**Q 1 - DML triggers are used to enforce business rules when data is modified and to extend the integrity checking logic of Microsoft SQL Server constraints, defaults, and rules. Which of the following is FALSE regarding DML triggers?**

A - A DML trigger cannot reference objects outside of the current database

B - You can create a DML trigger only in the current database

C - A DML trigger cannot be created on a temporary or system table

D - The WRITETEXT statement does not cause the INSERT or UPDATE triggers to fire

**Q 2 - Which of the following is not true about USING clause?**

A - When more than one column has the same name, USING clause is used for specifying the column to be joined by equijoin.

B - It is used for matching one column only.

C - You can use a table name or alias in the referenced columns.

D - The NATURAL JOIN and the USING clauses are mutually exclusive.

**Q 3 - Which of the following is not true about complex views?**

A - They derive data from more than one table.

B - They contain no functions or grouping.

C - You cannot perform DML operations through a complex view.

D - All of the above are true.

**Q 4 - Consider the following schema −**

STUDENTS(student\_code, first\_name, last\_name, email,

 phone\_no, date\_of\_birth, honours\_subject, percentage\_of\_marks);

**Which of the following query would display all the students whose first name starts with the character ‘A’?**

A - select first\_name from students where first\_name like ‘A%’;

B - select first\_name from students where first\_name like ‘%A’;

C - select first\_name from students where first\_name like ‘%A%’;

D - select first\_name from students where first\_name like ‘A’;

**Q 5 - Which of the following is not true about constraints?**

A - A NOT NULL constraint specifies that the column cannot have a null value.

B - A UNIQUE constraint specifies that a column or a combination of column must have unique values for all rows.

C - A PRIMARY KEY is same as UNIQUE.

D - A FOREIGN KEY enforces a foreign key relationship between a column and a referenced table.

**Q 6 - Which of the following is true about subqueries?**

A - Subqueries could be used for Top-N analysis.

B - Subqueries can be of two types – single-row subquery and multiple-row subquery.

C - The outer and inner queries can get data from different tables.

D - All of the above.

**Q 7 - Consider the following schema −**

STUDENTS(student\_code, first\_name, last\_name, email,

 phone\_no, date\_of\_birth, honours\_subject, percentage\_of\_marks);

**Which of the following query would display names of all the students whose honours subject is English, or honours subject is Spanish and percentage of marks more than 80?**

A - select first\_name, last name from students where (honours\_subject = “English” or honours\_subject = “Spanish” ) and percentage\_of\_marks > 80;

B - select first\_name, last name from students where honours\_subject = “English” or honours\_subject = “Spanish” and percentage\_of\_marks > 80;

C - select first\_name, last name from students where honours\_subject = “English” and honours\_subject = “Spanish” or percentage\_of\_marks > 80;

D - select first\_name, last name from students where (honours\_subject = “English”) and honours\_subject = “Spanish” and percentage\_of\_marks > 80;

**Q 8 - Consider the following schema −**

HONOURS\_SUBJECT(subject\_code, subject\_name, department\_head);

LOCATIONS(subject\_code, department\_name, location\_id, city);

**Select the right query for retrieving records from the tables HONOURS\_SUBJECT and LOCATIONS with a right outer join**

A - select h.subject\_name, l.department\_name, h.department\_head, l.city from honours\_subject h on right outer join location l where(h.subject\_code = l.subject\_code);

B - select h.subject\_name, l.department\_name, h.department\_head, l.city from honours\_subject h outer join location l on(subject\_code);

C - select h.subject\_name, l.department\_name, h.department\_head, l.city from honours\_subject h right outer join location l on(h.subject\_code = l.subject\_code);

D - None of the above.

**Q 9 - Which of the following is not true about the database objects?**

A - Indexes improve performance of queries.

B - Views give alternative names to objects.

C - Sequences are numeric value generators.

D - Tables are the basic unit of storage.

**Q 10 - What is wrong in the following code?**

DECLARE

 c\_id := 1;

 c\_name customers.name%type;

 c\_addr customers.address%type;

 BEGIN

 SELECT name, address INTO c\_name, c\_addr

 FROM customers

 WHERE id = c\_id;

END;

A - You cannot use the SELECT INTO statement of SQL to assign values to PL/SQL variables.

B - The SELECT INTO statement here is wrong. It should be: SELECT c\_name, c\_address INTO name, addr

C - The WHERE statement is wrong. It should be: WHERE id := c\_id;

D - The variable c\_id should be declared as a type-compatible variable as −

c\_id customers.id%type := 1;

**Q 11 - Which of the following is not true about the PL/SQL language?**

A - It supports embedded SQL statements.

B - It has all the features of a modern structured programming language.

C - It is not a block-structured language.

