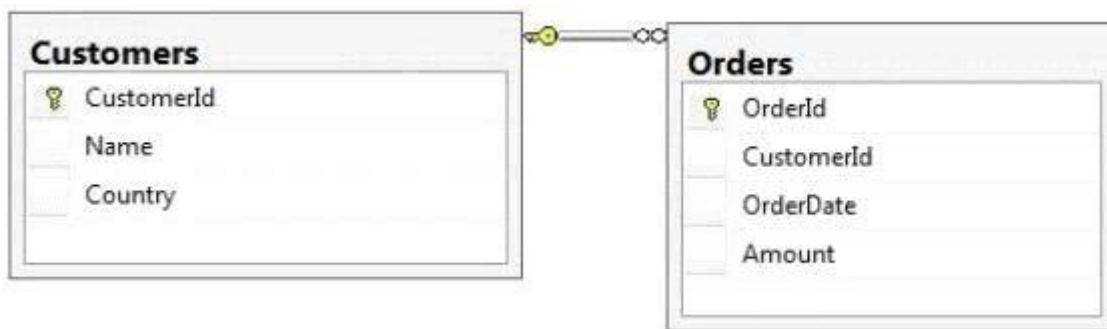
Explanation

Explanation/Reference:

Verified answer as correct.

QUESTION 3

You administer a Microsoft SQL Server 2012 database named ContosoDb. Tables are defined as shown in the exhibit. (Click the Exhibit button.)



You need to display rows from the Orders table for the Customers row having the CustomerId value set to 1 in the following XML format.

```
<Orders>
  <OrderId>1</OrderId>
  <OrderDate>2000-01-01T00:00:00</OrderDate>
  <Amount>3400.00</Amount>
  <Customers>
    <Name>Customer A</Name>
    <Country>Australia</Country>
  </Customers>
</Orders>
<Orders>
  <OrderId>2</OrderId>
  <OrderDate>2001-01-01T00:00:00</OrderDate>
  <Amount>4300.00</Amount>
  <Customers>
    <Name>Customer A</Name>
    <Country>Australia</Country>
  </Customers>
</Orders>
```

Which Transact-SQL query should you use?

- A. SELECT OrderId, OrderDate, Amount, Name, Country
FROM Orders INNER JOIN Customers ON Orders.CustomerId =

- ```
Customers.CustomerId
WHERE Customers.CustomerId = 1
FOR XML RAW
```
- B. SELECT OrderId, OrderDate, Amount, Name, Country  
FROM Orders INNER JOIN Customers ON Orders.CustomerId =  
Customers.CustomerId  
WHERE Customers.CustomerId = 1  
FOR XML RAW, ELEMENTS
- C. SELECT OrderId, OrderDate, Amount, Name, Country  
FROM Orders INNER JOIN Customers ON Orders.CustomerId =  
Customers.CustomerId  
WHERE Customers.CustomerId = 1  
FOR XML AUTO
- D. SELECT OrderId, OrderDate, Amount, Name, Country  
FROM Orders INNER JOIN Customers ON Orders.CustomerId =  
Customers.CustomerId  
WHERE Customers.CustomerId= 1  
FOR XML AUTO, ELEMENTS
- E. SELECT Name, Country, OrderId, OrderDate, Amount  
FROM Orders INNER JOIN Customers ON Orders.CustomerId= Customers.CustomerId  
WHERE Customers.CustomerId- 1  
FOR XML AUTO
- F. SELECT Name, Country, OrderId, OrderDate, Amount  
FROM Orders INNER JOIN Customers ON Orders.CustomerId= Customers.CustomerId  
WHERE Customers.CustomerId= 1  
FOR XML AUTO, ELEMENTS
- G. SELECT Name AS '@Name', Country AS '@Country', OrderId, OrderDate, Amount  
FROM Orders INNER JOIN Customers ON Orders.CustomerId= Customers.CustomerId  
WHERE Customers.CustomerId= 1  
FOR XML PATH ('Customers')
- H. SELECT Name AS 'Customers/Name', Country AS 'Customers/Country', OrderId,  
OrderDate, Amount  
FROM Orders INNER JOIN Customers ON Orders.CustomerId= Customers.CustomerId  
WHERE Customers.CustomerId= 1  
FOR XML PATH ('Customers')

**Correct Answer: D**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Verified answer as correct.

#### QUESTION 4

You develop a Microsoft SQL Server 2012 server database that supports an application. The application contains a table that has the following definition:

```
CREATE TABLE Inventory (
ItemID int NOT NULL PRIMARY KEY,
ItemsInStore int NOT NULL,
ItemsInWarehouse int NOT NULL)
```

You need to create a computed column that returns the sum total of the ItemsInStore and ItemsInWarehouse values for each row. The new column is expected to be queried heavily, and you need to be able to index the column. Which Transact-SQL statement should you use?

- A. ALTER TABLE Inventory  
ADD TotalItems AS ItemsInStore + ItemsInWarehouse
- B. ALTER TABLE Inventory  
ADD TotalItems AS ItemsInStore + ItemsInWarehouse PERSISTED
- C. ALTER TABLE Inventory  
ADD TotalItems AS SUM(ItemsInStore, ItemsInWarehouse) PERSISTED
- D. ALTER TABLE Inventory

```
ADD TotalItems AS SUM(ItemsInStore, ItemsInWarehouse)
```

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Verified answer as correct.

Reference: <http://msdn.microsoft.com/en-us/library/ms174979.aspx>

#### QUESTION 5

You develop a Microsoft SQL Server 2012 database that contains a table named Customers. The Customers table has the following definition:

```
CREATE TABLE [dbo].[Customers](
 [CustomerId] [bigint] NOT NULL,
 [MobileNumber] [nvarchar](25) NOT NULL,
 [HomeNumber] [nvarchar](25) NULL,
 [Name] [nvarchar](50) NOT NULL,
 [Country] [nvarchar](25) NOT NULL,
 CONSTRAINT [PK_Customers] PRIMARY KEY CLUSTERED
 (
 [CustomerId] ASC
) ON [PRIMARY]
) ON [PRIMARY]
```

You need to create an audit record only when either the MobileNumber or HomeNumber column is updated. Which Transact-SQL query should you use?

- A. CREATE TRIGGER TrgPhoneNumberChange  
ON Customers FOR UPDATE  
AS  
IF COLUMNS\_UPDATED (HomeNumber, MobileNumber)  
-- Create Audit Records
- B. CREATE TRIGGER TrgPhoneNumberChange  
ON Customers FOR UPDATE  
AS  
IF EXISTS( SELECT HomeNumber FROM inserted) OR  
EXISTS (SELECT MobileNumber FROM inserted)  
-- Create Audit Records
- C. CREATE TRIGGER TrgPhoneNumberChange  
ON Customers FOR UPDATE  
AS  
IF COLUMNS\_CHANGED (HomeNumber, MobileNumber)  
-- Create Audit Records
- D. CREATE TRIGGER TrgPhoneNumberChange  
ON Customers FOR UPDATE  
AS  
IF UPDATE (HomeNumber) OR UPDATE (MobileNumber)  
-- Create Audit Records

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Verified answer as correct.

Reference: <http://msdn.microsoft.com/en-us/library/bb510663.aspx>

Reference: <http://msdn.microsoft.com/en-us/library/ms186329.aspx>

#### **QUESTION 6**

You develop a Microsoft SQL Server 2012 database. You create a view that performs the following tasks:

- Joins 8 tables that contain up to 500,000 records each.
- Performs aggregations on 5 fields.

The view is frequently used in several reports. You need to improve the performance of the reports. What should you do?

- A. Convert the view into a table-valued function.
- B. Convert the view into a Common Table Expression (CTE).
- C. Convert the view into an indexed view.
- D. Convert the view into a stored procedure and retrieve the result from the stored procedure into a temporary table.

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Verified answer as correct.

Reference: <http://msdn.microsoft.com/en-us/library/ms191432.aspx>

#### **QUESTION 7**

You have three tables that contain data for dentists, psychiatrists, and physicians. You create a view that is used to look up their email addresses and phone numbers. The view has the following definition:

```

Create view apt.vwProviderList
(Specialty, CompanyID, CompanyNumber, LastName,
FirstName, BusinessName, Email, Phone)
as

SELECT 'Dentist' as Specialty
, DentistID
, DentistNumber
, DentistLastName
, DentistFirstName
, DentistBusinessName
, Email
, Phone
FROM apt.Dentist
UNION ALL
SELECT 'Psychiatrist' as Specialty
, PsychiatristID
, PsychiatristNumber
, PsychiatristLastName
, PsychiatristFirstName
, PsychiatristBusinessName
, Email
, Phone
SELECT 'Physician' as Specialty
, PhysicianID
, PhysicianNumber
, PhysicianLastName
, PhysicianFirstName
, PhysicianBusinessName
, Email
, Phone
FROM apt.Physician
GO

```

You need to ensure that users can update only the phone numbers and email addresses by using this view. What should you do?

- A. Alter the view. Use the EXPAND VIEWS query hint along with each SELECT statement.
- B. Create an INSTEAD OF UPDATE trigger on the view.
- C. Drop the view. Re-create the view by using the SCHEMABINDING clause, and then create an index on the view.
- D. Create an AFTER UPDATE trigger on the view.

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Verified answer as correct.

Reference: <http://msdn.microsoft.com/en-us/library/ms187956.aspx>

**QUESTION 8**



You have a view that was created by using the following code:

```
CREATE VIEW Sales.OrdersByTerritory
AS
SELECT OrderID
 ,OrderDate
 ,SalesTerritoryID
 ,TotalDue
FROM Sales.Orders;
```

You need to create an inline table-valued function named Sales.fn\_OrdersByTerritory, which must meet the following requirements:

- Accept the @T integer parameter.
- Use one-part names to reference columns.
- Filter the query results by SalesTerritoryID.
- Return the columns in the same order as the order used in OrdersByTerritoryView.

Which code segment should you use?

To answer, type the correct code in the answer area.

- A. 

```
CREATE FUNCTION Sales.fn_OrdersByTerritory (@T int)
RETURNS TABLE
AS
RETURN
(
 SELECT OrderID,OrderDate,SalesTerritoryID,TotalDue
 FROM Sales.OrdersByTerritory
 WHERE SalesTerritoryID = @T
)
```
- B.
- C.
- D.

**Correct Answer: A**

**Section: (none)**


**Explanation**


**Explanation/Reference:**

## QUESTION 9

You have a database that contains the tables shown in the exhibit. (Click the Exhibit button.)

| OrderDetails |             |           |                          |
|--------------|-------------|-----------|--------------------------|
|              | Column Name | Data Type | Allow Nulls              |
|              | ListPrice   | money     | <input type="checkbox"/> |
|              | Quantity    | int       | <input type="checkbox"/> |
|              |             |           | <input type="checkbox"/> |

| Customers                                                                         |             |              |                          |
|-----------------------------------------------------------------------------------|-------------|--------------|--------------------------|
|                                                                                   | Column Name | Data Type    | Allow Nulls              |
|  | CustomerID  | int          | <input type="checkbox"/> |
|                                                                                   | FirstName   | varchar(100) | <input type="checkbox"/> |
|                                                                                   | LastName    | varchar(100) | <input type="checkbox"/> |
|                                                                                   |             |              | <input type="checkbox"/> |

| Orders                                                                              |             |           |                          |
|-------------------------------------------------------------------------------------|-------------|-----------|--------------------------|
|                                                                                     | Column Name | Data Type | Allow Nulls              |
|  | OrderID     | int       | <input type="checkbox"/> |
|                                                                                     | OrderDate   | datetime  | <input type="checkbox"/> |
|                                                                                     | CustomerID  | int       | <input type="checkbox"/> |
|                                                                                     |             |           | <input type="checkbox"/> |

You deploy a new server that has SQL Server 2012 installed. You need to create a table named Sales.OrderDetails on the new server. Sales.OrderDetails must meet the following requirements:

- Write the results to a disk.
- Contain a new column named LineItemTotal that stores the product of ListPrice and Quantity for each row.
- The code must NOT use any object delimiters.

The solution must ensure that LineItemTotal is stored as the last column in the table. Which code segment should you use?

To answer, type the correct code in the answer area.

- A. `CREATE TABLE Sales.OrderDetails (`  
     ListPrice money not null,  
     Quantity int not null,  
     LineItemTotal as (ListPrice \* Quantity) PERSISTED)
- B.
- C.
- D.

