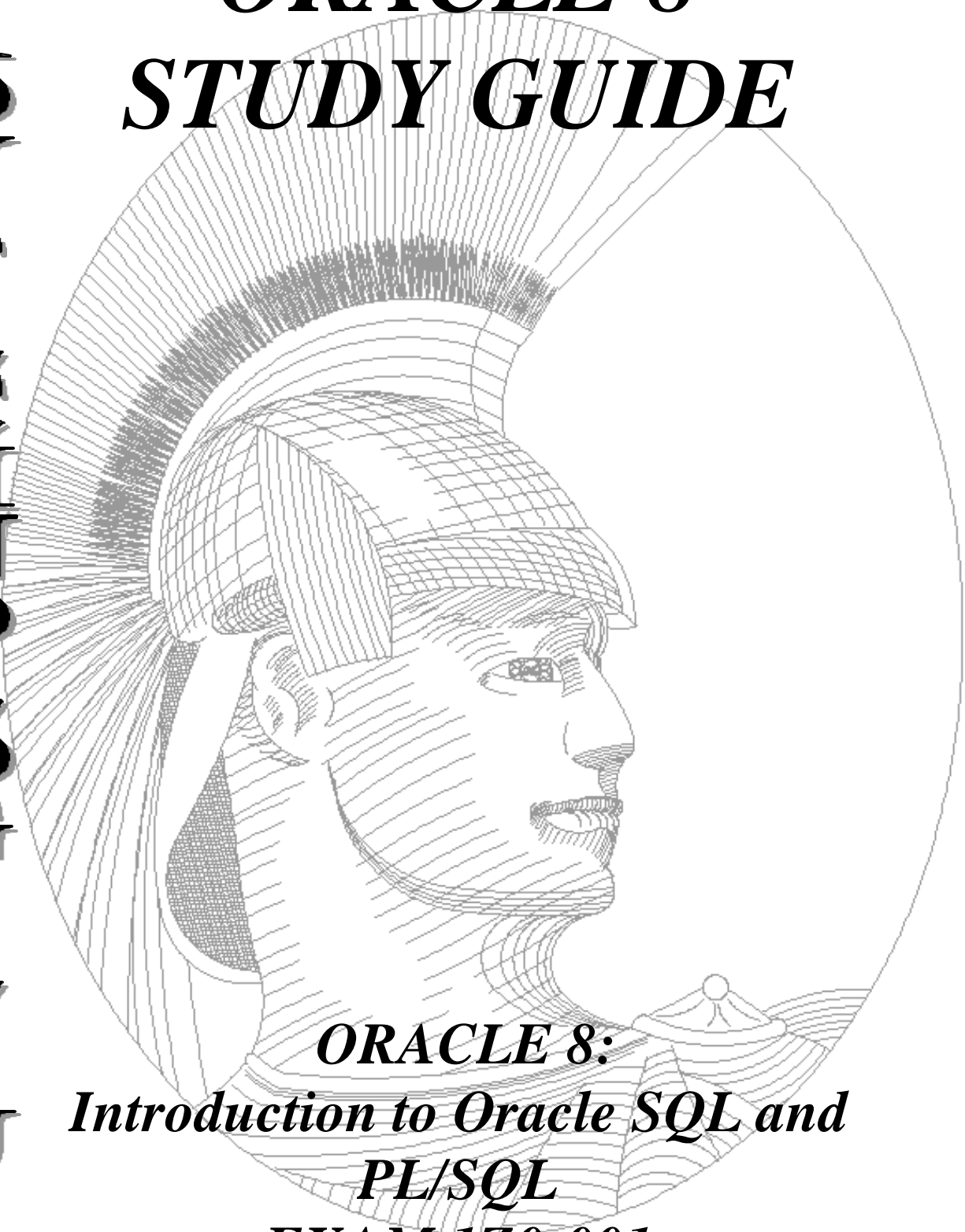


FROM THE CHANDLER  
SUNSHINE

# ***ORACLE 8 STUDY GUIDE***



***ORACLE 8:  
Introduction to Oracle SQL and  
PL/SQL  
EXAM 1Z0-001***

**Edition 1**

## Congratulations!!

You have purchased a ***Troy Technologies USA*** Study Guide.

This study guide is a selection of questions and answers similar to the ones you will find on the official ORACLE 8: Introduction to SQL and PL/SQL 1Z0-001 exam. Study and memorize the following concepts, questions and answers for approximately 10 to 12 hours and you will be prepared to take the exams. We guarantee it!

Remember, average study time is 10 to 12 hours and then you are ready!!!

GOOD LUCK!

### ***Guarantee***

If you use this study guide correctly and still fail the exam, send your official score notice and mailing address to:

Troy Technologies USA  
8200 Pat Booker Rd. #368  
San Antonio, TX 78233

We will gladly refund the cost of this study guide. However, you will not need this guarantee if you follow the above instructions.

*This material is protected by copyright law and international treaties. Unauthorized reproduction or distribution of this material, or any portion thereof, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.*

© Copyright 2001 Troy Technologies USA. All Rights Reserved.  
<http://www.troytec.com>

# Table of Contents

Writing Basic SQL Statements .....	1
Selecting Data .....	1
Restricting and Sorting data.....	1
Displaying Data from Multiple Tables .....	2
Types of Joins .....	2
Aggregating Data Using Group Functions. ....	2
Subqueries.....	3
Multiple Column Subqueries.....	3
SQL*Plus .....	3
Producing Readable Output with SQL*Plus.....	3
Manipulating Data.....	4
Creating and Managing Tables .....	4
Constraints .....	4
Creating Views.....	4
Other Database Objects.....	5
Controlling User Access .....	5

## ***SQL and PL/SQL Key Concepts***

PL/SQL is an extension to SQL with design features of a programming language. Data manipulation and query statements of SQL are included within procedural units of code. Relational databases are composed of relations, managed by relational operators and governed by data integrity constraints. The Oracle Server allows you to store and manage information by using the SQL language and PL/SQL engine.

### ***Writing Basic SQL Statements***

#### **Selecting Data**

The basic SELECT statement has 2 elements:

- SELECT - which identifies what columns will be used.
- FROM - Which identifies which table to use.

SQL statements are not case sensitive and can be on one or more lines. Keywords can't be abbreviated or split across lines. Clauses are usually placed on separate lines and tabs and indents are used to enhance readability.

Column heading defaults justification is as follows:

- Left for date and character data.
- Right for numeric data.

Default display is always Uppercase.

You can also defining a Column Alias. This renames a column heading and is useful with calculations. Immediately follows column name, you would place the optional AS keyword between name and alias. The alias will requires double quotation marks if it contains spaces, special characters, or is case sensitive.

#### **Restricting and Sorting data**

Restricting and sorting data is done with the WHERE and FROM clauses. The WHERE clause always follows the FROM clause. Character strings and date values are enclosed in single quotation marks. Character values are case sensitive and date values are format sensitive. The default date format is DD-MON-YY.

You can use the LIKE operator to perform wildcard searches of valid search string values. Search conditions can contain either literal characters or numbers. A "%" denotes zero or many characters. A "\_" denotes one character.

Sort rows with the ORDER BY clause. ASC means ascending order and is the default. DESC means descending order. The ORDER BY clause comes last in the SELECT statement.

## **Displaying Data from Multiple Tables**

Use a JOIN to query data from more than one table. You would write the join condition in the WHERE clause. You will need to prefix the column name with the table name when the same column name appears in more than one table.

A Cartesian product is formed when a join condition is omitted or invalid, or when all rows in the first table are joined to all rows in the second table. To avoid a Cartesian product, always include a valid join condition in a WHERE clause.

### ***Types of Joins***

- Equijoin.
- Non-equijoin.
- Outer join.
- Self join.

You can qualify ambiguous Column Names by using table prefixes to qualify column names that are in multiple tables. You can also improve performance by using table prefixes. You can also distinguish columns that have identical names but reside in different tables by using column aliases.