D - Applications developed using PL/SQL are not portable.

**Q 12 - For which of the following purpose Triggers are not required ?**

A - To maintain complex integrity constraints

B - Auditing table information by recording the changes

C - To maintain the integrity of the database.

D - Signaling other program actions when changes are made to table

**Q 13 - You're designing a new query that will eventually be used by a new software application. It's important that the application knows the id value of the last row that was inserted. Rather than re-run another query just to get the maximum id value, your friend has told you to include an inbuilt function. What might that function be?**

A - SCOPE\_IDENTITY

B – ROWCOUNT

C - @@ROWCOUNT

D - @@ IDENTITY

**Q 14 – You are creating a new query that will select rows from a products tables. The query works out the count of products within each category by grouping on the category, filtering by categories that contain more than one product and then sorting the results in category order.**

**In Which order should these clauses be used in the query?**

1. GROUP BY, HAVING, ORDER BY
2. HAVING, GROUP BY, ORDER BY
3. ORDER BY, GROUP BY, HAVING
4. GROUP BY, ORDER BY, HAVING

**Q 15 – A DML trigger is an action programmed to execute when a data manipulation language (DML) event occurs in the database server. DML events include UPDATE, INSERT, Or DELETE statements issued against a table or view. Which of the following is true regarding INSTEAD OF triggers?**

1. INSTEAD OF triggers fire in place of the triggering action and before constraints are processed
2. If the constraints are violated, the AFTER trigger is not executed.
3. If there are AFTER triggers on the table, they will fire after constraint processing.
4. All of these.

**Q 16 -** **The Products table has the following definition:**

****

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

A.  CREATE TRIGGER TrgPriceChange ON Products FOR UPDATE AS IF CCLUMNS\_CHANGED(RetailPrice, WholesalePrice) - - Create Audit Records

B.  CREATE TRIGGER TrgPriceChange ON Products FOR UPDATE AS IF EXISTS(SELECT RetailPrice from inserted) OR EXISTS (SELECT WholeSalePnce FROM inserted) - - Create Audit Records

C.  CREATE TRIGGER TrgPriceChange ON Products FOR UPDATE AS IF COLUMNS\_UPDATED(RetailPrice, WholesalePrice) - - Create Audit Records

D.  CREATE TRIGGER TrgPriceChange ON Products FOR UPDATE AS IF UPDATE(RetailPrice) OR UPDATE(WholeSalePrice) - - Create Audit Records

**Q 17 - 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

**Q 18 - You develop a Microsoft SQL Server 2012 database that has two tables named
SavingAccounts and LoanAccounts. Both tables have a column named AccountNumber of
the nvarchar data type.
You use a third table named Transactions that has columns named TransactionId
AccountNumber, Amount, and TransactionDate.
You need to ensure that when multiple records are inserted in the Transactions table, only
the records that have a valid AccountNumber in the SavingAccounts or LoanAccounts are
inserted.
Which Transact-SQL statement should you use?**

A.  CREATE TRIGGER TrgValidateAccountNumber ON Transactions INSTEAD OF INSERT AS BEGIN INSERT INTO Transactions SELECT TransactionID,AccountNumber,Amount,TransactionDate FROM inserted WHERE AccountNumber IN (SELECT AccountNumber FROM LoanAccounts UNION SELECT AccountNumber FROM SavingAccounts) END

B.  CREATE TRIGGER TrgValidateAccountNumber ON Transactions FOR INSERT AS BEGIN INSERT INTO Transactions SELECT TransactionID,AccountNumber,Amount,TransactionDate FROM inserted WHERE AccountNumber IN (SELECT AccountNumber FROM LoanAccounts UNION SELECT AccountNumber FROM SavingAccounts) END

C.  CREATE TRIGGER TrgValidateAccountNumber ON Transactions INSTEAD OF INSERT AS BEGIN IF EXISTS ( SELECT AccountNumber FROM inserted EXCEPT (SELECT AccountNumber FROM LoanAccounts UNION SELECT AccountNumber FROM SavingAccounts)) BEGIN ROLLBACK TRAN END END

D.  CREATE TRIGGER TrgValidateAccountNumber ON Transactions FOR INSERT AS BEGIN IF EXISTS ( SELECT AccountNumber FROM inserted EXCEPT (SELECT AccountNumber FROM LoanAccounts UNION SELECT AccountNumber FROM SavingAccounts)) BEGIN ROLLBACK TRAN END END

**Q 19 - Your database contains two tables named DomesticSalesOrders and
InternationalSalesOrders. Both tables contain more than 100 million rows. Each table has a
Primary Key column named SalesOrderId. The data in the two tables is distinct from one
another.
Business users want a report that includes aggregate information about the total number of
global sales and total sales amounts.
You need to ensure that your query executes in the minimum possible time.
Which query should you use?**