**Correct Answer: A**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Verified answer as correct.


Reference: <http://msdn.microsoft.com/en-us/library/ms174979.aspx>


Reference: <http://technet.microsoft.com/en-us/library/ms188300.aspx>

#### QUESTION 10

You have a database that contains the tables shown in the exhibit. (Click the Exhibit button.)

| OrderDetails |             |           |                          |
|--------------|-------------|-----------|--------------------------|
|              | Column Name | Data Type | Allow Nulls              |
|              | ListPrice   | money     | <input type="checkbox"/> |
|              | Quantity    | int       | <input type="checkbox"/> |
|              |             |           | <input type="checkbox"/> |

| Customers                                                                         |             |              |                          |
|-----------------------------------------------------------------------------------|-------------|--------------|--------------------------|
|                                                                                   | Column Name | Data Type    | Allow Nulls              |
|  | CustomerID  | int          | <input type="checkbox"/> |
|                                                                                   | FirstName   | varchar(100) | <input type="checkbox"/> |
|                                                                                   | LastName    | varchar(100) | <input type="checkbox"/> |
|                                                                                   |             |              | <input type="checkbox"/> |

| Orders                                                                              |             |           |                          |
|-------------------------------------------------------------------------------------|-------------|-----------|--------------------------|
|                                                                                     | Column Name | Data Type | Allow Nulls              |
|  | OrderID     | int       | <input type="checkbox"/> |
|                                                                                     | OrderDate   | datetime  | <input type="checkbox"/> |
|                                                                                     | CustomerID  | int       | <input type="checkbox"/> |
|                                                                                     |             |           | <input type="checkbox"/> |

You need to create a view named uv\_CustomerFullName to meet the following requirements:

- The code must NOT include object delimiters.
- The view must be created in the Sales schema.
- Columns must only be referenced by using one-part names.
- The view must return the first name and the last name of all customers.
- The view must prevent the underlying structure of the customer table from being changed.
- The view must be able to resolve all referenced objects, regardless of the user's default schema.

Which code segment should you use?

To answer, type the correct code in the answer area.

- A. `CREATE VIEW Sales.uv_CustomerFullName  
WITH SCHEMABINDING  
AS  
SELECT FirstName, LastName  
FROM Sales.Customers`
- B.
- C.

D.

**Correct Answer:** A

**Section:** (none)

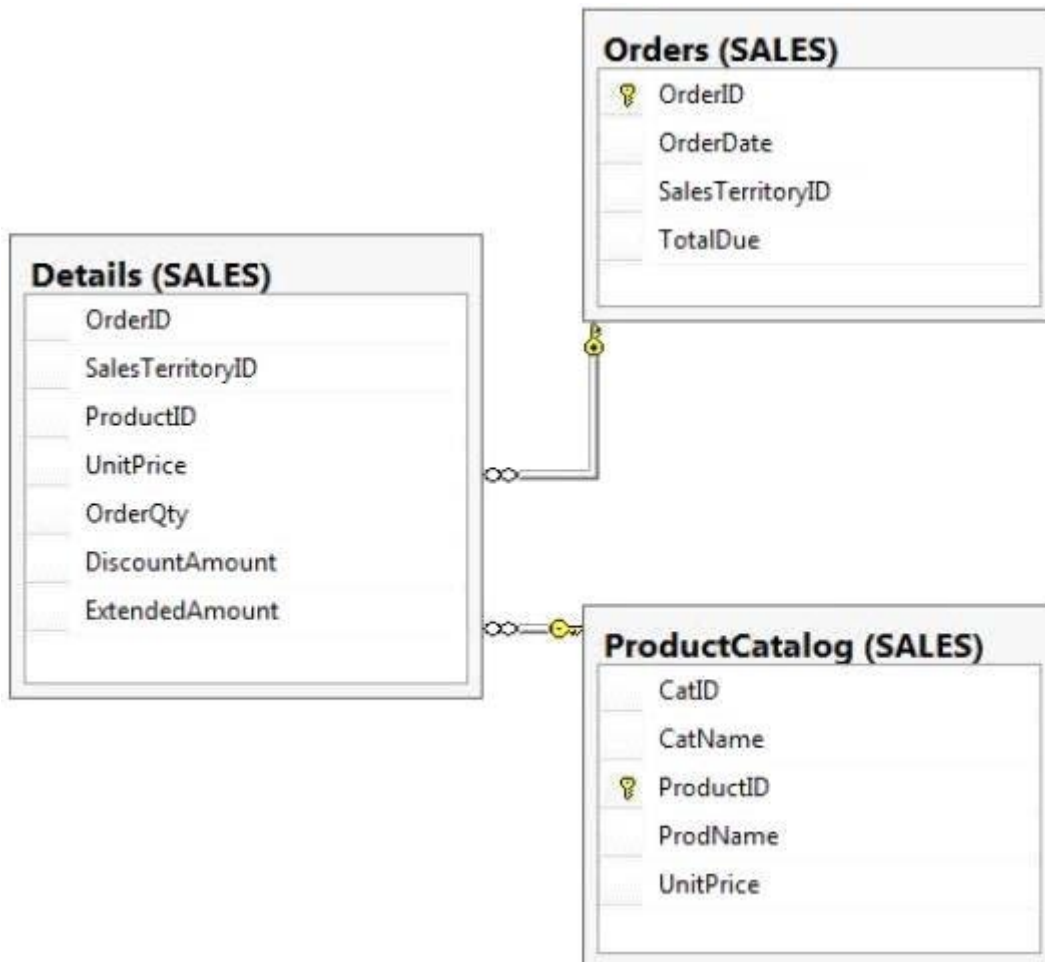
**Explanation**

**Explanation/Reference:**

Reference: <http://msdn.microsoft.com/en-us/library/ms187956.aspx>

#### QUESTION 11

You have a database that contains the tables as shown in the exhibit. (Click the Exhibit button.)



You have the following query:

```
SELECT SalesTerritoryID,
 ProductID,
 AVG(UnitPrice),
 MAX(OrderQty),
 MAX(DiscountAmount)
FROM Sales.Details
```

You need to recreate the query to meet the following requirements:

- Reference columns by using one-part names only.
- Sort aggregates by SalesTerritoryID, and then by ProductID.
- Order the results in descending order from SalesTerritoryID to ProductID.
- The solution must use the existing SELECT clause and FROM clause.

Which code segment should you use?

To answer, type the correct code in the answer area.

- A. 

```
SELECT SalesTerritoryID,
 ProductID,
 AVG(UnitPrice),
 MAX(OrderQty),
 MAX(DiscountAmount)
FROM Sales.Details
GROUP BY SalesTerritoryID , ProductID
ORDER BY SalesTerritoryID DESC, ProductID DESC
```
- B.
- C.
- D.

**Correct Answer:** A

**Section:** (none)


**Explanation**


**Explanation/Reference:**

## QUESTION 12

You have a database that contains the tables shown in the exhibit. (Click the Exhibit button).

| OrderDetails |             |           |                          |
|--------------|-------------|-----------|--------------------------|
|              | Column Name | Data Type | Allow Nulls              |
|              | ListPrice   | money     | <input type="checkbox"/> |
|              | Quantity    | int       | <input type="checkbox"/> |
|              |             |           | <input type="checkbox"/> |

| Customers                                                                         |             |              |                          |
|-----------------------------------------------------------------------------------|-------------|--------------|--------------------------|
|                                                                                   | Column Name | Data Type    | Allow Nulls              |
|  | CustomerID  | int          | <input type="checkbox"/> |
|                                                                                   | FirstName   | varchar(100) | <input type="checkbox"/> |
|                                                                                   | LastName    | varchar(100) | <input type="checkbox"/> |
|                                                                                   |             |              | <input type="checkbox"/> |

| Orders                                                                              |             |           |                          |
|-------------------------------------------------------------------------------------|-------------|-----------|--------------------------|
|                                                                                     | Column Name | Data Type | Allow Nulls              |
|  | OrderID     | int       | <input type="checkbox"/> |
|                                                                                     | OrderDate   | datetime  | <input type="checkbox"/> |
|                                                                                     | CustomerID  | int       | <input type="checkbox"/> |
|                                                                                     |             |           | <input type="checkbox"/> |

You need to create a query for a report. The query must meet the following requirements:

- NOT use object delimiters.
- Return the most recent orders first.
- Use the first initial of the table as an alias.
- Return the most recent order date for each customer.
- Retrieve the last name of the person who placed the order.
- Return the order date in a column named MostRecentOrderDate that appears as the last column in the report.

The solution must support the ANSI SQL-99 standard.

Which code segment should you use?

To answer, type the correct code in the answer area.

- A. `SELECT C.LastName, MAX(O.OrderDate) AS MostRecentOrderDate  
FROM Customers AS C INNER JOIN Orders AS O  
ON C.CustomerID = O.CustomerID  
GROUP BY C.LastName  
ORDER BY O.OrderDate DESC`
- B.
- C.
- D.

**Correct Answer:** A

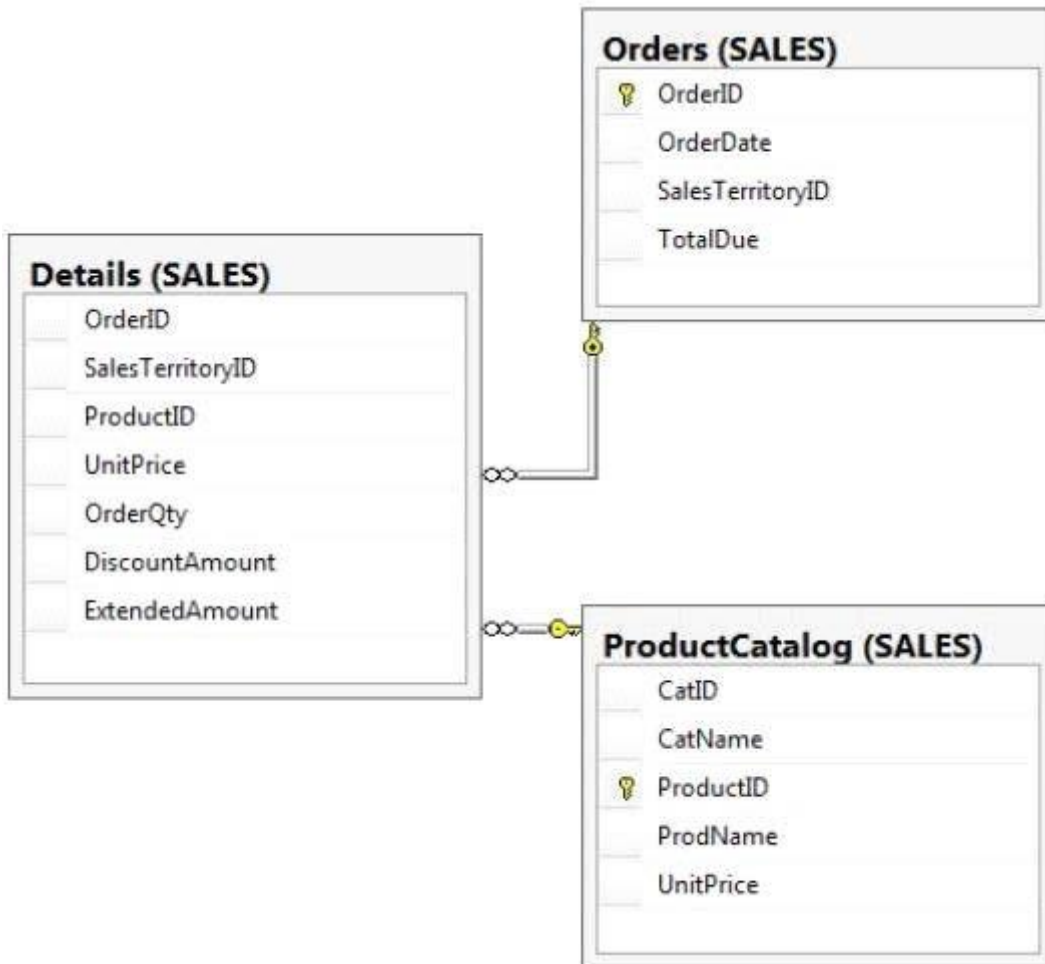
**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 13**

You have a database that contains the tables as shown in the exhibit. (Click the Exhibit button.)



You need to create a query that returns a list of products from Sales.ProductCatalog. The solution must meet the following requirements:

- UnitPrice must be returned in descending order.
- The query must use two-part names to reference the table.
- The query must use the RANK function to calculate the results.
- The query must return the ranking of rows in a column named PriceRank.
- The list must display the columns in the order that they are defined in the table.
- PriceRank must appear last.

Which code segment should you use?

To answer, type the correct code in the answer area.

- A. `SELECT ProductCatalog.CatID, ProductCatalog.CatName,  
ProductCatalog.ProductID, ProductCatalog.ProdName, ProductCatalog.UnitPrice,  
RANK() OVER (PARTITION BY ProductCatalog.UnitPrice ORDER BY  
ProductCatalog.UnitPrice DESC) AS PriceRank  
FROM Sales.ProductCatalog  
ORDER BY ProductCatalog.UnitPrice DESC`
- B.
- C.

