**CAPITOLUL 1 – Relational Database Design Using Oracle**

**1. What components of the IT environment can Oracle Enterprise Manager Cloud Control manage? (Choose the best answer.)**

A. Oracle databases

B. Oracle application servers

C. Third-party products

D. The server machines

E. All of the above

**2. What languages can run within the database? (Choose all that apply.)**

A. SQL

B. C

C. PL/SQL

D. Java

E. Any other language linked to the OCI libraries

**3. Data that is modeled into a form suitable for processing in a relational database may be described as being (Choose the best answer.)**

A. First normal form

B. Third normal form

C. Abnormal form

D. Paranormal form

**4. An entity-relationship diagram shows data modeled into (Choose the best answer.)**

A. Two-dimensional tables

B. Multidimensional tables

C. Hierarchical structures

D. Object-oriented structures

**5. SQL is a set-oriented language. Which of these features is a consequence of this? (Choose the best answer.)**

A. Individual rows must have a unique identifier.

B. Sets of users can be managed in groups.

C. SQL statements can be placed within blocks of code in other languages, such as Java and

PL/SQL.

D. One statement can affect multiple rows.

**6. Which of these constructs is not part of the SQL language? (Choose all that apply.)**

A. Iteration, based on WHILE..

B. Iteration, based on FOR..DO

C. Branching, based on IF..THEN..ELSE

D. Transaction control, based on COMMIT

E. Transaction control, based on ROLLBACK

**7. Which of these statements regarding SQL Developer are correct? (Choose two answers.)**

A. SQL Developer cannot connect to databases earlier than release 10g.

B. SQL Developer can be installed outside an Oracle Home.

C. SQL Developer can store passwords.

D. SQL Developer relies on an LDAP directory for name resolution.

**8. Which of the following are requirements for using SQL Developer? (Choose two correct answers.)**

A. A Java Runtime Environment

B. The OCI libraries

C. A name resolution method such as LDAP or a TNSNAMES.ORA file

D. The SQL\*Plus libraries

E. A graphical terminal

**9. Where may the demonstration schemas be created? (Choose the best answer.)**

A. The demonstration schemas must be created in a demonstration database.

B. The demonstration schemas cannot be created in a production database.

C. The demonstration schemas can be created in any database.

D. The demonstration schemas can be created in any database if the demonstration user is

created first.

**10. How can you move a schema from one user to another? (Choose the best answer.)**

A. Use the ALTER SCHEMA MOVE… command.

B. You cannot move a schema from one user to another.

C. A schema can only be moved if it is empty (or if all objects within it have been dropped).

D. Attach the new user to the schema, then detach the old user from the schema.

**CAPITOLUL 2 – Data Retrieval Using the SQL SELECT Statement**

**1. Which query creates a projection of the DEPARTMENT\_NAME and LOCATION\_ID**

**columns from the DEPARTMENTS table? (Choose the best answer.)**

A. SELECT DISTINCT DEPARTMENT\_NAME, LOCATION\_ID

FROM DEPARTMENTS;

B. SELECT DEPARTMENT\_NAME, LOCATION\_ID

FROM DEPARTMENTS;

C. SELECT DEPT\_NAME, LOC\_ID

FROM DEPT;

D. SELECT DEPARTMENT\_NAME AS “LOCATION\_ID”

FROM DEPARTMENTS;

**2. After describing the EMPLOYEES table, you discover that the SALARY column has a data type of NUMBER(8,2). Which SALARY value(s) will not be permitted in this column? (Choose all that apply.)**

A. SALARY=12345678

B. SALARY=123456.78

C. SALARY=12345.678

D. SALARY=123456

E. SALARY=12.34

**3. After describing the JOB\_HISTORY table, you discover that the START\_DATE and END\_DATE columns have a data type of DATE. Consider the expression END\_DATE-START\_DATE. (Choose two correct statements.)**

A. A value of DATE data type is returned.

B. A value of type NUMBER is returned.

C. A value of type VARCHAR2 is returned.

D. The expression is invalid since arithmetic cannot be performed on columns with DATE

data types.

