Practical 1: Factorial of a Number Using SciLab

Aim:

To find the factorial of a number using SciLab.

Materials Required:

- SciLab software (version 6.1 or higher)
- A computer system with SciLab installed

Theory (In Brief):

The factorial of a non-negative integer n, denoted as n!, is the product of all positive integers less than or equal to n. Factorials are widely used in permutations, combinations, and various mathematical computations.

The factorial can be defined as follows: $n! = n \times (n - 1) \times (n - 2) \times ... \times 1$, with the special case that $0! = 1$. In SciLab, iterative or recursive methods can be used to compute the factorial of a given number.

Formulas Required:

$n! = n \times (n - 1) \times (n - 2) \times ... \times 1$, for $n > 0$

$0! = 1$

Result:

The factorial of a given number was successfully calculated using SciLab.