CMIT COMPUTER INSTITUTE

Building Bright Careers Since 1989

R / R Data Science

1. Getting Started with R:

1.1 Installing R on Windows

1.2 Writing Code / Setting Your Working Directory (Windows)

1.3 Data Types - R Objects and Attributes

1.4 Data Types - Vectors, Lists, Matrices, Factors, Data Frames and Name Attribute

1.5 Subsetting

1.6 Getting Started and R Nuts and Bolts

1.7 Variables

2. Programming with R:

2.1 Control Structures- Loops

2.2 Functions

2.3 Scoping Rules

3. Fundamentals with R:

3.1 What is a Vector?

3.2 Vectors

3.3 Packages and Functions in R

4. Loops with R:

4.1 Loop Functions - lapply, mapply, tapply, etc.

4.2 Debugging Basic Functions

5. Matrices with R:

5.1 Matrices

5.2 Building Your First Matrix

5.3 Naming Dimensions, Colnames() and Rownames()

5.4 Matrix Operations

5.5 Visualizing With Matplot()

5.6 Visualizing Subsets

6. Capstone Project with R:

Duration for R: 6 / 8 Weeks

(Weekdays – 1 Hour Each or Weekends – 2 Hours Each)

Price for R: Rs.15000/-

Extended Part is R with Data Science

7. DataFrames with R:

7.1 Importing data into R

7.2 Exploring your dataset

7.3 Using the $ sign

7.4 Basic operations with a Data Frame

7.5 Filtering a Data Frame

7.6 Introduction to qplot

7.7 Visualization with qplot

7.8 Building and Merging Dataframes

8. GGPLOT with R:

8.1 What is a Factor?

8.2 Aesthetics

8.3 Plotting With Layers

8.4 Overriding Aesthetics

8.5 Mapping vs Setting

8.6 Histograms and Density Charts

8.7 Starting Layer Tips

8.8 Statistical Transformations and Coordinates

8.9 Perfecting By Adding Themes

9. Advance Programming with R:

9.1 Math Functions with R

9.2 Regular Expressions

9.3 Regular Expressions

10. Data Manipulation Static and dynamic network visualization with R:

10.1 Guide to Using Dplyr

10.2 Pipe Operator

10.3 iGraph

10.4 Plotting Networks with iGraph

10.5 Interactive Network Visualization

10.6 Dynamic Network Visualization

11. Machine Learning with R

11.1 Linear Regression with R

11.2 Logistic Regression with R

11.3 K Nearest Neighbors with R

11.4 Support Vector Machines with R

11.5 K Means Clustering with R

11.6 NLP (Natural Language Processing) with R

11.7 Neural Nets with R

12. Capstone Project with R

Duration for R Data Science: 12 / 14 Weeks

(For Weekdays – 1 Hour or Weekend Saturday and Sunday 2 Hours each)

Tuition Fee for R Data Science: Inquire at Institute