You can use the outer join to also see rows that do not usually meet the join condition. The outer join operator is the plus sign (+).

## **Aggregating Data Using Group Functions.**

You can aggregate your data by using Group Functions :

- AVG.
- COUNT.
- MAX.
- MIN.
- STDDEV.
- SUM.
- VARIANCE.

Any column or expression in the SELECT list that is not an aggregate function, must be in the GROUP BY clause.

If you want to excluding Group results, use the HAVING clause. Use the HAVING clause to restrict how the rows are grouped, how the group function is applied, and how Groups matching the HAVING clause are displayed.

Your SQL clauses are evaluated for action in the following order:

1. WHERE clause.
2. GROUP BY clause.
3. HAVING clause.

## **Subqueries**

The subquery (inner query) executes once before the main query. The result of the subquery is used by the main query (outer query).

Always enclose subqueries in parentheses. Place the subqueries on the right side of the comparison operator. Do not add an ORDER BY clause to a subquery. Always use single-row operators with single-row subqueries, and multiple-row operators with multiple-row subqueries.

### ***Multiple Column Subqueries***

A multiple column subquery returns more than one column. Column comparison in multiple column comparisons can be pairwise or nonpairwise. A multiple column subquery can also be used in the FROM clause of a SELECT statement.

## ***SQL\*Plus***

SQL\*Plus is an interactive tool provided by Oracle that makes it easier for you prepare SQL queries.

### **Producing Readable Output with SQL\*Plus**

You can control output by using Substitution Variables. Use the SQL \* Plus substitution variables to temporarily store values. This can be done with the following:

- Single ampersand (&).
- Double ampersand (&&).
- DEFINE and ACCEPT commands.

You can use Substitution Variables to pass variable values between SQL statements and to dynamically alter headers and footers.

You can use the following commands to also control output:

- SET - controls current SQL \* Plus environment.

- COLUMN - controls the display of a column.
- BREAK - suppresses duplicates and section rows.
- TITLE and BTITLE - displays headers and footers.

## Manipulating Data

You can use the following SQL\*Plus statements to manipulate data.

STATEMENT	DESCRIPTION
Insert	Adds a new row to the table.
Update	Modifies existing rows in the table.
Delete	Removes existing rows from the table.
Commit	Makes all pending changes permanent.
Savepoint	Allows a rollback to the savepoint marker.
Rollback	Discards all pending data changes.

## Creating and Managing Tables

You can use the following SQL\*Plus statements to create and manage tables.

STATEMENT	DESCRIPTION
Create table	Creates a table.
Alter table	Modifies table structure.
Drop table	Removes the rows and table structure.
Rename	Changes the name of a table, view, sequence, or synonym.
Truncate	Removes all rows from a table and releases the storage space.
Comment	Adds comments to a table or view.

## Constraints

You can create the following types of constraints:

- NOT NULL
- UNIQUE
- PRIMARY KEY
- FOREIGN KEY
- CHECK

You can also query the USER\_CONSTRAINTS table to view all constraint definitions and names.

## Creating Views

A view is derived from data in other tables or other views. Views provide the following advantages:

- Restricts database access
- Simplifies queries
- Provides data independence
- Allows multiple views of the same data
- Can be dropped without removing the underlying data

### **Other Database Objects**

You can automatically generate sequence numbers by using a sequence generator. You can view sequence information in the USER\_SEQUENCE data dictionary tables.

You can also create indexes to improve query retrieval speed. You can view index information in the USER\_INDEXES dictionary table.

Use synonyms to provide alternative names for objects.

### **Controlling User Access**

You can control user access with the following statements.

<b>STATEMENT</b>	<b>ACTION</b>
Create user	Allows the DBA to create a user.
Grant	Allows the user to give other users privileges to access the user's objects.
Create role	Allows the DBA to create a collection of privileges.
Alter user	Allows users to change their password.
Revoke	Removes privileges on an object from users.



## Practice Questions and Answers

1. You need to create a report to display the ship date and order totals of your order table. If the order has not been shipped your report must display “not shipped”. If the total is not available your report must say “not available”. In the order table the ship date column has a data type of date the total column has a data type of number. Which statement do you use to create this report?

A: *Select ordid, NVL (TO=CHAR (ship date) “Not  
NVL (To char (total), ‘not available’) Shipped”)  
FROM order.*

2. You want to display the details of all employees whose last names is Smith. But you are not sure in which case last names are stored. Which statement will list all the employees whose last name is Smith?

A: *Select last name, first name.  
FROM emp  
WHERE LOWER (last name)= (‘smith’);*

3. You need to analyze how long it takes your orders to be shipped from the date that the order is placed. To do this you must create a report that displays the customer number, order date, date shipped and the number of months in whole numbers from the time the order is placed to the time the order is shipped. Which statement produces the required results?

A: *SELECT custid, orderdate, shipdate,  
ROUND(MONTHS-BETWEEN(shipdate,orderdate))  
“Time Taken”  
FROM ord;*

4. The employee table contains these columns:

Last_name	Varchar2 (25)
First_name	Varchar2 (25)
Salary	Number7, 2

You need to display the names of employees that earn more than an average salary of all employees.

Evaluate the SQL statement:

```
SELECT, LAST_NAME, FIRST_NAME
FROM      employee
WHERE salary>avg(salary).
```

**Which change should you make to achieve the desired results?**

*A: Use a subquery in the where clause to compare the average salary value.*

**5. The employee table contains these columns:**

<b>FIRST-NAME</b>	<b>VARCHAR2(25)</b>
<b>COMMISSION</b>	<b>NUMBER(3,2)</b>

**Evaluate this SQL statement:**

```
SELECT      first-name,commission
FROM        employee
WHERE       commission=
            (SELECT comission
             FROM employee
             WHERE UPPER(first-name)= 'scott')
```

**Which statement will cause this statement to fail?**

*A: The first name values in the database are in the lower case.*

**6. You create the sales table with this command:**

```
CREATE TABLE sales
(purchase-no      NUMBER(9)
CONSTRAINT sale-purchase-no-pk PRIMARY KEY,
costumer-id      NUMBER(9)
CONSTRAINT sale-customer-id-nk NOT NULL);
```

**7. Which index or indexes are created for this table?**

*A: An index is created for purchase\_no column.*

**8. How would you add a foreign key constraint on the dept\_no column in the EMP table. Referring to the ID column in the DEPT table?**

*A: Use the ALTER TABLE command with the ADD clause on the EMP table.*

**9. Examine the structure of student table:**

Name	Null	Type
STU_ID	NOT NULL	NUMBER(3)
NAME		VARCHAR2(25)
ADDRESS		VARCHAR2(50)
GRADUATION		DATE

Currently the table is empty. You have decided that null values should not be allowed for the NAME column. Which statement restricts NULL values from being entered into column?

A: *ALTER TABLE student  
MODIFY(name varchar2(25) NOT NULL);*

10. You have decided to permanently remove all the data from the STUDENT table and you need the table structure in the future. Which single command performs this?

A: *TRUNCATE TABLE student;*

11. Review this command:

1. CREATE TABLE salary.
2. (employee-id NUMBER(9)
3. CONSTRAINT salary-pk PRIMARY KEY,
4. 1995-salary NUMBER(8,2)
5. manager-name VARCHAR2(25)
6. CONSTRAINT mgr-name-nn. NOT NULL,
7. salary-96 NUMBER(8,2));

You attempt to create the SALARY table with this command. Which two lines of this statement will return an error?

A: *1 and 4*

12. You need to store currency data and you know that data will always have two digits to the right of the decimal points. However the number of digits to the left of the decimal place will vary greatly. Which data type would be most appropriate to store the data?

