School of Computing Science and Engineering

B.Tech CSE – V Sem

Database Systems Lab

Cycle sheet –II - PL/SQL

Consider the following schema for PL/SQL programming:

Table Name: Employee

Attribute	Data Type
First Name	VARCHAR(15)
Mid Name	CHAR(2)
Last Name	VARCHAR(15)
SSN Number	CHAR(9)
Birthday	DATE
Address	VARCHAR(50)
Sex	CHAR(1)
Salary	NUMBER (7)
Supervisor SSN	CHAR(9)
Department Number	NUMBER (5)

Table Name: Department

Attribute	Data Type
Department Name	Varchar(15)
Department Number	Number(5)
ManagerSSN	CHAR(9)
ManageStartDate	DATE

Exercise - VII: (outcome: e)

Aim: To understand the concept of PL/SQL Programming

1. Write a PL/SQL block to accept an empno and display the salary of the person.
2. Write a PL/SQL program to delete one record in employee table
3. Write a program to delete employee details who are having age >60.
4. Write a PL/SQL block to display employee who gets minimum salary.
5. Write a PL/SQL to delete a records whose basic salary is <2000 from Emp table.

Exercise - VIII: (outcome: k)

Aim: To know the usage of different sequential control structures in PL/SQL effective programming

1. Write a PL/SQL block to find the greatest of n numbers.
2. Write a PL/SQL code to print the student's grade accepting their marks in three subjects (hint use: case selector….)

Exercise –IX : (outcome: c and m)

Aim: To understand the concepts of Iterations and Subprogram (Procedures and Functions)

Iterations (outcome: c)

1. Write a PL/SQL program using loop iterative statement to print the following output.

    1

    1 2

    1 2 3

    1 2 3 4

2. Write a PL/SQL code to print the numbers in reverse order from 100 to 1.
3. Create a PL/SQL block to find the sum of series $1+ 2x^2+ 3x^3+ 4x^4……+nx^n$.

Functions (outcome: m)

4. Write a function in PL/SQL to find the factorial of any number using while loop.

5. Create a function to check whether the given string is palindrome or not.

6. Write a function to display the sum of digits in a given number.

7. Write a function to give the number of employees for a given Department name.

8. Write a PL/SQL to find the factorial of the given number using function.

Procedure (outcome: c)

9. Write a PL/SQL procedure to return a value for finding the sum of first 10 natural number using OUT parameter.

10. Write a PL/SQL procedure that take the deptno as parameter and display the name and salary of employees working in that dept and return the sum of sal of such employees using out parameter.

11. Write a procedure to accept an employee name and display his Department names.

12. Write a procedure to accept the managerno as input and update the salary with 25% increment of the employees whose empno< mgrno.

13. Write a procedure to accept the deptno as input and display the average salary as the output by using IN & OUT parameter, INOUT parameter.

Exercise (outcome: m)

Cursors and Triggers

Aim: To understand implicit and explicit cursor in PL/SQL

1. Write a cursor that reads a department name, then lists the names of employees who work in that department, one at a time. The program reads a raise amount for each employee and updates the employee's salary by that amount.

2. Using Cursors, Retrieve the first 5 highly paid employees with job history.
Job history (empid, job, start date, end date, salary).

3.Write a trigger application to convert Employe Name to upper case before update.

4.Write a trigger to display age after insert into employee table.

5.Design a trigger to update the 'product_price_history' table when the price of the product is updated in the 'product' table and the schema as follows.

```
CREATE TABLE product_price_history
(product_id number(5),
product_name varchar2(32),
supplier_name varchar2(32),
unit_price number(7,2) );

CREATE TABLE product
(product_id number(5),
product_name varchar2(32),
supplier_name varchar2(32),
unit_price number(7,2) );
```