**********************************ORACLE************************************

Q. Given the book_master table

```
     Book_code     Number(5)
      Book_Name   varchar2(40)
      Pub_year       number(4)
```

I would like to print a report classifying the books on the following basis

```
     Publishing year              Edition
     Between  1973 and 1999         "Old "
         >= 2000                   "New"
```

How can I achieve this ?

1). **Using a CASE statement**

2). Using a WITH statement

3). Using a DECODE function

4). Need to write a PL/SQL statement for doing this

Solution :
option [1] is correct

Q.I would like to find out number of employees in all departments, except department 10. Smith writes the query below . Which of the following comments is most appropriate for the query ?

```
SELECT  dept_code , count(staff_code)
FROM  staff_master
GROUP BY dept_code
HAVING dept_code <> 10
```

1). **Error : No need to use a having clause , WHERE clause can be used instead**

2). Query is perfect

3). Error : Condition is wrong , it should be
HAVING dept_code = 10

4). Error : HAVING must have only an aggregating column

Solution :
option [1] is correct

Q. Consider the following query:

```
SELECT deptno,ename,sal FROM emp
ORDER By deptno, sal desc;
```

What will be the output?

```
1).  DEPTNO         ENAME    SAL
 ----------      ----------     ----------
        10      CLARK     2450
       10       KING       5000
       20     JONES       2975
       20      SCOTT      3000
       20      MILLER     3000
       30     WARD       1250
       30     TURNER    1500
       30     ALLEN      1600
       30     BLAKE      2850
```

```
2).     DEPTNO      ENAME    SAL
----------      ----------     ----------
       10       KING        5000
       10      CLARK       2450
       20      SCOTT       3000
       20      MILLER     3000
       20     JONES        2975
       30     BLAKE        2850
       30     ALLEN       1600
       30     TURNER    1500
       30     WARD       1250
```

```
3).     DEPTNO        ENAME    SAL
----------       ----------     ----------
       30     BLAKE      2850
       30     ALLEN      1600
       30     TURNER    1500
       30     WARD       1250
       20      SCOTT      3000
       20      MILLER     3000
       20     JONES       2975
       10       KING       5000
       10      CLARK      2450
```

```
4).     DEPTNO       ENAME    SAL
----------       ----------     ----------
       10       KING       5000
       20      SCOTT      3000
       20      MILLER     3000
       20     JONES       2975
       30     BLAKE      2850
       10      CLARK      2450
       30     ALLEN      1600
       30     TURNER    1500
```

```
        30     WARD       1250
```

Solution :
option [2] is correct

Q. Examine the data in the EMP table
EMPNO ENAME DEPTNO MGR JOB SAL
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 3500
105 Diana 30 108 IT_ADMIN 5000
106 Smith 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

EMPNO is the primary key.
MGR is the ID of managers and refers to the EMPNO.
The JOB column is a NOT NULL .
Identify the correct option/options to find department wise average salary for the employees wherein employee's salary is in range of 3000 to 4000.

1). SELECT AVG(sal), deptno FROM emp WHERE sal BETWEEN 3000 and 4000

2). **SELECT AVG(sal), deptno FROM emp WHERE sal >= 3000 and sal <= 4000 GROUP BY deptno**

3). SELECT AVG(sal), deptno FROM emp where sal BETWEEN 4000 and 3000 GROUP BY deptno

4). SELECT AVG(sal), deptno FROM emp WHERE sal BETWEEN 3000 and 4000 ORDER BY deptno, sal

Solution :
option [2] is correct

Q. SELECT dept_code, staff_name, staff_sal
FROM Staff_Master
ORDER BY dept_code, staff_sal

What is true regarding the above query?

