Name of the Program: Bachelor of Commerce (B.Com.)

Course Code: B.Com.3.2.1

Name of the Course: Business Mathematics & Statistics

Course Credits	No. of Hours per Week	Total No. of Teaching Hours
4 Credits	3+0+2 Hrs.	56 Hrs.

Pedagogy: Classroom lectures, Case studies, Tutorial Classes, Group discussion, Seminars.,

Course Outcomes: On successful completion of the course, the Students will be able to

- Familiarize with simple and compound interest
- Understand problem solving techniques using equation methods
- Familiarize with the matrices and various roles of determinants
- Comprehend the measures of various distributions and averages
- Validate the application of correlation and regression in business decisions.

Syllabus

Module No. 1: COMMERCIAL ARITHMETIC (12 Hrs)

Percentage -cost, profit and selling price, Ratio Proportion and Problems on Speed and Time, Interest-Simple interest, compound interest and Annuity.

Module No.2: THEORY OF EQUATIONS (6 Hrs)

Meaning and Degree of equation-Linear equation meaning and problems, Methods of solving simultaneous equations in two variable-Substitution and Elimination method only.

Module No. 3: MATRICES AND DETERMINANTS (10 Hrs)

Matrix-Meaning Definition and Types -Matrix Operations-Addition, Subtraction, Multiplication by a constant and Multiplication of two matrices- Transpose of Matrix-Determinant of a square matrix-Minor of an element of a determinant, co-factor of a determinant -evaluation-solution of simultaneous linear equations in two variables using determinants (Cramer Rule) Adjoint and Inverse of square matrix.

Module No.4: MEASURES OF CENTRAL TENDENCY AND DISPERSION (14 Hrs)

Introduction Meaning and Definition, objectives of measures of central tendency, Types of averages-Arithmetic mean (Simple average only) Median, Mode, (both grouped and ungrouped data, direct method excluding missing frequency) grouping table including empirical relationship among three average.

Meaning and objectives of measures of dispersion - Standard deviation and coefficient of Variation, problems on direct method only.

Module No.5: CORRELATION AND REGRESSION (14 Hrs)

Correlation: Meaning and definition-uses- Types-Karl Pearson's coefficient of correlation (deviation from actual mean only) Spearman's Rank Correlation Coefficient

Regression-Meaning, regression Equations, Estimating x and y values. Finding correlation coefficient with regression coefficient.

SKILL DEVELOPMENT ACTIVITIES

- Show the chart for solving Multi-step Equation and
- Show the chart for different kinds of equations
- Collect question papers of UPSC and KPSC or any Competitive exams and workout problems related to commercial arithmetic
- Show a chart for classification of Ratios
- Assume Marks of 20 students in accounts and calculate Mean Median and Mode marks.