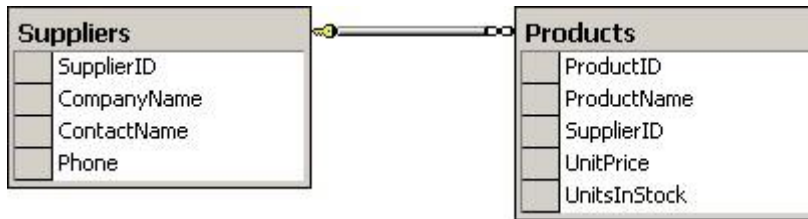# Microsoft 70-461 Exam Questions & Answers

**Microsoft 70-461 Exam Questions & Answers**

**Exam Name: Querying Microsoft SQL Server 2012**

**QUESTION 1**
You work as a database administrator at ABC.com. ABC.com has a SQL Server 2012 database named ProductsDB. The relevant part of the ProductsDB is shown in the following database diagram:



You need to write a Transact-SQL query that display a single row in the following XML format:

<row ProductID="1001" Product="Product Name", Price="24.99" InStock="16" Supplier="Company Name" Contact="Contact Name" Phone="346 959 2215" />

Which of the following SELECT statement would you write?

A.  SELECT ProductID, ProductName AS [Product], UnitPrice AS [Price], UnitsInStock AS [InStock], CompanyName AS [Supplier], ContactName AS [Contact], Phone FROM Products
    INNER JOIN Suppliers ON SupplierID = SupplierID
    WHERE ProductID = 1001
    FOR XML RAW
B.  SELECT ProductID, ProductName AS [Product], UnitPrice AS [Price], UnitsInStock AS [InStock], CompanyName AS [Supplier], ContactName AS [Contact], Phone FROM Products
    INNER JOIN Suppliers ON SupplierID = SupplierID
    WHERE ProductID = 1001
    FOR XML
C.  SELECT ProductID, ProductName AS [Product], UnitPrice AS [Price], UnitsInStock AS [InStock], CompanyName AS [Supplier], ContactName AS [Contact], Phone FROM Products
    INNER JOIN Suppliers ON SupplierID = SupplierID
    WHERE ProductID = 1001
    FOR XML AUTO
D.  SELECT ProductID, ProductName AS [Product], UnitPrice AS [Price], UnitsInStock AS [InStock], CompanyName AS [Supplier], ContactName AS [Contact], Phone FROM Products
    INNER JOIN Suppliers ON SupplierID = SupplierID
    WHERE ProductID = 1001
    FOR XML AUTO, RAW

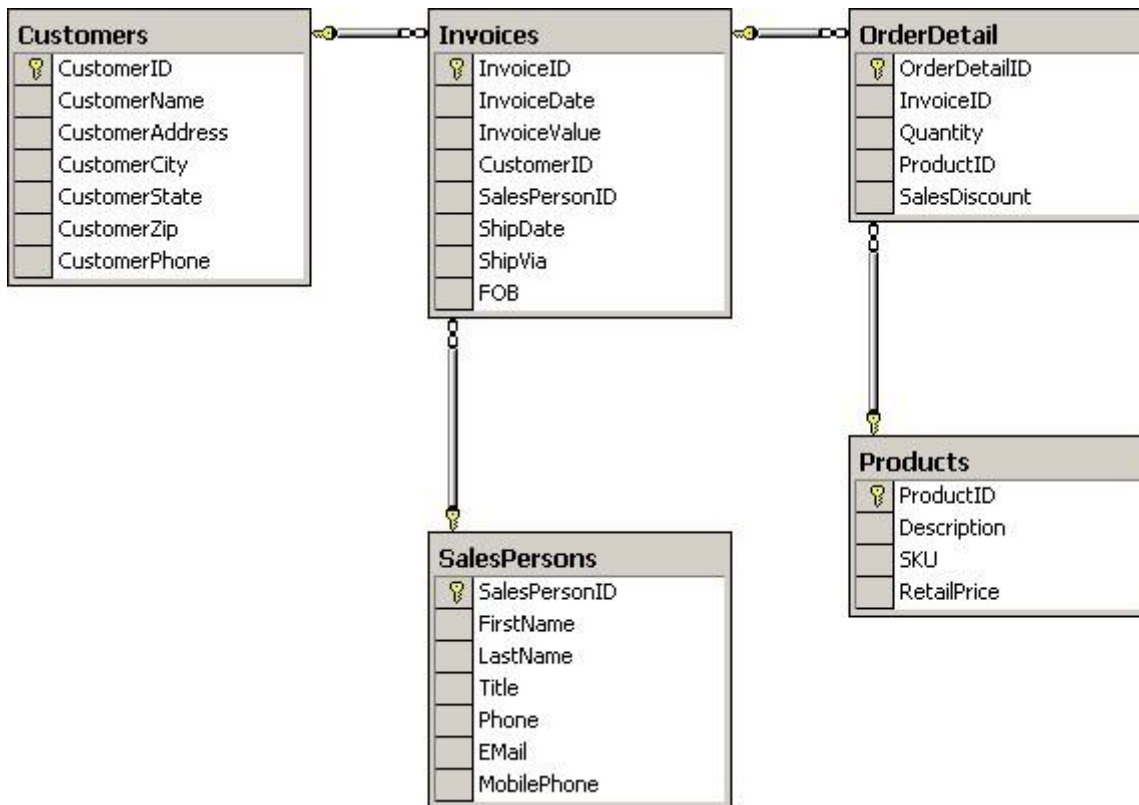**Correct Answer:** A
**Section: (none)**
**Explanation**

**Explanation/Reference:**
Explanation:

**QUESTION 2**
You work as a database administrator at ABC.com. ABC.com has a SQL Server 2012 database named SalesDB. The SalesDB is shown in the following database diagram:

You need to write a Transact-SQL query that display a single row in the following XML format:

<Invoices InvoiceID="1001" Date="2012-10-01T00:00:00", Value="1000.00" Customer="Customer Name" ShippedTo="Customer City" />

Which of the following SELECT statement would you write?

