1. What is the difference between
• A Composite value Primary Key?
• A Surrogate value Primary Key?

A composite key is a primary key that consists of two or more columns used together to uniquely identify a record in a table.

A surrogate key is a primary key that have artificial / meaningless values. Typically, it is an auto-incremented number or a UUID.

2. An Anonymous Block is an un-stored block. It is not named.
A Stored Procedure Block is named block. It is stored in the database.
a. Which Block is written for use-once purposes?

Anonymous Block
b. Which Block is written for re-use?

Store Procedure
c. Can an Anonymous Blocks have parameters?

No
d. Can an Anonymous Block call a Stored Procedure?

Yes
e. Can a Stored Procedure call an Anonymous Block?

No
f. Can an Anonymous Block call an Anonymous Block?

No
g. Can a Stored Procedure call a Stored Procedure?

Yes

3. What is the purpose of having an Exception section?

It is used to handle run time errors.

4. Should an Anonymous Block contain this code?
If not, why not?
SELECT empname, salary FROM EMPLOYEE WHERE empid = 1;

No, as it will cause an error due to the fact that we have not specified what to do with the data in the result set, and also it does not have the Begin, End clauses and the declaration section
5. Should a Stored Procedure contain this code?

If not, why not?
SELECT empname, salary FROM EMPLOYEE WHERE empid = 1;

No, as it will cause an error due to the fact that we have not specified what to do with the data in the result set, and also it does not have the Begin, End clauses and the declaration section

6. Should an Anonymous Block contain this code?
If not, why not?
SELECT MAX(SALARY) FROM EMPLOYEE;

No, as it will cause an error due to the fact that we have not specified what to do with the data in the result set, and also it does not have the Begin, End clauses and the declaration section

7. Should a Stored Procedure contain this code?
If not, why not?
SELECT MAX(SALARY) FROM EMPLOYEE;

No, as it will cause an error due to the fact that we have not specified what to do with the data in the result set, and also it does not have the Begin, End clauses and the declaration section

8. Should an Anonymous Block contain this code?
If not, why not?
SELECT empid, empname, salary FROM EMPLOYEE;

No, as it will cause an error due to the fact that we have not specified what to do with the data in the result set, and also it does not have the Begin, End clauses and the declaration section. And it also returns multiple rows

9. Should a Stored Procedure contain this code?
If not, why not?
SELECT empid, empname, salary FROM EMPLOYEE;

No, as it will cause an error due to the fact that we have not specified what to do with the data in the result set, and also it does not have the Begin, End clauses and the declaration section. And it also return multiple results.

10. What modifications need to be made to the SQL in question 4 above in order for it to display employee 1 details?

Here is the full code:

```
DECLARE
   v_empname VARCHAR2(20);
   v_salary NUMBER(10,2);
BEGIN
   SELECT empname, salary INTO v_empname, v_salary
   FROM EMPLOYEE
   WHERE empid = 1;

   dbms_output.put_line('Employee Name: ' || v_empname);
   dbms_output.put_line('Salary: ' || v_salary);
END;
```

11. What is the EXACT output when this anonymous block is executed?

```
DECLARE
vNum1 INTEGER :=4;
vNum2 INTEGER :=6;
vTotal INTEGER := 0;
vAvg NUMBER;
BEGIN
vTotal := vNum1 + vNum2;
vAvg := vTotal / 0;
dbms_output.put_line ('The average is: ' || vAvg);
dbms_output.put_line ('The sum is: ' || vTotal);
dbms_output.put_line ('Finished');
EXCEPTION
WHEN ZERO_DIVIDE THEN
dbms_output.put_line ('Error! You tried to divide by zero');
END;
```

The exact output is Error! You tried to divide by zero