NAME: RAHUL DHANOLA ***ROLL NUMBER:R177219139*** ***BATCH:4***

EXPERIMENT NO:- 09

OBJECTIVE: To understand the concepts of PL/SQL programming.

1) **Create Write a PL/SQL code to accept the value of A, B & C display which is greater.**

```
SQL> set serveroutput on
SQL> DECLARE
  2  A NUMBER:=25;
  3  B NUMBER:=09;
  4  C NUMBER:=2020;
  5  BEGIN
  6  DBMS_OUTPUT.PUT_LINE('A='||A||' B='||B||' C='||C);
  7  IF A>B AND A>C
  8  THEN
  9  DBMS_OUTPUT.PUT_LINE('A IS THE GREATEST NUMBER AMONG THE THREE');
 10  ELSE
 11  IF B>A AND B>C
 12  THEN
 13  DBMS_OUTPUT.PUT_LINE('B IS THE GREATEST NUMBER AMONG THE THREE');
 14  ELSE
 15  DBMS_OUTPUT.PUT_LINE('C IS THE GREATEST NUMBER AMONG THE THREE');
 16  END IF;
 17  END IF;
 18  END;
 19   /
A=25 B=9 C=2020
C IS THE GREATEST NUMBER AMONG THE THREE

PL/SQL procedure successfully completed.

SQL>
```

2) **Using PL/SQL Statements create a simple loop that display message "Welcome to PL/SQL Programming" 20 times.**

```
SQL> set serveroutput on
SQL> DECLARE
  2  NUM NUMBER:=0;
  3  BEGIN
  4  DBMS_OUTPUT.PUT_LINE('THE GIVEN STATEMENT 20 TIMES IS:');
  5  WHILE NUM<20 LOOP
  6  DBMS_OUTPUT.PUT_LINE('Welcome to PL/SQL Programming');
  7  NUM:=NUM+1;
  8  END LOOP;
  9  END;
 10  /
THE GIVEN STATEMENT 20 TIMES IS:
Welcome to PL/SQL Programming
Welcome to PL/SQL Programming
Welcome to PL/SQL Programming
Welcome to PL/SQL Programming
Welcome to PL/SQL Programming
Welcome to PL/SQL Programming
Welcome to PL/SQL Programming
Welcome to PL/SQL Programming
Welcome to PL/SQL Programming
Welcome to PL/SQL Programming
Welcome to PL/SQL Programming
Welcome to PL/SQL Programming
Welcome to PL/SQL Programming
Welcome to PL/SQL Programming
Welcome to PL/SQL Programming
Welcome to PL/SQL Programming
Welcome to PL/SQL Programming
Welcome to PL/SQL Programming
Welcome to PL/SQL Programming
Welcome to PL/SQL Programming

PL/SQL procedure successfully completed.

SQL>
```

3) Write a PL/SQL code block to find the factorial of a number.

```
SQL> set serveroutput on
SQL> DECLARE
  2  INP NUMBER:=&1;
  3  FACT NUMBER:=1;
  4  BEGIN
  5  WHILE INP>0 LOOP
  6  FACT:=INP*FACT;
  7  INP:=INP-1;
  8  END LOOP;
  9  DBMS_OUTPUT.PUT_LINE('THE FACTORIAL IS:');
 10  DBMS_OUTPUT.PUT_LINE('');
 11  DBMS_OUTPUT.PUT_LINE(FACT);
 12  END;
 13  /
Enter value for 1: 5
old   2: INP NUMBER:=&1;
new   2: INP NUMBER:=5;
THE FACTORIAL IS:
120

PL/SQL procedure successfully completed.

SQL>
```

4) Write a PL/SQL program to generate Fibonacci series.

```
SQL> set serveroutput on
SQL> DECLARE
  2  PRIMARY NUMBER:=0;
  3  SECONDARY NUMBER:=1;
  4  TEMP NUMBER;
  5  INP NUMBER:=&1;
  6  POS NUMBER;
  7  BEGIN
  8  DBMS_OUTPUT.PUT_LINE('THE FIBBONNACI SERIES TILL GIVEN NUMBER IS:');
  9  DBMS_OUTPUT.PUT_LINE('PRIMARY');
 10  DBMS_OUTPUT.PUT_LINE('SECONDARY');
 11  FOR POS IN 2..INP
 12  LOOP
 13  TEMP:=PRIMARY+SECONDARY;
 14  PRIMARY:=SECONDARY;
 15  SECONDARY:=TEMP;
 16  DBMS_OUTPUT.PUT_LINE(TEMP);
 17  END LOOP;
 18  END;
 19  /
Enter value for 1: 5
old   5: INP NUMBER:=&1;
new   5: INP NUMBER:=5;
THE FIBBONNACI SERIES TILL GIVEN NUMBER IS:
PRIMARY
SECONDARY
1
2
3
5

PL/SQL procedure successfully completed.

SQL>
```

5) Write a PL/SQL code to find the sum of first N numbers

```
SQL> set serveroutput on
SQL>
SQL> DECLARE
  2    X NUMBER;
  3    N NUMBER;
  4    I NUMBER;
  5
  6    FUNCTION FINDMAX(N IN NUMBER)
  7      RETURN NUMBER
  8    IS
  9      SUMS NUMBER := 0;
 10    BEGIN
 11
 12      FOR I IN 1..N
 13      LOOP
 14        SUMS := SUMS + I*(I+1)/2;
 15      END LOOP;
 16      RETURN SUMS;
 17    END;
 18    BEGIN
 19
 20      N := 4;
 21      X := FINDMAX(N);
 22      DBMS_OUTPUT.PUT_LINE('SUM: '
 23      || X);
 24    END;
 25  /
SUM: 20

PL/SQL procedure successfully completed.

SQL>
```