**ASSIGNMENT -1**

1. **How many ways are there to call a function in R?**

*There are 3 ways to call a function in R.*

1. ***Calling a Function without an Argument***
2. ***Calling a Function with Argument Values (by position and by name):***

*The arguments to a function call can be supplied in the same sequence as defined in the function or they can be supplied in a different sequence but assigned to the names of the arguments.*

1. ***Calling a Function with Default Argument:***

*We can define the value of the arguments in the function definition and call the function without supplying any argument to get the default result. But we can also call such functions by supplying new values of the argument and get non default result.*

**2. What is the Recycling of elements in a vector?**

**Solution:** *Recycling of elements in a vector in R is, how R automatically recycles, or repeats, elements of the shorter Vector when applying an operation to two vectors that requires them to be the same length.*

*R automatically recycles, or repeats, elements of the shorter one, until it is long enough to match the longer Vector.*

**3. Give an example of recycling of elements.**

***Example:***

*Suppose we have two Vectors c (1,2,4), c (6,0,9,10,13), where the first one is shorter with only 3 elements. Now if we sum these two, we will get a warning message as follows.*

*> c(1,2,4) + c(6,0,9,10,13)  
[1]  7  2 13 11 15*

*Warning message:  
In c(1, 2, 4) + c(6, 0, 9, 10, 13) :  longer object length is not a multiple of shorter object length  
  
Here R , Sum those Vectors by Recycling or repeating the elements in shorter one, until it is long enough to match the longer one as follows..  
  
> c(1,2,4,1,2) + c(6,0,9,10,13)  
[1]  7  2 13 11 15*