MCA

DATA SCIENCE SYLLABUS

UNIT - I

Overview of R - Local Environment Setup - Basic Syntax - Data Types - Variables - Operators - Decision making - Loops - Functions - Strings - Vectors - Lists - Matrices - Arrays - Factors - Data Frames - Packages - Data Reshaping

Unit - II

R Data Interfaces : Pie Charts - Excel File - Binary Files - XML Files - JSON Files - Web Data - Databases

Unit - III

Charts & Graphs : - Pie Charts - Bar Charts - Boxplots - Histograms - Line Graphs - Scatterplots - R Statistics Examples: - Mean,Median and Mode - Linear Regression - Multiple Regression - Logistic Regression

Unit - IV

Normal Distribution - Binomial Distribution - Poisson Regression - - Analysis of Covariance - Time Series Analysis - Nonlinear Least Square - Decision Tree - Random Forest - Survival Analysis - Chi Square Test

Unit - V

Data analytics - Numpy - Data analysis pandas - Data Visualization with matplotlib - Data visualization with seaborn - Introduction to deep learning