LastName : FirstName :

```
booking_bkg
                                                                                              customer_cst
                                                           NUMBER (20)
                                              bkg_id
                                                                                        cst_id
                                                                                                     NUMBER (20)
                                                                                                     VARCHAR2 (25)
                                              bkg_date
                                                           DATE
                                                                                        cst_email
                                                           NUMBER (1)
                                                                                                     VARCHAR2 (25)
                                              bkg_total_seat
                                                                                        ost last name
                                              bkg_cst_id
                                                           NUMBER (20)
                                                                                        cst_first_name
                                                                                                     VARCHAR2 (25)
       type_price_tpr
                                              bkg_shw_id
                                                           NUMBER (20)
                                                                                        cst_phone
                                                                                                     CHAR (10)
             NUMBER (20)
   tpr_id
                                              bkg_tpr_id
                                                           NUMBER (20)
                                                                                    un_clt_mel (cst_email)
             VARCHAR2 (25)
   tpr_name
                                           pk_bkg (bkg_id)
                                                                                     > pk_cst (cst_id)
⇒ pk_tpr(tpr_id)
                                           🚰 fk_bkg_csty_id (bkg_cst_id)
                                           🚰 fk_bkg_shw_id (bkg_shw_id)
                                           s fk_bkg_tpr_id (bkg_tpr_id)
                                                     show_shw
                                              shw_id
                                                          NUMBER (20)
                                                          VARCHAR2 (50)
                                              shw title
         has_price_hpr
                                                          VARCHAR2 (255)
                                              shw_desc
                                                                                                type_show_tsh
PF* hpr_shw_id
                                              shw_duration
                                                          NUMBER (3)
                                                                                            tsh_id
                                                                                                      NUMBER (20)
PF* hpr_tpr_id
                                                          NUMBER (20)
                 NUMBER (20)
                                              shw_tsh_id
                                                                                            tsh_name
                                                                                                      VARCHAR2 (25)
                                              shw date
                                                          DATE
   hpr_seat_price
                 NUMBER (5,2)
                                                                                         pk_tsh (tsh_id)
                                             un_shw_date (shw_date)
🗫 pk_hpr(hpr_shw_id, hpr_tpr_id)
                                           pk_shw (shw_id)
🚰 has_price_hpr_FK0 (hpr_shw_id)
a has_price_hpr_FK1 (hpr_tpr_id)
                                           🛣 show_shw_FK0 (shw_tsh_id)
 1. CREATE
                    OR
                             REPLACE
                                              FUNCTION
                                                                seat per cst(p cst email
                                                                                                            IN
     CUSTOMER CST.CST email%TYPE)
 2. RETURN NUMBER IS
        v total seat NUMBER(3);
        v cst id CUSTOMER CST.CST id%TYPE;
 5. BEGIN
 6.
        SELECT cst id
 7.
           INTO v cst id
 8.
           FROM customer cst
 9.
           WHERE cst email = p cst email;
 10.
 11.
               SELECT SUM(bkg total seat)
               INTO v total seat
 12.
 13.
               FROM booking bkg
              WHERE bkg cst id = v cst id;
 14.
 15.
```

18. EXCEPTION

19. WHEN NO DATA FOUND THEN

RETURN v total seat;

20. RETURN -1;

21. END;

16.

17.

22. What is the main purpose of the above code?

d'après l'email donnée, retourner combien de seat total ce client a réservé

Programming with databases - PLSQL

December 2016

_	
23.	What is p_cst_email ?
	c'est la paramètre du function, l'email du client recherché
24.	What is v_cst_id ?
25.	le variable temporaire pour enregistrer l'identification du client recherché What does IN mean in p cst email IN CUSTOMER CST.CST email%TYPE?
	IN montre le type de p_cst_email IN mode pas de taille
26.	What %TYPE mean? il représente Attribut %TYPE Evite certaines erreurs © Erreurs de type, précision Changement de type au niveau de la colonne © Le code n'est pas à reprendre
27.	Does the program have any error handling, or does it propagate errors to the calling environment?

1

A BEFORE statement trigger inserts a row into a logging table every time a user updates the salary column of the employees table. The user now tries to update the salaries of three employees with a single UPDATE statement, but the update fails because it violates a check constraint. How many rows will be inserted into the logging table?

```
2
CREATE TRIGGER emp_trigg
  -- Line A
BEGIN
  INSERT INTO log table VALUES (USER, SYSDATE);
END;
Which of the following can NOT be coded at Line A?
1) AFTER INSERT OR DELETE ON employees
2) AFTER SELECT ON employees
3) BEFORE DELETE ON employees
4) BEFORE UPDATE ON employees
5) AFTER UPDATE OF last_name ON employees
3
17. The OLD and NEW qualifiers can be used with statement triggers as well as row triggers. (True
or False)
1) True
2) False
What is a valid call of the get_sal function shown below?
CREATE OR REPLACE FUNCTION get_sal (p_id employees.employee_id%TYPE)
RETURN NUMBER IS
v_sal employees.salary%TYPE := 0;
BEGIN
       SELECT salary INTO v_sal
        FROM employees
        WHERE employee_id = p_id;
       RETURN v sal;
END get_sal;
1) v_salary := get_sal (100);
get_sal (100);
```

- 3) DBMS_OUTPUT.PUT_LINE (get_sal(100));
- 4) SELECT get_sal(100) FROM dual;

dual is an Oracle table

5

A row trigger has been created which is fired by UPDATE ON employees. A user now executes a single SQL statement which updates four rows of the EMPLOYEES table. How many times will the row trigger fire?