A.  SELECT in.InvoiceID, in.InvoiceDate AS [Date], in.InvoiceValue AS [Value], cu.CustomerName AS [Name], cu.CustomerCity AS [ShippedTo] FROM Invoices AS in INNER JOIN Customers AS cu ON in.CustomerID = cu.CustomerID WHERE cu.CustomerID = 1001
    FOR XML RAW

B.  SELECT InvoiceID, InvoiceDate AS [Date], InvoiceValue AS [Value], CustomerName AS [Name], CustomerCity AS [ShippedTo] FROM Invoices
    INNER JOIN Customers ON Invoices.CustomerID = Customers.CustomerID WHERE Customers.CustomerID = 1001
    FOR XML

C.  SELECT Invoices.InvoiceID, Invoices.InvoiceDate AS [Date], Invoices.InvoiceValue AS [Value], Customers.CustomerName AS [Name], Customers.CustomerCity AS [ShippedTo] FROM Invoices
    INNER JOIN Customers ON Invoices.CustomerID = Customers.CustomerID WHERE Customers.CustomerID = 1001
    FOR XML AUTO

D.  SELECT InvoiceID, InvoiceDate AS [Date], InvoiceValue AS [Value], CustomerName AS [Name], CustomerCity AS [ShippedTo] FROM Invoices
    INNER JOIN Customers ON Invoices.CustomerID = Customers.CustomerID WHERE Customers.CustomerID = 1001
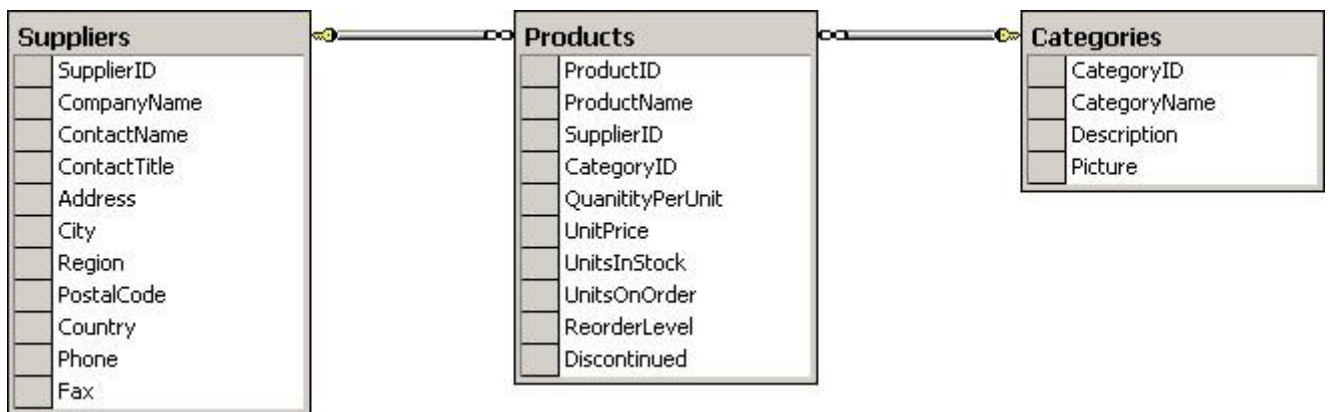    FOR XML AUTO, RAW

**Correct Answer:** C
**Section: (none)**
**Explanation**

**Explanation/Reference:**
Explanation:

**QUESTION 3**

You work as a database administrator at ABC.com. ABC.com has a SQL Server 2012 database named ProductsDB. The ProductsDB database is shown in the following database diagram:



You need to write a Transact-SQL query that displays all the products received by a single supplier in the following XML format:

<Suppliers SupplierID="22" Company="Company Name" ContactNumber="510 250 6400">

<Products ProductID="100" UnitPrice="249.00" UnitsInStock="7" />

<Products ProductID="118" UnitPrice="559.00" UnitsInStock="12" />

</Suppliers>

Which of the following SELECT statement would you write?

A. SELECT s.SupplierID, s.CompanyName AS [Company], s.ContactNumber, p.ProductID,
B. UnitPrice, p.UnitsInStock
   FROM Suppliers AS s
   INNER JOIN Products AS p ON s.SupplierID = p.SupplierID WHERE s.SupplierID = 22
   FOR XML RAW
C. SELECT s.SupplierID, s.CompanyName AS [Company], s.ContactNumber, p.ProductID,
D. UnitPrice, p.UnitsInStock
   FROM Suppliers AS s
   INNER JOIN Products AS p ON s.SupplierID = p.SupplierID WHERE s.SupplierID = 22
   FOR XML
E. SELECT Suppliers.SupplierID, Suppliers.CompanyName AS [Company], Suppliers.ContactNumber,
   Products.ProductID, Products.UnitPrice, Products.UnitsInStock FROM Suppliers
   INNER JOIN Products ON Suppliers.SupplierID = Products.SupplierID WHERE Suppliers.SupplierID =
   22
   FOR XML AUTO
F. SELECT Suppliers.SupplierID, Suppliers.CompanyName AS [Company], Suppliers.ContactNumber,
   Products.ProductID, Products.UnitPrice, Products.UnitsInStock FROM Suppliers
   INNER JOIN Products ON Suppliers.SupplierID = Products.SupplierID WHERE Suppliers.SupplierID =
   22
   FOR XML AUTO, RAW

**Correct Answer:** A
**Section: (none)**
**Explanation**

**Explanation/Reference:**
Explanation:

**QUESTION 4**
You work as a database developer at ABC.com. ABC.com has a SQL Server 2012 database named SalesDB that has a table named WeeklySales. The WeeklySales table records the sales amount for each of ABC.com's 20 sales representitives.

You need to write a Transact-SQL query that ranks the sales representatives by the average sales amount for the past year. You want the sales representatives with the same average sales amount to have the same rank with the subsequent rank being skipped.

