EX: NO: 9 Programs on PL/SQL
A) PL/SQL program to display 'HelloWorld'

Sol :
Step-1: At the SQL prompt create a new file for PL/SQL program using the following syntax:
SQL> edit pathtofile filename.sql

For e.g: edit e:\plsql\helloworld.sql

Step-2: Type the source code in the file helloworld.sql

Step-3: Run the sql program using the following syntax:
SQL> @ pathtofile filename.sql

Step-4: Run the following command to show the output
SQL> set serveroutput on;

For e.g: @e:\plsql\helloworld.sql

PS/SQL CODE:

```
declare
        text varchar(30);
        begin
                text:='helloworld';
                dbms_output.put_line(text);
        end;
        /
```

B) PL/SQL program for swapping two numbers

Procedure: same as A)

PL/SQL CODE:

```
declare
        a number(3);
        b number(3);
        begin
                a:=&a;
                b:=&b;
                dbms_output.put_line('Before Swapping');
                dbms_output.put_line('a=' || a || ' b=' || b);
                a:=a+b;
                b:=a-b;
```

```
        a:=a-b;
        dbms_output.put_line('After Swapping');
        dbms_output.put_line('a=' || a || ' b=' || b);
end;
/
```

C) PS/SQL PROGRAM TO FIND THE MAXIMUM OF GIVEN THREE NUMBERS

PROCEDURE:

Same as A)

PL/SQL CODE:

```
declare
        a number;
        b number;
        c number;
        begin
        a:=&a;
        b:=&b;
        c:=&c;
        if(a>b and a>c) then
                dbms_output.put_line(a || ' is maximum');
        elsif(b>a and b>c) then
                dbms_output.put_line(b || ' is maximum');
        else
                dbms_output.put_line(c || ' is maximum');
        end if;
        end;
        /
```

D) PL/SQL PROGRAM TO FIND THE GRADES

PROCEDURE:

Same as A)

PL/SQL CODE:

```
Declare
Grade varchar2(1);
Begin
Grade:='&grade';
Case grade
 When 'a' then
```

```
        dbms_output.put_line('excellent');
 When 'b' then
        dbms_output.put_line('very good');
 When 'c' then
        dbms_output.put_line('good');
 When 'd' then
        dbms_output.put_line('fair');
 When 'e' then
        dbms_output.put_line('poor');
else
        dbms_output.put_line('invalid grade');
end case;
end;
/
```

E) **PL/SQL PROGRAM TO DISPLAY A TABLE:**

PROCEDURE:

Same as A)

PL/SQL CODE:

```
Declare
a number(7);
i number;
Begin
a:=&a;
i:=1;
loop
dbms_output.put_line(a || 'x' || i || '=' || a*i);
dbms_output.put_line('');
i:=i+1;
exit when i>10;
end loop;
end;
/
```

F) **PL/SQL PROGRAM TO DISPLAY FIBONACCI SERIES**

PROCEDURE:

Same as A)

PL/SQL CODE:

```
declare
i  number(10);
```

```
f1 number(10);
f2 number(10);
f number(10);
n number(10);
begin
n:=&number;
f1:=0;
f2:=1;
dbms_output.put_line('the fibonacci series is');
dbms_output.put_line(f1);
dbms_output.put_line(f2);
i:=3;
while(i<=n)
loop
f:=f1+f2;
dbms_output.put_line(f);
f1:=f2;
f2:=f;
i:=i+1;
end loop;
end;
/
```

H) --CALCULATION OF NET SALARY

PROCEDURE:

Same as A)

PL/SQL CODE:

```
declare
ename varchar2(15);
basic number;
da number;
hra number;
pf number;
netsalary number;
begin
ename:=&ename;
basic:=&basic;

da:=basic * (41/100);
hra:=basic * (15/100);

if (basic < 3000)
then
pf:=basic * (5/100);
elsif (basic >= 3000 and basic <= 5000)
then
```

```
pf:=basic * (7/100);
elsif (basic >= 5000 and basic <= 8000)
then
pf:=basic * (8/100);
else
pf:=basic * (10/100);
end if;
netsalary:=basic + da + hra -pf;
dbms_output.put_line('Employee name : ' || ename);
dbms_output.put_line('House Rent Allowance: ' || hra);
dbms_output.put_line('Providend Fund : ' || pf);
dbms_output.put_line('Net salary : ' || netsalary);
end;
/
```

J) PROGRAM FOR REVERSE STRING

PROCEDURE:

Same as A)

Additional Step:

```
SQL>create table reverse(gstr varchar2(10),rstr varchar2(10));
Table created
```

PL/SQL CODE:

```
declare
gstr varchar2(10);
rstr varchar2(10);
slen number(10);
begin
gstr:='&gstr';
slen:=length(gstr);
for I in reverse 1..slen
loop
rstr:=rstr||substr(gstr,I,1);
end loop;
insert into reverse values(gstr,rstr);
end;
/
```

```
Enter value for gstr:kavali
Old 6:   gstr:=’&gstr’;
New 6:  gstr:=’kavali’;
```

PL/SQL procedure successfully completed

Use Select Statement to see the output from the table;

SQL>select * from reverse;

GSTR	RSTR
Kavali	ilavak