Name: Ishaan Gaba Roll No: 102103281 Group: 2CO10

UCS310: PL/SQL
Lab Assignment 1

1) WAP to find the greatest of three numbers.

```
declare
a number :=20;
b number :=40;
c number :=30;
great number;
begin
if a>b and a>c then
great :=a;
elsif b>c and b>a then
great :=b;
else
great :=c;
end if;
dbms_output.put_line('The First number is '|| a);
dbms_output.put_line('The Second number is '|| b);
dbms_output.put_line('The Third number is '|| c);
dbms_output.put_line('The Greatest number is '|| great);
end;
```

```
Statement processed.
The First number is 20
The Second number is 40
The Third number is 30
The Greatest number is 40
```

2) WAP to check whether number is odd or even.

```
declare
a number :=10;
begin
if mod(a,2)=0 then
dbms_output.put_line('The Given number '|| a||' is even');
else
dbms_output.put_line('The Given number '|| a||' is odd');
end if;
end;
```

```
Statement processed.
The Given number 10 is even
```

3) WAP to find the grade. Consider the following:

Marks > 80 A grade

Marks >70 B grade

Marks >50 C grade

Marks > 40 D grade

Marks < 40 E grade

```
1  declare
2  marks number :=65;
3  begin
4  if marks>80 then
5  dbms_output.put_line('The marks are '|| marks ||' and the Grade is A');
6  elsif marks>70 then
7  dbms_output.put_line('The marks are '|| marks ||' and the Grade is B');
8  elsif marks>50 then
9  dbms_output.put_line('The marks are '|| marks ||' and the Grade is C');
10 elsif marks>40 then
11 dbms_output.put_line('The marks are '|| marks ||' and the Grade is D');
12 else
13 dbms_output.put_line('The marks are '|| marks ||' and the Grade is E');
14 end if;
15 end;
```

```
Statement processed.
The marks are 65 and the Grade is C
```

4) WAP to print the table of a given number.(use for loop)

```
declare
    a number :=8;
begin
    dbms_output.put_line('The table of '|| a ||' is ');
    for i in 1..10 loop
        dbms_output.put_line(a||' * '|| i||' = '||a*i);
    end loop;
end;
```

```
Statement processed.
The table of 8 is
8 * 1 = 8
8 * 2 = 16
8 * 3 = 24
8 * 4 = 32
8 * 5 = 40
8 * 6 = 48
8 * 7 = 56
8 * 8 = 64
8 * 9 = 72
8 * 10 = 80
```

5) WAP to find out the factorial of a given number.(use while loop)

```
declare
    a number :=6;
    i number :=1;
    fact number :=1;
begin
    while i<=a loop
        fact:=fact*i;
        i:=i+1;
    end loop;
    dbms_output.put_line('The factorial of '||a||' is '||fact);
end;

```

```
Statement processed.
The factorial of 6 is 720
```

6) WAP to find out the Fibonacci series.

```
declare
    a number :=0;
    b number :=1;
    c number ;
begin
    dbms_output.put_line('The first 10 Fibonacci numbers are ');
    dbms_output.put_line(a);
    dbms_output.put_line(b);
    for i in 2..10 loop
        c:=a+b;
        a:=b;
        b:=c;
        dbms_output.put_line(c);
    end loop;
end;
```

```
Statement processed.
The first 10 Fibonacci numbers are
0
1
1
2
3
5
8
13
21
34
55
```

7) WAP to find the reverse of a number

```
declare
    a number :=12345;
    reverse number :=0;
    r number ;
begin
    dbms_output.put_line('The Original number is '||a);
    while a>0 loop
        r:=mod(a,10);
        reverse:=(reverse*10)+r;
        a:=trunc(a/10);
    end loop;
    dbms_output.put_line('The Reverse number is '||reverse);
end;

```

```
Statement processed.
The Original number is 12345
The Reverse number is 54321
```

8) Write PL/SQL block that performs addition (+), subtraction (-), multiplication (*) and division (/) of two numbers as choice by the user.

```
declare
    a number :=15;
    b number :=5;
    x number :=3;
    c number;
begin
    if x<5 and x>0 then
        if x=1 then
            c:=a+b;
        elsif x=2 then
            c:=a-b;
        elsif x=3 then
            c:=a*b;
        elsif x=4 then
            c:=a/b;
        end if;
        dbms_output.put_line('The First Number is '||a);
        dbms_output.put_line('The Second Number is '||b);
        dbms_output.put_line('The Answer is '||c);
    else
        dbms_output.put_line('Enter valid choice');
    end if;
end;
```

```
Statement processed.
The First Number is 15
The Second Number is 5
The Answer is 75
```

9) Write PL/SQL block to print 5, 10, 15,20 by using For Loop.

```
begin
    for i in 1..20 loop
        if mod(i,5)=0 then
        dbms_output.put_line(i);
        end if;
    end loop;
end;
```

```
Statement processed.
5
10
15
20
```

10) Write Pl/SQL block to display welcome message like good morning, good afternoon, good night depending on system time.

```
declare
    h number := to_number(to_char(SYSDATE, 'HH24'));
    w varchar(20);
begin
    if h>=4 and h<12 then
        w:='Good Morning';
    elsif h>=12 and h<18 then
        w:='Good Afternoon';
    else
        w:='Good Night';
    end if;
    dbms_output.put_line('The current time is '||h);
    dbms_output.put_line(w);
end;
```

```
Statement processed.
The current time is 11
Good Morning
```