Course Title	Business Mathematics-I	**Course Code**	0541 MKT-123
Course Type	GED	**Course Status**	Mathematics
Course Hour	3.0 Hr./Week	**Credit Value**	3.0
Prerequisite	N/A	**Total Marks**	100

Course Description	**Business Mathematics-I** is an elementary course for the undergraduate students of the B. Sc. (Honors) program, which carries **3 credits** and **42 hours** of effective teaching in 14 weeks. The course grades will be assessed through participation, class presentations, quizzes, assignments, two midterms, and comprehensive examinations.
Course Objectives	The purpose of this course is to provide students with basic mathematical skills useful in solving real-life business problems. The course involves understanding concepts, formulating and solving problems, quantifying, and graphing applications in business mathematics. Specifically, students use a teamwork approach, applying mathematical tools to obtain quantitative information relevant to business decisions. Hence, the primary objective of Business Mathematics-I is to prepare students for subsequent work in the Business College and for their future careers in business. For this reason, the program covers all aspects of business practice and uses common tools of the business world.
Course Learning Outcomes (CLOs)	Upon satisfying the requirements and successful completion of this course, students will have the knowledge and skills to-

CLO_1	Demonstrate factual knowledge including the mathematical notation and terminology used in this course.
CLO_2	Develop the prerequisite knowledge and mathematical skills necessary to undertake higher-level courses which have a quantitative focus.
CLO_3	Develop knowledge about number systems, sets, and multiplication problems.
CLO_4	Analyse logarithmic equations, indices and surds and apply into real world problems. Solve business math problems using equations
CLO_5	Solve problems regarding permutation counting; apply permutations and combinations to business problems.

Week Detailed Course Schedule

Week	Topic / Module Title	Teaching-Learning Strategies & Assessment	Hours	Mapped CLOs
Week 1	**Introduction to Mathematics in Business & Boolean Algebra & Truth Tables**	Interactive Lecture, Guided Problem-Solving	3	CLO_1, CLO_2

Week 2	**Set Theory Fundamentals+**	Concept Mapping, whiteboard Demonstrations, Group Practice Exercises on Set Formulations & In-class Worksheet.	3	CLO_2, CLO_3
Week 3	**Set Operations & Applications**	Visual Learning via Venn Diagram Modeling, Case-based Market Segmentation Scenarios & Formative Assessment Exercises.	3	CLO_2, CLO_3
Week 4	**Natural Number System & Modulus**	Lectures on Number Properties, Step-by-Step Proof Demonstrations & Practice Numerical Problems.	1.5	CLO_2, CLO_3
Week 4 & 5	**Natural & Common Logarithms**	Problem-Solving activities & Board Work.	4.5	CLO_4
Week 6	**Midterm Examination- 1** **N.B. No mid retake**	Formal Written Midterm Examination (Summative Assessment), Post-Exam Feedback Session.	3	CLO_1 - CLO_4
Week 7 & 8	**Indices & Surds**	Interactive Expository Instruction, Step-by-step Mathematical Practice Exercises	4.5	CLO_4
Week 8 & 9	**Permutations**	Lecture, Arrangement Problems Classroom Activity.	4.5	CLO_5
Week 10	**Combinations**	Comparative Analysis (Permutations vs. Combinations)	3	CLO_5
Week 11	**Midterm Examination 2** **N.B. No mid retake**	Formal Written Midterm Examination & Student Review.	3	CLO_4, CLO_5
Week 12	**Linear Equations & Graphing**	Lecture and interactive Class Exercises.	3	CLO_4
Week 13	**Quadratic & Simultaneous Equations**	Guided practice and Calculation practice.	3	CLO_4
Week 14	**Student Group Presentations & Viva**	Collaborative Team Presentations, Oral Viva Voce.	3	CLO 1 - CLO 5

Learning Materials	**Text Book:** Business Mathematics: Sancheti, D.C. and Kapoor, V.K. **Reference Book:** Mathematics with Application in Management and Economics: Bowen L.K. Business Mathematics: Trivedi and Trivedi.

Assessment Rubric

Criteria	Good	Fair	Poor
Mathematical Accuracy	80–100% of answers are correct.	50–79% of answers are correct.	Below 50% of answers are correct.
Timeliness	Submitted on time.	Submitted 1–2 days late.	Submitted 3 or more days late.
Organization of Ideas	All solutions are logically organized and clearly presented.	Most solutions are organized, with some inconsistencies.	Solutions are poorly organized and difficult to follow.
Cleanliness and Legibility	Work is neat, clear, and easily readable.	Work is generally readable but has some unclear sections.	Work is untidy and difficult to read.
Completeness of Entries	80–100% of required entries are completed.	50–79% of required entries are completed.	Below 50% of required entries are completed.

Assessment Note: Mathematical accuracy and completeness should be assessed independently to distinguish the correctness of solutions from the extent to which assigned tasks are completed.

****Best of Luck****