Semester	**4**
Course	**Skill Enhancement Paper-1**
Paper Code	**S2MT230411P**
Paper Title	**R Programming**
No. of Credits	**3**
Theory / Practical / Composite	**Practical**
Minimum No. of preparatory hours per week a student has to devote	**3**
Number of Modules	**Nil**
Syllabus	**R Programming [52 classes]** How to run R (Interactive mode and Batch Mode)[2] Basic Mathematical operations in R: R as a calculator [2] Modes of Data entry and storage [4] Introduction to functions: variable space, default arguments [5] Preview of some important R data structures (Vectors, Character strings, Matrices, Lists, Data Frames, Classes)[9] Vectors: Scalars, Vectors, Arrays and Matrices; Matrices and Arrays: Creating Matrices, General Matrix Operations. [10] Graphical representation of data: frequency and non-frequency [4] Descriptive Statistics [4] Writing functions in R, loops, conditional statements: Application to sampling distributions, simulation problems and numerical methods. [4] Linear Models (Regression , Annova)[6] Statistical Inference [2]
Learning Outcomes	On successful completion of the course a student will be able to do the following. • Will get introduced to R programming. • Understanding its advantage over C/C++. • Will get introduced and a wide exposure to problems related to real world through R. • Guessing and solving Mathematical results through R.
Reading/Reference Lists	1.The Art of R Programming: Norman Matloff 2. Introduction to R Programming: Peter R Dalgard
Evaluation	CIA

Paper Structure for Theory Semester Exam		