

**Title of the Course: B. Mathematics - I**  
**(Semester III)**

**Programmes :BBA/BMS/BAF/BBI/B.Sc. IT/BFM**

**Syllabus for 2 Credit Course from the Academic Year 2024-2025**

<b>Sr. No.</b>	<b>Heading</b>	<b>Particulars</b>
<b>1</b>	<b>Description of the course:</b>	<p>Business mathematics is a branch of mathematics that applies mathematical techniques to solve business problems and make informed business decisions. Its primary focus is on the practical application of mathematical concepts in various business and financial contexts.</p> <p>Business mathematics helps the individuals to develop their mathematical skills and knowledge necessary to solve practical problems, make sound financial decisions, and contribute to the success and efficiency of businesses across various industries.</p>
<b>2</b>	<b>Vertical :</b>	Open Electives
<b>3</b>	<b>Type :</b>	Theory / Practical
<b>4</b>	<b>Credit:</b>	2 credits ( 1 credit = 15 Hours for Theory and 15 Hours of Practical work in a semester )
<b>5</b>	<b>Hours Allotted :</b>	30 Hours
<b>6</b>	<b>Marks Allotted:</b>	50 Marks (30 (SE) + 20 (CE))
<b>7</b>	<b>Course Objectives:</b> 1. To enable the students to understand the basic concepts of shares and mutual funds, including their definitions, characteristics, and functions in financial markets. 2. To enable the students to understand the Concepts of Linear Programming	
<b>8</b>	<b>Course Outcomes:</b> 1. Students gained a deep understanding about the different types of shares and mutual funds and also were able to apply their knowledge to solve problems based on it. 2. Students will be able to apply their knowledge to solve the problems based permutation and combination	

9	<p><b>Modules:-</b></p> <p><b>Module 1: Shares and Mutual Fund (15 Hours)</b></p> <ul style="list-style-type: none"> <li>• Concept of shares, Types of Share, face Value, Market Value, Dividend</li> <li>• Equity Shares, Preferential Shares, Bonus shares and problems on shares</li> <li>• Net Asset Value, Entry Load, Exit Load, Calculation of Net Income after considering Entry Load</li> <li>• Systematic Investment Plan, Averaging of Price under the Systematic Investment Plan (S.I.P)</li> </ul> <p><b>Module 2: Permutation , Combination, Linear Programming Problems</b></p> <ul style="list-style-type: none"> <li>• <b>Permutation and Combination:</b> Factorial Notation, Fundamental principle of counting, Permutation as arrangement, Simple examples, combination as selection, Simple examples</li> <li>• Relation between «C»and«P».Examples on commercial application of permutation and combination</li> <li>• <b>Linear Programming Problem:</b> Sketching of graphs of (i) linear equation <math>Ax + By + C= 0</math> (ii) linear inequalities.</li> <li>• Mathematical Formulation of Linear Programming Problems upto 3 variables. Solution of Linear Programming Problems using graphical method up to two variables.</li> </ul>	
10	<p><b>Reference Books</b></p> <ol style="list-style-type: none"> <li>1. B Aggarwal, Business Mathematics &amp; Statistics: B Aggarwal, Ane Book Pvt. Limited, 2016</li> <li>2. J. D. Gupta, P. K. Gupta and Man Mohan, Mathematics for Business Economics, 1987</li> <li>3. By S. Saha and S. Mukerji, Quantitative Methods, New Central Book, 5th Revised Edition, 2002</li> </ol>	
11	<p><b>Internal Continuous Assessment: 40%</b></p>	<p><b>Semester End Examination : 60%</b></p>
12	<p><b>Continuous Evaluation through:</b></p>	<p>Assignments (10 marks) MCQ Based Test (10 marks)</p>
13	<p><b>Format of Question Paper:</b></p> <p>Q. 1 Attempt any Two (10 marks)</p> <ol style="list-style-type: none"> <li>a.</li> <li>b.</li> <li>c.</li> </ol> <p>Q. 2 Attempt any Two (10 marks)</p> <ol style="list-style-type: none"> <li>a.</li> <li>b.</li> <li>c.</li> </ol> <p>Q. 3 Attempt any Two (10 marks)</p> <ol style="list-style-type: none"> <li>a.</li> <li>b.</li> <li>c.</li> </ol>	