

Q1: Examine the data in the EMPLOYEES table.

SALARY	DEPARTMENT_ID	LAST_NAME
3000	10	Getz
1500	20	Davis
2200	20	Bill
5000	30	Davis

Which three subqueries work? (Choose three)

A. SELECT * FROM employees

where salary > (SELECT MIN(salary)

FROM employees

GROUP BY department _ id);

B. SELECT * FROM employees

WHERE salary = (SELECT AVG(salary)

FROM employees

GROUP BY department _ id);

C. SELECT distinct department_id

FROM employees

Where salary > ANY (SELECT AVG(salary)

FROM employees

GROUP BY department _ id);

D. SELECT department_id

FROM employees

WHERE SALARY > ALL (SELECT AVG(salary)

FROM employees

GROUP BY department _ id);

E. SELECT last_name
FROM employees
Where salary > ANY (SELECT MAX(salary)
FROM employees
GROUP BY department _ id);

F. SELECT department_id
FROM employees
WHERE salary > ALL (SELECT AVG(salary)
FROM employees
GROUP BY ANG (SALARY));

Q2: Examine the data from the ORDERS and CUSTOMERS table. ORDERS

ORD_TOTAL	CUST_ID	ORD_DATE	ORD_ID
10000	15	12-JAN-2000	100
8000	40	09-MAR-2000	101
12500	35	09-MAR-2000	102
12000	15	15-MAR-2000	103
6000	15	25-JUN-2000	104
5000	20	18-JUL-2000	105
7000	35	18-JUL-2000	106
6500	20	21-JUL-2000	107
8000	10	04-AUG-2000	108

CUSTOMERS

CITY	CUST_NAME	CUST_ID
Los Angeles	Smith	10
San Francisco	Bob	15
Chicago	Martin	20
New York	Mary	25
Chicago	Rina	30
New York	Smith	35
New York	Linda	40

Which SQL statement retrieves the order ID, customer ID, and order total for the orders that are placed on the same day that Martin places his orders?

- A. `SELECT ord_id, cust_id, ord_total FROM orders, customers WHERE cust_name='Mating' AND ord _ date IN ('18-JUL-2000','21-JUL-2000');`
 - B. `SELECT ord_id, cust_id, ord_total FROM orders Where ord_date IN (SELECT ord_date FROM orders WHERE cust_id = (SELECT cust_id FROM customers WHERE cust_name = 'MARTIN'));`
 - C. `SELECT ord_id, cust_id, ord_total FROM orders Where ord_date IN (SELECT ord_date FROM orders, customers Where cust _ name = 'Martin');`
 - D. `SELECT ord_id, cust_id, ord_total FROM orders WHERE cust_id IN (SELECT cust_id FROM customers WHERE cust name = 'Martin');`
-

Q3: Which two statements about subqueries are true? **(Choose two.)**

- A. A single row subquery can retrieve data from only one table.
 - B. A SQL query statement cannot display data from table B that is referred to in its subquery, unless table B is included in the main query's FROM clause.
 - C. A SQL query statement can display data from table B that is referred to in its subquery, without including table B in its own FROM clause.
 - D. A single row subquery can retrieve data from more than one table.
 - E. A single row subquery cannot be used in a condition where the LIKE operator is used for comparison.
 - F. A multiple-row subquery cannot be used in a condition where the LIKE operator is used for comparison.
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Q4: Examine the structure of the STUDENTS table. STUDENT_ID NUMBER NOT NULL, Primary Key STUDENT_NAME VARCHAR2(30) COURSE_ID VARCHAR2(10) NOT NULL MARKS NUMBER START_DATE DATE FINISH_DATE DATE You need to create a report of the 10 students who achieved the highest ranking in the course INT SQL and who completed the course in the year 1999. Which SQL statement accomplishes this task?

A. SELECT student_id, marks, ROWNUM "Rank" FROM students WHERE
ROWNUM <= 10 AND finish_date BETWEEN '01-JAN-99' AND '31-DEC-99'
AND course_id = 'INT_SQL' ORDER BY marks DESC;

B. SELECT student_id, marks, ROWID "Rank"
FROM students
WHERE ROWID <= 10
AND finish_date BETWEEN '01-JAN-99' AND '31-DEC-99'
AND course_id = 'INT_SQL'
ORDER BY marks;

C. SELECT student_id, marks, ROWNUM "Rank"
FROM (SELECT student_id, marks
FROM students
WHERE ROWNUM <= 10
AND finish_date BETWEEN '01-JAN-99' AND
'31-DEC-99'
AND course_id = 'INT_SQL'
ORDER BY marks DESC);

D. SELECT student_id, marks, ROWNUM "Rank"
FROM (SELECT student_id, marks
FROM students
ORDER BY marks DESC)
WHERE ROWNUM <= 10
AND finish_date BETWEEN '01-JAN-99' AND '31-DEC-99'
AND course _ id ='INT _ SQL';

Q5: Examine the data from the EMP table.

