**EXPERIMENT 9**

**Implement PL/SQL( basic, Cursors, Procedure) Programs on Case Study 1& 4**

**(TRANSPORT DEPARTMENT) & (KL University ERP)**

PRE-LAB:

1)Which of the following statements are TRUE about an SQL query?  
P : An SQL query can contain a HAVING clause even if it does not have a GROUP BY clause  
Q : An SQL query can contain a HAVING clause only if it has a GROUP BY clause  
R : All attributes used in the GROUP BY clause must appear in the SELECT clause  
S : Not all attributes used in the GROUP BY clause need to appear in the SELECT clause

**(A)** P and R  
**(B)** P and S  
**(C)** Q and R  
**(D)** Q and S

2)Table A

Id Name Age

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12 Arun 60

15 Shreya 24

99 Rohit 11

Table B

Id Name Age

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15 Shreya 24

25 Hari 40

98 Rohit 20

99 Rohit 11

Table C

Id Phone Area

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10 2200 02

99 2100 01

Consider the above tables A, B and C. How many tuples does the result of the following SQL query contains?

SELECT A.id FROM A WHERE A.age > ALL (SELECT B.age FROM B WHERE B. name = "arun")

3) Consider the following relational schemes for a library database:

Book (Title, Author, Catalog\_no, Publisher, Year, Price)  
Collection (Title, Author, Catalog\_no)

with in the following functional dependencies:

I. Title Author --> Catalog\_no

II. Catalog\_no --> Title Author Publisher Year

III. Publisher Title Year --> Price

Assume {Author, Title} is the key for both schemes. Which of the following statements is true?  
(A) Both Book and Collection are in BCNF  
(B) Both Book and Collection are in 3NF only  
(C) Book is in 2NF and Collection is in 3NF  
(D) Both Book and Collection are in 2NF only

4) You can add a row using SQL in a database by using which statement

5) The command to remove rows from a table 'CUSTOMER' is \_\_\_\_

6) The SQL WHERE clause:

a) limits the column data that are returned

b) limits the row data are returned.

c) Both A and B are correct.

d) Neither A nor B are correct.

7) An action assertion must include which of the following?

a) Anchor object b) Action c) Corresponding object d) All of the above.

IN-LAB:

**Case Study 1: TRANSPORT DEPARTMENT KL University ERP**

1) Create a cursor to display all the customer details of a particular branch

2) Create a cursor to display the customer details along with his vehicle details which are given contract permission.

3) Create a cursor to display the customer details who are under a particular dealer.

4) Create a procedure to display the educational vehicles applied for permit in a particular branch

5) Create a procedure to display the details of the branches in a particular state when state is given as input when executing the procedure

**Case Study 4: KL UNIVERSITY ERP**

1. Create a cursor to display students details who register for a particular course
2. Create a procedure to display the fee details of the student
3. Create a trigger that will store the deleyted student records in a log file
4. Create a cursor to update faculty salary with 1500 and display the updated details of faculty

POST-LAB:

1. Determine basic structure of a PL/SQL block. And define it briefly

2. write a small query to print hello world by using PL/SQL Block.

3. prepare query to understand loops by using for loop to print

i is: 1 and j is: 1

i is: 1 and j is: 2

i is: 1 and j is: 3

i is: 2 and j is: 1

i is: 2 and j is: 2

i is: 2 and j is: 3

i is: 3 and j is: 1

i is: 3 and j is: 2

i is: 3 and j is: 3

4. A Query on PL/SQL to find LEAST number. This function accepts some parameters like exp1, exp2, … exp\_n. These each expression may be numbers or alphabets

5.Query to find floor value.This function accepts a parameter number which is the input number on which FLOOR function