1). Sorts the records based on dept_code

2). Sorts the records based on staff_sal and then dept_code

3). Sorts the records based on staff_sal

4). **Sorts the records based on dept_code and then staff_sal**

Solution :
option [4] is correct

Q. Given the structure of the BOOK_MASTER Table
BOOK_ID VARCHAR2(20)
BOOK_NAME VARCHAR2(30)
what will be the output of the following query

SELECT book_name
FROM Book_master
WHERE book_name LIKE '%JAVA%' OR '%C%'

1). **All books which has JAVA and C somewhere in the book name**

2). All books with book name starting with JAVA

3). No output

4). **error in the query**

Solution :
option [4] is correct

Q.What would be the output of the following query? SELECT LPAD('SQL',5,'*') FROM DUAL

1). *****SQL

2). ****SQL**

3). SQL**

4). **SQL*******

Solution :
option [2] is correct

Q. Which of the following group function will consider the null value

1). **COUNT(*)**

2). AVG(column_name)

3). SUM(column_name)

4). COUNT(column_name)

Solution :
option [1] is correct

Q. Assuming today is Monday, 10 July 2000, what is returned by this statement:
SELECT to_char(NEXT_DAY(sysdate, 'MONDAY'), 'DD-MON-YY') FROM dual;

1). 17-Jul-00

2). **17-JUL-00**

3). Jul-17-00

4). 17-7-00

Solution :
option [2] is correct

Q. Evaluate this SQL statement

SELECT emp.empno, (15*emp.sal) + (.5* emp.comm) + (.35* emp.sal) AS CALC_VALUE FROM emp;

What will happen if you remove all the parentheses from the calculation?
1). The value displayed in the CALC_VALUE column will be lower than the one that we are getting w ith parenthesis.

2). The value displayed in the CALC_VALUE column will be higher than the one that we are getting with parenthesis.

3). **There will be no difference in the values displayed in the CALC_VALUE column with or without parenthesis.**

4). An error will be reported if you remove the parenthesis from the calculation

Solution :
option [3] is correct

Q. Which of the following are in-correct w.r.t subquery ?
1). **Subquery can contain ORDER BY clause**
2). Subquery can contain GROUP BY clause
3). Subquery can contain WHERE clause
4). **Subquery can contain AGGREGATE functions**
Solution :
option [1] is correct

Q. Which option should be used to create a view only if the base tables exist?
1). Replace
2). Force
3). **NoForce**
4). With Check Option
Solution :
option [3] is correct

Q. Which constraint cannot be applied as a table level constraint ?
1). **not null**
2). primary key
3). foreign key
4). unique
Solution :
option [1] is correct

Q. Which are the valid multi row subquery operators ?
1). =

2). **IN**

3). >

4). **>=ANY**

Solution :
option [2,4] are correct

Q. Deletion of the database objects can be achieved using following command?
1). DELETE

2). TRUNCATE

3). **DROP**

4). **All the above**

Solution :
option [3] is correct

Q. Which of the following statements are correct w.r.t database objects
1). The value of sequencename.currval can be fetched before sequencename.nextval is issued

2). **Synonym for a procedure can be created**

3). It is possible to update all the tables on which the view is based

4). **Oracle automatically creates an index for every primary/unique key constraint declared**

Solution :
option [2,4] are correct

Q. Which of the following are in-correct w.r.t foreign key column values?
1). Foreign key column can contain null values

2). Foreign key column can contain duplicate values

3). **Foreign key column can contain values not present in its corresponding primary key column**

4). Foreign key column must contain values present in its corresponding primary key column

5). Foreign key and the primary key it is referring to can be present in the same table

Solution :
option [3] is correct

Q. See the below data.

EMP_ID	DEPT_ID	COMMISSION
1	10	500
2	20	1000
3	10	
4	10	600
5	30	800

6	30	200
7	10	
8	20	300

The COMMISSION column shows the monthly commission earned by the employee.
Which of the tasks would require sub queries in order to be performed in a single step?
1). deleting the records of employees who do not earn commission

2). **increasing the commission of employee 3 by the average commission earned in department 20**

3). finding the number of employees who do NOT earn commission and are working for department 20

4). **inserting into the table a new employee 10 who works for department 20 and earns a commission that is equal to the commission earned by employee 3**

Solution :
option [2,4] are correct

Q. Examine the structure of table EMP1:

Name	Null?	Type
EMPID	NOT NULL	NUMBER(2)
EMPNAME		VARCHAR2(10)
DEPTNO	NOT NULL	NUMBER(2)
JOB		VARCHAR2(50)

SQL>alter table emp1 set unused (job, empname);

What is true related to the above example?
1). **DESC EMP1; displays the structure of EMP1 table excluding the columns JOB and EMPNAME.**

2). Data dictionary USER_COL_TABS maintains information of the tables with columns marked as "unused"

3). Marking the columns as unused release the space occupied by them back to the database

4). None of the above.