A: *NUMBER*

13. Examine the structure of STUDENT table.

Name	Null?	Type
STUDENTID	NOT NULL	NUMBER(3)
NAME	NOT NULL	VARCHAR2(25)
PHONE	NOT NULL	VARCAHR2(9)
ADDRESS		VARCHAR2(50)
GRADUATION		UPDATE

There are 100 records in the student table. You need to modify the Phone column to hold only numeric value. Which statement will modify the data type of the Phone column?

A: *You can not modify the data type of a column if there is data in the column.*

14. In the declarative section of the PL/SQL block you created but did not initialise a number variable. When the block executes what will be the initial value of the variable?

A: *Null*

15. The employee table contains these columns:

LAST_NAME	VARCHAR2(25)
FIRST_NAME	VARCHAR2(25)
DEPT_ID	NUMBER(9)

You need to display the names of the employees that are not assigned to a department. Evaluate this SQL statement.

```
SELECT last_name, first_name
FROM employee
WHERE dept_id is NULL
```

Which change should you make to achieve the desired result?

A: *Create an outer join.*

16. Which statement about SQL is true?

A: *Null values are displayed last in the ascending sequences.*

17. You are a user of PROD database which contains over 1000 tables and you need to determine the number of tables you can access. Which data dictionary view could you query to display this information?

A: *ALL\_OBJECTS*

**18. Evaluate these 2 SQL commands:**

- 1. SELECT                    DISTINCT object-type  
   FROM                    user-objects;**
- 2. SELECT                    object-type.  
   FROM                    all-objects;**

**How would the results differ?**

*A:     Statement1 will display distinct object types owned by the user.  
       Statement2 will display all the object types that the user can access.*

**19. Which privilege concerns system level security?**

*A:     Drop any table.*

**20. Evaluate the SQL statement:**

**CREATE ROLE manager;  
CREATE ROLE clerk;  
CREATE ROLE inventory;  
CREATE USER helen IDENTIFIED BY tiger;  
GRANT inventory to clerk;  
GRANT clerk to manager;  
GRANT inventory to helen;**

**How many roles will user Helen have access to?**

*A:     1*

**21. Andrew forgot his password while on location. Which command must be executed to set a password for Andrew?**

*A:     Andrew must execute the command  
       ALTER USER andrew IDENTIFIED BY lion*

**22. You are updating the employee table. Sharon has been granted the same privileges as you on the employee table. You ask Sharon to logon to the database to check your work before you issue the commit command. What can Sharon do to the employee table?**

*A:     Sharon can access the table but she cannot see your changes and cannot make the changes to the roles that you are changing.*

**23. Examine the structure of STUDENT table:**

Name	Null?	Type
STUD-ID	NOT NULL	NUMBER(3)
NAME	NOT NULL	VARCHAR2(25)
ADDRESS		VARCHAR2(50)
GRADUATION		DATE.

Which statement inserts a new row into the STUDENT table?

A: *INSERT INTO student.(stud-id,address,name,gradulation)  
VALUES(101, '100 Main Street','Smith', '17-JUN-99');*

24. Examine the structure of the STUDENT table:

Name	Null?	Type
STUDENT_ID	NOT NULL	NUMBER(3)
NAME	NOT NULL	VARCHAR2(25)
ADDRESS		VARCHAR2(50)
GRADUATION		DATE

Graduation column is a foreign key column to the graduate table. Examine the data in the GRAD\_DATE table.

Graduation 20-jan-1999  
12-may-1999  
19-jan-2000  
25-may-2000  
13-jan-2001  
29-may-2001

Which update statement produces the following error: ORA-02291 integrity constraint(sys\_c23) violated parent key not found?

A: *UPDATE student  
SET name= 'Smith',  
graduation= '15-AUG-2000'  
WHERE stud-id=101*

25. The view EMP-VIEW is created based on the EMP table as follows.

```
CREATE OR REPLACE VIEW emp-view
AS
SELECT deptno,SUM(sal)TOT-SAL,COUNT(+)NOT-EMP
FROM emp
GROUP BY deptno;
```

**What happens when this command is used?**

```
UPDATE emp-view  
SET lot-sal=20000  
WHERE deptno=10;
```

**A:**     *The base table cannot be updated through this view.*

**26.**     **You have a view called ANN\_SAL that is based on the employee table. The structure of the ANN\_SAL view is:**

<b>Name</b>	<b>Null?</b>	<b>Type</b>
<b>EMPNO</b>	<b>NOT NULL</b>	<b>NUMBER(4)</b>
<b>YEARLY_SAL</b>		<b>NUMBER(9,2)</b>
<b>MONTHLY_SAL</b>		<b>NUMBER(9,2)</b>

**Which statement retrieves all data from the ANN\_SAL view?**

**A:**     ***SELECT \* FROM ANN\_SAL***

**27.**     **Evaluate this IF statement.**

```
IF v-value>100 THEN  
    v-new-value:=2*v-value;  
ELSIF v-value>200 THEN  
    v-new-value:=3*v-value;  
ELSIF v-value>300 THEN  
    v-new-value:=4*v-value;  
ELSE  
    v-new-value:=5*v-value;  
END IF
```

**What would be assigned to v\_new\_value if v\_value=250?**

**A:**     ***500***

**28.**     **The PLAYER table contains these columns:**

<b>ID</b>	<b>NUMBER(9)</b>
<b>NAME</b>	<b>VARCHAR(2)</b>
<b>MANAGERID</b>	<b>NUMBER(9)</b>

**In this instance, managers are players and you need to display a list of players. Evaluate these 2 SQL statements:**

```

SELECT      p.name,m.name
FROM        player p,player m
WHERE       m-id= m.manager-id;

```

```

SELECT      p.name,m.name
FROM        player p,player m
WHERE       m.manager-id=p.id;

```

**How would the results differ?**

*A: The results will be same but the display will be different.*

**29. How would you declare a PL/SQL table of records to hold the rows selected from the EMP table?**

*A: DECLARE  
TYPE emp-table is TABLE of emp%ROWTYPE  
INDEX BY BINARY INTEGRATDE.  
emp-table emp-table-type;*

**30. You want to create a cursor that can be used several times in a block. Selecting a different active set each time that it is opened. Which type of cursor do you create?**

*A: A cursor that uses parameters.*

**31. Which statement is true when writing a cursor for loop?**

*A: You do not explicitly open, fetch or close a cursor within a cursor for loop.*

**32. The structure of the DEPT table is:**

Name	Null?	Type
DEPT NO	Not NULL	Number(25)
DNAME		VARCHER2(14)
LOC		VARCHER2(13)

**Examine the code:**

```

DECLARE
dept-rec dept%ROWTYPE:
BEGIN
    SELECT*
    INTO dept-rec
    FROM dept.

```



```
WHERE deptno=10;
END;
```

**Which PL/SQL statement displays the location of selected department?**

A: *DBMS.OUTPUT.PUT-LINE(dept-rec-loc);*

**33. Which statement about implicit cursors is true?**

A: *Implicit cursors are declared implicitly for all the DML and SELECT statements.*

**34. Evaluate this PL/SQL block:**

```
DECLARE
    v-result          NUMBER(2);
BEGIN
    DELETE
    FROM              employee
    WHERE              dep-id IN(10,20,30);
    v-result:=        SQL/ROWCOUNT;
COMMIT;
END;
```

**What will be the value of v\_result if no rows are deleted?**

A: *0*

**35. Which two conditions in a PL/SQL block cause an exception error to occur? (CHOOSE TWO)**

A: *Select statement does not return a row.*  
*Select statement returns more than one row.*

**36. You need to create a PL/SQL program to insert records into employee table. Which block of code successfully uses the insert command?**

```
A: DECLARE
    v-hiredate DATE:=SYSDATE;
BEGIN
    INSERT INTO emp(empnp,ename,heridate)
    VALUES(empno-sequence.nextval, 'and name',v_herdate and deptno)
END;
```

**37. Evaluate this PL/SQL block.**

```

BEGIN
    FOR i IN 1..10 LOOP
        IF I=4 OR I=6 THEN
            null;
        ELSE
            INSERT INTO          test(result)
            VALUES              (I) ;
        END IF;
    COMMIT;
    END LOOP;
    ROLL BACK;
END.

