CoderSchool

M1.2 Advanced SQL

Exam Solution

Part 1: MULTIPLE CHOICES

Question 1: Which of the following statements is true about a left join in SQL?

B. A left join returns all rows from the left table and matching rows from the right table.

Question 2: What happens if there is no matching row in the right table in a left join?

B. The join includes a null value for the columns from the right table

Question 3: What does a full outer join return in SQL?

D. All rows from both tables, including unmatched rows.

Question 4: What is the purpose of a self join in SQL?

A. To join a table with itself to create a new table.

B. To compare rows within a table based on a certain condition.

Question 5: What is the difference between a UNION and an INTERSECT operation in SQL?

D. A UNION operation returns only the distinct rows from both SELECT statements, while an INTERSECT operation returns all the rows that are common to both SELECT statements.

Question 6: Which of the following statements is true about the COALESCE function in SQL?

B. It always returns a null value if all expressions are null.

D. It can be used with any data type.

Question 7: What does the ROUND(x, n) function do in SQL?

C. It rounds the number x to n number of decimal places.

Question 8: Which of the following statements is true about the LEFT and RIGHT functions in SQL?

B. Both functions return the entire string if the specified length is greater than the length of the string.

Question 9: Which of the following statements is true about time operators in SQL?

C. The - operator can be used to subtract a time value from a date value.

D. The + operator can be used to add a date value to a time value.

Question 10: What is the result of using arithmetic operators with NULL values in SQL?

B. The result is always NULL.

Question 11: Which of the following SQL statements correctly uses the LAG() function to return the previous row's value of the 'sales' column in the 'orders' table?

A.

```
SELECT LAG(sales) OVER (ORDER BY date) as prev_sales, sales
FROM orders;`
```

B.

```
SELECT LAG(sales, 1) OVER (ORDER BY date) as prev_sales, sales
FROM orders;
```

Question 12: Which of the following SQL statements correctly uses RANK to assign a rank to each value in the 'sales' column of the 'orders' table?

A.

```
SELECT RANK() OVER (ORDER BY sales) as rank, sales
FROM orders;
```

D.

```
SELECT RANK() OVER (ORDER BY sales) as sales_rank
FROM orders;
```

Question 13: Given the following data and SQL query, what is the rank of David? (Data and query in original question)

3

Question 14: Given the following data and SQL query, what is the rolling_avg on 2021-01-02? (Data and query in original question)

200

Question 15: Which of the following is a good practice when writing SQL queries?

B. Include comments in your queries to explain what they do.