Solution :
option [1] is correct

Q. You added a PHONE-NUMBER column of NUMBER data type to an existing EMPLOYEES table.
The EMPLOYEES table already contains records of 100 employees. Now, you want to enter the

phone numbers of each of the 100 employees into the table. Some of the employees may not have a phone number available.

Which data manipulation operation do you perform?

1). **ALTER**

2). INSERT

3). **UPDATE**

4). You cannot enter the phone number for the existing employee records

Solution :
option [3] is correct

Q. Evaluate this PL/SQL BLOCK

```
DECLARE
   V_count NUMBER (99);
BEGIN
    DELETE FROM Staff_Master Where Staff_code IN (100,101,102);
      ........
END;
```

What should be done to display an error message when no records are deleted

1). DELETE FROM Staff_Master Where Staff_code IN (100,101,102);
```
        IF SQL%NOTFOUND() THEN
             Dbms_output.put_line('No records deleted ');
```

2). DELETE FROM Staff_Master Where Staff_code IN (100,101,102);
```
        WHEN  NO_DATA_FOUND THEN
             Dbms_output.put_line('No records deleted ');
```

3). DELETE FROM Staff_Master Where Staff_code IN (100,101,102);
```
        IF NO_DATA_FOUND THEN
             Dbms_output.put_line('No records deleted ');
```

4). **DELETE FROM Staff_Master Where Staff_code IN (100,101,102);**
```
       IF SQL%NOTFOUND THEN
            Dbms_output.put_line('No records deleted ');
```

Solution :
option [4] is correct

Q.What is the output of the below snippet, assuming that emp table exists with columns empno, ename and sal?

```
DECLARE
vemp emp%rowtype;
BEGIN
vemp.empno := 111;
vemp.ename := 'tom';
vemp.sal := 3000;
UPDATE emp SET empno = vemp.empno,sal=40000 WHERE empno = 111;
END;
/
```

1). **PL/SQL procedure successfully completed.**

2). Error: Use row Keyword in update statement to get the updations done

3). Error: As it is rowtype, all fields should be set in update statement.

4). Error: Variable declared as rowtype can not be updated using the given UPDATE statement.

Solution :
option [1] is correct

Q. Evaluate this PL/SQL block. Assume that there is no employee in EMP table that belongs to deptno 100:

```
set serveroutput on
DECLARE
v_result  number(2);
BEGIN
DELETE
FROM emp
WHERE deptno IN (100);
v_result := SQL%ROWCOUNT;
COMMIT;
dbms_output.put_line(v_result);
END;
```

What will be the value of v_result if no rows are deleted?

1). **0**

2). 1

3). TRUE

4). Null

Solution :
option [1] is correct

Q. Identify the output

```
.
.
.
IF NOT caller_cur%ISOPEN
THEN
   OPEN caller_cur;
END IF;
OPEN caller_cur;
FETCH caller_cur INTO caller_rec;
.
.
.
```

1). PL/SQL Block successfully executed

2). **PL/SQL error: cursor already open**

3). If fetch will come before OPEN statement, there is no error

4). PL/SQL error: attribute ISOPEN can not be used for caller_cur

Solution :
option [2] is correct

Q. Identify the correct statements regarding INSERT command:
1). **In INSERT command, values for the columns should match data types of the respective columns in a table.**

2). In INSERT command, all columns except those declared as"NOT NULL" should be supplied with values.

3). INSERT command is available in data control language.