D.

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 14

You have a database that contains the tables as shown below:

| OrderDetails |             |           |                          |
|--------------|-------------|-----------|--------------------------|
|              | Column Name | Data Type | Allow Nulls              |
|              | ListPrice   | money     | <input type="checkbox"/> |
|              | Quantity    | int       | <input type="checkbox"/> |
|              |             |           | <input type="checkbox"/> |

| Customers |             |              |                          |
|-----------|-------------|--------------|--------------------------|
|           | Column Name | Data Type    | Allow Nulls              |
|           | CustomerID  | int          | <input type="checkbox"/> |
|           | FirstName   | varchar(100) | <input type="checkbox"/> |
|           | LastName    | varchar(100) | <input type="checkbox"/> |
|           |             |              | <input type="checkbox"/> |

| Orders |             |           |                          |
|--------|-------------|-----------|--------------------------|
|        | Column Name | Data Type | Allow Nulls              |
|        | OrderID     | int       | <input type="checkbox"/> |
|        | OrderDate   | datetime  | <input type="checkbox"/> |
|        | CustomerID  | int       | <input type="checkbox"/> |
|        |             |           | <input type="checkbox"/> |

You have a stored procedure named Procedure1. Procedure1 retrieves all order ids after a specific date. The rows for Procedure1 are not sorted. Procedure1 has a single parameter named Parameter1. Parameter1 uses the varchar type and is configured to pass the specific date to Procedure1. A database administrator discovers that OrderDate is not being compared correctly to Parameter1 after the data type of the column is changed to datetime. You need to update the SELECT statement to meet the following requirements:

- The code must NOT use aliases.
- The code must NOT use object delimiters.
- The objects called in Procedure1 must be able to be resolved by all users.
- OrderDate must be compared to Parameter1 after the data type of Parameter1 is changed to datetime.



Which SELECT statement should you use?  
To answer, type the correct code in the answer area.

- A. 

```
SELECT Orders.OrderID
FROM Orders
WHERE Orders.OrderDate>CONVERT(datetime,@Parameter1)
```
- B.
- C.
- D.

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 15

You use Microsoft SQL Server 2012 database to develop a shopping cart application. You need to invoke a table-valued function for each row returned by a query. Which Transact-SQL operator should you use?

- A. CROSS JOIN
- B. UNPIVOT
- C. PIVOT
- D. CROSS APPLY

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Verified answer as correct.

Reference: <http://msdn.microsoft.com/en-us/library/ms175156.aspx>

#### QUESTION 16

You support a database structure shown in the exhibit. (Click the Exhibit button.)



You need to write a query that displays the following details:

- Total sales made by sales people, year, city, and country
- Sub totals only at the city level and country level
- A grand total of the sales amount

Which Transact-SQL query should you use?

- A. 

```
SELECT SalesPerson.Name, Country, City,
DatePart(yyyy, SaleDate) AS Year, Sum(Amount) AS Total
FROM Sale INNER JOIN SalesPerson
ON Sale.SalesPersonID = SalesPerson.SalesPersonID
GROUP BY GROUPING SETS((SalesPerson.Name, Country, City, DatePart(yyyy,
```

- SaleDate)), (City), (Country), ( ))
- B. `SELECT SalesPerson.Name, Country, City,  
DatePart(yyyy, SaleDate) AS Year, Sum(Amount) AS Total  
FROM Sale INNER JOIN SalesPerson  
ON Sale.SalesPersonID = SalesPerson.SalesPersonID  
GROUP BY CUBE(SalesPerson.Name, Country, City, DatePart(yyyy, SaleDate))`
- C. `SELECT SalesPerson.Name, Country, City,  
DatePart(yyyy, SaleDate) AS Year, Sum(Amount) AS Total  
FROM Sale INNER JOIN SalesPerson  
ON Sale.SalesPersonID = SalesPerson.SalesPersonID  
GROUP BY CUBE(SalesPerson.Name, DatePart(yyyy, SaleDate), City, Country)`
- D. `SELECT SalesPerson.Name, Country, City,  
DatePart(yyyy, SaleDate) AS Year, Sum(Amount) AS Total  
FROM Sale INNER JOIN SalesPerson  
ON Sale.SalesPersonID = SalesPerson.SalesPersonID  
GROUP BY ROLLUP(SalesPerson.Name, DatePart(yyyy, SaleDate), City, Country)`

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Verified answer as correct.

Reference: <http://www.grapefruitmoon.net/diving-into-t-sql-grouping-sets/>

Reference: <http://msdn.microsoft.com/en-us/library/ms177673.aspx>

### QUESTION 17

You administer a Microsoft SQL Server database that supports a banking transaction management application. You need to retrieve a list of account holders who live in cities that do not have a branch location. Which Transact-SQL query or queries should you use? (Each correct answer presents a complete solution. Choose all that apply.)

- A. `SELECT AccountHolderID  
FROM AccountHolder  
WHERE CityID NOT IN (SELECT CityID FROM BranchMaster)`
- B. `SELECT AccountHolderID  
FROM AccountHolder  
WHERE CityID <> ALL (SELECT CityID FROM BranchMaster)`
- C. `SELECT AccountHolderID  
FROM AccountHolder  
WHERE CityID <> SOME (SELECT CityID FROM BranchMaster)`
- D. `SELECT AccountHolderID  
FROM AccountHolder  
WHERE CityID <> ANY (SELECT CityID FROM BranchMaster)`

**Correct Answer:** AB

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Verified the answers as correct.

Reference: <http://msdn.microsoft.com/en-us/library/ms188047.aspx>

Reference: <http://msdn.microsoft.com/en-us/library/ms177682.aspx>

Reference: <http://msdn.microsoft.com/en-us/library/ms173545.aspx>

### QUESTION 18

You administer a Microsoft SQL Server 2012 database. The database contains a table named Employee. Part of the Employee table is shown in the exhibit. (Click the Exhibit button.)

| Employee (jek) |                |
|----------------|----------------|
| Column Name    | Condensed Type |
| EmployeeID     | int            |
| EmployeeNum    | char(10)       |
| LastName       | nvarchar(200)  |
| FirstName      | nvarchar(200)  |
| MiddleName     | nvarchar(200)  |
| DateHired      | date           |
| DepartmentID   | int            |
| JobTitle       | varchar(200)   |
| ReportsToID    | int            |

| Column name  | Description                                                                                                                                               |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| EmployeeID   | Uniquely identifies the employee record in the table<br>Used throughout the database by all the other tables that reference the Employee table            |
| EmployeeNum  | An alphanumeric value calculated according to company requirements<br>Has to be unique within the Employee table<br>Exists only within the Employee table |
| DepartmentID | References another table named Department that contains data each department in the company                                                               |
| ReportsToID  | Contains the EmployeeID of the manager to whom an employee reports                                                                                        |

Confidential information about the employees is stored in a separate table named EmployeeData. One record exists within EmployeeData for each record in the Employee table. You need to assign the appropriate constraints and table properties to ensure data integrity and visibility. On which column in the Employee table should you use an identity specification to include a seed of 1,000 and an increment of 1?

- A. DateHired
- B. DepartmentID

- C. EmployeeID
- D. EmployeeNum
- E. FirstName
- F. JobTitle
- G. LastName
- H. MiddleName
- I. ReportsToID

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Verified answer as correct.

### QUESTION 19

You administer a Microsoft SQL Server 2012 database that includes a table named Products. The Products table has columns named ProductId, ProductName, and CreatedDateTime. The table contains a unique constraint on the combination of ProductName and CreatedDateTime. You need to modify the Products table to meet the following requirements:

- Remove all duplicates of the Products table based on the ProductName column.
- Retain only the newest Products row.

Which Transact-SQL query should you use?

- A. 

```
WITH CTEDupRecords
AS
(
 SELECT MAX(CreatedDateTime) AS CreatedDateTime, ProductName
 FROM Products
 GROUP BY ProductName
 HAVING COUNT(*) > 1
)
DELETE p
FROM Products p
JOIN CTEDupRecords cte ON
p.ProductName = cte.ProductName
AND p.CreatedDateTime > cte.CreatedDateTime
```
- B. 

```
WITH CTEDupRecords
AS
(
 SELECT MAX(CreatedDateTime) AS CreatedDateTime, ProductName
 FROM Products
 GROUP BY ProductName
 HAVING COUNT(*) > 1
)
DELETE p
FROM Products p
JOIN CTEDupRecords cte ON
cte.ProductName = p.ProductName
AND cte.CreatedDateTime > p.CreatedDateTime
```
- C. 

```
WITH CTEDupRecords
AS
(
 SELECT MIN(CreatedDateTime) AS CreatedDateTime, ProductName
 FROM Products
 GROUP BY ProductName
)
DELETE p
FROM Products p
JOIN CTEDupRecords cte ON
p.ProductName = cte.ProductName
```
- D. 

```
WITH CTEDupRecords
AS
```

```
(
 SELECT MAX(CreatedDateTime) AS CreatedDateTime, ProductName
 FROM Products
 GROUP BY ProductName
 HAVING COUNT(*) > 1
)
DELETE p
FROM Products p
JOIN CTEDupRecords cte ON
p.ProductName = cte.ProductName
```

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Verified answer as correct.

### QUESTION 20

You develop three Microsoft SQL Server 2012 databases named Database1, Database2, and Database3. You have permissions on both Database1 and Database2. You plan to write and deploy a stored procedure named dbo.usp\_InsertEvent in Database3. dbo.usp\_InsertEvent must execute other stored procedures in the other databases. You need to ensure that callers that do not have permissions on Database1 or Database2 can execute the stored procedure. Which Transact-SQL statement should you use?

- A. USE Database2
- B. EXECUTE AS OWNER
- C. USE Database1
- D. EXECUTE AS CALLER

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Verified answer as correct.

Reference: <http://msdn.microsoft.com/en-us/library/ms188354.aspx>

Reference: <http://blog.sqlauthority.com/2007/10/06/sql-server-executing-remote-stored-procedure-calling-stored-procedure-on-linked-server/>

### QUESTION 21

You administer a database that includes a table named Customers that contains more than 750 rows. You create a new column named PartitionNumber of the int type in the table. You need to assign a PartitionNumber for each record in the Customers table. You also need to ensure that the PartitionNumber satisfies the following conditions:

- Always starts with 1.
- Starts again from 1 after it reaches 100.

Which Transact-SQL statement should you use?

- A. 

```
CREATE SEQUENCE CustomerSequence AS int
START WITH 0
INCREMENT BY 1
MINVALUE 1
MAXVALUE 100
UPDATE Customers SET PartitionNumber = NEXT VALUE FOR CustomerSequence
DROP SEQUENCE CustomerSequence
```
- B. 

```
CREATE SEQUENCE CustomerSequence AS int
START WITH 1
INCREMENT BY 1
MINVALUE 1
MAXVALUE 100
CYCLE
```

- ```

UPDATE Customers SET PartitionNumber = NEXT VALUE FOR CustomerSequence
DROP SEQUENCE CustomerSequence
C. CREATE SEQUENCE CustomerSequence AS int
   START WITH 1
   INCREMENT BY 1
   MINVALUE 1
   MAXVALUE 100
   UPDATE Customers SET PartitionNumber = NEXT VALUE FOR CustomerSequence + 1
   DROP SEQUENCE CustomerSequence
D. CREATE SEQUENCE CustomerSequence AS int
   START WITH 1
   INCREMENT BY 1
   MINVALUE 0
   MAXVALUE 100
   CYCLE
   UPTATE Customers SET PartitionNumber = NEXT VALUE FOR CustomerSequence
   DROP SEQUENCE CustomerSequence

```

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

Verified answer as correct.