```

How many values will be inserted into the TEST table?

A: 8

38. You issue this command:

```

CREATE public synonym EMP for ed.employee;
Which task has been accomplished?

```

A: *The need to qualify the object name with its schema is eliminated for all users.*

39. In which order does the oracle server evaluate clauses?

A: *WHERE, GROUP BY, HAVING*

40. You attempt to query to the database with this command:

```

SELECT dept_no, AVG(MONTHS_BETWEEN(SYSDATE,hire-data))
FROM employee
WHERE AVG(MONTHS_BETWEEN(SYSDATE,hire_date))>60
GROUP BY by dept_no
ORDER BY AVG(MONTHS_BETWEEN(SYSDATE,hire_date));

```

Why does this statement cause an error?

A: *A where clause cannot be used to restrict groups.*

41. The path table contains these columns:

ID	NUMBER(7) PK
COST	NUMBER(7,2)
PRODUCT_ID	NUMBER(7)

Evaluate these SQL statements:

1. **SELECT ROUND(max(cost),2),  
                ROUND(min(cost),2), round(sum(cost),2),  
                ROUND(AVG(cost),2)  
FROM part;**
2. **SELECT product\_id, ROUND(max(cost),2),  
                ROUND(min(cost),2), ROUND(sum(cost),2),  
                ROUND(AVG(cost),2)  
FROM part  
GROUPBY product\_id;**

How will the results differ?

*A: Statement1 will only display one row of results. Statement2 can display more than one.*

42. In which section of a PL/SQL block is a user defined exception raised?

*A: Executable*

43. Examine the code:

```
SET SERVER OUTPUT ON
DECLARE
    v_char_val varchar2(100);
BEGIN
    v_char_val:= 'Hello World',
    DBMS_OUTPUT.PUT_LINE(v_char_val);
END
SET SERVER OUTPUT OFF
```

This code is stored in a script file name “myproc.sql”. Which statement executes the code in the script file?

*A: START myproc.sql*

44. Which statement is true about nesting blocks?

*A: A variable defined in the outer block is visible in the inner block.*

45. Which statement is valid within the executable section of a PL/SQL block?

*A: SELECT ename,sal  
      INTO v\_ename,v\_sal*

```
FROM emp
WHERE
empno=101;
```

**46. How do you send the output of your SQL\*Plus session to a text operating system file called MYOUTPUT.LST?**

**A: *SAVE MYOUTPUT.LST***

**47. The product table contains these columns:**

<b>ID</b>	<b>NUMBER(9)</b>	<b>PK</b>
<b>COST</b>	<b>NUMBER(7,2)</b>	
<b>SALE_PRICE</b>	<b>NUMBER(7,2)</b>	

**Management has asked you to calculate the net revenue per unit for each product, if the cost of each product is increased by 10% and the sale price of each product is increased by 25%. You issue this SQL statement:**

```
SELECT id, sale_price * 1.25 – cost * 1.10
FROM product;
```

**Which conclusion can you draw from the results?**

**A: *The results provide more information than management requested.***

**48. You want to create report to show different jobs in each department. You do not want to display any duplicate roles in the report. Which SELECT statement do you use to create the report?**

**A: *SELECT distinct deptno, job***  
***FROM emp;***

**49. Which SELECT statement displays employee names, salary, department numbers and average salaries for all employees who earn more than the average salary in their department?**

**A: *SELECT ename, sal, deptno, AVG(sal)***  
***FROM emp***  
***GROUPBY ename, sal, deptno***

**50. Mr. Cox is the president of a company. Five managers report to him. All other employees report to these managers. Examine this code:**

```
SELECT employee.ename
FROM emp employee
```

**WHERE employee, empno not in  
SELECT manager.mgr  
FROM emp manager;**

**The above statement returns no rows selected as the result, why?**

*A: A null value is returned from the subquery.*

**51. Which statement about multiple column subqueries is true?**

*A: A non-pair wise comparison produces a cross product.*

**52. The employee table contains these columns:**

**First\_name            VARCHAR2(25)  
Last\_name            VARCHAR2(25)**

**Evaluate these two SQL statements:**

- 1.     SELECT CONTACT (first\_name,last\_name),  
         LENGTH(CONCAT(first\_name,last\_name))  
         FROM employee  
         WHERE UPPER(last\_name)like '%J'  
         OR UPPER (last\_name)like '%K'  
         OR UPPER (last\_name)like '%L';**
- 2.     SELECT INITCAP(first\_name)||  
         INITCAP(last\_name),  
         LENGTH(last\_name)+LENGTH(first\_name)  
         FROM employee  
         WHERE INTICAP(substr(last\_name,1,1))In  
         ( 'J', 'K', 'L');**

**How will the results differ?**

*A: The statement will retrieve same data from the database but will display it differently.*

**53. In SQL Plus You issued this command:**

**DELETE from dept\_id=901**

**You received an integrated constraint error because a child record was found.  
What could you do to make the statement execute?**

*A: Delete the child record first.*

**54. Which statement describes the use of a group function?**

*A: A group function produces one result from many rows per group.*

**55. The employee table contains these columns:**

<b>ID</b>	<b>NUMBER(9)</b>	<b>PK</b>
<b>LAST_NAME</b>	<b>VARCHAR2(25)</b>	<b>NN</b>
<b>DEPT_ID</b>	<b>NUMBER(9)</b>	

**Evaluate this SQL script:**

```
DEFINE      id_2=93004
SELECT
FROM        employee
WHERE       id = (% id_2)
```

**Which change should you make to script so that it will execute?**

*A: No change is needed.*

**56. Examine this block of code:**

```
SET SERVER OUTPUT ON
X NUMBER;
V_sal NUMBER;
V_found VARCHAR2(10):= 'TRUE';
BEGIN
X:=1;
V_sal:=1000;
DECLARE
V_found VARCHAR2(10);
Y          NUMBER
BEGIN
IF(v_sal>500)
THEN v_found:= 'YES';
END IF;
DBMS_OUTPUT.PUT_LINE('VALUE OF v_found is'||v_found);
DBMS_OUTPUT.PUT_LINE('VALUE OF v_sal is'||v_sal);
Y:=20;
END;
DBMS_OUTPUT.PUT_LIN('VALUE OF v_found is'||v_found);
DBMS_OUTPUT.PUT_LINE('VALUE OF Y is'||to_char(Y));
END;
SET SERVER OUT PUT OFF;
```

**What is the result of executing this block of code?**

*A: PLS-00201: identifier must be declared.*

**57. Evaluate this SQL statement:**

```
SELECT    e.id, (.15* e.salary) + (.25* e.bonus))
          (s.sale_amount * (.15* e.commission_pct))
FROM      employee e , sales
WHERE     e.id = s.emp_id;
```

**What would happen if you removed all the parenthesis from calculation?**

*A: Statement will not execute.*

**58. Which is not an SQL\*Plus command?**

*A: Update.*

**59. When selecting data which statement is valid about projection?**

*A: Projection allows you to choose columns.*

**60. The employee table contains these columns:**

ID	NUMBER(9)
LAST_NAME	VARCHAR2(25)
FIRST_NAME	VARCHAR2(25)
COMMISSION	NUMBER(7,2)

**You need to display the current commission for all employees. Desired results are:**

- 1. Display the commission multiplied by 1.5**
- 2. Exclude employees with zero commission.**
- 3. Display a zero for employees with null commission value.**

**Evaluate this SQL statement:**

```
SELECT    id, last_name, first_name, commission*1.5
FROM      employee
WHERE     commission <>0;
```

**Which of the desired results does the statement provide?**

*A: Two of the desired results.*

**61. Given this executable section of the PL/SQL block:**

```
BEGIN
FOR employee_record IN salary_cursor LOOP
Employee_id_table(employee_id):=
Employee_record.last_name;
END LOOP;
CLOSE salary_cursor;
END;
```