4). None of the above

Solution :
option [1] is correct

Q. Identify the correct option statements related to DELETE command.
1). **In DELETE command, if WHERE is omitted, all rows from the table are removed, and else all rows which satisfy the condition are removed.**

2). FROM clause is mandatory in DELETE statement

3). WHERE clause is must in DELETE statement

4). None of the above

Solution :
option [1] is correct

Q. The given PL/SQL block is for deleting the salary of all staffs of designation code 12. Predict what is not correct

```
DECLARE
cursor Staff_cursor   is
Select staff_code,desg_code,salary from staff_master where desg_code=12;
      Emp_record staff_cursor%ROWTYPE;
```

```
        BEGIN
          Open staff_cursor ;
            Loop
                   Fetch  staff_cursor into emp_record;
                  Exit when staff_cursor%NOTFOUND;
                  If(emp_record.desg_code=12) then
                       Delete staff_master  where     staff_code=emp_record.staff_code
                  Endif;
                 End Loop;
            Exception
                -- do something
         END:
```

1). **No need to use cursor variables , delete can be done in a single sql statement**

2). The above piece of code works perfectly without any issues

3). Cursor Rowtype is an invalid data type

4). Exception block is not needed

Solution :
option [1] is correct

Q.Identify the output of the given snippet. (Refer the line numbers which are given in the snippet.)

```
1. DECLARE
2. CURSOR cur1 IS SELECT * FROM emp;
3. emprec emp%rowtype;
4. BEGIN
5. OPEN cur1;
6. FETCH cur1 INTO emprec;
7. WHILE(cur1%notfound)
8. LOOP
9. dbms_output.put_line(emprec.empno||' '||emprec.ename);
10. FETCH cur1 INOT emprec;
11. END LOOP;
12. CLOSE cur1;
13. END;
```

1). Error: Multiple fetch in a single operation

2). Error: Line 2

3). All emp table data for two columns i.e. empno and ename is displayed as well as message ‘PL/SQL   procedure successfully completed.’ is displayed

4). **Message ‘PL/SQL procedure successfully completed.’ is displayed only without any table rows as an output.**

Solution :
option [4] is correct

Q. See the below snippet

```
CREATE OR REPLACE PROCEDURE Many_Params (
mesg1 IN     VARCHAR2,
mesg2 OUT    VARCHAR2,
mesg3 IN OUT VARCHAR2) IS
BEGIN
  mesg2 := mesg1 || 'Parameter As The OUT';
  mesg3 := mesg3 || 'Returned';
END Many_Params;
/
DECLARE
 iparm  VARCHAR2(50) := 'This is the IN ';
 oparm  VARCHAR2(50);
 ioparm VARCHAR2(50) := 'And This is the IN OUT ';
BEGIN
  many_params(iparm, oparm, ioparm);
  dbms_output.put_line(oparm || ' .’|| ioparm);
END;
/
```

What is the output of the program?

1). This is the IN Parameter As The OUT. And This is the IN OUT

2). Parameter As The OUT. And This is the IN OUT

3). **This is the IN Parameter As The OUT. And This is the IN OUT Returned**

4). This is the IN Parameter As The OUT Returned

Solution :
option [3] is correct

Q. If SELECT INTO statement does not return any row then the following exception would be raised

1). TOO_MANY_ROWS

2). **NO_DATA_FOUND**

3). VALUE_ERROR

4). INVALID_CURSOR

Solution :
option [2] is correct

Q. Which of the statements are true about the following pl/sql block

```
   DECLARE
    V_STAFF_NO  NUMBER  := 600080';
    V_EMP_NAME VARCHAR2(10);

 BEGIN
      SELECT staff_name  FROM STAFF_MASTER  WHERE STAFF_CODE = V_STAFF_NO ;
      DBMS_OUTPUT.PUT_LINE('Employee name is ' || V_EMP_NAME);

EXCEPTION

WHEN NO_DATA_FOUND THEN
    DBMS_OUTPUT.PUT_LINE('No such employee: ' || Emp_number);
```

```
WHEN Others
   DBMS_OUTPUT.PUT_LINE('some exception');

END;
```

