Coder Girl T-SQL Test

1. Which expression will work the best for creating a FullName column?
    a. FirstName + ' ' + MiddleName + ' ' + LastName
    b. FirstName + ISNULL(MiddleName, ' ') + LastName
    c. CONCAT(FirstName,' ' + MiddleName, ' ',LastName)
2. Which query will return a combined list of territories and regions?
    a.
        SELECT RegionID AS ID, RegionDescription AS Description
        FROM Region
        UNION ALL
        SELECT TerritoryID, TerritoryDescription
        FROM Territory;

    b.
        SELECT RegionID AS ID, RegionDescription AS Description
        FROM Region
        UNION ALL
        SELECT RegionID, TerritoryID, TerritoryDescription
        FROM Territory;
    c.
        SELECT RegionID AS ID, RegionDescription AS Description
        FROM Region
        UNION ALL
        SELECT TerritoryDescription, TerritoryID
        FROM Territory;
3. How many rows will be returned from this query?

    SELECT ProductID, ProductName, Color, Size, ListPrice
    FROM Product
    WHERE Color <> 'Blue';

4. Which expression can be used to calculate approximately how old each employee was when joining the company?
    a. DATEADD(year,BirthDate,HireDate)
    b. DATEDIFF(year,BirthDate,HireDate)
    c. DATECALC(year,Birthdate,HireDate)
    d. YEAR(BirthDate,HireDate)
5. What is returned by the following expression?

    LEFT('CoderGirl',4)

6. What is returned by the following expression?

    CHARINDEX('G', 'CoderGirl')

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7. What will be returned by the following query?

   SELECT COUNT(Color) AS RC
   FROM Product;

8. Fill in the GROUP BY columns:

   SELECT COUNT(*) AS OrderCount, ProductID, YEAR(OrderDate) AS OrderYear
   FROM Order AS Ord
   INNER JOIN OrderDetail AS Det ON Ord.OrderID =Det.OrderID
   INNER JOIN Product AS Prod ON Prod.ProductID = Det.ProductID
   GROUP BY _____

9. What type of join is needed to get a list of all the employees and the orders, if any, associated with them?
   a. INNER JOIN
   b. LEFT OUTER JOIN
   c. CROSS JOIN

10. Complete the query so that only the products which have sold at least 100 units are returned. There are two blanks, but you just need to fill in one of them.

    SELECT SUM(Quantity) AS ItemsOrdered, ProductID
    FROM OrderDetail

    _____

    GROUP BY ProductID

    _____

11. You want to return a list of the products IDs which have never sold. Which query will NOT do that?

    a. SELECT ProductID
       FROM Product
       WHERE ProductID NOT IN (SELECT ProductID FROM OrderDetail);
    b. SELECT DISTINCT ProductID
       FROM Product AS P
       INNER JOIN OrderDetail AS DET ON P.ProductID = DET.ProductID
       WHERE DET.ProductID IS NULL;
    c. SELECT ProductID
       FROM Product
       EXCEPT
       SELECT ProductID
       FROM OrderDetail;

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12. How many rows will be returned by this query?

    ```
    SELECT FirstName
    FROM Employee
    WHERE FirstName > 'M';
    ```

13. How many rows will be returned by this query?

    ```
    SELECT FirstName
    FROM Employee
    WHERE FirstName LIKE 'M%';
    ```

14. How many rows will be returned by this query?

    ```
    SELECT FirstName
    FROM Employee
    WHERE FirstName LIKE '%A%';
    ```

15. What is the difference between UNION and UNION ALL?

16. What is the difference between UNION and EXCEPT?

17. You need a list of the regions, including RegionDescription, and employees within the regions. Which tables will be needed in the query?

18. When you run this query, which ProductID will be first in the results?

    ```
    SELECT ProductID, ProductName, ListPrice, Color
    FROM Product
    ORDER BY ListPrice DESC, Color;
    ```

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19. You want to save a script that creates a temp table, inserts rows, and returns the results. Which object should you use?
    a. View
    b. Stored procedure
    c. User defined function
    d. C# application

20. You are creating a table for a list of US states. Which data type is best for storing the two-letter abbreviation?
    a. VARCHAR(MAX)
    b. NVARCHAR(2)
    c. CHAR(2)
    d. VARCHAR(10)