**Why does this section cause an error?**

*A: The cursor does not need to be explicitly closed.*

**62. Structure of DEPT table is as follows:**

Name	Null?	Type
DEPTNO	NOT NULL	NUMBER(2)
DNAME		VARCHAR2(14)
LOC		VARCHAR2(13)

**Examine this declaration section:**

```
DECLARE
TYPE dept_table_type IS TABLE OF dept      &ROWTYPE
INDEX BY BINARYINTEGER
dept_table    dept_table_type;
```

**You need to assign LOC file in record 15 the value of 'Atlanta'. Which PL/SQL statement makes this assignment?**

*A: dept\_table(15).loc:='Atlanta'*

**63. You need to change the job title Clerk to Administrative Clerk for all Clerks. Which statement does this?**

*A: UPDATE emp  
SET job = 'Administrative Clerk'  
WHERE UPPER(job) = 'Clerk';*

**64. Examine this block of code:**

```
SET SERVER OUTPUT ON
X NUMBER;
V_sal NUMBER;
```



```

V_found VARCHAR2(10):= 'TRUE';
BEGIN
X:=1;
V_sal:=1000;
DECLARE
V_found VARCHAR2(10);
Y          NUMBER
BEGIN
IF(v_sal>500)
THEN v_found:= 'YES';
END IF;
DBMS_OUTPUT.PUT_LINE('VALUE OF v_found is'||v_found);
DBMS_OUTPUT.PUT_LINE('VALUE OF v_sal is'||v_sal);
Y:=20;
END;
DBMS_OUTPUT.PUT_LIN('VALUE OF v_found is'||v_found);
DBMS_OUTPUT.PUT_LINE('VALUE OF Y is'||to_char(Y));
END;
SET SERVER OUT PUT OFF;

```

**Why does this procedure produce an error when executed?**

*A: The variable Y is declared in the inner block and referred in the outer block.*

**65. You want to remove all the data from the employee table while leaving the table definition intact. You also want to be able to undo this operation. How would you accomplish this task?**

*A: DELETE FROM employee.*

**66. You need to update employee salaries. If the salary of an employee is less than 1000, the salary needs to be incremented by 10%. Use the SQL\*Plus substitution variable to accept the employee number. Which PL/SQL block successfully updates the salaries?**

*A: DECLARE  
V\_sal emp.sal%type;  
BEGIN  
SELECT sal  
INTO v\_sal  
FROM emp  
WHERE empno=&p\_empno;  
IF 'v\_sal<1000 then'  
UPDATE emp  
SET sal:=sal\*1.1  
WHERE empno=&p\_empno;*

```
END IF;
END;
```

**67. Examine this Code:**

```
1.  DECLARE
2.  i NUMBER := 0;
3.  v_date DATE ;
4.  BEGIN
5.  i := i + 1;
6.  LOOP
7.  i := v_date + 5;
8.  i := i + 1;
9.  EXIT WHEN i = 5;
10. END LOOP;
11. END
```

You have encountered the unexpected results when above block of code is executed. How can you trace the values of counter variable i and date variable v\_date in SQL\* PLUS environment?

A: By inserting the statement  
DBMS\_OUTPUT.PUT\_LINE (i || ` ` || TO\_CHAR( v\_date));  
Between lines 8-9

**68. Examine this code:**

```
SET SERVEROUTPUT ON
DECLARE
    v_name      emp.ename%TYPE;
    v_num       NUMBER;
    v_sal       NUMBER(8,2);
BEGIN
--- This code displays salaries if larger than 10,000.
    SELECT ename, sal
    INTO v_name, v_sal
    FROM emp
    WHERE empno=101;
    IF(v_sal.GT.10000) THEN
        DBMS_OUTPUT.PUT_LINE('Salary is ' || v_sal
        || ' for employee ' || v_name);
    END IF;
END
SET SERVER OUTPUT OFF
```

**This statement produces a compilation error when above PL/SQL block is executed. Which statement causes the error?**

**A:**     ***IF (v\_sal.GT.10000) THEN***

**69.     With in a PL/SQL loop you need to test if the current fetch was successful. Which SQL cursor attribute would you use to accomplish this task?**

**A:**     ***SQL%FOUND.***

**70.     You query the database with this command:**

```
SELECT      last_name, first_name  
FROM        employee  
WHERE       SALARY IN  
            (SELECT salary)  
            FROM employee  
            WHERE dept_no=3 OR dept_no=5);
```

**Which values are displayed?**

**A:**     ***Last name and first name of all the employees with the same salary as employees in the department 3 and 5.***

**71.     Which operator is not appropriate in the joined condition of a non-equijoin select statement?**

**A:**     ***Equal operators.***

**72.     The employee table has 10 columns. Since you often query the table with conditions based on four or more columns, you created an index on all the columns in the table. Which result will occur?**

**A:**     ***Updates on the table will be slower.***

**73.     You need to execute a script file named queryemp. SQL from your SQL\*Plus environment. Which command do you use?**

**A:**     ***START QUERYEMP***

**74.     Which data type should you use for interest rates with varying and unpredictable decimal places such as 1.234, 3.4, 5 and 1.23?**

**A:**     ***NUMBER.***

**75.     Which statement is true when a drop table command is executed on a table?**

A: The table structure and its deleted data can't be rolled back and restored once the drop table command is executed.

**76. Examine the structure of STUDENTS table;**

Name	Null?	Type
STU ID	NOT NULL	NUMBER(3)
NAME		VARCHAR2(25)
ADDRESS		VARCHER2(50)
GRADUATION		DATE

**What statement adds a new column after NAME Column to hold phone numbers?**

A: You can't specify position when new column is added.

**77. Which three SQL arithmetic expression return a date? (CHOOSE THREE)**

A: '03-jul-96' + 7  
'03-jul-96' - 12  
'03-jul-96' + (12/24)

**78. Which statement would you use to add a primary key constraint to the patient table using the id-number column, immediately enabling the constraint?**

A: ALTER TABLE patient  
ADD CONSTRAINT pat-id-pk PRIMARY key(id-number);

**79. Which SELECT statement would you use in a PL/SQL block to query the employee table and retrieve the last name and salary of the employee whose ID is 3?**

A: SELECT last-name,salary  
FROM employee;  
INTO v-last-name,v-salary  
WHERE id=3;

**80. The structure of the DEPT table is:**

Name	Null?	Type
DEPT NO	Not NULL	Number(25)
DNAME		VARCHER2(14)
LOC		VARCHER2(13)

**Examine the declaration section:**

```

DECLARE
    TYPE dept-record-type IS RECORD
        (dno NUMBER,
         name VARCHAR(20));
    dept-rec dept-record-type;

```

**How do you retrieve an entire row of the DEPT table using the DEPT-REC variable?**

*A: You can't retrieve the entire row using the DEPT-REC variable declared in the code.*

**81. Examine this code:**

```

DECLARE.
CURSOR emp-cursor IS
SELECT ename,deptno
FROM emp;
emp-rec emp-cursor %ROWTYPE
BEGIN
    OPEN emp-cursor
    LOOP
        FETCH emp cursor
        INTO emp-rec
        EXIT WHEN emp-cursor NOT FOUND;
        INSERT INTO temp-emp(name'dno)
        VALUES(emp-rec.ename,emp-rec deptno);
END LOOP;
CLOSE emp-cursor;
END;

```

**Using a cursor FOR loop, which PL/SQL block is equivalent to the above code?**

```

A:  DECLARE
    CURSOR emp-cursor IS
    SELECT ename,dept no
    FROM emp;
    BEGIN
        FOR emp-rec IN emp-cursor LOOP
            INSERT INTO temp-emp(name,dno)
            VALUES (emp-rec.ename, emp-re.deptno);
        END LOOP
    END;

