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CIS119DO: QUIZ #6 - 20 points
CH 17, 18, 19

15

Open Book, open notes. No computers.

1. (1 pt) Which of the select statements is expected to display the following results?

DEPARTMENT_ID	MAX(COMMISSION_PCT)
10	
20	
50	
60	
80	.3
90	
110	
	.15

A. select department_id, max(commission_pct)
FROM employees
Group by department_id, job_id;

B. select department_id, max(commission_pct)
FROM employees
Group by department_id

C. select department_id, max(commission_pct)
FROM employees

D. select department_id, max(commission_pct)
FROM employees
WHERE max(commission_pct) > 0
Group by department_id

2. (1 pt) Examine each of the following statements. Choose the statement that will only display the sum of all employee salaries and the average of all employee salaries.

SUM(SALARY)	AVG(SALARY)
175500	8775

A.
```
SELECT sum(salary), avg(salary)
FROM employees
GROUP BY department_id;
```

B.
```
SELECT count(salary), avg(salary)
FROM employees
```

C.
```
SELECT sum(salary), avg(salary)
FROM employees
WHERE salary > 15000;
```

(D.)
```
SELECT sum(salary), avg(salary)
FROM employees;
```

3. (1 pt) Examine the following SELECT statement.

```
SELECT sum(salary), avg(salary)
FROM employees
GROUP BY department_id
```

Which of the following statements about this SELECT statement is true?

A. The GROUP BY statement is illegal and will cause an error.

(B.) It will display the sum and average of all salaries in each department_id .

C. It will display only a single row of data.

D. It will display the department_id , the sum, and average of all salaries in each department_id.

4. (2 pts) The following statement generates an error. Correct the statement so it will work to produce the intended output shown below. (There are 2 errors.)

```
SELECT department_id, job_id, max(commission_pct)
FROM employees
WHERE max(commission_pct) IS NOT NULL
Group BY department_id
```

MAX(NVL(commission_pct, 0)) > 0

DEPARTMENT_ID	JOB_ID	MAX(COMMISSION_PCT)
	SA_REP	.15
80	SA_MAN	.2
80	SA_REP	.3

5. (2 pts) The following statement generates an error. Correct the statement so it will work to produce the intended output shown below. (There are 2 errors.)

```
select department_id, job_id, max(salary)
FROM employees
WHERE job_id LIKE 'A%'
GROUP BY ROLLUP(department_id, job_id)
```

DEPARTMENT_ID	JOB_ID	MAX(SALARY)
10	AD_ASST	4400
10		4400
90	AD_VP	17000
90	AD_PRES	24000
90		24000
110	AC_MGR	12000
110	AC_ACCOUNT	8300
110		12000
		24000

6. (1 pt) Which of the following statements produced this result?

MANAGER_ID	JOB_ID	AVG(SALARY)
	AD_PRES	24000
		24000
100	AD_VP	17000
100		17000
101	AC_MGR	12000
101	AD_ASST	4400
101		8200
205	AC_ACCOUNT	8300
205		8300
		13783.3333

A. select manager_id, job_id, avg(salary)
FROM employees
WHERE job_id LIKE 'A%'
GROUP BY CUBE(manager_id, job_id)

B. select manager_id, job_id, avg(salary)
FROM employees
WHERE job_id LIKE 'A%'
GROUP BY CUBE(manager_id)

C. select manager_id, job_id, avg(salary)
FROM employees
WHERE job_id LIKE 'A%'
GROUP BY ROLLUP(manager_id, job_id)

D. select manager_id, job_id, avg(salary)
FROM employees
WHERE job_id LIKE 'A%'
GROUP BY ROLLUP(manager_id)

7. The following results were created with a SELECT statement that used the GROUPING function.

MANAGER_ID	JOB_ID	AVG(SALARY)	GROUPING(MANAGER_ID)	GROUPING(JOB_ID)
	AD_PRES	24000	0	0
		24000	0	1
100	AD_VP	17000	0	0
100		17000	0	1
101	AC_MGR	12000	0	0
101	AD_ASST	4400	0	0
101		8200	0	1
205	AC_ACCOUNT	8300	0	0
205		8300	0	1
		13783.3333	1	1

7.1. (1 pt) Which columns were taken into account to calculate the AVG(SALARY) in the first row?