Reference: <http://msdn.microsoft.com/en-us/library/ff878091.aspx>

QUESTION 22

You use Microsoft SQL Server 2012 to develop a database application. You create a stored procedure named DeleteJobCandidate. You need to ensure that if DeleteJobCandidate encounters an error, the execution of the stored procedure reports the error number. Which Transact-SQL statement should you use?

- ```

A. DECLARE @ErrorVar INT;
 DECLARE @RowCountVar INT;

 EXEC DeleteJobCandidate

 SELECT @ErrorVar = @@ERROR, @RowCountVar = @@ROWCOUNT;
 IF (@ErrorVar <> 0)
 PRINT N'Error = ' + CAST(@@ErrorVar AS NVARCHAR(8)) +
 N', Rows Deleted = ' + CAST(@@RowCountVar AS NVARCHAR(8));
 GO
B. DECLARE @ErrorVar INT;
 DECLARE @RowCountVar INT;

 EXEC DeleteJobCandidate

 SELECT @ErrorVar = ERROR_STATE(), @RowCountVar = @@ROWCOUNT;
 IF (@ErrorVar <> 0)
 PRINT N'Error = ' + CAST(ERRORSTATE() AS NVARCHAR(8)) +
 N', Rows Deleted = ' + CAST(@@RowCountVar AS NVARCHAR(8));
 GO
C. EXEC DeleteJobCandidate

 IF (ERROR_STATE() != 0)
 PRINT N'Error = ' + CAST(@@ERROR AS NVARCHAR(8)) +
 N', Rows Deleted = ' + CAST(@@ROWCOUNT AS NVARCHAR(8));
 GO
D. EXEC DeleteJobCandidate

 PRINT N'Error = ' + CAST(@@ERROR AS NVARCHAR(8)) +
 N', Rows Deleted = ' + CAST(@@ROWCOUNT AS NVARCHAR(8));
 GO

```

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Verified answer as correct.

Reference: <http://msdn.microsoft.com/en-us/library/ms190193.aspx>

Reference: <http://msdn.microsoft.com/en-us/library/ms188790.aspx>

### QUESTION 23

A table named Profits stores the total profit made each year within a territory. The Profits table has columns named Territory, Year, and Profit. You need to create a report that displays the profits made by each territory for each year and its preceding year. Which Transact-SQL query should you use?

- A. 

```
SELECT Territory, Year, Profit,
 LAG(Profit, 1, 0) OVER(PARTITION BY Year ORDER BY Territory) AS
 NextProfit
FROM Profits
```
- B. 

```
SELECT Territory, Year, Profit,
 LAG(Profit, 1, 0) OVER(PARTITION BY Territory ORDER BY Year) AS
 NextProfit
FROM Profits
```
- C. 

```
SELECT Territory, Year, Profit,
 LEAD(Profit, 1, 0) OVER(PARTITION BY Territory ORDER BY Year) AS
 NextProfit
FROM Profits
```
- D. 

```
SELECT Territory, Year, Profit,
 LEAD(Profit, 1, 0) OVER(PARTITION BY Year ORDER BY Territory) AS
 NextProfit
FROM Profits
```

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Verified answer as correct.

Reference: <http://msdn.microsoft.com/en-us/library/hh231256.aspx>

Reference: <http://msdn.microsoft.com/en-us/library/hh213125.aspx>

### QUESTION 24

You use Microsoft SQL Server 2012 to develop a database application. Your application sends data to an NVARCHAR(MAX) variable named @var. You need to write a Transact-SQL statement that will find out the success of a cast to a decimal (36,9). Which code segment should you use?select

- A. 

```
BEGIN TRY
 SELECT convert(decimal(36,9), @var) AS Value, 'True' AS BadCast
END TRY
BEGIN CATCH
 SELECT convert(decimal(36,9), @var) AS Value, 'False' AS BadCast
END CATCH
```
- B. 

```
TRY(
 SELECT convert(decimal(36,9), @var)
 SELECT 'True' AS BadCast
)
CATCH(
 SELECT 'False' AS BadCast
)
```
- C. 

```
SELECT
CASE
 WHEN convert(decimal(36,9), @var) IS NULL
 THEN 'True'
```

```

 ELSE 'False'
 END
 AS BadCast
D. SELECT
 IIF(TRY_PARSE(@var AS decimal(36,9)) IS NULL, 'True', 'False')
 AS BadCast

```

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Verified answer as correct.

Reference: <http://msdn.microsoft.com/en-us/library/hh213126.aspx>

#### QUESTION 25

You are writing a set of queries against a FILESTREAM-enabled database. You create a stored procedure that will update multiple tables within a transaction. You need to ensure that if the stored procedure raises a run-time error, the entire transaction is terminated and rolled back. Which Transact-SQL statement should you include at the beginning of the stored procedure?

- A. SET TRANSACTION ISOLATION LEVEL SERIALIZABLE
- B. SET XACT\_ABORT OFF
- C. SET TRANSACTION ISOLATION LEVEL SNAPSHOT
- D. SET IMPLICIT\_TRANSACTIONS ON
- E. SET XACT\_ABORT ON
- F. SET IMPLICIT\_TRANSACTIONS OFF

**Correct Answer:** E

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Verified answer as correct.

Reference: <http://msdn.microsoft.com/en-us/library/ms188792.aspx>

#### QUESTION 26

You create a stored procedure that will update multiple tables within a transaction. You need to ensure that if the stored procedure raises a run-time error, the entire transaction is terminated and rolled back. Which Transact-SQL statement should you include at the beginning of the stored procedure?

- A. SET XACT\_ABORT ON
- B. SET ARITHABORT ON
- C. TRY
- D. BEGIN
- E. SET ARITHABORT OFF
- F. SET XACT\_ABORT OFF

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Verified answer as correct.

Reference: <http://msdn.microsoft.com/en-us/library/ms190306.aspx>

Reference: <http://msdn.microsoft.com/en-us/library/ms188792.aspx>



**QUESTION 27**

You are a database developer at an independent software vendor. You create stored procedures that contain proprietary code. You need to protect the code from being viewed by your customers. Which stored procedure option should you use?

- A. ENCRYPTBYKEY
- B. ENCRYPTION
- C. ENCRYPTBYPASSPHRASE
- D. ENCRYPTBYCERT

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Verified answer as correct.

Reference: <http://technet.microsoft.com/en-us/library/bb510663.aspx>

Reference: <http://technet.microsoft.com/en-us/library/ms174361.aspx>

Reference: <http://msdn.microsoft.com/en-us/library/ms187926.aspx>

Reference: <http://technet.microsoft.com/en-us/library/ms190357.aspx>

Reference: <http://technet.microsoft.com/en-us/library/ms188061.aspx>

**QUESTION 28**

You use a Microsoft SQL Server 2012 database. You want to create a table to store Microsoft Word documents. You need to ensure that the documents must only be accessible via Transact-SQL queries. Which Transact-SQL statement should you use?

- A. 

```
CREATE TABLE DocumentStore
(
 [Id] INT NOT NULL PRIMARY KEY,
 [Document] VARBINARY(MAX) NULL
)
GO
```
- B. 

```
CREATE TABLE DocumentStore
(
 [Id] hierarchyid,
 [Document] NVARCHAR NOT NULL
)
GO
```
- C. 

```
CREATE TABLE DocumentStore AS FileTable
```
- D. 

```
CREATE TABLE DocumentStore
(
 [Id] [uniqueidentifier] ROWGUIDCOL NOT NULL UNIQUE,
 [Document] VARBINARY(MAX) FILESTREAM NULL
)
GO
```

**Correct Answer: A**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Verified answer as correct.

Reference: <http://msdn.microsoft.com/en-us/library/gg471497.aspx>

Reference: <http://msdn.microsoft.com/en-us/library/ff929144.aspx>

## Exam B

### QUESTION 1

You develop a Microsoft SQL Server 2012 database that contains a heap named OrdersHistorical. You write the following Transact-SQL query:

```
INSERT INTO OrdersHistorical
SELECT * FROM CompletedOrders
```

You need to optimize transaction logging and locking for the statement. Which table hint should you use?

- A. HOLDLOCK
- B. ROWLOCK
- C. XLOCK
- D. UPDLOCK
- E. TABLOCK

**Correct Answer: E**

**Section: (none)**

**Explanation**

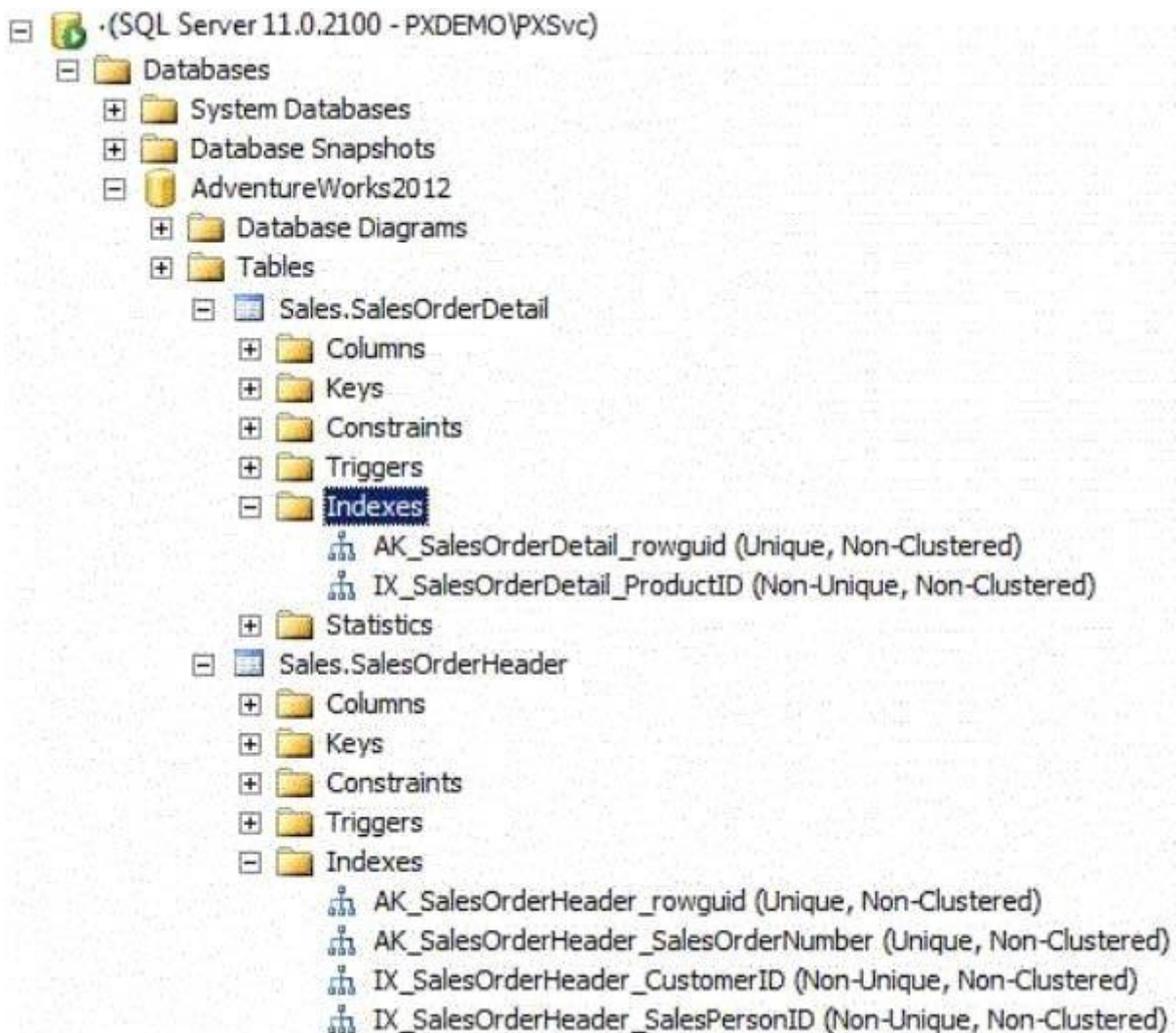
**Explanation/Reference:**

Reference: <http://technet.microsoft.com/en-us/library/ms189857.aspx>

Reference: <http://msdn.microsoft.com/en-us/library/ms187373.aspx>

### QUESTION 2

You use a Microsoft SQL Server 2012 database that contains two tables named SalesOrderHeader and SalesOrderDetail. The indexes on the tables are as shown in the exhibit. (Click the Exhibit button.)



You write the following Transact-SQL query:

```
SELECT h.SalesOrderID, h.TotalDue, d.OrderQty
FROM Sales.SalesOrderHeader AS h
 INNER JOIN Sales.SalesOrderDetail AS d
 ON h.SalesOrderID = d.SalesOrderID
WHERE h.TotalDue > 100
AND (d.OrderQty > 5 OR d.LineTotal < 1000.00);
```

You discover that the performance of the query is slow. Analysis of the query plan shows table scans where the estimated rows do not match the actual rows for SalesOrderHeader by using an unexpected index on SalesOrderDetail. You need to improve the performance of the query. What should you do?

- A. Use a FORCESCAN hint in the query.
- B. Add a clustered index on SalesOrderID in SalesOrderHeader.
- C. Use a FORCESEEK hint in the query.
- D. Update statistics on SalesOrderID on both tables.

**Correct Answer: D**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

References: <http://msdn.microsoft.com/en-us/library/ms187348.aspx>

### QUESTION 3

You develop a database for a travel application. You need to design tables and other database objects. You need to store media files in several tables. Each media file is less than 1 MB in size. The media files will require fast access and will be retrieved frequently. What should you do?