```

**82. Under which situation it is necessary to use an explicit cursor?**

A: *When a select statement in a PL/SQL block is more than one row.*

**Which statement would you use to add a primary key constraint to the patient table using the id\_number column immediately enabling the constraint?**

A: *ALTER TABLE patient  
ADD CONSTRAINT pat\_id\_pk PRIMARY KEY(id\_number);*

**83. Using SQL\*Plus you created a user with this command:**

**CREATE USER lyndy IDENTIFIED BY jbw122**

**What should you do to allow her user database access?**

A: *Grant the user the create session privilege.*

**84. A DBA has updated Smith's account by adding the privileges; Create any table and create procedure. Which task can Smith successfully perform?**

A: *Smith can create a table in any schema of the database but can drop tables from and create a procedure only in his schemas.*

**85. For which three tasks would you use the where clause? (choose three)**

A: *Display only unique data.  
Restrict the rows displayed.  
Only display data greater than a specified value.*

**86. Which data dictionary view contains the definition of a view?**

A: *USER\_VIEWS.*

**87. You have the employee table. You create a view with this command:**

**CREATE VIEW dept-salary-vu. AS SELECT dept-no,salary,last-name  
FROM employee  
WHERE salary>45000.  
WITH CHECK OPTION;**

**For which employee can you update the dept no column using this view?**

A: *None.*

**88. What should you do after each fetch statement in the PL/SQL block?**

A: *Initialize the loop.*

**89. Which statement about using a subquery in the FROM clause is true?**

*A: You eliminate the need to create a new view or table by placing a subquery in the FROM clause.*

**90. Examine the table instance chart for the patient table.**

Column name	Id_number	last_name	first_name	birth_date	doctor_id
Key type	PK				
Nulls/Unique	NN, UU	NN	NN		
FK table					DOCTOR
FK column					ID_NUMBER
Data type	NUM	VARCHAR2	VARCHAR2	DATE	NUM
Length	10	25	25		10

You created the patient\_id\_seq sequence to be used with the patient tables primary key column. The sequence begins at 1000 has a maximum value of 999999999 and increments by 1. You need to write a script to insert a row into the patient table and use the sequence you created. Which script would you use to complete this task?

*A: INSERT INTO patient(id\_number, last\_name, first\_name,  
Birth\_date)  
VALUES(patient\_id\_seq.NEXTVAL, &last\_name,&first\_name,  
& birth\_date)  
/*

**91. Your company wants to give each employee a \$100 salary increment. You need to evaluate the results from the emp table prior to the actual modification. You do not want to store the results in the database. Which statement is valid?**

*A: You need to give the arithmetic expression that invokes the salary increment in the select clause of the select statement.*

**92. Examine the table instance chart for the employee table.**

#### EMPLOYEE

Column name	ID_NO	NAME	SALARY	DEPT_NO	HIRE_DATE
Key type	PK			FK	
Nulls/unique	NN, UU	NN			
FK table				DEPARMENT	
FK column				DEPT_NO	
Data type	NUM	VARCHAR2	NUM	NUM	DATE
Length	9	25	8,2	3	

You need to display the hire\_date values in this format:

**10 of October 1999**

Which SELECT statement can you use?

A: *SELECT TO\_CHAR(hire\_date, 'fmDD "of" MONTH YYYY')DATE HIRED  
FROM employee;*

93. Examine the table instance chart for the employee table.

Column name	ID_NO	NAME	SALARY	DEPT_NO	HIRE_DATE
Key type	PK			FK	
Nulls/unique	NN, UU	NN			
FK table				DEPARMENT	
FK column				DEPT_NO	
Data type	NUM	VARCHAR2	NUM	NUM	DATE
Length	9	25	8,2	3	

You want to display employee hire date from the earliest to latest. Which SQL statement would you use?

A: *SELECT hire\_date.  
FROM employee  
ORDER BY hire\_date;*

94. Examine the table instance chart for the patient table.

Column name	Id_number	last_name	first_name	birth_date	doctor_id
Key type	PK				
Nulls/Unique	NN, UU	NN	NN		
FK table					DOCTOR
FK column					ID_NUMBER
Data type	NUM	VARCHAR2	VARCHAR2	DATE	NUM
Length	10	25	25		10

You created the patient\_vu view based on the id\_number and last\_name columns from the patient table. What is the best way to modify the view to contain only those patients born in 1997?

A: *Replace the view adding a WHERE clause.*

95. Evaluate this PL/SQL block:

```
BEGIN  
FROM i IN 1. . 5 LOOP
```



```

IF i=1 THEN NULL;
ELSIF i=3 THEN COMMIT;
ELSIF 1=5 THEN ROLLBACK;
ELSE INSERT INTO test (results);
VALUES(i);
END IF;
END LOOP;
COMMIT;
END;

```

How many values will be permanently inserted into the TEST table?

A: 1

96. Which script would you use to query the data dictionary to view only the names of the primary key constraints using a substitution parameter for the table name?

A: *ACCEPT TABLE PROMPT('table to view primary key constraint:')*  
*SELECT constraint\_name*  
*FROM user\_constraint*  
*WHERE table\_name=upper('&table') AND constraint\_type= 'P';*

97. DRAG AND DROP (match definition to constraint)

Constraint Name	Definition
CHECK	The column must contain a value in each row.
NOT NULL	Each value must be different in a column in columns.
UNIQUE	The value must be unique and present.
PRIMARY KEY	It defines a condition that each row must satisfy.
FOREIGN KEY	It establishes a relationship between columns.

98. You attempt to create the salary table with this command:

1. CREATE TABLE SALARY.
2. (employee\_id NUMBER(9)
3. CONSTRAINT salary\_pk PRIMARY KEY,
4. 1995\_salary NUMBER(8,2),
5. NUMBER manager\_name VARCHAR2(25)
6. CONSTRAINT mgr\_name\_nn NOT NULL,
7. \$ salary\_96 NUMBER(8,2));

Which two lines of the statement will return errors? (choose two)

A: 5 & 7

**99. Which select statement displays the orderid, productid and quantity of items in the item table that matches both the productid and quantity of an item order (605). Do not display the details of the order 605?**

A: *SELECT orderid,productid,qty  
FROM item  
WHERE (productid,qty) IN  
(SELECT productid,qty  
FROM item  
WHERE orderid=605);  
AND orderid<>605;*

**100. Which select statement displays all the employees who do not have a subordinate?**

A: *SELECT e.ename  
FROM emp e  
WHERE e.empno NOT IN (select m.mgr  
FROM emp m  
WHERE m.mgr IS NOT NULL);*

**101. Given the cursor statement:**

**DECLARE  
CURSOR query\_cursor(v\_salary)IS  
SELECT last\_name,salary,dept\_no  
FROM employee  
WHERE SALARY>v\_salary;**

**Why does this statement cause an error?**

A: *A scalar data type was not specified for the parameter.*

**102. Examine this structure:**

**EMP TABLE**

Name	Null?	Type
EMP NUMBER	NOT NULL	NUMBER(4)
NAME		VARCHAR2
JOB		NUMBER(2,9)
MGR		NUMBER(4)
HARIDATE		DATE
SALARY		NUMBER(7,2)
COMM		NUMBER(7,2)
DEPT NO	NOT NULL	NUMBER(2)

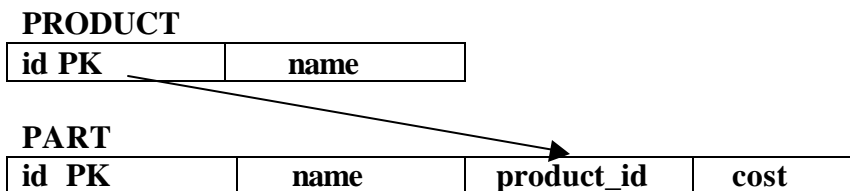
## TAX TABLE

Name	Null?	Type
TAX GRADE		NUMBER
LOWSAL		NUMBER
HIGHSAL		NUMBER

You want to create a report that displays the employee details along with the tax category of each employee. The tax category is determined by comparing the salary of the employees. The tax category is determined by comparing the salary of the employee from the emp table to the lower and the upper salary values in the tax table. Which select statement produces the required result?

