DEVELOPER ENTRY TEST

Code: SQL01

Total question: 25

Allowed time: 45'

Note:

- Select one or more answers for each question.
- You are allowed to used mobile or internet device during the exam.

Questions & answers

1. Which SQL gain table B from table A?

Table A

Employee ID	Name	Department Code	Salary
10010	Lucy Brown	101	2,000
10020	M. Gordon	201	3,000
10030	W. Smith	101	2,500
10040	John Benton	102	3,500
10050	Tom Cage	102	3,000
10060	Mary Carpenter	201	2,500

Table B

Department Code	Employee ID	Name
101	10010	Lucy Brown
101	10030	W. Smith
102	10040	John Benton
102	10050	Tome Cage
201	10020	M. Gordon
201	10060	Mary Carpenter

A. SELECT department_code, employee_ID, name
   FROM A
   GROUP BY employee_ID
B. SELECT department_code, employee_ID, name
   FROM A
   GROUP BY department_code
C. SELECT department_code, employee_ID, name
   FROM A

ORDER BY employee_ID

D. SELECT department_code, employee_ID, name
FROM A
ORDER BY department_code

2. The LIKE SQL keyword is used along with?

A. WHERE clause
B. ORDER BY clause
C. JOIN clause
D. GROUP BY clause

3. Which of the following operations extracts specific columns from tables in a relational database?

A. Join
B. Projection
C. Selection
D. Union

4. There is a table including the data items shown below. Which of the following SQL statements can insert a new row in the "student" table?

Name	**Null?**	**Type**
STUD_ID	NOT NULL	NUMBER(3)
NAME	NOT NULL	VARCHAR2(25)
ADDRESS		VARCHAR2(50)
GRADUATION		DATE

A. INSERT INTO student (stud_id, address, graduation)
VALUES (101, 'Dave', '100 Happy Lane', '2001-06-14');
B. INSERT INTO student (stud_id, address, name, graduation)
VALUES (101, '100 Happy Lane', 'Dave', '2001-06-14');
C. INSERT INTO student
VALUES (101, '100 Happy Lane', '2001-06-14', 'Dave');
D. INSERT INTO student
VALUES (101, '2001-06-14', '100 Happy Lane', 'Dave');

5. How many rows are included in the table gained as as result of execution of the following statement?

SELECT DISTINCT customer_name, merchandise_name, unit_price

FROM order_table, merchandise_table

WHERE order_table.merchandise_number = merchandise_table.mnrchandise_number

order_table

customer_name	merchandise_number
OyamaShoten	TV28
OyamaShoten	TV28W
OyamaShoten	TV32
Oyama Shokai	TV32
Oyama Shokai	TV32W

merchandise_table

merchandise_number	merchandise_name	unit_price
TV28	28-inch television	250,000
TV28W	28-inch television	250,000
TV32	32-inch television	300,000
TV32W	32-inch television	300,000

A. 2
B. 3
C. 4
D. 5

6. With SQL, how can you insert a new record into the "Persons" table?

A. INSERT VALUES ('Jimmy', 'Jackson') INTO Persons

B. INSERT ('Jimmy', 'Jackson') INTO Persons

C. INSERT INTO Persons VALUES ('Jimmy', 'Jackson')

7. The following SQL is which type of join:

SELECT CUSTOMER_T.CUSTOMER_ID, ORDER_T.CUSTOMER_ID, NAME, ORDER_ID

FROM CUSTOMER_T, ORDER_T

WHERE CUSTOMER_T.CUSTOMER_ID = ORDER_T.CUSTOMER_ID

A. Inner join
B. Cross join

C. Outer join
D. Self join

8. Which of the following relational algebra operations do not require the participating tables to be union-compatible?

A. Union
B. Intersection
C. Difference
D. Join

9. You have a database that contains tables named Customers and Orders. The tables are related by a column named CustomerID. You need to create a query that meets the following requirements:

Returns the CustomerName for all customers and the OrderDate for any orders that they have placed.

Results must include customers who have not placed any orders.

Which Transact-SQL query should you use??