- A. Use the CAST function.
- B. Use the DATE data type.
- C. Use the FORMAT function.
- D. Use an appropriate collation.
- E. Use a user-defined table type.
- F. Use the VARBINARY data type.
- G. Use the DATETIME data type.
- H. Use the DATETIME2 data type.
- I. Use the DATETIMEOFFSET data type.
- J. Use the TODATETIMEOFFSET function.

**Correct Answer: F**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Reference: <http://msdn.microsoft.com/en-us/library/ms188362.aspx>

### QUESTION 4

You develop a database for a travel application. You need to design tables and other database objects. You create a view that displays the dates and times of the airline schedules on a report. You need to display dates and times in several international formats. What should you do?

- A. Use the CAST function.
- B. Use the DATE data type.
- C. Use the FORMAT function.
- D. Use an appropriate collation.
- E. Use a user-defined table type.
- F. Use the VARBINARY data type.
- G. Use the DATETIME data type.
- H. Use the DATETIME2 data type.
- I. Use the DATETIMEOFFSET data type.
- J. Use the TODATETIMEOFFSET function.

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Reference: <http://msdn.microsoft.com/en-us/library/hh213505.aspx>

### QUESTION 5

You are a database developer of a Microsoft SQL Server 2012 database. You are designing a table that will store Customer data from different sources. The table will include a column that contains the CustomerID from the source system and a column that contains the SourceID. A sample of this data is as shown in the following table.

| SourceID | CustomerID | Customer Name |
|----------|------------|---------------|
| 1        | 234        | John Smith    |
| 3        | 7345       | Jason Warren  |
| 3        | 4402       | Susan Burk    |
| 2        | 866        | Michael Allen |

You need to ensure that the table has no duplicate CustomerID within a SourceID. You also need to ensure that the data in the table is in the order of SourceID and then CustomerID. Which Transact- SQL statement should you use?

- A. `CREATE TABLE Customer  
(SourceID int NOT NULL IDENTITY,  
CustomerID int NOT NULL IDENTITY,  
CustomerName varchar(255) NOT NULL);`
- B. `CREATE TABLE Customer  
(SourceID int NOT NULL,  
CustomerID int NOT NULL PRIMARY KEY CLUSTERED,  
CustomerName varchar(255) NOT NULL);`
- C. `CREATE TABLE Customer  
(SourceID int NOT NULL PRIMARY KEY CLUSTERED,  
CustomerID int NOT NULL UNIQUE,  
CustomerName varchar(255) NOT NULL);`
- D. `CREATE TABLE Customer  
(SourceID int NOT NULL,  
CustomerID int NOT NULL,  
CustomerName varchar(255) NOT NULL,  
CONSTRAINT PK_Customer PRIMARY KEY CLUSTERED  
(SourceID, CustomerID));`

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Verified the answer as correct.

#### QUESTION 6

You develop a Microsoft SQL Server 2012 database that contains tables named Employee and Person. The tables have the following definitions:

```

CREATE TABLE [dbo].[Employee] (
 [PersonId] [bigint] NOT NULL,
 [EmployeeNumber] [nvarchar](15) NOT NULL,
 CONSTRAINT [PK_Employee] PRIMARY KEY CLUSTERED
 (
 [PersonId] ASC
) ON [PRIMARY]
) ON [PRIMARY]
GO

```

```

CREATE TABLE [dbo].[Person] (
 [Id] [bigint] NOT NULL,
 [FirstName] [nvarchar](25) NOT NULL,
 [LastName] [nvarchar](25) NOT NULL,
 CONSTRAINT [PK_Person] PRIMARY KEY CLUSTERED
 (
 [Id] ASC
) ON [PRIMARY]
) ON [PRIMARY]
GO

```

You create a view named VwEmployee as shown in the following Transact-SQL statement.

```

CREATE VIEW [dbo].[VwEmployee]
AS
SELECT
Employee.EmployeeNumber,
 Person.FirstName,
 Person.LastName,
 Person.Id
FROM Employee
INNER JOIN Person
ON Employee.PersonId = Person.Id
GO

```

Users are able to use single INSERT statements or INSERT...SELECT statements into this view. You need to ensure that users are able to use a single statement to insert records into both Employee and Person tables by using the VwEmployee view. Which Transact-SQL statement should you use?

- A. CREATE TRIGGER TrgVwEmployee
  - ON VwEmployee
  - FOR INSERT
  - AS
  - BEGIN
  - INSERT INTO Person(Id, FirstName, LastName)
  - SELECT Id, FirstName, LastName, FROM inserted
  - INSERT INTO Employee(PersonId, EmployeeNumber)
  - SELECT Id, EmployeeNumber FROM inserted
  - END
- B. CREATE TRIGGER TrgVwEmployee
  - ON VwEmployee
  - INSTEAD OF INSERT

```

AS
BEGIN
INSERT INTO Person(Id, FirstName, LastName)
SELECT Id, FirstName, LastName, FROM inserted

INSERT INTO Employee(PersonId, EmployeeNumber)
SELECT Id, EmployeeNumber FROM inserted

END
C. CREATE TRIGGER TrgVwEmployee
ON VwEmployee
INSTEAD OF INSERT
AS
BEGIN

DECLARE @ID INT, @FirstName NVARCHAR(25), @LastName NVARCHAR(25), @PersonID
INT, @EmployeeNumber NVARCHAR(15)

SELECT @ID = ID, @FirstName = FirstName, @LastName = LastName,
@EmployeeNumber = EmployeeNumber
FROM inserted

INSERT INTO Person(Id, FirstName, LastName)
VALUES(@ID, @FirstName, @LastName)

INSERT INTO Employee(PersonID, EmployeeNumber)
VALUES(@PersonID, @EmployeeNumber

End
D. CREATE TRIGGER TrgVwEmployee
ON VwEmployee
INSTEAD OF INSERT
AS
BEGIN
INSERT INTO Person(Id, FirstName, LastName)
SELECT Id, FirstName, LastName FROM VwEmployee

INSERT INTO Employee(PersonID, EmployeeNumber)
SELECT Id, EmployeeNumber FROM VwEmployee

End

```

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Verified answer as correct.

### QUESTION 7

You develop a Microsoft SQL Server 2012 server database that supports an application. The application contains a table that has the following definition:

```

CREATE TABLE Inventory
(ItemID int NOT NULL PRIMARY KEY,
ItemsInStore int NOT NULL,
ItemsInWarehouse int NOT NULL)

```

You need to create a computed column that returns the sum total of the ItemsInStore and ItemsInWarehouse values for each row. Which Transact-SQL statement should you use?

- A. ALTER TABLE Inventory  
ADD TotalItems AS ItemsInStore + ItemsInWarehouse
- B. ALTER TABLE Inventory  
ADD ItemsInStore - ItemsInWarehouse = TotalItems

- C. ALTER TABLE Inventory  
ADD TotalItems = ItemsInStore + ItemsInWarehouse
- D. ALTER TABLE Inventory  
ADD TotalItems AS SUM(ItemsInStore, ItemsInWarehouse);

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Verified answer as correct.

Reference: <http://technet.microsoft.com/en-us/library/ms190273.aspx>

#### QUESTION 8

You develop a Microsoft SQL Server 2012 database. You create a view from the Orders and OrderDetails tables by using the following definition.

```
CREATE VIEW vOrders
WITH SCHEMABINDING
AS
SELECT o.ProductID,
 o.OrderDate,
 SUM(od.UnitPrice * od.OrderQty) AS Amount
FROM OrderDetails AS od INNER JOIN
 Orders AS o ON od.OrderID = o.OrderID
WHERE od.SalesOrderID = o.SalesOrderID
GROUP BY o.OrderDate, o.ProductID
GO
```

You need to improve the performance of the view by persisting data to disk. What should you do?

- A. Create an INSTEAD OF trigger on the view.
- B. Create an AFTER trigger on the view.
- C. Modify the view to use the WITH VIEW\_METADATA clause.
- D. Create a clustered index on the view.

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Verified answer as correct.

Reference: <http://msdn.microsoft.com/en-us/library/ms188783.aspx>

#### QUESTION 9

A table named Profits stores the total profit made each year within a territory. The Profits table has columns named Territory, Year, and Profit. You need to create a report that displays the profits made by each territory for each year and its previous year. Which Transact-SQL query should you use?

- A. SELECT Territory, Year, Profit,  
 LEAD(Profit, 1, 0) OVER (PARTITION BY Territory ORDER BY Year) AS  
 PrevProfit  
FROM Profits
- B. SELECT Territory, Year, Profit,  
 LAG(Profit, 1, 0) OVER (PARTITION BY Year ORDER BY Territory) AS  
 PrevProfit  
FROM Profits



- C. `SELECT Territory, Year, Profit,  
LAG(Profit, 1, 0) OVER (PARTITION BY Territory ORDER BY Year) AS  
PrevProfit  
FROM Profits`
- D. `SELECT Territory, Year, Profit,  
LEAD(Profit, 1, 0) OVER (PARTITION BY Year ORDER BY Territory) AS  
PrevProfit  
FROM Profits`

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Verified answer as correct.

Reference: <http://msdn.microsoft.com/en-us/library/hh231256.aspx>

Reference: <http://msdn.microsoft.com/en-us/library/hh213125.aspx>

### QUESTION 10

You administer a Microsoft SQL Server database that supports a shopping application. You need to retrieve a list of customers who live in territories that do not have a sales person. Which Transact- SQL query or queries should you use? (Each correct answer presents a complete solution. Choose all that apply.)

- A. `SELECT CustomerID FROM Customer  
WHERE TerritoryID <> SOME(SELECT TerritoryID FROM Salesperson)`
- B. `SELECT CustomerID FROM Customer  
WHERE TerritoryID <> ALL(SELECT TerritoryID FROM Salesperson)`
- C. `SELECT CustomerID FROM Customer  
WHERE TerritoryID <> ANY(SELECT TerritoryID FROM Salesperson)`
- D. `SELECT CustomerID FROM Customer  
WHERE TerritoryID NOT IN(SELECT TerritoryID FROM Salesperson)`

**Correct Answer: BD**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Verified answer as correct.

### QUESTION 11

Your database contains a table named SalesOrders. The table includes a DATETIME column named OrderTime that stores the date and time each order is placed. There is a non-clustered index on the OrderTime column. The business team wants a report that displays the total number of orders placed on the current day. You need to write a query that will return the correct results in the most efficient manner. Which Transact-SQL query should you use?

- A. `SELECT COUNT(*) FROM SalesOrders  
WHERE OrderTime = CONVERT(DATE, GETDATE())`
- B. `SELECT COUNT(*) FROM SalesOrders  
WHERE OrderTime = GETDATE()`
- C. `SELECT COUNT(*) FROM SalesOrders  
WHERE CONVERT(VARCHAR, OrderTime, 112) = CONVERT(VARCHAR, GETDATE(I, 112))`
- D. `SELECT COUNT(*) FROM SalesOrders  
WHERE OrderTime >= CONVERT(DATE, GETDATE())  
AND OrderTime < DATEADD(DAY, CONVERT(DATE, GETDATE()))`

**Correct Answer: D**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Two answers will return the correct results (the C." .... WHERE CONVERT..." and D." .... WHERE ... AND ... " answers).

The correct answer for Microsoft would be the answer that is most "efficient". The table has a non-clustered index on the OrderTime column, therefore the most efficient answer is D.

<http://technet.microsoft.com/en-us/library/ms179325.aspx>

### QUESTION 12

You use Microsoft SQL Server 2012 to develop a database application. You create a stored procedure named dbo.ModifyData that can modify rows. You need to ensure that when the transaction fails, dbo.ModifyData meets the following requirements:

- Does not return an error
- Closes all opened transactions

Which Transact-SQL statement should you use?

- A. BEGIN TRANSACTION  
BEGIN TRY  
EXEC dbo.ModifyData  
COMMIT TRANSACTION  
END TRY  
BEGIN CATCH  
IF @@ TRANCOUNT = 0  
ROLLBACK TRANSACTION;  
END CATCH
- B. BEGIN TRANSACTION  
BEGIN TRY  
EXEC dbo.ModifyData  
COMMIT TRANSACTION  
END TRY  
BEGIN CATCH  
IF @@ERROR != 0  
ROLLBACK TRANSACTION;  
THROW;  
END CATCH
- C. BEGIN TRANSACTION  
BEGIN TRY  
EXEC dbo.ModifyData  
COMMIT TRANSACTION  
END TRY  
BEGIN CATCH  
IF @@TRANCOUNT = 0  
ROLLBACK TRANSACTION;  
THROW;  
END CATCH
- D. BEGIN TRANSACTION  
BEGIN TRY  
EXEC dbo.ModifyData  
COMMIT TRANSACTION  
END TRY  
BEGIN CATCH  
IF @@ERROR != 0  
ROLLBACK TRANSACTION;  
END CATCH

**Correct Answer: D**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Verified answer as correct.

### QUESTION 13

You are developing a database application by using Microsoft SQL Server 2012. An application that uses a

database begins to run slowly. You discover that during reads, the transaction experiences blocking from concurrent updates. You need to ensure that throughout the transaction the data maintains the original version. What should you do?