Which ranking function should you use?

A.  The RANK( ) OVER function.
B.  The NTILE( ) OVER function
C.  The DENSE_RANK( ) OVER function
D.  The ROW_NUMBER( ) OVER function
E.  The FORMAT function.

**Correct Answer:** C
**Section: (none)**
**Explanation**

**Explanation/Reference:**
Explanation:
Ref: http://msdn.microsoft.com/en-us/library/ms189798.aspx

**QUESTION 5**
You work as a SQL Server 2012 database developer at ABC.com. You are developing a query for a database driven Web application that allows visitors to vote for the cricket player of the week. The number of votes is stored in a table named WeeklyVotes that has columns named Week, PlayerName, Votes.

You need to write a Transact-SQL query that returns the cricket player that received the most votes for each week, as well as the number of votes they received.

Which of the following SELECT statement would accomplish this task?

A.  SELECT PlayerName, Votes
    FROM ( SELECT PlayerName, Votes,
    RANK () OVER (PARTITION BY PlayerName ORDER BY Votes ASC) AS Rank FROM WeeklyVotes )
    AS tmp
    WHERE Rank = 1
B.  SELECT PlayerName, Votes
    FROM ( SELECT PlayerName, Votes,
    RANK() OVER (PARTITION BY Week ORDER BY Votes DESC) AS Rank FROM WeeklyVotes) AS
    tmp
    WHERE Rank = 1
C.  SELECT PlayerName, Votes
    FROM ( SELECT TOP 1 PlayerName, Votes,
    RANK () OVER (PARTITION BY PlayerName ORDER BY Votes ASC) AS Rank FROM WeeklyVotes
    ORDER BY Rank) AS tmp
D.  SELECT PlayerName, Votes
    FROM ( SELECT TOP 1 PlayerName, Votes,
    RANXO OVER (PARTITION BY PlayerName ORDER BY Votes DESC) AS Rank FROM WeeklyVotes
    ORDER BY Rank) AS tmp

**Correct Answer:** B
**Section: (none)**
**Explanation**

**Explanation/Reference:**
Explanation:

**QUESTION 6**
You work as a database developer at ABC.com. ABC.com has a SQL Server 2012 database named SalesDB that has a table named Inventory.

The Inventory table has three columns named ProductID, InStore and InWarehouse. The ProductID column

is the primary key and is linked to the Products table. The InStore column stores the quantity of a product that is held at ABC.com's retail shop, while the InWarehouse column stores the quantity of a product that is held at ABC.com's warehouse.

You need to add a computed column that stores the total number of a product that ABC.com has.

What Transact-SQL statements would accomplish this task?

A. ALTER TABLE Inventory
   ADD TotalProducts AS (InStore + InWarehouse) PERSISTED
B. ALTER TABLE Inventory
   ADD TotalProducts int SPARSE NOT NULL
C. ALTER TABLE Inventory
   ADD TotalProducts AS SUM (ALL) OVER (GROUP BY InStore, InWarehouse) PERSISTED
D. DROP TABLE Inventory
   GO
   CREATE TABLE Inventory
   (
   ProductID int NOT NULL PRIMARY KEY,
   InStore int NOT NULL,
   InWarehouse int NOT NULL,
   TotalProducts AS SUM (InStore, InWarehouse) PERSISTED )

**Correct Answer:** A
**Section: (none)**
**Explanation**

**Explanation/Reference:**
Explanation:
Ref: http://www.kodyaz.com/articles/sql-server-computed-column-calculated-column-sample.aspx

**QUESTION 7**
You are the database administrator of a SQL Server 2012 database infrastructure at ABC.com.

You need to optimize a very large database table that contains several million rows of data by designing a view based on the table. The view must allow users to perform aggregations on several columns.

How should you configure the view to ensure optimal performance?

A. You should create the view as an indexed view.
B. You should create a clustered index on the view.
C. You should make use of a stored procedure to return that data.
D. You should make use of a table-valued function.

**Correct Answer:** A
**Section: (none)**
**Explanation**

**Explanation/Reference:**
Explanation:

**QUESTION 8**
You are the database developer at ABC.com. ABC.com has a SQL Server 2012 database infrastructure that has a database named ComDB with a table named Partners.

The Partners table was created using the following Transact-SQL code:
CREATE TABLE [dbo].[Partners]

(

[CompanyID] [int] NOT NULL PRIMARY KEY,

[CompanyName] [varchar] (150) NOT NULL,

[Location] [varchar] (150) NOT NULL,

[ContactName] [varchar] (150) NOT NULL,

[Email] [varchar] (150) NOT NULL,

[Phone] [varchar] (10) NOT NULL

)

You develop a new table named Events using the following Transact-SQL code:

CREATE TABLE [dbo].[Events]

(

[EventID] [int] NOT NULL PRIMARY KEY,

[CompanyID] [int] NOT NULL,

[EventDescription] [varchar] (2500),

[EventCordinator] [varchar] (150) NOT NULL

)

How would you guarantee that values in the Events.CompanyID column already exist in the Partners.CompanyID column?

A.  You should add a Foreign Key Constraint on the Events table.
B.  You should add a Check Constraint on the Events table.
C.  You should add a Unique Constraint on the Events table.
D.  You should specify Events.CompanyID as a spars column.
E.  You should change the Events table to a partitioned table.

