

CLUSTER UNIVERSITY SRINAGAR

(SYLLABUS)

Course Code	BCA-DSE5104
Course Title	R – Programming
Semester	BCA 5 th Semester
Course Type & Credits	Discipline Specific Elective 04 credits (L) + 02 Credits (P) = 06 Credits

Unit I

Introduction to R, History, Basic Features of R, Design of the R System, setting up R Environment, Basic Syntax of R, Variables and Data Types, Operators, Decision Making loops and Functions, Debugging.

Unit II

Strings: String Manipulation, Vectors: Vector Creation and Manipulation, Lists: Creating, Manipulating, Accessing, Merging, Converting List to Vector, Matrices, Arrays, Factors and Data Frames, Packages.

Unit III

Data Reshaping, R-Files: CSV Files, Excel Files, Binary Files, XML Files, Web Data, Databases.

R-Charts: Pi Chart, Bar Chart, Box Plots, Histograms, Line Graphs, Scatter Plots.

Unit IV

R-Mean, Median and Mode, R-Linear Regression, R-Multiple Regression, R-Logistic Regression, R-Binomial Distribution, R-Poisson's Regression, R- Time Series Analysis, R-Decision Tree and R-Chi Square Test.

Suggested Readings

1. Paul Teetor, " R Cookbook", O'REILLY Publications.
2. Norman Matloff, "The Art of R Programming", No Starch Press

Handwritten signatures and notes:
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