**NAME: Ridhanya J REG NO: 230701264**

**EX No: 12**

**WORKING WITH CURSOR,PROCEDURES AND FUNCTION**

Program 1

FACTORIAL OF A NUMBER USING FUNCTION

CREATE OR REPLACE FUNCTION itfact (a NUMBER) RETURN NUMBER IS fact NUMBER

:= 1; b NUMBER; BEGIN b

:= a;

WHILE b > 0 LOOP fact

:= fact \* b; b

:= b - 1; END LOOP;

RETURN fact;

END;

/



DECLARE result NUMBER; BEGIN

result := itfact(7); -- Call the function with 7 as input DBMS\_OUTPUT.PUT\_LINE('The factorial of 7 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 a simple table for the library books

CREATE TABLE library ( book\_id INT PRIMARY KEY, book\_name VARCHAR2(100), author\_name VARCHAR2(100)

);

-- Sample data insertion

INSERT INTO library VALUES (1, 'Introduction to PL/SQL', 'John Doe'); INSERT INTO library VALUES (2, 'Advanced SQL', 'Jane Smith');

-- Procedure to retrieve book information

CREATE OR REPLACE PROCEDURE get\_book\_info ( p\_book\_id IN INT, p\_book\_name IN OUT

VARCHAR2, p\_author\_name OUT VARCHAR2

) IS BEGIN

-- Retrieve book information based on the book\_id SELECT book\_name, author\_name

INTO p\_book\_name, p\_author\_name FROM library

WHERE book\_id = p\_book\_id;

-- Modify book\_name if needed (optional, based on INOUT) p\_book\_name

:= p\_book\_name || ' - Updated'; END;

/

-- Test the procedure DECLARE v\_book\_name

VARCHAR2(100); v\_author\_name

VARCHAR2(100); BEGIN

v\_book\_name := 'Sample Book'; -- Initial value

get\_book\_info(1, v\_book\_name, v\_author\_name); -- Fetch book info for ID 1 DBMS\_OUTPUT.PUT\_LINE('Book Name: ' || v\_book\_name); -- Output modified book name DBMS\_OUTPUT.PUT\_LINE('Author Name: ' || v\_author\_name); -- Output author name

END;

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