A.  SELECT COUNT(\*) AS NumberOfSales, SUM(SalesAmount) AS TotalSalesAmount FROM ( SELECT SalesOrderId, SalesAmount FROM DomesticSalesOrders UNION ALL SELECT SalesOrderId, SalesAmount FROM InternationalSalesOrders ) AS p

B.  SELECT COUNT(\*) AS NumberOfSales, SUM(SalesAmount) AS TotalSalesAmount FROM ( SELECT SalesOrderId, SalesAmount FROM DomesticSalesOrders UNION SELECT SalesOrderId, SalesAmount FROM InternationalSalesOrders ) AS p

C.  SELECT COUNT(\*) AS NumberOfSales, SUM(SalesAmount) AS TotalSalesAmount FROM DomesticSalesOrders UNION SELECT COUNT(\*) AS NumberOfSales, SUM(SalesAmount) AS TotalSalesAmount FROM InternationalSalesOrders

D.  SELECT COUNT(\*) AS NumberOfSales, SUM(SalesAmount) AS TotalSalesAmount FROM DomesticSalesOrders UNION ALL SELECT COUNT(\*) AS NumberOfSales, SUM(SalesAmount) AS TotalSalesAmount FROM InternationalSalesOrders

**Q 20 - 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

**Q 21 - You have a Microsoft SQL Server database that includes two tables named
EmployeeBonus and BonusParameters. The tables are defined by using the following
Transact-SQL statements:**



**The tables are used to compute a bonus for each employee. The EmployeeBonus table
has a non-null value in either the Quarterly, HalfYearly or Yearly column. This value
indicates which type of bonus an employee receives. The BonusParameters table contains
one row for each calendar year that stores the amount of bonus money available and a
company performance indicator for that year.
You need to calculate a bonus for each employee at the end of a calendar year.
Which Transact-SQL statement should you use?**

A. SELECT CAST(CHOOSE((Quarterly \* AvailableBonus \* CompanyPerformance)/40, (HalfYearly \* AvailableBonus \* CompanyPerformance)/20, (Yearly \* AvailableBonus \* CompanyPerformance)/10) AS money) AS Bonus FROM EmployeeBonus, BonusParameters

B. SELECT Bonus = CASE EmployeeBonus WHEN Quarterly=1 THEN (Quarterly \* AvailableBonus \* CompanyPerformance)/40 WHEN HalfYearly=1 THEN (HalfYearly \* AvailableBonus \* CompanyPerformance)/20 WHEN Yearly=1 THEN (Yearly \* AvailableBonus \* CompanyPerformance)/10 END FROM EmployeeBonus,BonusParameters

C. SELECT CAST(COALESCE((Quarterly \* AvailableBonus \* CompanyPerformance)/40, (HalfYearly \* AvailableBonus \* CompanyPerformance)/20, (Yearly \* AvailableBonus \* CompanyPerformance)/10) AS money) AS Bonus FROM EmployeeBonus, BonusParameters

D. SELECT NULLIF(NULLIF((Quarterly \* AvailableBonus \* CompanyPerformance)/40,(HalfYearly \* AvailableBonus \* CompanyPerformance)/20), (Yearly \* AvailableBonus \* CompanyPerformance)/10) AS Bonus FROM EmployeeBonus, BonusParameters

**Q 22 - Which Transact-SQL clause is described below?
Generates totals that appear as additional summary columns at the end of the result set. When used with BY, the \_\_\_ clause generates control-breaks and subtotals in the result set.**

A – AVG

B – COMPUTE

C - None of these

D – SUM

**Q 23 - You're designing a new query that will return all of the medical records from the patients table. This could run into millions of rows so you need to find a way to limit the results to include only the top 100 most recent records. What is the best way to achieve this?**

A – Use select TOP and ORDER BY date

B – Use select TOP and GROUP BY date

C – Use select TOP and GROUP BY date

D – Use ROWCOUNT and GROUP BY date

**Q 24 - DML triggers are used to enforce business rules when data is modified and to extend the integrity checking logic of Microsoft SQL Server constraints, defaults, and rules. Which of the following is FALSE regarding DML triggers?**

A – A DML trigger cannot reference objects outside of the current database

B – You can create a DML trigger only in the current database

C – A DML trigger cannot be created on a temporary or system table

D – A DML trigger cannot be created on a temporary or system table

**Q 25** - **Which of the following is not true about the execution section of a PL/SQL block?**

**A** - It should have more than one executable line of code.

**B** - It may have just a NULL command to indicate that nothing should be executed.

**C** - The statements must always end with a semicolon.

**D** - The section may contain SQL commands, logical control commands, assignment commands, as well as other commands.