A.
```
SELECT CustomerName, OrderDate
FROM Customers
RIGHT OUTER JOIN Orders
ON Customers.CustomerID = Orders.CustomerID
```

B.
```
SELECT CustomerName, CrderDate
FROM Customers
JOIN Orders
ON Customers.CustomerID = Orders.CustomerID
```

C.
```
SELECT CustomerName, OrderDate
FROM Customers
CROSS JOIN Orders
ON Customers.CustomerID = Orders.CustomerID
```

D.
```
SELECT CustomerName, OrderDate
FROM Customers
LEFT OUTER JOIN Orders
ON Customers.CustomerID = Orders.CustomerID
```

10. How can you change "Hansen" into "Nilsen" in the "LastName" column in the Persons table?

A. UPDATE Persons SET LastName='Hansen'
   INTO LastName='Nilsen'
B. UPDATE Persons SET LastName='Nilsen'
   WHERE LastName='Hansen'
C. MODIFY Persons SET LastName='Nilsen'
   WHERE LastName='Hansen'
D. MODIFY Persons SET LastName='Hansen'
   INTO LastName='Nilsen

11. Which SQL statement selects all rows from table called Contest, with column ContestDate having values greater or equal to May 25,2006?

A. SELECT *
   FROM Contest
   HAVING ContestDate >= '05/25/2006'
B. SELECT *
   FROM Contest
   WHERE ContestDate < '05/25/2006'
C. SELECT *
   FROM Contest
   GROUPBY ContestDate >= '05/25/2006'
D. SELECT *
   FROM Contest
E. WHERE ContestDate >= '05/25/2006'

12. How many tables may be included with a join?

A. One

B. Two

C. Three

D. All of the mentioned options

13. Subqueries can be nested multiple times

A. TRUE

B. FALSE

14. Which of the following SQL statements can extract employee name's whose salary is $10000 or higher from the table "human_resource"?

A. SELECT salary

   FROM human_resource

WHERE employee_name >=10000

GROUP BY salary

B. SELECT employee_name, COUNT(*)

FROM human_resource

WHERE salary>=10000

GROUP BY employee_name

C. SELECT employee_name, salary

FROM human_resource

GROUP BY salary

HAVING COUNT(*)>=10000

D. SELECT employee_name

FROM human_resource

WHERE salary>=10000

15. 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;

16. You have a table named Employees. You want to identify the supervisor to which each employee reports. You write the following query.

SELECT e.EmloyeeName AS [EmployeeName], s.EmployeeName AS [SuperVisorName] FROM Employees e

You need to ensure that the query returns a list of all employees and their respective supervisor. Which join clause should you use to complete the query?

A. RIGHT JOIN Employees s ON e.ReportsTo = s.EmployeeId;
B. INNER JOIN Employees s ON e.EmployeeId = s.EmployeeId;
C. LEFT JOIN Employees s ON e.ReportsTo = s.EmployeeId;

17. You have two tables named Customer and SalesOrder. In the Customer table you have 1000 customers, of which 900 customers have orders in the SalesOrder table. You execute the following query to list all customers that have had at least one sale.

SELECT * FROM Customer WHERE Customer.CustomerID IN (SELECT SalesOrder.CustomerID FROM SalesOrder).

You need to identify the results of the query. Which results will the query return?

A. No rows;
B. The 900 rows in the Customer table with matching rows in the SalesOrder table;
C. The 1000 rows in the Customer table;

18. Which of the following is one of the basic approaches for joining tables?

A. Subqueries
B. Union
C. Join

D. All of the mentioned options

19. A UNION query is which of the following?

A. Combines the output from no more than two queries and must include the same number of columns.
B. Combines the output from no more than two queries and does not include the same number of columns
C. Combines the output from multiple queries and must include the same number of columns.
D. Combines the output from multiple queries and does not include the same number of columns

20. Which of the following statements is true concerning subqueries?

A. Involves the use of an inner and outer query
B. Cannot return the same result as a query that is not a subquery
C. Does not start with the word SELECT
D. All of the mentioned options

21. You have a third-party application that inserts data directly into a table. You add two new columns to the table. These columns cannot accept NULL values and cannot use default constraints. You need to ensure that the new columns do not break the third-party application. What should you do?

A. Create a DDL trigger
B. Create a stored procedure
C. Create an AFTER INSERT trigger
D. Create an INSTEAD OF INSERT trigger

22. A function returns one value and has only output parameters?

A. True
B. False

23. Triggers are stored blocks of code that have to be called in order to operate?

A. True
B. False

24. Which of the following statements is true concerning routines and triggers?

A. Both consist of procedural code
B. Both have to be called to operate
C. Both run automatically
D. Both are stored in the database

25. Which of the following is true concerning a procedure?

A. You do not create them with SQL
B. They do not need to have a unique name
C. They include procedural and SQL statements