**Correct Answer:** A
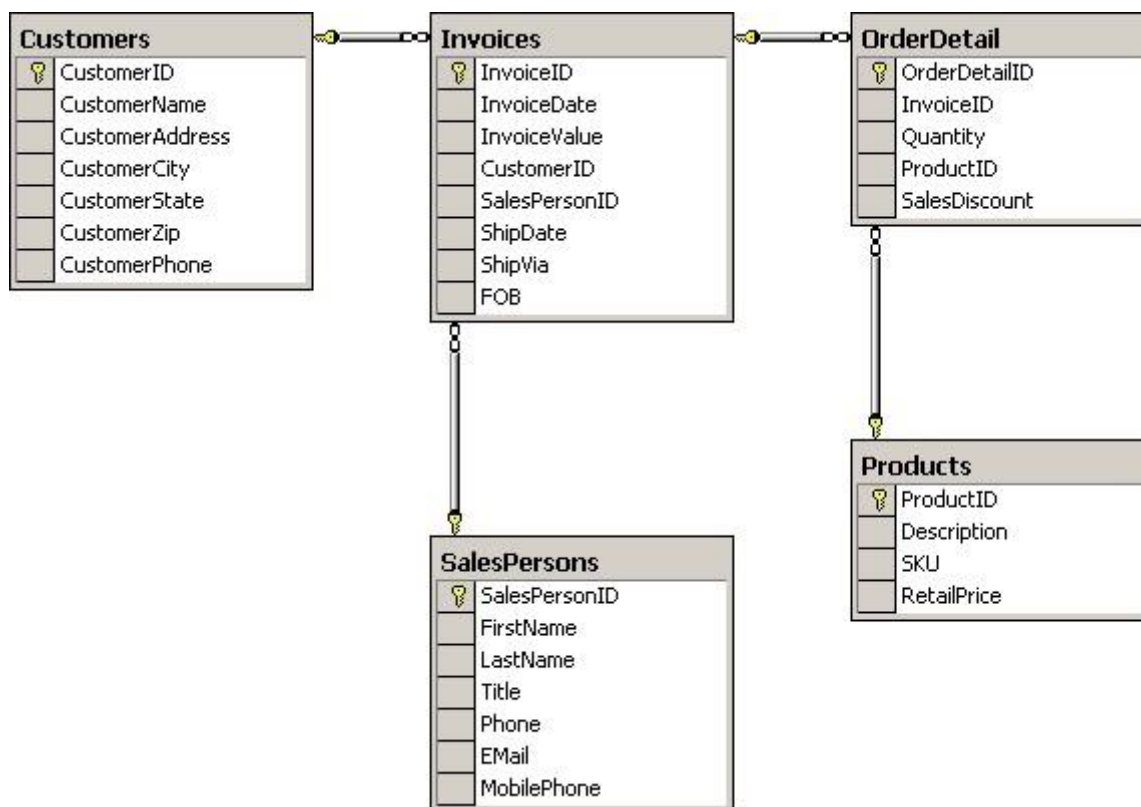**Section: (none)**
**Explanation**

**Explanation/Reference:**
Explanation:
Ref: http://msdn.microsoft.com/en-us/library/ms179610.aspx

**QUESTION 9**
You work as a database administrator at ABC.com. ABC.com has a SQL Server 2012 database named SalesDB. The SalesDB database is shown in the following database diagram:

You create a view on the SalesDB using the following Transact-SQL code:

CREATE VIEW SalesV

WITH SCHEMABINDINGS

AS

SELECT Products.ProductID, Invoices.InvoiceDate, SUM (Products.RetailPrice * OrderDetail.Quantity * OrderDetail.SalesDiscount) AS Price

FROM OrderDetail INNER JOIN Products ON

OrderDetail.ProductID = Products.ProducID

INNER JOIN Invoices ON

OrderDetail.InvoiceID = Invoices.InvoiceID

GROUP BY Products.ProductID, Invoices.InvoiceDate
GO

How should you alter this view to allow users to update data through the SalesV?

A.  You should add a CHECK constraint to the SalesV view.
B.  You should add an INSTEAD OF trigger to the SalesV view.
C.  You should add a clustered index to the SalesV view.
D.  You should add an AFTER UPDATE trigger to the SalesV view.
E.  Create a columnstore index on all columns used in the SalesV view.

**Correct Answer:** B
**Section: (none)**
**Explanation**

**Explanation/Reference:**

Explanation:

**QUESTION 10**
CORRECT TEXT

You are employed as a SQL Server 2012 database developer at ABC.com. ABC.com has a SalesDB
database with a view named SalesV. The SalesV view was created using the following Transact-SQL code:

CREATE VIEW SalesDB.ProductsSalesV

AS

SELECT OrderID, ProductID, ShipDate, OrderDate, Amount

FROM SalesDB.Orders;

You want to create an inline table-valued function named fn_ABC that accepts a @ProductID parameter of
the integer data type. The inline table-valued function should also allow for sales orders for each product to
be listed by the latest sale.

How would you create this inline table-valued function?

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

A.
B.
C.
D.

**Correct Answer:**
**Section: (none)**
**Explanation**

**Explanation/Reference:**
Answer: CREATE FUNCTION SalesDB.fn_ABC ( @ProductID int ) RETURNS TABLE
AS
RETURN
(
SELECT OrderID, ProductID, ShipDate, OrderDate, Amount

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FROM Sales. ProductsSalesV
WHERE ProductID = @ProductID
ORDER BY OrderDate DESC
);

**QUESTION 11**
CORRECT TEXT

You are employed as a SQL Server 2012 database developer at ABC.com. ABC.com has a database
named SalesDB with tables named Customer and Orders. The Customer and Orders tables were created
using the following Transact-SQL code:

CREATE TABLE SalesDB.Customers

(

CustomerID int NOT NULL PRIMARY KEY,

FirstName varchar (150) NOT NULL,

LastName varchar (150) NOT NULL,

Address1 varchar (200) NOT NULL,

Address2 varchar (200) NULL,

City varchar (100) NOT NULL,

StateCode varchar (2) NOT NULL,

Zip varchar (5) NOT NULL,

Phone varchar (10) NOT NULL

)

GO

CREATE TABLE SalesDB.Orders

(

OrderID int NOT NULL PRIMARY KEY,

CustomerID int NOT NULL,

OrderDate datetime NOT NULL,

ShipDate datetime NOT NULL,

CustomerID int NOT NULL,

SalesRepID int NOT NULL

)

GO

You must now create an OrderDetails table as shown in the following database diagram:



**OrderDetails**
| | |
|---|---|
| | OrderID |
| | ProductID |
| | Quantity |
| | UnitPrice |
| | TotalPrice |

The TotalPrice column must be a computed column based on the product of the UnitPrice and Quantity columns and the data must be stored in the table.