- A. Add a HASH hint to the query.
- B. Add a LOOP hint to the query.
- C. Add a FORCESEEK hint to the query.
- D. Add an INCLUDE clause to the index.
- E. Add a FORCESCAN hint to the Attach query.
- F. Add a columnstore index to cover the query.
- G. Enable the optimize for ad hoc workloads option.
- H. Cover the unique clustered index with a columnstore index.
- I. Include a SET FORCEPLAN ON statement before you run the query.
- J. Include a SET STATISTICS PROFILE ON statement before you run the query.
- K. Include a SET STATISTICS SHOWPLAN\_XML ON statement before you run the query.
- L. Include a SET TRANSACTION ISOLATION LEVEL REPEATABLE READ statement before you run the query.
- M. Include a SET TRANSACTION ISOLATION LEVEL SNAPSHOT statement before you run the query.
- N. Include a SET TRANSACTION ISOLATION LEVEL SERIALIZABLE statement before you run the query.

**Correct Answer:** M

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 14

You are developing a database application by using Microsoft SQL Server 2012. An application that uses a database begins to run slowly. You discover that a large amount of memory is consumed by single-use dynamic queries. You need to reduce procedure cache usage from these statements without creating any additional indexes. What should you do?

- A. Add a HASH hint to the query.
- B. Add a LOOP hint to the query.
- C. Add a FORCESEEK hint to the query.
- D. Add an INCLUDE clause to the index.
- E. Add a FORCESCAN hint to the Attach query.
- F. Add a columnstore index to cover the query.
- G. Enable the optimize for ad hoc workloads option.
- H. Cover the unique clustered index with a columnstore index.
- I. Include a SET FORCEPLAN ON statement before you run the query.
- J. Include a SET STATISTICS PROFILE ON statement before you run the query.
- K. Include a SET STATISTICS SHOWPLAN\_XML ON statement before you run the query.
- L. Include a SET TRANSACTION ISOLATION LEVEL REPEATABLE READ statement before you run the query.
- M. Include a SET TRANSACTION ISOLATION LEVEL SNAPSHOT statement before you run the query.
- N. Include a SET TRANSACTION ISOLATION LEVEL SERIALIZABLE statement before you run the query.

**Correct Answer:** G

**Section:** (none)

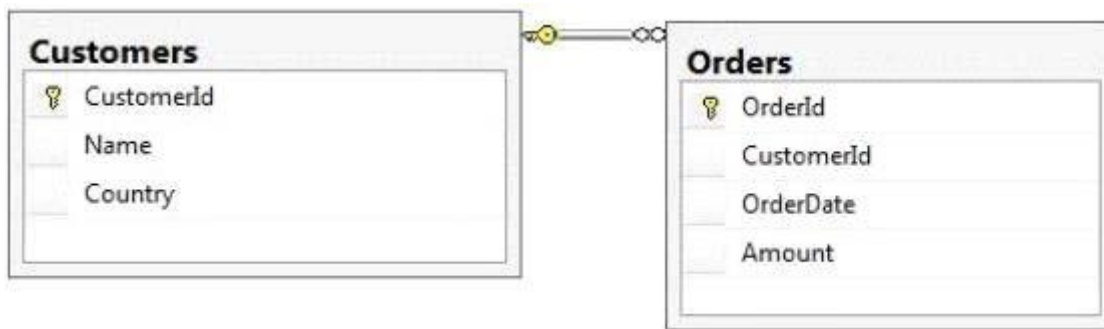
**Explanation**

**Explanation/Reference:**

Reference: <http://msdn.microsoft.com/en-us/library/cc645587.aspx>

#### QUESTION 15

You administer a Microsoft SQL Server 2012 database named ContosoDb. Tables are defined as shown in the exhibit. (Click the Exhibit button.)



You need to display rows from the Orders table for the Customers row having the CustomerId value set to 1 in the following XML format.

```

<Customers>
 <Name>Customer A</Name>
 <Country>Australia</Country>
 <Orders>
 <OrderId>1</OrderId>
 <OrderDate>2000-01-01T00:00:00</OrderDate>
 <Amount>3400.00</Amount>
 </Orders>
 <Orders>
 <OrderId>2</OrderId>
 <OrderDate>2001-01-01T00:00:00</OrderDate>
 <Amount>4300.00</Amount>
 </Orders>
</Customers>

```

Which Transact-SQL query should you use?

- A. `SELECT OrderId, OrderDate, Amount, Name, Country FROM Orders INNER JOIN Customers ON Orders.CustomerId = Customers.CustomerId WHERE Customers.CustomerId = 1 FOR XML RAW`
- B. `SELECT OrderId, OrderDate, Amount, Name, Country FROM Orders INNER JOIN Customers ON Orders.CustomerId = Customers.CustomerId WHERE Customers.CustomerId = 1 FOR XML RAW, ELEMENTS`
- C. `SELECT OrderId, OrderDate, Amount, Name, Country FROM Orders INNER JOIN Customers ON Orders.CustomerId = Customers.CustomerId WHERE Customers.CustomerId = 1 FOR XML AUTO`
- D. `SELECT OrderId, OrderDate, Amount, Name, Country FROM Orders INNER JOIN Customers ON Orders.CustomerId = Customers.CustomerId WHERE Customers.CustomerId = 1 FOR XML AUTO, ELEMENTS`
- E. `SELECT Name, Country, OrderId, OrderDate, Amount FROM Orders INNER JOIN Customers ON Orders.CustomerId = Customers.CustomerId WHERE Customers.CustomerId = 1 FOR XML AUTO`
- F. `SELECT Name, Country, OrderId, OrderDate, Amount FROM Orders INNER JOIN Customers ON Orders.CustomerId = Customers.CustomerId WHERE Customers.CustomerId = 1 FOR XML AUTO, ELEMENTS`

- G. `SELECT Name AS '@Name', Country AS '@Country', OrderId, OrderDate, Amount  
FROM Orders INNER JOIN Customers ON Orders.CustomerId= Customers.CustomerId  
WHERE Customers.CustomerId= 1  
FOR XML PATH ('Customers')`
- H. `SELECT Name AS 'Customers/Name', Country AS 'Customers/Country', OrderId,  
OrderDate, Amount FROM Orders  
INNER JOIN Customers ON Orders.CustomerId= Customers.CustomerId WHERE  
Customers.CustomerId= 1  
FOR XML PATH ('Customers')`

**Correct Answer: F**

**Section: (none)**

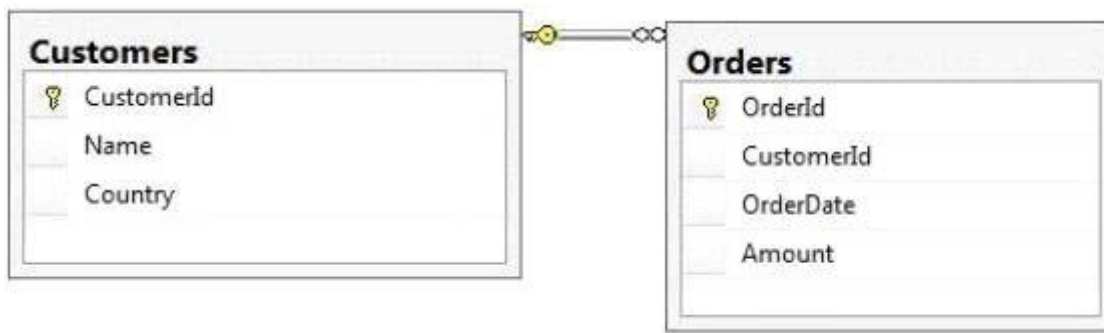
**Explanation**

**Explanation/Reference:**

Verified answer as correct.

### QUESTION 16

You administer a Microsoft SQL Server 2012 database named ContosoDb. Tables are defined as shown in the exhibit. (Click the Exhibit button.)



You need to display rows from the Orders table for the Customers row having the CustomerId value set to 1 in the following XML format.

```

<Customers Name="Customer A" Country="Australia">
 <OrderId>1</OrderId>
 <OrderDate>2000-01-01T00:00:00</OrderDate>
 <Amount>3400.00</Amount>
</Customers>
<Customers Name="Customer A" Country="Australia">
 <OrderId>2</OrderId>
 <OrderDate>2001-01-01T00:00:00</OrderDate>
 <Amount>4300.00</Amount>
</Customers>

```

Which Transact-SQL query should you use?

- A. `SELECT OrderId, OrderDate, Amount, Name, Country FROM Orders INNER JOIN  
Customers ON Orders.CustomerId = Customers.CustomerId WHERE  
Customers.CustomerId = 1  
FOR XML RAW`
- B. `SELECT OrderId, OrderDate, Amount, Name, Country FROM Orders INNER JOIN  
Customers ON Orders.CustomerId = Customers.CustomerId WHERE  
Customers.CustomerId = 1  
FOR XML RAW, ELEMENTS`
- C. `SELECT OrderId, OrderDate, Amount, Name, Country FROM Orders INNER JOIN  
Customers ON Orders.CustomerId = Customers.CustomerId WHERE  
Customers.CustomerId = 1`

- FOR XML AUTO
- D. SELECT OrderId, OrderDate, Amount, Name, Country FROM Orders INNER JOIN Customers ON Orders.CustomerId = Customers.CustomerId WHERE Customers.CustomerId= 1  
FOR XML AUTO, ELEMENTS
- E. SELECT Name, Country, OrderId, OrderDate, Amount FROM Orders INNER JOIN Customers ON Orders.CustomerId= Customers.CustomerId WHERE Customers.CustomerId= 1  
FOR XML AUTO
- F. SELECT Name, Country, OrderId, OrderDate, Amount FROM Orders INNER JOIN Customers ON Orders.CustomerId= Customers.CustomerId WHERE Customers.CustomerId= 1  
FOR XML AUTO, ELEMENTS
- G. SELECT Name AS '@Name', Country AS '@Country', OrderId, OrderDate, Amount FROM Orders INNER JOIN Customers ON Orders.CustomerId= Customers.CustomerId WHERE Customers.CustomerId= 1  
FOR XML PATH ('Customers')
- H. SELECT Name AS 'Customers/Name', Country AS 'Customers/Country', OrderId, OrderDate, Amount FROM Orders INNER JOIN Customers ON Orders.CustomerId= Customers.CustomerId WHERE Customers.CustomerId= 1  
FOR XML PATH ('Customers')

**Correct Answer: G**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Verified answer as correct.

### QUESTION 17

You create a table that has the StudentCode, SubjectCode, and Marks columns to record mid-year marks for students. The table has marks obtained by 50 students for various subjects. You need to ensure that the top half of the students arranged by their average marks must be given a rank of 1 and the remaining students must be given a rank of 2. Which Transact-SQL query should you use?

- A. SELECT StudentCode as Code,  
RANK() OVER (ORDER BY AVG (Marks) DESC) AS Value  
FROM StudentMarks  
GROUP BY StudentCode
- B. SELECT Id, Name, Marks,  
DENSE\_RANK() OVER (ORDER BY Marks DESC) AS Rank  
FROM StudentMarks
- C. SELECT StudentCode as Code,  
DENSE\_RANK() OVER (ORDER BY AVG (Marks) DESC) AS Value  
FROM StudentMarks  
GROUP BY StudentCode
- D. SELECT StudentCode as Code,  
NTILE (2) OVER (ORDER BY AVG (Marks) DESC) AS Value  
FROM StudentMarks  
GROUP BY StudentCode
- E. SELECT StudentCode AS Code,Marks AS Value FROM (  
SELECT StudentCode, Marks AS Marks,  
RANK() OVER (PARTITION BY SubjectCode ORDER BY Marks ASC) AS Rank  
FROM StudentMarks) tmp  
WHERE Rank = 1
- F. SELECT StudentCode AS Code,Marks AS Value FROM (  
SELECT StudentCode, Marks AS Marks,  
RANK() OVER (PARTITION BY SubjectCode ORDER BY Marks DESC) AS Rank  
FROM StudentMarks) tmp  
WHERE Rank = 1
- G. SELECT StudentCode AS Code,Marks AS Value FROM (  
SELECT StudentCode, Marks AS Marks,

```

 RANK () OVER (PARTITION BY StudentCode ORDER BY Marks ASC) AS Rank
 FROM StudentMarks) tmp
WHERE Rank = 1
H. SELECT StudentCode AS Code,Marks AS Value FROM (
 SELECT StudentCode, Marks AS Marks,
 RANXO OVER (PARTITION BY StudentCode ORDER BY Marks DESC) AS Rank
 FROM StudentMarks) tmp
WHERE Rank = 1

```

**Correct Answer: D**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

### QUESTION 18

You create a table that has the StudentCode, SubjectCode, and Marks columns to record mid-year marks for students. The table has marks obtained by 50 students for various subjects. You need to retrieve the students who scored the highest marks for each subject along with the marks. Which Transact-SQL query should you use?

