SESSION 1: INTRODUCTION

Assignment 1

1. Please mention true or false for the below statements:

    a) Prescriptive Analytics is used to predict the future outcomes - **FALSE**

    b) Base R packages are installed automatically - **TRUE**

2. What is Recycling of elements in a vector?

Answer: Let's assume we have two Vectors as shown below

- ➢ v1 <- c(1,2,3)   # **having less elements count**
- ➢ v2 <- c(6,7,8,9,10)   # **having more elements count**

These two vector are not having same number of elements in them, but still when we want to add these two vectors like below

- ➢ v1 + v2

Here the result will be

[1] 7 9 11 13 15

This is because R automatically repeats the elements of Vector v1 (**having less elements count compared to the other vectors elements count**) till the length of v1 match to the length of v2.

This process or behavior of R is known as Recycling of Elements in a Vector.

3. Give an example of recycling of elements.

Answer: Below is the example for recycling of elements

- ➢ v1 <- c(1,2,3)
- ➢ v2 <- c(1,2,3,4,5,6,7,8,9,10)
- ➢ v1 + v2

[1] 2 4 6 5 7 9 8 10 12 11

Here vector v1 was change to c(1,2,3,1,2,3,1,2,3,1) to match the length of vector v2 c(1,2,3,4,5,6,7,8,9,10)