How would you create this table?

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

A.
B.
C.
D.

**Correct Answer:**
**Section: (none)**
**Explanation**

**Explanation/Reference:**
Answer: CREATE TABLE SalesDB.OrderDetails
(
OrderID int NOT NULL,
ProductID int NOT NULL,
Quantity int NOT NULL,
UnitPrice money NOT NULL,
TotalPrice AS (Quantity * UnitPrice) PERSISTED
)

## QUESTION 12
You work as a SQL Server 2012 database developer at ABC.com. ABC.com has a database named SalesDB.

You are developing a stored procedure that takes a parameter named @date that uses the varchar datatype. The @date parameter must be compared to the value in a datetime column named OrderDate.

Which of the following WHERE clauses would be the most efficient WHERE clause to use?

A.  WHERE OrderDate = CAST(datetime,@date)
B.  WHERE OrderDate = CONVERT(datetime,@date)
C.  WHERE OrderDate =@date
D.  WHERE OrderDate = CAST(@date AS datetime)
E.  WHERE OrderDate = PARSE(@date AS Date)

**Correct Answer:** C
**Section: (none)**
**Explanation**

**Explanation/Reference:**
Explanation:

## QUESTION 13
You work as a database developer at ABC.com. ABC.com has a SQL Server 2012 database infrastructure with several databases. You have permissions on two of these databases, namely, CommDB and SalesDB.

You need to develop a stored procedure named dbo.ABC_addEntry in a database named AssetsDB. The dbo.ABC_addEntry stored procedure will run stored procedures in CommDB and SalesDB.

How should you design the stored procedure so that callers that do not paver permissions on CommDB and SalesDB can run the dbo.ABC_addEntry stored procedure successfully?

A.  You should configure the stored procedure to call the xp_cmdshell extended stored procedure.
B.  You should configure the stored procedure to call the sp_configure system stored procedure.
C.  You should assign users permission to the stored procedure.
D.  You should include the EXECUTE AS CALLER clause when creating the stored procedure.
E.  You should include the EXECUTE AS OWNER clause when creating the stored procedure.

**Correct Answer:** E
**Section: (none)**
**Explanation**

**Explanation/Reference:**
Explanation:

## QUESTION 14
You work as a database developer at ABC.com. ABC.com has a SQL Server 2012 database infrastructure with a very large database named SalesDB. You create a new table named SalesHistory that will hold historical data from the SalesDB database.

You need to perform a batch update from the SalesDB database to the SalesHistory table. You want the status information from the batch process to be logged to a SQL Server table that must be created by the batch process.

How would you accomplish this task?

A. You should make use of the FORMAT function.
B. You should make use of the CONVERT function.
C. You should make use of a scalar user-defined function.
D. You should make use of an inline function.
E. You should make use of a table-valued function.
F. You should make use of a stored procedure.

**Correct Answer:** C
**Section: (none)**
**Explanation**

**Explanation/Reference:**
Explanation:

**QUESTION 15**
You are developing a SQL Server 2012 database for ABC.com. You need to create a computed column that returns the data by referencing another table using an INNER JOIN.

How would you accomplish this?

A. You should make use of the FORMAT function.
B. You should make use of a scalar user-defined function.
C. You should make use of an inline function.
D. You should make use of a table-valued user-defined function.
E. You should make use of a stored procedure.
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**Correct Answer:** B
**Section: (none)**
**Explanation**

**Explanation/Reference:**
Explanation:

**QUESTION 16**
You work as a SQL Server 2012 database developer at ABC.com.

ABC.com has a database SalesDB with a large Orders table. You create a heap named OldData that will store historical data from the Orders table.

You need to write a Transact-SQL query that will insert rows of data from the Orders table that are marked as closed and are more than six months old.

Which of the following table hints should you use in your query if you want to optimize transaction logging and locking for the query?

A. You should make use of the READPAST hint.
B. You should make use of the HOLDLOCK hint.
C. You should make use of the READCOMMITTED hint.
D. You should make use of the NOLOCK hint.
E. You should make use of the TABLOCK hint.
F. You should make use of the UPDLOCK hint.

**Correct Answer:** E

**QUESTION 17**
You are employed as a SQL Server 2012 database developer at ABC.com. You have a stored procedure that is executed quite often. The stored procedure joins data from two tables.

ABC.com users report that the stored procedure takes a long time to execute. You analyze the query plan and find that the stored procedure often makes use of table scans rather than indexes when the estimated rows do not match the actual rows on one of the tables.

How would you optimize the performance of the stored procedure?

A. You should make use of the KEEPIDENTITY table hint in the stored procedure.
B. You should make use of the KEEPDEFAULTS table hint in the stored procedure.
C. You should make use of the IGNORE_CONSTRAINTS table hint in the stored procedure.
D. You should make use of the FORCESEEK table hint in the stored procedure.
E. You should update statistics on the tables queried by the stored procedure.

**Correct Answer:** D
**Section: (none)**
**Explanation**

**Explanation/Reference:**
Explanation:

**QUESTION 18**
You work as a SQL Server 2012 database developer at ABC.com. You are developing a database driven Web application. The application executes a store procedure based on the location of the web user.

The location of the Web user is determined by IP Geolocation. You want to develop a process that will execute the correct stored procedure for every Web user based on the user's location.

How would you accomplish this?

A. You should make use of a foreach SQLCLR statement.
B. You should make use of a scalar user-defined function.
C. You should make use of an inline function.
D. You should make use of a cursor.

**Correct Answer:** D
**Section: (none)**
**Explanation**

**Explanation/Reference:**
Explanation:

**QUESTION 19**
You work as a database administrator at ABC.com. You are developing a database that will be used by a web site analysis application name ABCWeb1.