A: *SELECT e.name,e.salary,e.tax grade  
FROM emp e,tax t  
WHERE e.salary in t.lowsal and t.highsal.*

103. Examine the structure of the product and the part tables.



You issue this SQL statement:

```
SELECT pr.name  
FROM part pt,product printer  
WHERE pt.product_id(+) = pr.id;
```

What is the result?

A: *An error is generated.*

104. You need to retrieve the employee names and salaries from emp tables assorted by the salary in descending order. If two names match for a salary then two names must be displayed in alphabetical order. Which statement produces the required results?

A: *SELECT ename,sal  
FROM emp  
ORDER BY sal,DESC,ename;*

105. Examine the structure of the department and employee table.

## DEPARTMENT

id PK	Name
-------	------

## EMPLOYEE

id PK	Last_name	First_name	Dept_id
-------	-----------	------------	---------

Evaluate this SQL statement:

```
CREATE INDEX          emp_dept_id_idx
ON                   employee(dept_id);
```

Which result will this statement provide?

A: *May reduce the amount of disc I/O for select statement.*

106. Examine the table instance chart for the patient table.

Column name	id_number	last_name	first_name	Birth_date	doctor_id
Key type	PK				
Nulls/Unique	NN, U	NN	NN		
FK table					DOCTOR
FK column					ID_NUMBER
Data type	NUM	VARCHAR2	VARCHAR2	DATE	NUM
Length	10	25	25		10

You need to create the patient\_id\_seq sequence to be used with the patient table's primary key column. The sequence will begin with 1000, have a maximum value of 999999999 never reuse any number an increment by 1. Which statement would you use to complete this task?

A: *CREATE SEQUENCE patient\_id\_seq  
START WITH 1000  
MAXVALUE 999999999  
NO CYCLE;*

107. Examine this code:

```
SELECT employee.ename
FROM   employee
WHERE  employee.empno NOT IN
      (SELECT manager.mgr
       FROM emp manager);
```

What is not an operator equivalent to the above query?

A: *!=ALL.*

**108.** You want to create a report that gives per department the number of employees and total salary as a percentage of all the departments. Examine the results from the report:

DEPARTMENT	%EMPLOYEES	%SALARY
10	21. 4	30. 15
20	35. 71	37. 47
30	42. 86	32. 39

**Which select statement produces the report?**

A: *SELECT*  
    *a.deptno, "deparment",*  
    *ROUND(a.num\_emp/b.total\_count\*100,2) "%employee"*  
    *ROUND(a.sal\_sum/b.total\_sal\*100,2) "%salary"*  
*FROM*  
    *(SELECT deptno,COUNT(\*)num\_emp,SUM(SAL)sal\_sum*  
    *FROM scott.emp.*  
    *GROUP BY (deptno)a,*  
    *(SELECT COUNT(\*)total\_count,SUM(sal)total\_sal.*  
    *FROM scott.emp) b;*

**109.** In which situation would you use an outer query?

A: *The employee table column corresponding to the region table contain null values for rows that need to be displayed.*

**110.** You attempt to query the database with this command:

```
SELECT name,salary
FROM employee
WHERE salary=
      (SELECT salary
       FROM employee
       WHERE last_name= 'Wagner' OR dept_no=233)
```

**Why could this statement cause an error?**

A: *A multiple row subquery is used with a single row comparison operator.*

**111.** Which statement shows the view definition of the view emp\_view that is created based on the emp table?

A: *SELECT TEXT*

```
FROM user_views
WHERE view_name= 'EMP_VIEW';
```

**112. Examine the structure of the BOOK\_TITLE, COPY and CHECK\_OUT tables.**

**BOOK\_TITLE**

Id.PK	title	Author
-------	-------	--------

**COPY**

Id PK	Title id PK	available
-------	-------------	-----------

**CHECK\_OUT**

Id PK	Copy_id	Title_id	Check_out_date	Expected_return_date	Customer-id
-------	---------	----------	----------------	----------------------	-------------

**You need to create the BOOKS\_AVAILABLE view. These are the desired results?**

- 1. Include the title of each book.**
- 2. Include the availability of each book.**
- 3. Order the results by the author.**

**Evaluate this SQL statement:**

```
CREATE VIEW books_available
AS
SELECT b.title,c.available
FROM book_title b,copy c
WHERE b.id=c.title_id
ORDER BY b.author;
```

**What does this statement provide?**

*A: A syntax error.*

**113. The employee table contains three columns, 2 of which are:**

```
BONUS          NUMBER(7,2)
DEPT_ID        NUMBER(9)
```

**There are three departments and each department has at least one employee bonus value. Bonus values are greater than 500 and not all employees receive a bonus.**

**Evaluate this PL/SQL block:**

```
DECLARE
v_bonus employee.bonus%TYPE:=300;
```

```
BEGIN
UPDATE employee
SET bonus=bonus+v_bonus
WHERE dept_id IN (10,20,30);
COMMIT;
END;
```

**What will be the result?**

A: *A subset of employees will be given a \$300 increase in bonus.*

**114. You have been granted update privileges on the last\_name column of the employee table. Which data dictionary view would you query to display the column. The privilege was granted on the schema that owns the employee table?**

A: *ALL\_COL\_PRIVS\_RECD*

**115. Which alter command would you use to reinstate a disabled primary re constraint?**

A: *ALTER TABLE CARS  
ENABLE CONSTRAINT cars\_id\_pk.*

**116. You need to perform a major update on the employee table. You have decided to disable the primary key constraint on the empid column and the check constraint on the job column. What happens when you try to enable the constraint after the update is completed?**

A: *All the existing columns values are verified to conform with the constraints and an error message is generated if any existing values do not conformed.*

**117. Examine the structure of the student table:**

Name	Null?	Type
STUD_ID	NOT NULL	NUMBER(3)
NAME	NOT NULL	VARCHAR2(25)
PHONE	NOT NULL	VARCHAR2(9)
ADDRESS		VARCHAR2(50)
GRADUATION		DATE

**There are hundred records in the student table. You want to change the name of the graduation column to the grad\_date. Which statement is true?**

A: *You can't rename a column.*

**118. Examine the table instances chart for the cars table.**

<b>Column name</b>	<b>ID</b>	<b>MODEL</b>	<b>STYLE</b>	<b>Color</b>	<b>LOT_NO</b>
<b>Key type</b>	<b>PK</b>				<b>FK</b>
<b>Nulls/Unique</b>	<b>NN, UU</b>	<b>NN</b>	<b>NN</b>	<b>NN</b>	<b>NN</b>
<b>FK table</b>					<b>LOT</b>
<b>FK column</b>					<b>LOT_NO</b>
<b>Data type</b>	<b>NUM</b>	<b>CHAR</b>	<b>CHAR</b>	<b>CHAR</b>	<b>NUM</b>
<b>Length</b>	<b>9</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>3</b>

Which select table will display the style, color and lot number for all cars based on the model, regardless of the case?

A: *SELECT style, color, lot\_no  
FROM cars  
WHERE model=UPPER('&model');*

**119. Examine this declaration section:**

```
DECLARE
CURSOR emp_cursor(p_deptno NUMBER, p_job VARCHAR2)
IS
SELECT EMPNO, ENAME
FROM EMP
WHERE DEPTNO=p_deptno
AND JOB=p_job;
BEGIN
...
```

Which statement opens the cursor successfully?