- A. SELECT StudentCode as Code, RANK() OVER(ORDER BY AVG(Marks) DESC) AS Value  
FROM StudentMarks  
GROUP BY StudentCode
- B. SELECT Id, Name, Marks, DENSE\_RANK() OVER(ORDER BY Marks DESC) AS Rank  
FROM StudentMarks
- C. SELECT StudentCode as Code, DENSE\_RANK() OVER(ORDER BY AVG(Marks) DESC) AS Value  
FROM StudentMarks  
GROUP BY StudentCode
- D. SELECT StudentCode as Code, NTILE(2) OVER(ORDER BY AVG(Marks) DESC) AS Value  
FROM StudentMarks  
GROUP BY StudentCode
- E. SELECT StudentCode AS Code, Marks AS Value FROM (  
 SELECT StudentCode, Marks AS Marks,  
 RANK() OVER(PARTITION BY SubjectCode ORDER BY Marks ASC) AS Rank  
 FROM StudentMarks) tmp  
WHERE Rank = 1
- F. SELECT StudentCode AS Code, Marks AS Value FROM (  
 SELECT StudentCode, Marks AS Marks,  
 RANK() OVER(PARTITION BY SubjectCode ORDER BY Marks DESC) AS Rank  
 FROM StudentMarks) tmp  
WHERE Rank = 1
- G. SELECT StudentCode AS Code, Marks AS Value FROM (  
 SELECT StudentCode, Marks AS Marks,  
 RANK() OVER(PARTITION BY StudentCode ORDER BY Marks ASC) AS Rank  
 FROM StudentMarks) tmp  
WHERE Rank = 1
- H. SELECT StudentCode AS Code, Marks AS Value FROM (  
 SELECT StudentCode, Marks AS Marks,  
 RANXO OVER(PARTITION BY StudentCode ORDER BY Marks DESC) AS Rank  
 FROM StudentMarks) tmp  
WHERE Rank = 1

**Correct Answer: F**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 19**

You develop a database for a travel application. You need to design tables and other database objects. You create the Airline\_Schedules table. You need to store the departure and arrival dates and times of flights along with time zone information. What should you do?

- A. Use the CAST function.
- B. Use the DATE data type.
- C. Use the FORMAT function.
- D. Use an appropriate collation.
- E. Use a user-defined table type.
- F. Use the VARBINARY data type.
- G. Use the DATETIME data type.
- H. Use the DATETIME2 data type.
- I. Use the DATETIMEOFFSET data type.
- J. Use the TODATETIMEOFFSET function.

**Correct Answer: I**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Reference: <http://msdn.microsoft.com/en-us/library/ff848733.aspx>

Reference: <http://msdn.microsoft.com/en-us/library/bb630289.aspx>

**QUESTION 20**

You develop a database for a travel application. You need to design tables and other database objects. You create a stored procedure. You need to supply the stored procedure with multiple event names and their dates as parameters. What should you do?

- A. Use the CAST function.
- B. Use the DATE data type.
- C. Use the FORMAT function.
- D. Use an appropriate collation.
- E. Use a user-defined table type.
- F. Use the VARBINARY data type.
- G. Use the DATETIME data type.
- H. Use the DATETIME2 data type.
- I. Use the DATETIMEOFFSET data type.
- J. Use the TODATETIMEOFFSET function.

**Correct Answer: E**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 21**

You are a database developer for an application hosted on a Microsoft SQL Server 2012 server. The database contains two tables that have the following definitions:



```
CREATE TABLE Customer
(CustomerID int NOT NULL PRIMARY KEY,
CustomerName varchar(50) NOT NULL)
```

```
CREATE TABLE Orders
(OrderID int NOT NULL PRIMARY KEY,
CustomerID int NOT NULL FOREIGN KEY REFERENCES Customer (CustomerID),
OrderAmount money NOT NULL,
ShippingCountry varchar(50) NOT NULL)
```

Global customers place orders from several countries. You need to view the country from which each customer has placed the most orders. Which Transact-SQL query do you use?

- A. 

```
SELECT c.CustomerID, c.CustomerName, o.ShippingCountry
FROM Customer c
INNER JOIN
 (SELECT CustomerID, ShippingCountry,
 RANK() OVER (PARTITION BY CustomerID
 ORDER BY COUNT(OrderAmount) DESC) AS Rnk
 FROM Orders
 GROUP BY CustomerID, ShippingCountry) AS o
ON c.CustomerID = o.CustomerID
WHERE o.Rnk = 1
```
- B. 

```
SELECT c.CustomerID, c.CustomerName, o.ShippingCountry
FROM
 (SELECT c.CustomerID, c.CustomerName, o.ShippingCountry,
 RANK() OVER (PARTITION BY CustomerID
 ORDER BY COUNT(o.OrderAmount) ASC) AS Rnk
 FROM Customer c
 INNER JOIN Orders o
 ON c.CustomerID = o.CustomerID
 GROUP BY c.CustomerID, c.CustomerName, o.ShippingCountry) cs
WHERE Rnk = 1
```
- C. 

```
SELECT c.CustomerID, c.CustomerName, o.ShippingCountry
FROM Customer c
INNER JOIN
 (SELECT CustomerID, ShippingCountry,
 RANK() OVER (PARTITION BY CustomerID
 ORDER BY OrderAmount DESC) AS Rnk
 FROM Orders
 GROUP BY CustomerID, ShippingCountry) AS o
ON c.CustomerID = o.CustomerID
WHERE o.Rnk = 1
```
- D. 

```
SELECT c.CustomerID, c.CustomerName, o.ShippingCountry
FROM Customer c
INNER JOIN
 (SELECT CustomerID, ShippingCountry,
 COUNT(OrderAmount) DESC) AS OrderAmount
 FROM Orders
 GROUP BY CustomerID, ShippingCountry) AS o
ON c.CustomerID = o.CustomerID
ORDER BY OrderAmount DESC
```

**Correct Answer: A**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Verified answer as correct.

## QUESTION 22

You create a view based on the following statement:

```

CREATE VIEW dbo.vwItemList
AS
SELECT
 b.BatchID
 , b.MailItemID
 , c.ContractNum
 , c.FirstName + ' ' + c.LastName as ContractName
 , a.Address1
 , a.City + ', ' + a.State + ' ' + a.Zip
FROM BatchLog b
join Contract c on b.MailItemID = c.ContractID
join Address a on a.ContractID = c.ContractID
WHERE
 b.ProcessDate >= dateadd(d, 1,EOMONTH(GETDATE(),-2));

```

You grant the Select permission to User1 for this view. You need to change the view so that it displays only the records that were processed in the month prior to the current month. You need to ensure that after the changes, the view functions correctly for User1. Which four Transact-SQL statements should you use? (To answer, move the appropriate SQL statements from the list of statements to the answer area and arrange them in the correct order.)

**Build List and Reorder:**

| Ordered List Title                                                       | Answer Choices Title                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div style="border: 1px solid black; height: 400px; width: 100%;"></div> | <pre> DROP VIEW dbo.wvltemList; GO CREATE VIEW dbo.wvltemList AS ALTER VIEW dbo.wvltemList AS WHERE b.ProcessDate &gt;= dateadd(d, 1, EOMONTH (GETDATE(), -2)) AND b.ProcessDate &lt;= EOMONTH(GETDATE(), -1); WHERE b.ProcessDate &gt;= dateadd(d, 1, EOMONTH (GETDATE(), -2)) AND b.ProcessDate &lt; dateadd(d, 1, EOMONTH (GETDATE(), -1)) SELECT     b.BatchID     , b.MailltemID     , c.ContractNum     , c.FirstName + '' + c.LastName as ContractName     , a.Address1     , a.City + ', ' + a.State + '' + a.Zip FROM BacthLog b JOIN Contract c ON b.MailltemID = c.ContractID JOIN Address a ON a.ContractID = c.ContractID GO GRANT SELECT ON SCHEMA::wvltemList TO User1; </pre> |
|                                                                          | <div style="text-align: center;"> <div style="border: 1px solid black; padding: 2px 10px; display: inline-block;">&lt;&lt; Move</div> <div style="border: 1px solid black; padding: 2px 10px; display: inline-block; margin-top: 5px;">Remove &gt;&gt;</div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                           |

**Correct Answer:**

```

ALTER VIEW dbo.wvltemList
AS
SELECT
 b.BatchID
 , b.MailltemID
 , c.ContractNum
 , c.FirstName + '' + c.LastName as
ContractName
 , a.Address1
 , a.City + ', ' + a.State + '' + a.Zip
FROM BacthLog b
JOIN Contract c ON b.MailltemID =
c.ContractID
JOIN Address a ON a.ContractID =
c.ContractID
WHERE b.ProcessDate >= dateadd(d, 1,
EOMONTH (GETDATE(), -2))
AND b.ProcessDate < dateadd(d, 1,
EOMONTH (GETDATE(), -1))

```

**Section: (none)**  
**Explanation**

**Explanation/Reference:**

Reference: <http://msdn.microsoft.com/en-us/library/hh213020.aspx>

Reference: <http://msdn.microsoft.com/en-us/library/ms186819.aspx>

Reference: <http://msdn.microsoft.com/en-us/library/ms173846.aspx>

**QUESTION 23**

You use a Microsoft SQL Server 2012 database. You need to create an indexed view within the database for a report that displays Customer Name and the total revenue for that customer. Which four T-SQL statements should you use? (To answer, move the appropriate SQL statements from the list of statements to the answer area and arrange them in the correct order.)

**Build List and Reorder:**

| Ordered List Title                  | Answer Choices Title                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div><div>▲</div><div>▼</div></div> | <div>CREATE VIEW<br/>Sales.vwCustomerRevenue<br/>AS<br/>WITH SCHEMABINDING<br/>CREATE VIEW<br/>Sales.vwCustomerRevenue<br/>WITH SCHEMABINDING<br/>AS<br/>SELECT<br/>O.CustomerID<br/>, C.CustomerName<br/>, SUM(O.SubTotal) AS<br/>CustomerTotal<br/>, COUNT_BIG(*) AS RecCount<br/>FROM Sales.SalesOrderHeader AS<br/>O<br/>JOIN Sales.Customer AS C ON<br/>C.CustomerID = O.CustomerID<br/>GROUP BY<br/>O.CustomerID<br/>, C.CustomerName<br/>GO<br/>CREATE UNIQUE CLUSTERED<br/>INDEX idx_vwCustomerRevenue<br/>ON Sales.vwCustomerRevenue<br/>(CustomerID);<br/>GO<br/>CREATE UNIQUE INDEX<br/>idx_vwCustomerRevenue<br/>ON Sales.vwCustomerRevenue<br/>(CustomerID);</div> |

<< Move

Remove >>

**Correct Answer:**

```

CREATE VIEW Sales.vwCustomerRevenue
WITH SCHEMABINDING
AS
SELECT
O.CustomerID
, C.CustomerName
, SUM(O.SubTotal) AS CustomerTotal
, COUNT_BIG(*) AS RecCount
FROM Sales.SalesOrderHeader AS O
JOIN Sales.Customer AS C ON C.CustomerID
= O.CustomerID
GROUP BY
O.CustomerID
, C.CustomerName
GO
CREATE UNIQUE CLUSTERED INDEX
idx_vwCustomerRevenue
ON Sales.vwCustomerRevenue (CustomerID);

```

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Reference: <http://msdn.microsoft.com/en-us/library/ms191432.aspx>

#### **QUESTION 24**

You use Microsoft SQL Server 2012 to develop a database application. You need to implement a computed column that references a lookup table by using an INNER JOIN against another table. What should you do?

- A. Reference a user-defined function within the computed column.
- B. Create a BEFORE trigger that maintains the state of the computed column.
- C. Add a default constraint to the computed column that implements hard-coded values.
- D. Add a default constraint to the computed column that implements hard-coded CASE statements.