E. The expression represents the days between the END\_DATE and START\_DATE less one day.

**4. The DEPARTMENTS table contains a DEPARTMENT\_NAME column with data type**

**VARCHAR2(30). (Choose two true statements about this column.)**

A. This column can store character data up to a maximum of 30 characters.

B. This column must store character data that is at least 30 characters long.

C. The VARCHAR2 data type is replaced by the CHAR data type.

D. This column can store data in a column with data type VARCHAR2(50) provided that the

contents are at most 30 characters long.

**5. Which statement reports on unique JOB\_ID values from the EMPLOYEES table? (Choose all that apply.)**

A. SELECT JOB\_ID FROM EMPLOYEES;

B. SELECT UNIQUE JOB\_ID FROM EMPLOYEES;

C. SELECT DISTINCT JOB\_ID, EMPLOYEE\_ID FROM EMPLOYEES;

D. SELECT DISTINCT JOB\_ID FROM EMPLOYEES;

**6. Choose the two illegal statements. The two correct statements produce identical results. The two illegal statements will cause an error to be raised:**

A. SELECT DEPARTMENT\_ID|| ' represents the '|| DEPARTMENT\_NAME||' Department' as "Department Info"

FROM DEPARTMENTS;

B. SELECT DEPARTMENT\_ID|| ' represents the || DEPARTMENT\_NAME||' Department' as "Department Info"

FROM DEPARTMENTS;

C. select department\_id|| ' represents the '||department\_name|| ' Department' "Department Info"

from departments;

D. SELECT DEPARTMENT\_ID represents the DEPARTMENT\_NAME Department as

"Department Info"

FROM DEPARTMENTS;

**7. Which expressions do not return NULL values? (Choose all that apply.)**

A. select ((10 + 20) \* 50) + null from dual;

B. select 'this is a '||null||'test with nulls' from dual;

C. select null/0 from dual;

D. select null||'test'||null as “Test” from dual;

**8. Choose the correct syntax to return all columns and rows of data from the EMPLOYEES table.**

A. select all from employees;

B. select employee\_id, first\_name, last\_name, first\_name, department\_id

from employees;

C. select % from employees;

D. select \* from employees;

E. select \*.\* from employees;

**9. The following character literal expression is selected from the DUAL table:**

SELECT 'Coda''s favorite fetch toy is his orange ring' FROM DUAL;

(Choose the result that is returned.)

A. An error would be returned due to the presence of two adjacent quotes

B. Coda's favorite fetch toy is his orange ring

C. Coda''s favorite fetch toy is his orange ring

D. Coda''s favorite fetch toy is his orange ring'

**10. There are four rows of data in the REGIONS table. Consider the following SQL statement:**

**SELECT '6 \* 6' “Area” FROM REGIONS;**

**How many rows of results are returned and what value is returned by the Area column? (Choose the best answer.)**

A. 1 row returned, Area column contains value 36

B. 4 rows returned, Area column contains value 36 for all 4 rows

C. 1 row returned, Area column contains value 6 \* 6

D. 4 rows returned, Area column contains value 6 \* 6 for all 4 rows

E. A syntax error is returned.

**CAPITOLUL 3 – Restricting and Sorting Data**

**1. Which two clauses of the SELECT statement facilitate selection and projection?**

A. SELECT, FROM

B. ORDER BY, WHERE

C. SELECT, WHERE

D. SELECT, ORDER BY

**2. Choose the query that extracts the LAST\_NAME, JOB\_ID, and SALARY values from the EMPLOYEES table for records having JOB\_ID values of either SA\_REP or MK\_MAN and having SALARY values in the range of $1,000 to $4,000. The SELECT and FROM clauses are SELECT LAST\_NAME, JOB\_ID, SALARY FROM EMPLOYEES:**

A. WHERE JOB\_ID IN ('SA\_REP','MK\_MAN')

AND SALARY > 1000 AND SALARY < 4000;

B. WHERE JOB\_ID IN ('SA\_REP','MK\_MAN')

AND SALARY BETWEEN 1000 AND 4000;

C. WHERE JOB\_ID LIKE 'SA\_REP%' AND 'MK\_MAN%'

AND SALARY > 1000 AND SALARY < 4000;

D. WHERE JOB\_ID = 'SA\_REP'

AND SALARY BETWEEN 1000 AND 4000

OR JOB\_ID='MK\_MAN';