COMMISSION	DEPT_ID	EMP_ID
500	10	1
1000	20	2
	10	3
600	10	4
800	30	5
200	30	6
	10	7
300	20	8

The COMMISSION column shows the monthly commission earned by the employee. Which three tasks would require subqueries or joins in order to perform in a single step? **(Choose three)**

- A.** Deleting the records of employees who do not earn commission.
- B.** Increasing the commission of employee 3 by the average commission earned in department 20.
- C.** Finding the number of employees who do NOT earn commission and are working for department 20.
- D.** Inserting into the table a new employee 10 who works for department 20 and earns a commission that is equal to the commission earned by employee 3.
- E.** Creating a table called COMMISSION that has the same structure and data as the columns EMP_ID and COMMISSIONS of the EMP table.
- F.** Decreasing the commission by 150 for the employees who are working in department 30 and earning a commission of more then 800.

Q6: Examine the structure of the EMPLOYEES table.

EMPLOYEE_ID NUMBER Primary Key

FIRST_NAME VARCHAR2(25)

LAST_NAME VARCHAR2(25)

DEPARTMENT_ID NUMBER

SALARY NUMBER

What is the correct syntax for an inline view?

A. SELECT a.last_name, a.salary, a.department_id, b.maxsal FROM employees a, (SELECT department_id, max(salary)maxsal FROM employees GROUP BY department_id) b WHERE a.department_id = b.department_id AND a.salary < b.maxsal;

B. SELECT a.last name, a.salary, a.department_id FROM employees a WHERE a.department_id IN (SELECT department_id FROM employees b GROUP BY department_id having salary = (SELECT max(salary) from employees))

C. SELECT a.last_name, a.salary, a.department_id FROM employees a WHERE a.salary = (SELECT max(salary) FROM employees b WHERE a.department _ id = b.department _ id);

D. SELECT a.last_name, a.salary, a.department_id FROM employees a WHERE (a.department_id, a.salary) IN (SELECT department_id, a.salary) IN (SELECT department_id max(salary) FROM employees b GROUP BY department_id ORDER BY department _ id);

Q7: Which three statements about subqueries are true? (**Choose three**)

- A.** A single row subquery can retrieve only one column and one row.
 - B.** A single row subquery can retrieve only one row but many columns.
 - C.** A multiple row subquery can retrieve multiple rows and multiple columns.
 - D.** A multiple row subquery can be compared by using the ">" operator.
 - E.** A single row subquery can use the IN operator.
 - F.** A multiple row subquery can use the "=" operator.
-

Q8: Which operator can be used with a multiple-row subquery?

- A.** =
 - B.** LIKE
 - C.** BETWEEN
 - D.** NOT IN
 - E.** IS
 - F.** <>
-

Q9: Examine the data from the ORDERS and CUSTOMERS tables. ORDERS

ORD_TOTAÖ	CUST_ID	ORD_DATE	ORD_ID
10000	15	12-JAN-2000	100
8000	40	09-MAR-2000	101
12500	35	09-MAR-2000	102
12000	15	15-MAR-2000	103
6000	15	25-JUN-2000	104
7000	35	18-JUL-2000	106
6500	20	21-JUL-2000	107
8000	10	04-AUG-2000	109

CUSTOMERS

CITY	CUST_NAME	CUST_ID
Los Angeles	Smith	10
San Francisco	Bob	15
Chicago	Martin	20
New York	Mary	25
Chicago	Rina	30
New York	Smith	35
New York	Lind	40

Evaluate the SQL statement. `SELECT * FROM orders WHERE cust_id = (SELECT cust_id FROM customers` What is the result when the query is executed?

A.

ORD_TOTAL	CUST_ID	ORD_DATE	ORD_ID
12500	35	09-MAR-2000	102
7000	35	18-JUL-2000	106
8000	10	04-AUG-2000	108

B.

ORD_TOTAL	CUST_ID	ORD_DATE	ORD_ID
12500	35	09-MAR-2000	102
7000	35	18-JUL-2000	106

C.

ORD_TOTAL	CUST_ID	ORD_DATE	ORD_ID
8000	10	04-AUG-2000	108

D. The query fails because the subquery returns more than one row.

E. The query fails because the outer query and the inner query are using different tables.

Q10: You define a multiple-row subquery in the WHERE clause of an SQL query with a comparison operator "=".

