

### Program 1

#### FACTORIAL OF A NUMBER USING FUNCTION

1) create or replace function get-factorial (n is number)  
return number

is

v\_fact number := 1;

begin

for i in 1.. n loop

v\_fact := v\_fact \* i;

end loop;

return v\_fact;

end;

/ set serveroutput on;

declare

v\_num number := 5;

v\_result number;

begin

v\_result := get-factorial (v\_num);

DBMS\_OUTPUT.PUT\_LINE('factorial of ' || v\_num || ' is ' || v\_result);

end;

/

2) create table library\_books (book\_id number primary key,  
title varchar2(100), author varchar2(100), check\_out  
number default 0);

insert into library\_books (book\_id, title, author) values  
(101, 'The Hobbit', 'J.R.R. Tolkien');

insert into library\_books (book\_id, title, author) values  
(102, '1984', 'George Orwell');

commit;

create or replace procedure get-book-info (

l\_book\_id in number, l\_title out varchar2,

## Program 2

**Write a PL/SQL program using Procedures IN,INOUT,OUT parameters to retrieve the corresponding book information in library**

```

[span-1] (start-span) p_title out varchar2,
[span-2] (start-span) p_author out varchar2,
book [span-3] (start-span) p-times-checked-out in out number)
is
begin
    select title, author, checkout_count
    into p_title, p_author, p-times-checked-out
    from library_books
    where book_id = p-book-id;
    p-times-checked-out := p-times-checked-out + 1;
    update library_books set checkout_count = p-times-checked-out
    where book_id = p-book-id;
    commit;
exception
    when no_data_found then
        p_title := 'Book not found';
        p_author := 'N/A';
    end;
/

```

Evaluation Procedure	Marks awarded
PL/SQL Procedure(5)	
Program/Execution (5)	
Viva(5)	
Total (15)	
Faculty Signature	

```

get userinput;
declare
    v_id number := 101;
    v_title varchar2(100);
    v_author varchar2(100);
    v_checkouts number := 0;
begin
    get-book-info (v_id, v_title, v_author, v_checkout);
    dbms_output.put_line('Title: ' || v_title);
    dbms_output.put_line('Author: ' || v_author);
    dbms_output.put_line('Total checkouts: ' || v_checkout);
    end;

```