

MBA251: R LAB

Teaching Scheme Lab Practical: 2 Credits: 2	Examination Scheme End Semester practical Exam – 35 Marks
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Course objectives:

- The course focuses to bestow hands-on introduction to R programming language.
- To impart basic mathematical operations using R programming language.
- Based on the learned course, the learner will be able to explore R for catered needs of data visualisation.

Hours:25

UNIT I (10 Hrs): What is R and why R?, Libraries in R, Command line versus scripts, Basic mathematical calculations using R, Functions and matrix operations using R, Working with missing data & logical operators. Control structures in R, Use of repetition command in R, Sorting and ordering, Issues related to indexing of a vector, Variables and factors.

UNIT II (15 hrs): Display and formatting of strings -‘paste’ function, ‘cat’ function, splitting, replacement and manipulations with alphabets, matching of an expression in the string. Data set and data frames, importing data files of other software and redirecting output, writing to csv files.

Introduction to statistical functions-Introduction, Frequencies and Partition Values, Graphics and Plots, Central tendency and Variation, Boxplot, Skewness and Kurtosis, Bivariate and three-dimensional plots, Correlation.

Suggested Readings:

1. Introduction to Statistics and Data Analysis-With Exercises, Solutions and Applications by Christian Heumann, Micheal Schomaker and Shalabh, Springer, 2016.
2. The R Software-Fundamentals of Programming and Statistical Anslysis-Pierre lafaye de Micheaux, Remy Drouilhet, Benouit Lique, Springer, 2013.
3. A Beginner’s Guide to R (Use R) by Alain F, Zuur, Elena N. Leno, Erik. H.W.G. Springer, 2009.

Employable skills	Measuring Tools
Ability to identify and apply the knowledge of subject practically in real life situations	Lab practical

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