What happens when the main query is executed?

A. The main query executes with the first value returned by the subquery.

B. The main query executes with the last value returned by the subquery.

C. The main query executes with all the values returned by the subquery.

D. The main query fails because the multiple-row subquery cannot be used with the comparison operator.

E. You cannot define a multiple-row subquery in the WHERE clause of a SQL query.

Q11: A subquery can be used to _____.

- A. Create groups of data
- B. Sort data in a specific order
- C. Convert data to a different format
- D. Retrieve data based on an unknown condition

Q12: In which scenario would TOP N analysis be the best solution?

- A. You want to identify the most senior employee in the company.
- B. You want to find the manager supervising the largest number of employees.
- C. You want to identify the person who makes the highest salary for all employees.
- D. You want to rank the top three sales representatives who have sold the maximum number of products.

Q13: Evaluate the SQL statement.

```
1 SELECT a.emp_name, a.sal, a.dept_id, b.maxsal
2 FROM employees a,
3 (SELECT dept_id, MAX(sal) maxsal
4  FROM employees 5 GROUP BY dept_id) b 6 WHERE a.dept_id = b.dept_id 7
AND a. sal < b. maxsal;
```

What is the result of the statement?

- A. The statement produces an error at line 1.
- B. The statement produces an error at line 3.
- C. The statement produces an error at line 6.
- D. The statement returns the employee name, salary, department ID, and maximum salary earned in the department of the employee for all departments that pay less salary than the maximum salary paid in the company.
- E. The statement returns the employee name, salary, department ID, and maximum salary earned in the department of the employee for all employees who earn less than the maximum salary in their department.

Q14: Top N analysis requires _____ and _____. (Choose two.)

- A. the use of rowid
 - B. a GROUP BY clause
 - C. an ORDER BY clause
 - D. only an inline view
 - E. an inline view and an outer query
-

Q15: In which four clauses can a subquery be used? (Choose four.)

- A. in the INTO clause of an INSERT statement
 - B. in the FROM clause of a SELECT statement
 - C. in the GROUP BY clause of a SELECT statement
 - D. in the WHERE clause of a SELECT statement
 - E. in the SET clause of an UPDATE statement
 - F. in the VALUES clause of an INSERT statement
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Q16: You need to write a SQL statement that returns employee name, salary, department ID, and maximum salary earned in the department of the employee for all employees who earn less than the maximum salary in their department. Which statement accomplishes this task?

- A. `SELECT a.emp_name, a.sal, b.dept_id, MAX(sal) FROM employees a, departments b WHERE a.dept_id = b.dept_id AND a.sal < MAX(sal) GROUP BY b.dept_id;`
- B. `SELECT a.emp_name, a.sal, a.dept_id, b.maxsal FROM employees a, (SELECT dept_id, MAX(sal) maxsal FROM employees GROUP BY dept_id ) b WHERE a.dept_id = b.dept_id AND a.sal < b.maxsal;`
- C. `SELECT a.emp_name, a.sal, a.dept_id, b.maxsal FROM employees a WHERE a.sal < (SELECT MAX(sal) maxsal FROM employees b GROUP BY dept_id);`
- D. `SELECT emp_name, sal, dept_id, maxsal FROM employees, (SELECT dept_id, MAX(sal) maxsal FROM employees GROUP BY dept_id) WHERE a.sal < maxsal;`

LAST_NAME	DEPARTMENT_ID	SALARY
Getz	10	3000
Davis	20	1500
Bill	20	2200
Davis	30	5000
...		

Q17: Examine the data in the EMPLOYEES table.

Examine the subquery.

```
SELECT last_name
```

```
FROM employees
```

```
WHERE salary IN (SELECT MAX(salary)
```

```
FROM employees
```

```
GROUP BY department_id);
```

Which statement is true?

- A. The SELECT statement is syntactically accurate.
- B. The SELECT statement does not work because there is no HAVING clause.
- C. The SELECT statement does not work because the column specified in the GROUP BY clause is not in the SELECT list.
- D. The SELECT statement does not work because the GROUP BY clause should be in the main query and not in the subquery.

Q18: Which best describes an inline view?

- A. a schema object
- B. a subquery that can contain an ORDER BY clause
- C. another name for a view that contains group functions
- D. a subquery that is part of the FROM clause of another query

Q19: Which two statements about subqueries are true? **(Choose two.)**

- A. A subquery should retrieve only one row.
- B. A subquery can retrieve zero or more rows.
- C. A subquery can be used only in SQL query statements.
- D. Subqueries CANNOT be nested by more than two levels.