A. Just the MANAGER_ID
B. Just the JOB_ID
C. BOTH the MANAGER_ID and the AVG(SALARY)
D. BOTH the MANAGER_ID and the JOB_ID
E. Neither the MANAGER_ID or the JOB_ID were taken into account

7.2. (1 pt) Which columns were taken into account to calculate the AVG(SALARY) in the last row?

A. Just the MANAGER_ID
B. Just the JOB_ID
C. BOTH the MANAGER_ID and the AVG(SALARY)
D. BOTH the MANAGER_ID and the JOB_ID
E. Neither the MANAGER_ID or the JOB_ID were taken into account

7.3. (1 pt)Which columns were taken into account to calculate the AVG(SALARY) in the fourth row?

A. Just the MANAGER_ID
B. Just the JOB_ID
C. BOTH the MANAGER_ID and the AVG(SALARY)
D. BOTH the MANAGER_ID and the JOB_ID
E. Neither the MANAGER_ID or the JOB_ID were taken into account

8. (1 pt) How many times will the subquery in this statement execute?

```
SELECT first_name || ' ' || last_name NAME
FROM employees
WHERE manager_id =
        (SELECT manager_id
        FROM employees
         WHERE employee_id = 101)
ORDER BY last_name
```

A. It will not execute because it has an error
B. Once for each row processed by the parent/outer query
C. Once each time the statement is executed

9. (1pt) How many times will the subquery in this statement execute?

```
SELECT first_name || ' ' || last_name NAME, department_id
FROM employees outer
WHERE salary <=
        (SELECT avg(salary)
         FROM employees
         WHERE department_id = outer.department_id)
ORDER BY last_name
```

A. It will not execute because it has an error
B. Once for each row processed by the parent/outer query
C. Once each time the statement is executed

10. (1pt) Examine the following Hierarchical Query and resulting output.

```
SELECT employee_id, first_name || ' ' || last_name NAME, department_id, manager_id
FROM employees
START WITH last_name = 'Mourgos'
CONNECT BY PRIOR employee_id = manager_id
```

EMPLOYEE_ID	NAME	DEPARTMENT_ID	MANAGER_ID
124	Kevin Mourgos	50	100
141	Trenna Rajs	50	124
142	Curtis Davies	50	124
143	Randall Matos	50	124
144	Peter Vargas	50	124

This is a Bottom Up display.

A. True
B. False

11. (2 pts) Alter the following Hierarchical query so that Curtis Davies is not displayed.

```
SELECT employee_id, first_name || ' ' || last_name NAME, department_id, manager_id

FROM employees
WHERE last_name != 'Davies'
START WITH last_name = 'Mourgos'

CONNECT BY PRIOR employee_id = manager_id
```

(Results before change)

EMPLOYEE_ID	NAME	DEPARTMENT_ID	MANAGER_ID
124	Kevin Mourgos	50	100
141	Trenna Rajs	50	124
142	Curtis Davies	50	124
143	Randall Matos	50	124
144	Peter Vargas	50	124

12. (2 pts) Alter the following Hierarchical query to remove Zlotkey and all employees who work for her.

```
SELECT employee_id, first_name || ' ' || last_name NAME, department_id, manager_id
FROM employees
START WITH last_name = 'King'
CONNECT BY PRIOR employee_id = manager_id
AND last_name != Zlotkey
```

(results before change)

EMPLOYEE_ID	NAME	DEPARTMENT_ID	MANAGER_ID
100	Steven King	90	
101	Neena Kochhar	90	100
200	Jennifer Whalen	10	101
205	Shelley Higgins	110	101
206	William Gietz	110	205
102	Lex De Haan	90	100
103	Alexander Hunold	60	102
104	Bruce Ernst	60	103
107	Diana Lorentz	60	103
124	Kevin Mourgos	50	100
141	Trenna Rajs	50	124
142	Curtis Davies	50	124
143	Randall Matos	50	124
144	Peter Vargas	50	124
EMPLOYEE_ID	NAME	DEPARTMENT_ID	MANAGER_ID
201	Michael Hartstein	20	100
202	Pat Fay	20	201

13. (2 pts) Complete the following query to showing the organization chart for De Haan and all those employees that work for him. Show the LAST_NAME and MANAGER_ID only.

```
SELECT last_name, manager_id
FROM employees
START WITH last_name = 'De Haan'
CONNECT BY PRIOR manager_id = (Select employee_id from employees
                               Where last_name = 'De Haan' )
```


No subqueries in Connect By clause