**Correct Answer: A**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Verified answer as correct.

## Exam C

### QUESTION 1

You administer a Microsoft SQL Server 2012 database named ContosoDb. The database contains a table named Suppliers and a column named IsActive in the Purchases schema. You create a new user named ContosoUser in ContosoDb. ContosoUser has no permissions to the Suppliers table. You need to ensure that ContosoUser can delete rows that are not active from Suppliers. You also need to grant ContosoUser only the minimum required permissions. Which Transact-SQL statement should you use?

- A. `GRANT DELETE ON Purchases.Suppliers TO ContosoUser`
- B. `CREATE PROCEDURE Purchases.PurgeInactiveSuppliers  
WITH EXECUTE AS USER = 'dbo'  
AS  
DELETE FROM Purchases.Suppliers WHERE IsActive = 0  
GO  
GRANT EXECUTE ON Purchases.PurgeInactiveSuppliers TO ContosoUser`
- C. `GRANT SELECT ON Purchases.Suppliers TO ContosoUser`
- D. `CREATE PROCEDURE Purchases.PurgeInactiveSuppliers  
AS  
DELETE FROM Purchases.Suppliers WHERE IsActive = 0  
GO  
GRANT EXECUTE ON Purchases.PurgeInactiveSuppliers TO ContosoUser`

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Reference: <http://msdn.microsoft.com/en-us/library/ms188354.aspx>

Reference: <http://msdn.microsoft.com/en-us/library/ms187926.aspx>

### QUESTION 2

You use a contained database named ContosoDb within a domain. You need to create a user who can log on to the ContosoDb database. You also need to ensure that you can port the database to different database servers within the domain without additional user account configurations. Which type of user should you create?

- A. User mapped to a certificate
- B. SQL user without login
- C. Domain user
- D. SQL user with login

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Reference: <http://msdn.microsoft.com/en-us/library/ff929071.aspx>

### QUESTION 3

You administer a Microsoft SQL Server 2012 database. The database contains a Product table created by using the following definition:

```
CREATE TABLE dbo.Product
(
 ProductID INT PRIMARY KEY,
 Name VARCHAR(50) NOT NULL,
 Color VARCHAR(15) NOT NULL,
 Size VARCHAR(5) NOT NULL,
 Style CHAR(2) NULL,
 Weight DECIMAL(8,2) NULL);
```

You need to ensure that the minimum amount of disk space is used to store the data in the Product table. What should you do?

- A. Convert all indexes to Column Store indexes.
- B. Implement Unicode Compression.
- C. Implement row-level compression.
- D. Implement page-level compression.

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Reference: <http://msdn.microsoft.com/en-us/library/cc280449.aspx>

Reference: <http://msdn.microsoft.com/en-us/library/cc280464.aspx>

Reference: <http://msdn.microsoft.com/en-us/library/cc280576.aspx>

Reference: <http://msdn.microsoft.com/en-us/library/ee240835.aspx>

#### QUESTION 4

You develop a database application for a university. You need to create a view that will be indexed that meets the following requirements:

- Displays the details of only students from Canada.
- Allows insertion of details of only students from Canada.

Which four Transact-SQL statements should you use? (To answer, move the appropriate SQL statements from the list of statements to the answer area and arrange them in the correct order.)

**Build List and Reorder:**

| Ordered List Title                                                       | Answer Choices Title                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div style="border: 1px solid black; height: 200px; width: 100%;"></div> | <div style="border: 1px solid black; padding: 5px;"> WITH ENCRYPTION<br/> WITH CHECK OPTION<br/> WITH SCHEMABINDING<br/> WITH VIEW_METADATA<br/> CREATE VIEW<br/> dbo.CanadianStudents<br/> CREATE INDEXED VIEW<br/> dbo.CanadianStudents<br/> AS<br/> SELECT s.LastName, s.FirstName,<br/> s.JobTitle, a.Country,<br/> e.LastQualification<br/> FROM Student s<br/> INNER JOIN NativeAddress a ON<br/> a.AddressID = s.AddressID<br/> INNER JOIN EducationHistory e ON<br/> s.StudentID = e.StudentID<br/> WHERE a.Country = 'Canada' </div> |
|                                                                          | <div style="text-align: center;"> <div style="border: 1px solid black; padding: 2px 10px; display: inline-block;">&lt;&lt; Move</div><br/> <div style="border: 1px solid black; padding: 2px 10px; display: inline-block;">Remove &gt;&gt;</div> </div>                                                                                                                                                                                                                                                                                       |

**Correct Answer:**

```
CREATE VIEW dbo.CanadianStudents
WITH SCHEMABINDING
AS
SELECT s.LastName, s.FirstName, s.JobTitle,
a.Country, e.LastQualification
FROM Student s
INNER JOIN NativeAddress a ON a.AddressID =
s.AddressID
INNER JOIN EducationHistory e ON
s.StudentID = e.StudentID
WHERE a.Country = 'Canada'
WITH CHECK OPTION
```

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Verified answer as correct.

Reference: <http://msdn.microsoft.com/en-us/library/ms187956.aspx>

### QUESTION 5

You create the following stored procedure. (Line numbers are included for reference only.)



```

01 CREATE PROCEDURE dbo.InsertCountryRegion
02 @CountryRegionCode nvarchar(3),
03 @Name nvarchar(50)
04 AS
05 BEGIN
06 SET NOCOUNT ON;
07 ...
08 END;

```

You need to ensure that the stored procedure performs the following tasks:

- If a record exists, update the record.
- If no record exists, insert a new record.

Which four Transact-SQL statements should you insert at line 07? (To answer, move the appropriate statements from the list of statements to the answer area and arrange them in the correct order.)

#### Build List and Reorder:

| Ordered List Title                                                       | Answer Choices Title                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div style="border: 1px solid black; height: 150px; width: 100%;"></div> | <div style="border: 1px solid black; padding: 5px;"> <p>UPDATE CountryRegion<br/>SET Name = @Name<br/>WHERE CountryRegionCode =<br/>@CountryRegionCode<br/>WHEN NOT MATCHED BY<br/>SOURCE THEN<br/>WHEN NOT MATCHED BY<br/>TARGET THEN<br/>WHEN MATCHED THEN UPDATE<br/>SET Name = source.Name<br/>MERGE CountryRegion AS target<br/>USING (Select<br/>@CountryRegionCode, @Name)<br/>AS source (CountryRegionCode,<br/>Name)<br/>ON (target.CountryRegionCode =<br/>source.CountryRegionCode)<br/>IF (@@ROWCOUNT &gt; 0)<br/>INSERT INTO CountryRegion<br/>(CountryRegionCode, Name)<br/>VALUES (@CountryRegionCode,<br/>@Name);<br/>INSERT (CountryRegionCode,<br/>Name)<br/>VALUES<br/>(source.CountryRegionCode,<br/>source.Name);</p> </div> |

<< Move
Remove >>

**Correct Answer:**

```

MERGE CountryRegion AS target
USING (Select @CountryRegionCode, @Name)
AS source (CountryRegionCode, Name)
ON (target.CountryRegionCode =
source.CountryRegionCode)
WHEN MATCHED THEN UPDATE SET Name
= source.Name
WHEN NOT MATCHED BY TARGET THEN
INSERT (CountryRegionCode, Name)
VALUES (source.CountryRegionCode,
source.Name);

```

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Reference: <http://technet.microsoft.com/en-us/library/bb510625.aspx>

### QUESTION 6

You use Microsoft SQL Server 2012 to develop a database that has two tables named Div1Cust and Div2Cust. Each table has columns named DivisionID and CustomerID. None of the rows in Div1Cust exist in Div2Cust. You need to write a query that meets the following requirements:

- The rows in Div1Cust must be combined with the rows in Div2Cust.
- The result set must have columns named Division and Customer.
- Duplicates must be retained.

Which three Transact-SQL statements should you use? (To answer, move the appropriate statements from the list of statements to the answer area and arrange them in the correct order.)

**Build List and Reorder:**

| Ordered List Title                                                       | Answer Choices Title                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div style="border: 1px solid black; height: 300px; width: 100%;"></div> | <div style="border: 1px solid black; padding: 5px;"> <p>EXCEPT</p> <p>SELECT DivisionID, CustomerID<br/>FROM Div2Cust</p> <p>SELECT DISTINCT DivisionID,<br/>CustomerID<br/>FROM Div1Cust, Div2Cust</p> <p>INTERSECT</p> <p>SELECT DivisionID AS Division,<br/>CustomerID AS Customer<br/>FROM Div1Cust</p> <p>UNION ALL</p> <p>INNER JOIN</p> <p>UNION</p> <p>SELECT DivisionID, CustomerID<br/>FROM Div1Cust, Div2Cust<br/>ON Div1Cust.CustID =<br/>Div2Cust.CustID</p> <p>SELECT DivisionID, CustomerID<br/>FROM Div1Cust</p> </div> |

<< Move
Remove >>

**Correct Answer:**

```
SELECT DivisionID AS Division, CustomerID AS
Customer
FROM Div1Cust
UNION ALL
SELECT DivisionID, CustomerID
FROM Div2Cust
```

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Reference: <http://msdn.microsoft.com/en-us/library/ms180026.aspx>

Reference: <http://msdn.microsoft.com/en-us/library/ms188055.aspx>

## Exam D

### QUESTION 1

You administer a Microsoft SQL Server 2012 database that contains a table named OrderDetail. You discover that the NCI\_OrderDetail\_CustomerID non-clustered index is fragmented. You need to reduce fragmentation. You need to achieve this goal without taking the index offline. Which Transact-SQL batch should you use?

- A. `CREATE INDEX NCI_OrderDetail_CustomerID ON OrderDetail.CustomerID WITH DROP EXISTING`
- B. `ALTER INDEX NCI_OrderDetail_CustomerID ON OrderDetail.CustomerID REORGANIZE`
- C. `ALTER INDEX ALL ON OrderDetail REBUILD`
- D. `ALTER INDEX NCI_OrderDetail_CustomerID ON OrderDetail.CustomerID REBUILD`

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Reference: <http://msdn.microsoft.com/en-us/library/ms188388.aspx>

### QUESTION 2

You develop a Microsoft SQL Server 2012 database. The database is used by two web applications that access a table named Products. You want to create an object that will prevent the applications from accessing the table directly while still providing access to the required data. You need to ensure that the following requirements are met:

- Future modifications to the table definition will not affect the applications' ability to access data.
- The new object can accommodate data retrieval and data modification.
- You need to achieve this goal by using the minimum amount of changes to the existing applications.

What should you create for each application?

- A. views
- B. table partitions
- C. table-valued functions
- D. stored procedures

**Correct Answer: A**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

### QUESTION 3

You develop a Microsoft SQL Server 2012 database. You need to create a batch process that meets the following requirements:

- Returns a result set based on supplied parameters.
- Enables the returned result set to perform a join with a table.

Which object should you use?

- A. Inline user-defined function
- B. Stored procedure
- C. Table-valued user-defined function
- D. Scalar user-defined function

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 4**

You develop a Microsoft SQL Server 2012 database.

You need to create and call a stored procedure that meets the following requirements:

Accepts a single input parameter for CustomerID.

Returns a single integer to the calling application.

Which Transact-SQL statement or statements should you use? (Each correct answer presents part of the solution. Choose all that apply.)

- A. CREATE PROCEDURE dbo.GetCustomerRating @Customer INT, @CustomerRating INT OUTPUT  
AS  
SET NOCOUNT ON  
SELECT @CustomerRating = CustomerOrders/CustomerValue  
FROM Customers WHERE CustomerID = @CustomerID  
RETURN  
GO
- B. EXECUTE dbo.GetCustomerRating 1745
- C. DECLARE @customerRatingBycustomer INT  
DECLARE @Result INT  
EXECUTE @Result = dbo.GetCustomerRating  
1745  
, @CustomerRatingByCustomer
- D. CREATE PROCEDURE dbo.GetCustomerRating @CustomerID INT, @CustomerRating INT OUTPUT  
AS  
  
SET NOCOUNT ON  
SELECT @Result = CustomerOrders/CustomerValue  
FROM Customers WHERE CustomerID = @CustomerID  
RETURN @Result  
GO
- E. DECLARE @CustomerRatingByCustomer INT  
EXECUTE dbo.GetCustomerRating @CustomerID = 1745,  
@CustomerRating = @CustomerRatingByCustomer OUTPUT
- F. CREATE PROCEDURE dbo.GetCustomerRating  
@CustomerID INT  
AS  
DECLARE @Result INT  
SET NOCOUNT ON  
SELECT @Result = CustomerOrders/CustomerValue  
FROM Customers  
WHERE CustomerID = @CustomerID  
RETURNS @Result

**Correct Answer:** CF

**Section:** (none)

**Explanation**

**Explanation/Reference:**