E. A subquery CANNOT be used in an SQL query statement that uses group functions.

F. When a subquery is used with an inequality comparison operator in the outer SQL statement, the column list in the SELECT clause of the subquery should contain only one column.

Q20: Which two statements about subqueries are true? (**Choose two.**)

A. A single row subquery can retrieve data from only one table.

B. A SQL query statement cannot display data from table B that is referred to in its subquery, unless table B is included in the main query's FROM clause.

C. A SQL query statement can display data from table B that is referred to in its subquery, without including B in its own FROM clause.

D. A single row subquery can retrieve data from more than one table.

E. A single row subquery cannot be used in a condition where the LIKE operator is used for comparison.

F. A multiple-row subquery cannot be used in an INSERT statement to insert multiple rows at a time.

EMP_ID	DEPT_ID	COMMISSION
1	10	500
2	20	1000
3	10	
4	10	600
5	30	800
6	30	200
7	10	
8	20	300

Q21: The COMMISSION column shows the monthly commission earned by the employee.

Which two tasks would require subqueries or joins in order to be performed in a single step? (**Choose two.**)

- A. listing the employees who earn the same amount of commission as employee 3
- B. finding the total commission earned by the employees in department 10
- C. finding the number of employees who earn a commission that is higher than the average commission of the company
- D. listing the departments whose average commission is more than 600
- E. listing the employees who do not earn commission and who are working for department 20 in descending order of the employee ID
- F. listing the employees whose annual commission is more than 6000

Q22: Exhibit ORDERS

ORD_TOTAL	CUST_ID	ORD_DATE	ORD_ID
10000	15	12-JAB-2000	100
8000	40	09-MAR-	101
		2000	
12500	35	09-MAR-2000	102
12500	15	15-MAR-2000	103
6000	15	25-JUN-2000	104
5000	20	18-JUL-2000	105
7000	35	18-JUL-2000	106
8000	10	04-AUG-2000	108

CUSTOMERS

CITY	CUST_NAME	CUST_ID
Los Angeles	Smith	10
San Francisco	Bob	15
Chicago	Martin	20
New York	Mary	25
Chicago	Rina	30
New York	Smith	35
New York	Linda	40

Evaluate this SQL statement. `SELECT cust_id, ord_total FROM orders WHERE ord_total > ANY (SELECT ord_total FROM orders WHERE cust_id IN (SELECT cust_id FROM customers WHERE city LIKE 'New York'))`; What is the result when the above query is executed?

A.

ORD_TOTAL	CUST_ID
10000	15
8000	40
12500	35
12500	15
8000	10

B.

ORD_TOTAL	CUST_ID
10000	15
12500	35
12000	15

C.

ORD_TOTAL	CUST_ID
10000	15
8000	40
12000	15
6000	15
5000	20
7000	35
6500	20
8000	10

D.

ORD_TOTAL	CUST_ID
6000	15
5000	20
6500	20

E. The query returns no rows.

F. The query fails because ANY is not a valid operator with a subquery.

What is true regarding subqueries?

- A. The inner query always sorts the results of the outer query
 - B. The outer query always sorts the results of the inner query
 - C. The outer query must return a value to the outer query
 - D. The inner query returns a value to the outer query
 - E. The inner query must always return a value or the outer query will give an error
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EXHIBIT, Emp Table

EMP_ID	DEPT_ID	COMMISSION
1	10	500
2	20	1000
3	10	
4	10	600
5	30	800
6	30	200
7	10	
8	20	300

Exhibit A

EMP_ID	DEPT_ID	COMMISSION
3	10	
7	10	

Exhibit B

EMP_ID	DEPT_ID	COMMISSION
7	10	

Examine the data from the EMP table.

Evaluate this SQL statement.

SELECT *

FROM emp

WHERE emp_id = 3);

WHERE commission = (SELECT commission

FROM emp

What is the result when the query is executed?

- A. Exhibit A
 - B. Exhibit B
 - C. The query returns no rows
 - D. The query fails because the outer query is retrieving more than one column
 - E. The query fails because both the inner and outer queries are retrieving data from the same table
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Which three statements about subqueries are true? (Choose three.)

- A. A main query can have more than one subquery.
- B. A subquery can have more than one main query.
- C. The subquery and main query must retrieve data from the same table.

- D. The subquery and main query can retrieve data from different tables.
 - E. Only one column or expression can be compared between the subquery and main query.
 - F. Multiple columns or expression can be compared between the subquery and main query.
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With MY Best WiShes

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