**3. Which of the following WHERE clauses contains an error? The SELECT and FROM clauses are**

**SELECT \* FROM EMPLOYEES:**

A. WHERE HIRE\_DATE IN ('02-JUN-2004');

B. WHERE SALARY IN ('1000','4000','2000');

C. WHERE JOB\_ID IN (SA\_REP,MK\_MAN);

D. WHERE COMMISSION\_PCT BETWEEN 0.1 AND 0.5;

**4. Choose the WHERE clause that extracts the DEPARTMENT\_NAME values containing the character literal "er" from the DEPARTMENTS table. The SELECT and FROM clauses are SELECT DEPARTMENT\_NAME FROM DEPARTMENTS:**

A. WHERE DEPARTMENT\_NAME IN ('%e%r');

B. WHERE DEPARTMENT\_NAME LIKE '%er%';

C. WHERE DEPARTMENT\_NAME BETWEEN 'e' AND 'r';

D. WHERE DEPARTMENT\_NAME CONTAINS 'e%r';

**5. Which two of the following conditions are equivalent to each other?**

A. WHERE COMMISSION\_PCT IS NULL

B. WHERE COMMISSION\_PCT = NULL

C. WHERE COMMISSION\_PCT IN (NULL)

D. WHERE NOT(COMMISSION\_PCT IS NOT NULL)

**6. Which two of the following conditions are equivalent to each other?**

A. WHERE SALARY <=5000 AND SALARY >=2000

B. WHERE SALARY IN (2000,3000,4000,5000)

C. WHERE SALARY BETWEEN 2000 AND 5000

D. WHERE SALARY > 2000 AND SALARY < 5000

E. WHERE SALARY >=2000 AND <=5000

**7. Choose one false statement about the ORDER BY clause.**

A. When using the ORDER BY clause, it always appears as the last clause in a SELECT

statement.

B. The ORDER BY clause may appear in a SELECT statement that does not contain a

WHERE clause.

C. The ORDER BY clause specifies one or more terms by which the retrieved rows are sorted.

These terms can only be column names.

D. Positional sorting is accomplished by specifying the numeric position of a column as it

appears in the SELECT list, in the ORDER BY clause.

**8. The following query retrieves the LAST\_NAME, SALARY, and COMMISSION\_PCT values for employees whose LAST\_NAME begins with the letter “R”. Based on the following query, choose the ORDER BY clause that first sorts the results by the COMMISSION\_PCT column, listing highest commission earners first, and then sorts the results in ascending order by the SALARY column. Any records with NULL COMMISSION\_PCT must appear last:**

**SELECT LAST\_NAME, SALARY, COMMISSION\_PCT**

**FROM EMPLOYEES**

**WHERE LAST\_NAME LIKE 'R%'**

A. ORDER BY COMMISSION\_PCT DESC, 2;

B. ORDER BY 3 DESC, 2 ASC NULLS LAST;

C. ORDER BY 3 DESC NULLS LAST, 2 ASC;

D. ORDER BY COMMISSION\_PCT DESC, SALARY ASC;

**9. The DEFINE command explicitly declares a session-persistent substitution variable with a specific value. How is this variable referenced in an SQL statement? Consider an expression that calculates tax on an employee’s SALARY based on the current tax rate. For the following session-persistent substitution variable, which statement correctly references the TAX\_RATE variable?**

**DEFINE TAX\_RATE=0.14**

A. SELECT SALARY \* :TAX\_RATE TAX FROM EMPLOYEES;

B. SELECT SALARY \* &TAX\_RATE TAX FROM EMPLOYEES;

C. SELECT SALARY \* :&&TAX TAX FROM EMPLOYEES;

D. SELECT SALARY \* TAX\_RATE TAX FROM EMPLOYEES;

**10. When using ampersand substitution variables in the following query, how many times will you be prompted to input a value for the variable called JOB the first time this query is executed?**

**SELECT FIRST\_NAME, '&JOB'**

**FROM EMPLOYEES**

**WHERE JOB\_ID LIKE '%'||&JOB||'%'**

**AND ‘&&JOB’ BETWEEN 'A' AND 'Z';**

A. 0

B. 1

C. 2

D. 3

**CAPITOLUL 4 – Single-Row Functions**