

QUESTION 1

Examine the description of the STUDENTS table:

STD_ID NUMBER(4) COURSE_ID VARCHAR2(10)

START DATE DATE END DATE DATE

Which two aggregate functions are valid on the START_DATE column? (Choose two)

- A. SUM(start_date)
- B. AVG(start_date)
- C. COUNT(start_date)
- D. AVG(start_date, end_date)
- E. MIN(start_date)
- F. MAXIMUM(start_date)

Answer: C, E

Explanation:

It is possible to apply COUNT() and MIN() functions on the column with DATE data type.

Incorrect Answers

A: Function SUM() cannot be used with DATE data type column.

B: Function AVG() cannot be used with DATE data type column.

D: Function AVG() cannot be used with DATE data type column. And function AVG() just has one parameter X, not two. It averages all X column values returned by the SELECT statement.

F: There is no MAXIMUM() function in Oracle, only MAX() function exists.

Reference: OCP Introduction to Oracle 9i: SQL Exam Guide, Jason Couchman, p. 81-85 Chapter 2: Limiting, Sorting, and Manipulating Return Data

QUESTION 2

Examine the structure of the EMPLOYEES and DEPARTMENTS tables:

Column name	Data type	Remarks
EMPLOYEE_ID	NUMBER NOT NULL	Primary Key
EMP_NAME	VARCHAR2 (30)	
JOB_ID	VARCHAR2 (20)	
SALARY	NUMBER	
MGR_ID	NUMBER	References EMPLOYEE ID COLUMN

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Column name	Data type	Remarks
DEPARTMENT_ID	NUMBER	Foreign key to DEPARTMENT ID column of the DEPARTMENTS table

Column name	Data type	Remarks
DEPARTMENT_ID	NUMBER NOT NULL	Primary Key
DEPARTMENT_NAME	VARCHAR2(30)	
MGR_ID	NUMBER	References MGR_ID column of the EMPLOYEES table

Evaluate this SQL statement:

SELECT employee_id, e.department_id, department_name, salary

FROM employees e, departments d

WHERE e. department_id = d.department_id;

Which SQL statement is equivalent to the above SQL statement?

- A. SELECT employee_id, department_id, department_name, Salary FROM employees WHERE department_id IN (SELECT department_id FROM departments);
- B. SELECT employee_id, department_id, department_name, salary FROM employees NATURAL JOIN departments;
- C. SELECT employee_id, d.department_id, department_name, Salary FROM employees e JOIN departments d ON e.department_id = d. department_id;
- D. SELECT employee_id, department_id, department_name, Salary FROM employees JOIN departments USING (e.department_id, d.department_id);

Answer: C

Explanation:

This query shows correct JOIN ON clause syntax and provides equivalent to the above SQL statement.

Incorrect Answers

A: This statement will show data only for the EMPLOYEES table with records that have department ID from DEPARTMENTS table, not join result of two tables.

B: NATURAL join selects rows from the tables that have equal values in all matched columns (same column names). If the columns having the same names have different datatypes, an error is returned. D: There is incorrect usage of JOIN clause with USING keyword.

Reference: OCP Introduction to Oracle 9i: SQL Exam Guide, Jason Couchman, p. 112-114
Chapter 3: Advanced Data Selection in Oracle

QUESTION 3

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.

Answer: B, D

Explanation:

A SQL query statement cannot display data from table B that is referred to in its sub-query, unless table B is included in the main query's FROM clause. And a single row sub-query can retrieve data from more than one table.

Incorrect Answers

A: A single row sub-query can retrieve data from more than one table.

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

E: A single row sub-query can be used in a condition where the LIKE operator is used for comparison.

A multiple-row sub-query can be used in a condition where the LIKE operator is used for comparison.

Reference: OCP Introduction to Oracle 9i: SQL Exam Guide, Jason Couchman, p. 144-150 Chapter 4: Subqueries

QUESTION 4

Examine the data of the EMPLOYEES table.

