


Program 1

FACTORIAL OF A NUMBER USING FUNCTION

```
SET SERVEROUTPUT ON;  
CREATE OR REPLACE FUNCTION factorial (n NUMBER)  
RETURN NUMBER  
IS  
    fact NUMBER := 1;  
BEGIN  
    FOR i IN 1..n LOOP  
        fact := fact * i;  
    END LOOP;  
    RETURN fact;  
END;  
/  
DECLARE  
    num NUMBER := 5;  
    result NUMBER;  
BEGIN  
    result := factorial (num);  
    DBMS_OUTPUT.PUT_LINE('Factorial of ' || num || ' is ' || result);  
END;  
/
```



Program 2

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

```
CREATE TABLE library(
    book_id NUMBER PRIMARY KEY,
    book_title VARCHAR2(100);
    author_name VARCHAR2(100);
    price NUMBER
);
```

```
INSERT INTO library VALUES (1, 'Database Systems', 'Ramez Elmasri', 600);
```

```
INSERT INTO library VALUES (2, 'Operating Systems', 'Galvin', 600);
```

```
INSERT INTO library VALUES (3, 'Computer Networks', 'Andrew Tanenbaum');
```

```
CREATE OR REPLACE PROCEDURE
```

```
get_book_info(
```

```
    p_book_id IN NUMBER,
```

```
    p_book_title OUT VARCHAR2,
```

```
    p_author_name OUT VARCHAR2,
```

```
    p_price IN OUT NUMBER
```

```
);
IS
BEGIN.
```

```
SELECT book_title, author_name,
p_price.
```

```
INTO p_book_title, p_author_name
p_price
```

```
FROM library.
```

```
WHERE book_id = p_book_id;
```

```
EXCEPTION
```

```
WHEN NO_DATA_FOUND THEN
```

```
    p_book_title := 'book not
Found';
```

```
    p_author_name := NULL;
```

```
    p_price := 0;
```

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