A: *OPEN emp\_cursor.*

**120. As a DBA you have just created a user account for employee Smith by using the create user command. Smith should be able to create tables and packages in his schema. Which command will the DBA need to execute next so that Smith can perform his tasks successfully?**

A: *GRANT CREATE SESSION, CREATE TABLE, CREATE PROCEDURE  
TO smith;*

**121. The EMP table contains columns to hold the birthdate and the hire date of the employees. Both of these columns are defined with date as their data type. You want to insert a row with the details of employee Smith who was born in 1944 and hired in 2004. Which statement will ensure that values are inserted into the table in the correct century?**



A: *INSERT INTO EMP(empno,ename,birthdate,hiredate)  
VALUES(EMPNO\_SEQ.NEXTVAL, 'Smith',  
TO\_DATE('12-dec-44', 'DD-MON-RR'),  
TO\_DATE('10-jun-04', 'DD-MON-RR'));*

**122. You want to retrieve the employee details from the emp table and process them in PL/SQL block. Which type of variable do you create in the PL/SQL block to retrieve all the rows and columns using a single select statement from the emp table?**

A: *PL/SQL table of records.*

**123. Examine the employee table.**

ID NO	LAST_NAME	FIRST_NAME	SALARY	DEPT_NO
7	Brown	Terry	30000	255
6	Wargner	Julie		233
4	southall	david	25000	102
3	chiazza	mike	50000	
2	limber	john	32000	145
5	goldberg	Kelvin		233
1	lomberg	susan	55000	
8	oliver	tracey		145

**You attempt to query the database with this command:**

```
SELECT dept_no,last_name,SUM(salary)
FROM employee
WHERE salary<50000
GROUP BY dept_no
ORDER BY last_name;
```

**Which clause causes an error?**

A: *GROUP BY dept\_no.*

**124. You want to display the average salary for the departments 20 and 50 but only if those departments have an average salary of at least 2000. which statement will produce the required results?**

A: *SELECT deptno, AVG(sal)  
FROM emp  
WHERE depno IN(20,50)  
GROUP BY deptno  
HAVING AVG (sal)>=2000;*

125. Examine the table instance chart for the cars table.

Column name	ID	MODEL	STYLE	Color	LOT_NO
Key type	PK				FK
Nulls/Unique	NN, UU	NN	NN	NN	NN
FK table					LOT
FK column					LOT_NO
Data type	NUM	CHAR	CHAR	CHAR	NUM
Length	9	25	25	25	3

You query the database with this command:

```
SELECT lot_number "lot number,count(*) number of cars available"
FROM cars
WHERE model= 'fire'
GROUP BY lot_no
HAVING COUNT (*)>10
ORDER BY COUNT (*);
```

Which clause restricts which group's are displayed?

A: *HAVING COUNT (\*)>10.*

126. Examine the table instance chart for the sales table.

Column name	PURCHASE_NO	CUSTOMER_ID	CAR_ID	SALES_ID
Key type	PK	FK	FK	FK
Nulls/Unique	NN, U	NN	NN	NN
FK table		CUSTOMER	CAR	EMPLOYEE
FK column		ID	ID	ID
Data type	NUM	NUM	NUM	NUM
Length	9	9	9	9

You attempt to change the data base with this command:

```
INSERT INTO sales(purchase_no, customer_id,cars_id)
VALUES(1234,345,6);
```

If this statement fails which condition would explain the failure?

A: *A mandatory column value is missing*

127. Examine the table instance chart for the patient table.

Column name	id_number	last_name	First_name	birth_date	doctor_id
Key type	PK				
Nulls/Unique	NN, U	NN	NN		
FK table					DOCTOR
FK column					ID_NUMBER
Data type	NUM	VARCHAR2	VARCHAR2	DATE	NUM
Length	10	25	25		10

Which script would you use to delete the patient from the table by prompting the user for the id\_number of the patient?

A:     **DELETE**  
          **FROM** patient  
          **WHERE** id\_number=&id\_number/

# Index

- %, 1, 19
- \_, 1
- ACCEPT, 3, 30
- ALL\_COL\_PRIVS\_RECD*, 36
- ALL\_OBJECTS*, 9
- Alter table, 4
- ALTER TABLE*, 7, 8, 25, 27, 36
- Alter user, 5
- ALTER USER*, 10
- ASC, 2
- AVG, 2, 15, 16, 17, 38
- BREAK, 4
- BTITLE, 4
- Cartesian, 2
- CHECK**, 4, 27, 30, 35
- COLUMN, 4
- Column Names, 2
- Comment, 4
- Commit, 4
- CONSTRAINT*, 7, 8, 25, 27, 30, 36
- constraints, 1, 4, 30, 36
- control user access, 5
- COUNT, 2, 11, 34, 39
- Create role, 5
- Create table, 4
- Create user, 5
- cursor*, 13, 21, 24, 26, 31, 37
- data type*, 6, 8, 9, 24, 31, 37
- DBMS.OUTPUT*, 14
- declarative**, 9
- DECLARE*, 13, 14, 16, 19, 21, 22, 23, 26, 31, 35, 37
- DEFINE, 3, 19
- Delete, 4, 18
- DELETE*, 14, 18, 22, 40
- DESC, 2, 32
- distinct*, 10, 17
- drop table*, 24, 25
- Drop table, 4
- Equijoin, 2
- Executable*, 16
- fetch*, 13, 24, 27
- FOREIGN KEY**, 4, 30
- FROM, 1, 3, 6, 7, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 37, 38, 39, 40
- Grant, 5, 27
- GRANT*, 10, 37
- GROUP BY, 2, 3, 11, 15, 34, 38, 39
- group function*, 3, 19
- Group Functions, 3, 2
- HAVING, 3, 15, 38, 39
- index*, 5, 7, 24
- indexes, 5, 7
- inner block*, 16, 22
- Insert, 4
- INSERT*, 11, 14, 15, 26, 28, 30, 38, 39
- JOIN, 2
- LIKE, 1
- loop**, 13, 24, 26, 27
- MAX, 2
- MIN, 2
- MODIFY*, 8
- Multiple Column Subqueries, 3
- Non-equijoin, 2
- null*, 8, 15, 18, 20, 34
- Null**, 8, 9, 11, 12, 13, 21, 25, 31, 32, 36
- ORDER BY, 2, 3, 15, 29, 32, 35, 38, 39
- outer block*, 16, 22
- outer join, 2, 9
- Outer join, 2
- PL/SQL, 2, 1, 9, 13, 14, 16, 21, 22, 24, 25, 26, 27, 29, 35, 38
- PRIMARY KEY*, 4, 7, 8, 27, 30
- Projection*, 20
- Rename, 4
- Revoke, 5
- Rollback, 4
- ROUND*, 6, 16, 34
- SAVE**, 17
- Savepoint, 4
- schema*, 15, 27, 36, 37
- SELECT, 1, 2, 3, 6, 7, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 37, 38, 39
- Self join, 2
- SET, 3, 11, 12, 16, 19, 21, 22, 23, 36
- SQL, 2, 3, 1, 3, 4, 6, 7, 9, 10, 12, 14, 16, 17, 18, 19, 20, 22, 23, 24, 25, 27, 29, 32, 33, 35, 38
- START**, 16, 24, 33
- STDDEV, 2
- subquery, 3, 7, 18, 28, 34
- Substitution Variables, 3
- SUM, 2, 11, 34, 38
- synonyms, 5
- TITLE, 4, 35
- Truncate, 4
- TRUNCATE TABLE*, 8
- UNIQUE**, 4, 30
- Update, 4, 20
- UPDATE*, 9, 11, 12, 21, 22, 36
- USER\_CONSTRAINTS, 4
- USER\_INDEXES, 5
- USER\_SEQUENCE, 5
- USER\_VIEWS*, 27
- VALUES*, 11, 14, 15, 26, 28, 30, 38, 39
- VARIANCE, 2
- view*, 4, 5, 9, 11, 12, 27, 28, 29, 30, 34, 35, 36
- views, 4, 5, 35
- WHERE, 1, 2, 3, 6, 7, 9, 11, 12, 13, 14, 15, 17, 18, 19, 20, 21, 22, 23, 24, 25, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40