The ABCWeb1 application must display the date and time each visitor visits a page on a website as well as the date and time they leave that web page. This data needs to be displayed in different date and time formats.
How would you accomplish this?

A. You should make use of a scalar user-defined function.
B. You should make use of the SET CONTEXT_INFO statement in the stored procedure.

C. You should make use of the DATETIMEOFFSET data type.

D. You should make use of the FORMAT function.

E. You should make use of the SET FORCEPLAN ON statement in the stored procedure.

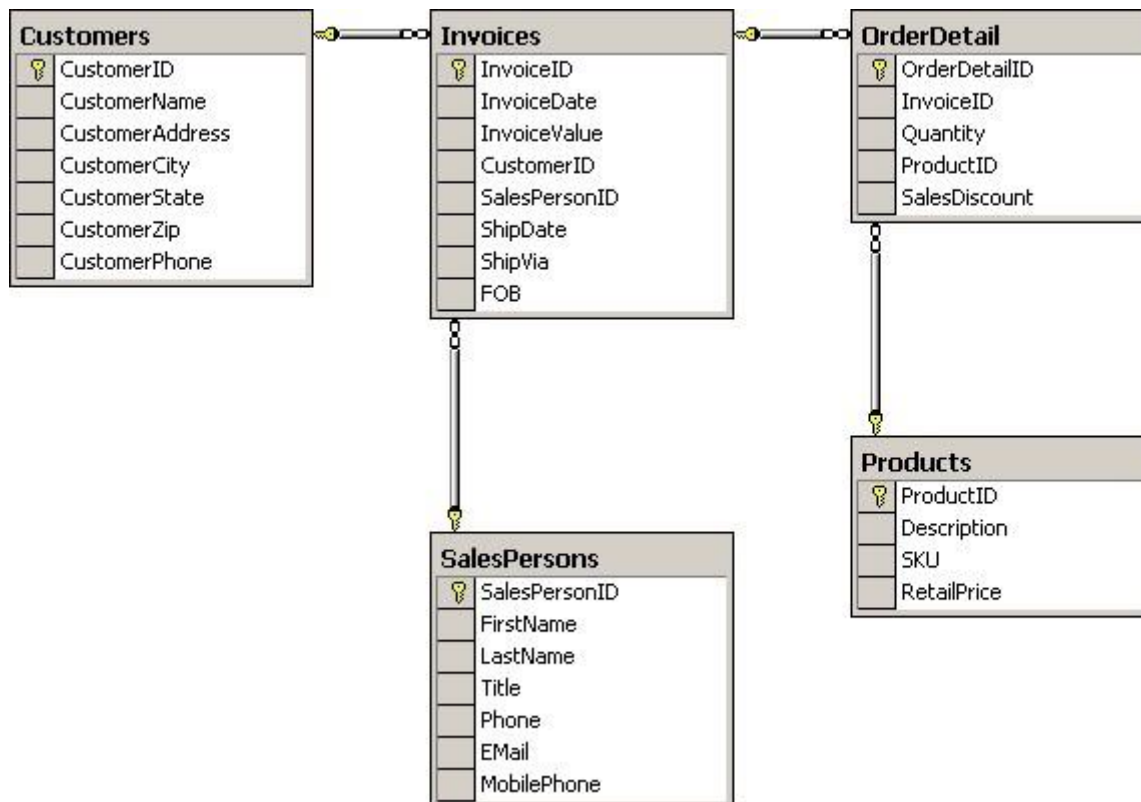F. You should make use of a cursor.

**Correct Answer:** D
**Section: (none)**
**Explanation**

**Explanation/Reference:**
Explanation:

**QUESTION 20**
You work as a database administrator at ABC.com. ABC.com has a SQL Server 2012 database named SalesDB. The SalesDB database is shown in the following database diagram:



You create a view on the SalesDB database using the following Transact-SQL code:

CREATE VIEW SalesV

WITH SCHEMABINDINGS

AS

SELECT Products.ProductID, Invoices.InvoiceDate, SUM (Products.RetailPrice * OrderDetail.Quantity * OrderDetail.SalesDiscount) AS Price

FROM OrderDetail INNER JOIN Products ON

OrderDetail.ProductID = Products.ProducID

INNER JOIN Invoices ON

OrderDetail.InvoiceID = Invoices.InvoiceID

GROUP BY Products.ProductID, Invoices.InvoiceDate

GO

You want the SalesV view to persist data to disk in order to improve performance.

How would you accomplish this task?

A. You should add a clustered index to the SalesV view.
B. You should create a columnstore index on all columns used in the SalesV view.
C. You should drop and recreate the SalesV view as a system view.
D. You should drop and recreate the SalesV view as a partitioned view.

**Correct Answer:** C
**Section: (none)**
**Explanation**

**Explanation/Reference:**
Explanation:
Ref: http://msdn.microsoft.com/en-us/library/ms190174

**QUESTION 21**
You work as a database developer at ABC.com. ABC.com has a SQL Server 2012 database named
SalesDB with a table named Invoices.

Application developers are developing several in-house applications that will access the Invoices table. You
need to develop a solution that will allow the applications to access the table indirectly while still allowing
them to update the Invoice table.

How would you accomplish this task?

A. You should create a view on the Invoices table.
B. You should create a columnstore index on all columns used by the applications.
C. You should allow the applications access to the Invoices table via stored procedures.
D. You should drop and recreate the Invoices table as a partitioned table.