EMPLOYEES (EMPLOYEE_ID is the primary key. MGR_ID is the ID of managers and refers to the EMPLOYEE ID)

EMPLOYEE_ID	EMP_NAME	DEPT_ID	MGR_ID	JOB_ID	SALARY
101	Smith	20	120	SA_REP	4000
102	Martin	10	105	CLERK	2500
103	Chris	20	120	IT_ADMIN	4200
104	John	30	108	HR_CLERK	2500
105	Diana	30	108	HR_MGR	5000
106	Bryan	40	110	AD_ASST	3000
108	Jennifer	30	110	HR_DIR	6500
110	Bob	40		EX_DIR	8000
120	Ravi	20	110	SA_DIR	6500

Evaluate this SQL statement:

```
SELECT e.employee_id "Emp_id", e.emp_name "Employee", e.salary,
m.employee_id "Mgr_id", m.emp_name "Manager"
FROM employees e, employees m
WHERE e.mgr_id = m.employee_id
AND e. salary > 4000;
```

What is its output?

A.

EMP_id EMPLOYEE SALARY Mgr_id Manager

110 Bob 8000 Bob
120 Ravi 6500 110 Ravi
108 Jennifer 6500 110 Jennifer
103 Chris 4200 120 Chris
105 Diana 5000 108 Diana

B.

EMP_id EMPLOYEE SALARY Mgr_id Manager

120 Ravi 6500 110 Bob
108 Jennifer 6500 110 Bob
103 Chris 4200 120 Ravi
105 Diana 5000 108 Jennifer

C.

EMP_id EMPLOYEE SALARY Mgr_id Manager -----

-----110 Bob 8000

120 Ravi 6500 110 Bob
108 Jennifer 6500 110 Bob
103 Chris 4200 120 Ravi
105 Diana 5000 108 Jennifer

D

EMP_id EMPLOYEE SALARY Mgr_id Manager -----

-----110 Bob 8000 110 Bob

120 Ravi 6500 120 Ravi
108 Jennifer 6500 108 Jennifer
103 Chris 4200 103 Chris
105 Diana 5000 105 Dina

E. The SQL statement produces an error.

Answer: B

Explanation:

This statement lists the ID, name, and salary of the employee, and the ID and name of the employee's manager, for all the employees who have a manager and earn more than 4000

Incorrect Answers

A: This output will be provided by different query.

C: This output will be provided by different query.

D: This output will be provided by different query.

E: This SQL query will not produce error, it will show results as in answer B.

Reference: OCP Introduction to Oracle 9i: SQL Exam Guide, Jason Couchman, p. 118-122
Chapter 3: Advanced Data Selection in Oracle

QUESTION 5

Examine the structure of the EMPLOYEES table: EMPLOYEE_ID NUMBER Primary Key

FIRST_NAME VARCHAR2(25)

LAST_NAME VARCHAR2(25)

HIRE_DATE DATE

You issue these statements:

```
CREATE table new_emp ( employee_id NUMBER, name VARCHAR2(30));
```

```
INSERT INTO new_emp SELECT employee_id , last_name from employees;
```

```
Savepoint s1;
```

```
UPDATE new_emp set name = UPPER(name);
```

```
Savepoint s2;
```

```
Delete from new_emp;
```

```
Rollback to s2;
```

```
Delete from new_emp where employee_id =180;
```

```
UPDATE new_emp set name = 'James';
```

```
Rollback to s2;
```

```
UPDATE new_emp set name = 'James' WHERE employee_id =180;
```

```
Rollback;
```

At the end of this transaction, what is true?

- A. You have no rows in the table.
- B. You have an employee with the name of James.
- C. You cannot roll back to the same savepoint more than once.
- D. Your last update fails to update any rows because employee ID 180 was already deleted.

Answer: A

Explanation:

At the end of this transaction you will not have rows in the table.

Incorrect Answers

B: All transactions will be roll backed, so it will be no rows in the table.

C: It is possible to roll back to the same savepoint more than once.

D: Your last update will not fail because there is employee with ID 180 in the table and transactions have been rolled back only to the savepoint s2 before issue this update.

Reference: OCP Introduction to Oracle 9i: SQL Exam Guide, Jason Couchman, p. 279-285

Chapter 6: Manipulating Oracle Data