Sample Multiple Choice Questions for a First Midterm- CSCI 570
Oracle 10g SQL Programming

Here are 15 sample questions that represent the form of multiple choice questions you might get on a first midterm....

DIRECTIONS: CIRCLE THE CORRECT ANSWER(S). This test is closed book, notes, computer and neighbor. The test is Multiple Choice. Choose the best possible answer(s). Choose only one answer unless directed otherwise within the question.

1) You query the database with this command:
   
   \[\text{SELECT id\_number, (quantity - 100 / 0.15 - 35 * 20) FROM inventory}\]

   Which expression is evaluated first (choose one)?
   A. quantity – 100
   B. 0.15-35
   C. 35*20
   D. 100/0.15

2) Which of the situations below could be accurate in describing a Cartesian Product? (choose all that apply - one or more)
   A. If the first table has 8 rows and the second table has 4, then the Cartesian Product will have 12 rows.
   B. the CROSS JOIN was taken between the 2 tables.
   C. a join condition was omitted.
   D. a NATURAL JOIN was taken between the 2 tables.
   E. none of the above.

3) The transaction control that prevents more than one user from updating data in a table is which of the following (choose one)?
   A. commit
   B. savepoint
   C. lock
   D. rollback

4) Which of the following are legal queries? (choose one or more)
   A. SELECT deptno, count(deptno)
      FROM emp
      GROUP BY ename;
   B. SELECT deptno, count(deptno), job
      FROM emp
      GROUP BY deptno;
   C. SELECT deptno, avg(sal)
      FROM emp;
   D. SELECT deptno, avg(sal)
      FROM emp
      GROUP BY deptno;
   E. SELECT avg(sal)
      FROM emp
      GROUP BY deptno;
5. How would you display a listing of the sums of employee salaries for those employees not making a commission, for each job type, including only those sums greater than 2500? (choose one)
   A. select job, sum(sal)
      from emp
      where sum(sal) > 2500 and comm is null;
   B. select job, sum(sal)
      from emp
      where comm is null
      group by job
      having sum(sal) > 2500;
   C. select job, sum(sal)
      from emp
      where sum(sal) > 2500 and comm is null
      group by job;
   D. select job, sum(sal)
      from emp
      group by job
      having sum(sal) > 2500 and comm is not null;
   E. none of the above

6. The following SQL statement is illegal because: (choose one)
   SELECT deptno, AVG(sal)
   FROM emp
   WHERE AVG(sal)> 2000
   GROUP BY deptno;
   A. it requires data from more than one table, yet only one table is listed.
   B. sal is not a legal column name
   C. instead of a WHERE clause, a HAVING clause must be used to restrict groups
   D. the GROUP BY clause must contain AVG(sal)
   E. this SELECT statement is perfectly legal

7. All of the following can ONLY be used with numeric datatypes except: (choose one)
   A. AVG
   B. COUNT
   C. SUM
   D. STDDEV
   E. VARIANCE

8. Which of the following statements are true (choose two)?
   A. 'NOT IN' is equivalent to != ALL
   B. 'IN' is equivalent to != ALL
   C. 'NOT IN' is equivalent to =ANY
   D. 'IN' is equivalent to =ANY
   E. None of the above are true
9. What operator would you choose to prevent this Oracle error message? (choose one)
ORA-01427:single -row subquery returns more than one row
   A. Use the IN operator
   B. Use the >= operator
   C. Use the CAN EXIST operator
   D. Use the = operator
   E. Use the <= operator

10. Operator John needs to search for text data in a column, but he only remembers part of the string. Which of the following SQL operations allows the use of wildcard comparisons (choose one)?
A. BETWEEN
B. IN
C. LIKE
D. EXISTS

11. Given the following data in the emp table:

<table>
<thead>
<tr>
<th>ENAME</th>
<th>SALARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>PING</td>
<td>5000</td>
</tr>
<tr>
<td>AILYN</td>
<td>4999</td>
</tr>
<tr>
<td>SAM</td>
<td>1000</td>
</tr>
<tr>
<td>LESLIE</td>
<td>3000</td>
</tr>
<tr>
<td>TOM</td>
<td>2500</td>
</tr>
<tr>
<td>RAVI</td>
<td>10000</td>
</tr>
</tbody>
</table>

What will the following select statement produce (choose one)?

SELECT ename FROM emp WHERE salary BETWEEN 3000 AND 5000;

A. ENAME
   --------
   AILYN
   
B. ENAME
   --------
   PING
   CHRIS
   LESLIE
   
C. an error

D. None of the above
12. You want to join the contents of two tables, PRODUCT and STORAGE, to list the location of all boxes containing widgets. PRODUCT has three columns: ID, NAME, and BOX#. STORAGE has two columns: BOX# and LOC. Which of the following choices will not give the desired result (choose one)?

A. select product.id, product.name, storage.loc from product natural join storage on product.box# = storage.box#;
B. select product.id, product.name, storage.loc from product join storage on product.box# = storage.box#;
C. select product.id, product.name, storage.loc from product natural join storage;
D. select product.id, product.name, storage.loc from product, storage where product.box# = storage.box#;
E. all give the desired result

13. Which of the following queries would show the salaries of all employees (not the boss) who have the same name as the boss (the only employee without a manager (mgr)) (choose one)?

A. select sal
   from emp
   where ename same as
   (ename where mgr is NULL);
B. select sal
   from emp
   where ename like
   (select ename from emp where mgr is NULL)
   and mgr is not NULL;
C. select sal
   from emp
   where mgr != NULL and ename =
   (select ename from emp where mgr = NULL);
D. All of the above
E. None of the above

14. A user is setting up a join operation between tables EMP and DEPT. There are some newly added departments in the DEPT table that the user wants returned by the query, but the departments do not have employees assigned to them yet. Which select statement is most appropriate for this user? (choose one)?

A. Select e.empid, d.head
   from emp e, dept d;
B. Select e.empid, d.head
   from emp e, dept d
   where e.deptno = d.deptno;
C. Select e.empid, d.head
   from emp e left outer join dept d
   on e.deptno = d.deptno;
D. Select e.empid, d.head
   from emp e right outer join dept d
   on e.deptno = d.deptno;
E. Select e.empid, d.head
   from emp e, dept d
   where e.deptno outer join d.deptno;

15. Which of the following are true when using table aliases? (Choose three)

A. Table aliases can be up to 30 characters in length.
B. Table aliases should be as long as possible for readability.
C. If a table alias is used for a particular table name in the FROM clause, then that table alias must be substituted for the table name throughout the SELECT statement.
D. they must be less than 30 characters in length.
E. A table alias is valid for the entire session.