SYLLABUS

Objectives:

CO1: To expose the students to R- statistical programming language developed by scientists
that has open source libraries for statistics, machine learning, and data science. It is a
free software environment for statistical computing and graphics supported by the R
Foundation for Statistical Computing.

CO2: The student will learn a large coherent and integrated collection of statistical tools
available in R. Further, the student will be familiar with graphical facilities for data
analysis available in R.

CO3: R is widely used by statisticians, data scientists and major corporations like Google,
Airbnb, Facebook etc. for data analysis.

CO4: R is well-developed, simple and effective programming language for data handling
and storage facility.

CO5: R is data analysis software includes a wide variety of functions, such as data
manipulation, statistical modeling, and graphics. One really big advantage of R,
however, is its extensibility. Developers can easily write their own software and
distribute it in the form of add-on packages.

Learing Outcomes:

After learning the course the student

LO1: Will be able to handle the data analysis using the R-statistical tools and can also
perform graphical presentation of the data.

LO2: Will be able to write own R-scripts for handling the data analysis in their own way.

LO3: Has better job potentiality to acquire opportunities as data analyst in software
   1. companies, clinical trial data analysis companies and etc.

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List of Practical

1. Construction of bar, pie, box plot charts using R

2. Construction of Histogram, Frequency Polygon, Ogive curves using R

3. Generation of Random numbers using R

4. Construction of Q – Q plot using R

5. Construction of simple Regression using R

6. Construction of Multiple Regression using R