1). **Will show compilation error because into clause is missing**

2). Will print some exception message

3). Will run successfully

4). Will show a compilation error because V_EMP_NAME is not initialized

Solution :
option [1] is correct

Q. Assume that table ERRORS is having following structure:

```
Name            Null?         Type
-----------------------------------
Errorno                      Number
Errormess                     Char(100)
```

Identify the erroneous line in the given code snippet. (Refer the line numbers which are given in the snippet.)

```
 1DECLARE
 2 Err_Num NUMBER ;
 3 Err_Msg CHAR(100);
 4 BEGIN
 -------
 ------
 5 EXCEPTION
----------
-------
 6 WHEN OTHERS THEN
 7 INSERT INTO errors VALUES (SQLCODE, SQLERRM);
 8 END;
/
```

1). line 2

2). line 6

3). **line 7**

4). no error

Solution :
option [3] is correct

Q. Observe the following code and predict the ouput

```
CREATE OR REPLACE PROCEDURE PROC1(num1 NUMBER, num2 NUMBER) AS
result NUMBER;
BEGIN
result:=num1+num2;
DBMS_OUTPUT.PUT_LINE(result);
RETURN result;
```

END;
/

1). **Compilation error as RETURN statement cannot contain an expression**

2). Compilation succeeds and the value in result variable will be displayed

3). **Compilation will succeed if only RETURN is written instead of RETURN result;**

4). None of the above

Solution :
option [1,3] are correct

Q. Consider the following code and determine the correct code for calling this function

```
CREATE OR REPLACE FUNCTION addNumbers(num1 in out number, num2 number) RETURN
number as
BEGIN
num1:=num1+num2;
RETURN num1;
END;
```

1). BEGIN
addNumbers(10,20);
END;

2). DECLARE
ans number;
BEGIN
ans:=addNumbers(10,20);
END;

3). **declare**
ans number;
num1 number:=10;
begin
ans:=addNumbers(num1,20);
end;
/

4). **declare**
ans number;
num1 number:=10;
num2 number:=20;
begin
ans:=addNumbers(num1,num2);
e

Solution :
option [3,4] are correct

Q. PL/SQL raises an exception, in which TWO of the following cases

1). **When a SELECT statement returns no rows**

2). **When a SELECT statement returns more than one row**

3). When the datatypes of SELECT clause and INTO clause do not match

4). When INTO statement is missing in the SELECT statement

Solution :
option [1,2] are correct

Q. See the below snippet.

```
CREATE PROCEDURE Create_Stud (rollno IN NUMBER, sname IN varchar2 DEFAULT 'aaa’) IS
BEGIN
INSERT INTO stus (rollnumber, studname)
VALUES (rollno, sname);
END;
```

What will be the output if we call procedure as Create_Stud (10,’AMIT’);

1). Procedure call will fail results in error

2). rollno will be 10 and sname will be ‘aaa’

3). Error: Default Keyword is missing in procedure call

4). **rollno will be 10 and sname will be ‘AMIT’**

Solution :
option [4] is correct

Q.If there is a procedure called addNumbers already existing, what will be the output of the following code?

```
CREATE OR REPLACE FUNCTION addNumbers(num1 in out number, num2 number) RETURN
number as
BEGIN
num1:=num1+num2;
RETURN num1;
END;
```

1). The procedure will get overwritten by this function

2). There will be a procedure as well as a function with the same name, addNumbers

3). **Compilation error. name is already used by an existing object**

4). None of the above

Solution :
option [3] is correct

Q. Observe the following code and predict the ouput

```
CREATE OR REPLACE PROCEDURE PROC1(num1 NUMBER, num2 NUMBER) AS
BEGIN
num1:=num1+num2;
DBMS_OUTPUT.PUT_LINE(num1);
RETURN;
END;
/
```

1). **Compilation error : num1 cannot be used as assignment target**

2). **Compilation succeeds if num1 is declared as OUT parameter**

3). Compilation succeeds if num1 is declared as IN parameter

4). No compilation error

Solution :
option [1,2] are correct