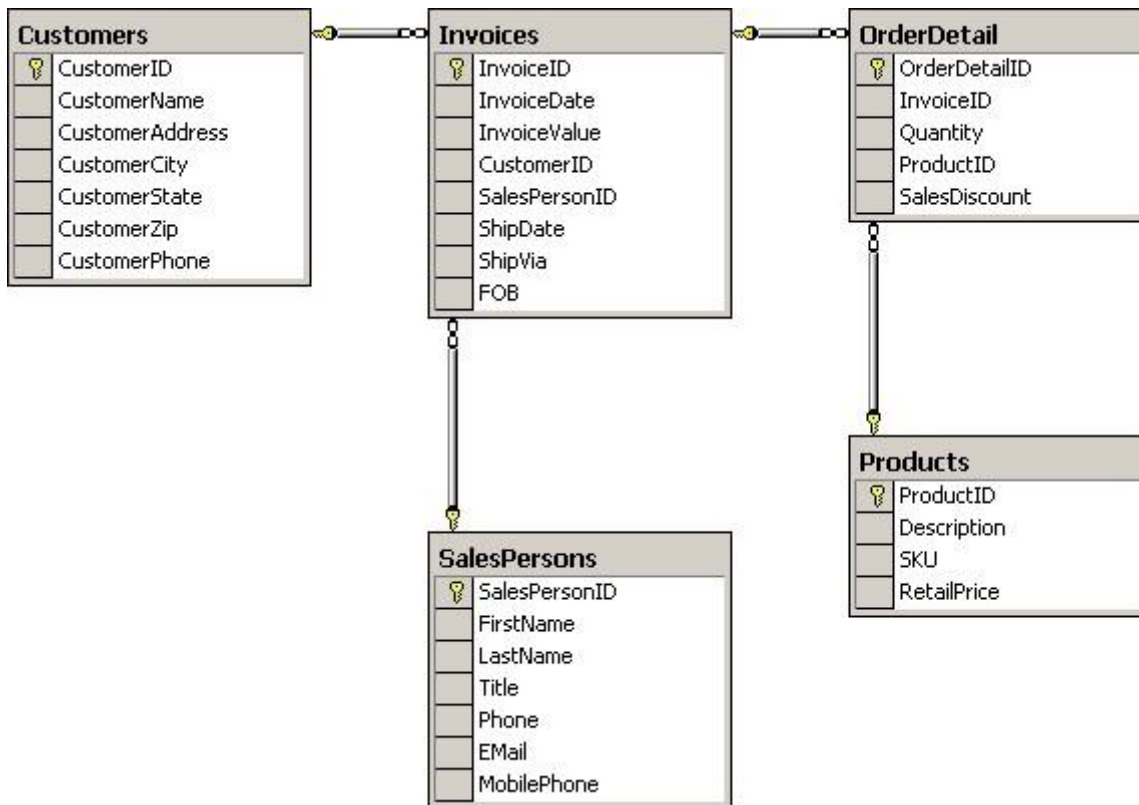**Correct Answer:** C
**Section: (none)**
**Explanation**

**Explanation/Reference:**
Explanation:

**QUESTION 22**
You work as a database administrator at ABC.com. ABC.com has a SQL Server 2012 database
named SalesDB. The SalesDB database is shown in the following database diagram:

You need to write a Transact-SQL query that displays all Customers, whether they have invoices or not. The query must also display the InvoiceDate for a Customer that has an Invoice.

How would you accomplish this task?

A. You should make use of a UNION.
B. You should make use of an INNER JOIN.
C. You should make use of a CROSS JOIN.
D. You should make use of an OUTER JOIN.
E. You should make use of a CROSS APPLY.

**Correct Answer:** D
**Section: (none)**
**Explanation**

**Explanation/Reference:**
Explanation:

**QUESTION 23**
You work as a database administrator at manufacturing company named ABC.com. ABC.com has a SQL Server 2012 database named ProductionDB. The ProductionDB database has a table named Sites that was created using the following Transact-SQL code:

CREATE TABLE Sites (

SiteID int NOT NULL PRIMARY KEY,

Location int NOT NULL,

Manager nvarchar(200) NOT NULL,

Week smallint NOT NULL,

ItemsProduced int NOT NULL )

You want to write the Transact-SQL query that returns the number of items produced at each location for each week. In addition, you want the result set to include a column named PrevItemsProduced that holds the number of items produced at each location for the week before.

What Transact SQL statement would accomplish this task?

A.  SELECT Location, Week, ItemsProduced,
    LEAD(ItemsProduced, 1, 0) OVER (PARTITION BY Location ORDER BY Week) AS
    PrevItemsProduced
    FROM Sites
B.  SELECT Location, Week, ItemsProduced,
    FIRST_VALUE(ItemsProduced) OVER (PARTITION BY Location ORDER BY Week) AS
    PrevItemsProduced
    FROM Sites
C.  SELECT Location, Week, ItemsProduced,
    LAG(ItemsProduced, 1, 0) OVER (PARTITION BY Location ORDER BY Week) AS PrevItemsProduced
    FROM Sites
D.  SELECT Location, Week, ItemsProduced,
    LAST_VALUE(ItemsProduced) OVER (PARTITION BY Location ORDER BY Week) AS
    PrevItemsProduced
    FROM Sites
E.  SELECT Location, Week, ItemsProduced,
    CUME_DIST( ) OVER (PARTITION BY Location ORDER BY Week) AS PrevItemsProduced FROM
    Sites

**Correct Answer:** C
**Section: (none)**
**Explanation**

**Explanation/Reference:**
Explanation:

**QUESTION 24**
You work as a SQL Server 2012 database developer at ABC.com. You are developing a stored procedure for ABC.com's e-Commerce application.

Your stored procedure must display unique values from one column in multiple columns in the result set.

How would you accomplish this?

A.  You should make use of the OUTER APPLY operator.
B.  You should make use of a dynamic cursor.
C.  You should make use of the PIVOT operator.
D.  You should make use of the CROSS APPLY operator.
E.  You should make use of the UNPIVOT operator.
F.  You should make use of a keyset cursor.

**Correct Answer:** C
**Section: (none)**
**Explanation**

**Explanation/Reference:**
Explanation:

**QUESTION 25**
You work as a SQL Server 2012 database developer at ABC.com. ABC.com has a large database named SalesDB.

New rows are inserted into the tables in the SalesDB database and updates to existing rows occur on a high frequency. The inserts and updates often blocked by queries retrieving and reading data.