- 1) One time
- 2) Two times
- 3) Four times
- 4) Five times
- 5) Eight times

6

Which of the following are good guidelines to follow when creating a database trigger? (Choose two.)

- 1) Use triggers to override privilege checking and view other users' private tables.
- 2) Do not use a trigger to replace or duplicate something which the Oracle Server does automatically.
- 3) Use triggers to prevent unauthorized users from SELECTing confidential data
- 4) Do not create a trigger that automatically fires another trigger.
- 5) Where possible, use a trigger to enforce a foreign key constraint.

7

To SELECT more than one row, you must declare and use:

Curseurs explicites

8

Examine the following procedure, which drops a table whose name is passed as an IN parameter: CREATE OR REPLACE PROCEDURE drop tab

```
(p_table_name IN VARCHAR2) IS
v sql statement VARCHAR2(100);
```

BEGIN

...

END;

Which of the following will work correctly when coded in the procedure's executable section? (Choose two.)

- 1) v_sql_statement := 'DROP TABLE ' || p_table_name; EXECUTE IMMEDIATE v_sql_statement;
- 2) EXECUTE IMMEDIATE 'DROP TABLE ' | | p_table_name;
- 3) EXECUTE IMMEDIATE 'DROP TABLE p_table_name';
- 4) v_sql_statement := 'DROP TABLE ' || p_table_name; EXECUTE IMMEDIATE 'v_sql_statement';

```
5) v_sql_statement := 'DROP TABLE ';
   EXECUTE IMMEDIATE v_sql_statement p_table_name;
Which of the following are characteristics of PL/SQL stored procedures? (Choose three.)
1) They are named PL/SQL blocks
2) They must return exactly one value to the calling environment
3) They can be invoked from inside a SQL statement
4) They can have an exception section
5) They can accept parameters
10
Examine the following code. Why does this exception handler not follow good practice guidelines?
DECLARE
  v_salary employees.salary%TYPE;
BEGIN
  SELECT salary INTO v_salary FROM employees
   WHERE employee_id = 999;
EXCEPTION
  WHEN OTHERS THEN
   DBMS_OUTPUT.PUT_LINE('An error occurred');
END;
1) The exception handler should COMMIT the transaction
2) The exception handler should test for the named exception NO_DATA_FOUND
3) employee id 999 does not exist in the employees table
4) You should not use DBMS_OUTPUT.PUT_LINE in an exception handler.
11
The following statement is a valid cursor declaration.
DECLARE
CURSOR dept_emp_cursor IS
SELECT department_name, COUNT(*) AS how_many FROM departments d, employees e
WHERE d.department_id = e.department_id GROUP BY d.department_name
HAVING COUNT(*) > 1;
```

2) False

12

1) True

How do you create a PL/SQL record based on the EMPLOYEES table?

- p_emp_record IN employees%TYPE
- 2) p_emp_record INemployees%ROWTYPE
- 3) p_emp_record IN employees%RECORD

4)

13

What type of loop performs the following actions: The cursor is opened, a row is fetched once for each iteration in the loop, the loop is terminated automatically when the last row is processed, and the cursor is closed automatically.

OPEN cur_shw;
LOOP FOR v_shw_record IN cur_shw LOOP
FETCH cur_shw INTO END LOOP;
EXIT WHEN cur_shw%NOTFOUND;
END LOOP

14

What is the main purpose of the FOR UPDATE clause in a cursor declaration?

Lignes verrouillées à l'ouverture du curseur

Tant que le curseur est ouvert, les autres utilisateurs ne peuvent pas modifier les lignes

15

An exception is an error that occurs during the execution of the block, which disrupts the normal operation of the program. (True or False)

- 1) True
- 2) False

16

What functions does an exception handler perform?

- 1) Defines the recovery actions to be performed when exceptions are raised.
- 2) Passes the error to the calling environment.
- 3) Allows a block of code to be executed completely.

17

Which of the following are good guidelines to follow when creating a database index? (Choose two.)

- 1) The column contains a wide range of values
- 2) The table is updated frequently
- 3) One or more columns are frequently used together in a WHERE clause or a join condition
- 4) Most queries are expected to retrieve more than 2-4 % of the rows in the table

V