Echelon Institute of Technology, Faridabad

Assignment No-1: Even Semester 2023-24

Course/Branch : BCA/DS Semester : 4th **Subject Name** : Scientific R Programming Max. Marks : 20 **Subject Code** : BCA-DS-213 **CO-1** : Understand basic concepts such as data type and index and use them in their work. *CO-2* : Demonstrate use of basic functions. **CO-3** : Conceptualize and create loops to solve different types of problems. Q.1: Attempt all the questions (Short Answer Type). $(2 \times 4 = 8 \text{ Marks})$ a) What is R? b) What is an Object in R? c) What is Vector in R? d) What is Dataframe in R? Q.2: Discuss special values in R. [4] Q.3.: Explain the concept of S3, S4 and Reference Classes with example. [4]

[4]

Q4: Explain the concepts of matrices and arrays and how they are used in R.