How would you prevent queries that retrieve and read data from blocking queries that insert and update data?

A. You should make use of the SERIALIZABLE ISOLATION LEVEL.
B. You should make use of the SNAPSHOT ISOLATION LEVEL.
C. You should make use of the REPEATABLE READ ISOLATION LEVEL.
D. You should make use of the READCOMMITTED ISOLATION LEVEL.
E. You should make use of the READPAST ISOLATION LEVEL

**Correct Answer:** A
**Section: (none)**
**Explanation**

**Explanation/Reference:**
Explanation:
Ref: http://msdn.microsoft.com/en-us/library/ms173763.aspx

**QUESTION 26**
You work as a database developer at ABC.com. ABC has an in-house application named ABCApp3 that runs a Transact-SQL query against a SQL Server 2012 database named SalesDB.

ABC.com users report that ABCApp3 is functioning sluggishly. You discover that concurrent updates are causing blockages on the SalesDB database.

How would you ensure that the query to use the original data when updates occur?

A. You should have the query run in the REPEATABLE READ ISOLATION LEVEL.
B. You should have the query run in the SERIALIZABLE ISOLATION LEVEL.
C. You should have the query run in the READCOMMITTED ISOLATION LEVEL.
D. You should have the query run in the SNAPSHOT ISOLATION LEVEL.
E. You should have the query run in the READPAST ISOLATION LEVEL.

**Correct Answer:** D
**Section: (none)**
**Explanation**

**Explanation/Reference:**
Explanation:

**QUESTION 27**
You work as a database developer at ABC.com. ABC has an in-house application named ABCApp3 that runs a Transact-SQL query against a SQL Server 2012 database.

You want to run an execution plan against the query that will provide detailed information on missing indexes.

How would you accomplish this task?

A. You should make use of the READPAST hint in the queries.
B. You should make use of the READCOMMITTED hint in the queries.
C. You should make use of the SET SHOWPLAN_XML ON statement in the query.
D. You should make use of the SET STATISTICS XML ON statement in the query.
E. You should make use of the SET XACT_ABORT OFF statement in the query.
F. You should make use of the SET CONTEXT_INFO statement in the query.

**Correct Answer:** C
**Section: (none)**
**Explanation**

**Explanation/Reference:**

Explanation:

**QUESTION 28**
You work as a database administrator at ABC.com. ABC.com has a SQL Server 2012 database infrastructure that contains a database named ABCDB.

The ABCDB database is used by an in-house application named ABCApp3 that queries a read- only table with a clustered index. ABC.com users report that ABCApp3 is functioning sluggishly.

You suspect query the application uses is causing the problem. You analyze the query and discover that column referenced in the WHERE clause is not part of the clustered index. You also notice that the query returns five columns, as well as a COUNT (*) clause grouped on the five columns.

How would you improve the efficiency of this query?

A. You should replace the query with recursive stored procedure.
B. You should replace the COUNT (*) clause with a persisted computed column.
C. You should create nonclustered indexes on all columns used in the query.
D. You should create a filtered index on the column used in the WHERE clause.
E. You should add an INCLUDE clause to the clustered index.
F. You should create a columnstore index on all columns used in the query.
G. You should create a unique clustered index on the column used in the WHERE clause.

**Correct Answer:** F
**Section: (none)**
**Explanation**

**Explanation/Reference:**
Explanation:

**QUESTION 29**
You work as a SQL Server 2012 database developer at ABC.com. ABC.com has a database named SalesDB with tables named Customer and Orders. The Customer and Orders tables were created using the following Transact-SQL code:

CREATE TABLE SalesDB.Customers

(

CustomerID int NOT NULL PRIMARY KEY,

CustomerName nvarchar (250) NOT NULL,

Address1 nvarchar (100) NOT NULL,

Address2 nvarchar (100) NULL,

City nvarchar (50) NOT NULL,

State nvarchar (50) NOT NULL,

Zip varchar (5) NOT NULL,

Phone varchar (10) NOT NULL

)

GO

CREATE TABLE SalesDB.Orders

(

OrderID int NOT NULL PRIMARY KEY,

CustomerID int NOT NULL,

OrderDate datetime NOT NULL,

ShipDate datetime NOT NULL,

CustomerID int NOT NULL,

SalesRepID int NOT NULL

)

GO

You are developing a stored procedure named OrdersByDate that returns the OrderID,
CustomerID, CustomerName and OrderDate. The stored procedure will take a parameter named @date
that uses the int datatype. The @date parameter will be used to filter the result set based on the OrderDate
column in the Orders table.

How would you create the stored procedure?

A. CREATE PROCEDURE OrdersByDate
   @date int
   AS
   SELECT OrderID, CustomerID, CustormerName, OrderDate FROM Orders INNER JOIN Customers
   ON Orders.CustomerId = Customers.CustomerId WHERE OrderDate = CONVERT(datetime,@date)
B. CREATE PROCEDURE OrdersByDate
   @date int
   AS
   SELECT OrderID, CustomerID, CustormerName, OrderDate FROM Orders INNER JOIN Customers
   ON Orders.CustomerId = Customers.CustomerId WHERE OrderDate =@date
C. CREATE PROCEDURE OrdersByDate
   @date int
   AS
   SELECT OrderID, CustomerID, CustormerName, OrderDate FROM Orders INNER JOIN Customers
   ON Orders.CustomerId = Customers.CustomerId WHERE OrderDate = CAST(@date AS datetime)
D. CREATE PROCEDURE OrdersByDate
   @date int
   AS
   SELECT OrderID, CustomerID, CustormerName, OrderDate FROM Orders INNER JOIN Customers
   ON Orders.CustomerId = Customers.CustomerId WHERE OrderDate = PARSE(@date AS datetime)

**Correct Answer:** C
**Section: (none)**
**Explanation**

**Explanation/Reference:**
Explanation: