

# 1. FUNCTION

## Learning Objectives

After the completion of this chapter, the student will be able to:

- ❖ Understand Function Specification.
- ❖ Parameters (and arguments).
- ❖ Interface Vs Implementation.
- ❖ Pure functions.
- ❖ Side - effects (impure functions).

## Important Notes and Points

- A function is a unit of code that is often defined within a greater code structure. Specifically, a function contains a set of code that works on many kinds of inputs, like variables, expressions and produces a concrete output.
- A function definition which calls itself is called recursive function.
- All functions are static definitions. There is no dynamic function definition.
- The class template specifies the interfaces to enable an object to be created and operated properly.
- An object's attributes and behavior is controlled by sending functions to the object.

- Evaluation of pure functions does not cause any side effects to its output.
- Interface just defines what an object can do, but won't actually do it
- Implementation carries out the instructions defined in the interface.