



**BLOOM PUBLIC SCHOOL**  
*C-8 Vasant Kunj New Delhi*  
**SYLLABUS FOR THE SESSION 2021-22**

**Class: XII**

**Subject: Applied Mathematics**

Month	UNIT	CONTENT (As per Rationalised Syllabus)
<b>April</b>	UNIT-2 ALGEBRA	<ul style="list-style-type: none"> <li>• Matrices and types of matrices</li> <li>• Equality of matrices, Transpose of a matrix, Symmetric and Skew symmetric matrix</li> <li>• Algebra of Matrices</li> </ul>
<b>June</b>	UNIT-2 ALGEBRA	<ul style="list-style-type: none"> <li>• Determinants</li> <li>• Inverse of a matrix</li> <li>• Solving system of simultaneous equations using matrix method, Cramer's rule and row reduction method</li> <li>• Simple applications of matrices and determinants including Leontiff input output model for two variables</li> </ul>
<b>July</b>	UNIT-3 CALCULUS	<ul style="list-style-type: none"> <li>• Higher Order Derivatives</li> <li>• Application of Derivatives</li> <li>• Marginal Cost and Marginal Revenue using derivatives</li> <li>• Increasing /Decreasing Functions</li> <li>• Maxima and Minima</li> </ul>
	<b>Periodic Assessment-1</b>	<b>Unit -2</b>
<b>August</b>	UNIT-1 NUMBERS, QUANTIFICATION AND NUMERICAL APPLICATIONS	<ul style="list-style-type: none"> <li>• Modulo Arithmetic</li> <li>• Congruence Modulo</li> <li>• Allegation and Mixture</li> <li>• Numerical Problems               <ol style="list-style-type: none"> <li>i. Boats and Streams (upstream and downstream)</li> <li>ii. Pipes and Cisterns</li> <li>iii. Races and Games</li> <li>iv. Partnership</li> </ol> </li> </ul>

	<p>UNIT- 4 PROBABILITY DISTRIBUTIONS</p>	<ul style="list-style-type: none"> <li>Numerical Inequalities</li> <li>Probability Distribution</li> <li>Mathematical Expectation</li> <li>Variance</li> <li>Binomial Distribution</li> </ul>														
<p><b>September</b></p>	<p>UNIT- 4 PROBABILITY DISTRIBUTIONS</p> <p>UNIT – 6 INDEX NUMBERS AND TIME BASED DATA</p> <p><b>Periodic Assessment-2</b></p> <p><b>Term 1 Internal Assessment</b></p>	<ul style="list-style-type: none"> <li>Poisson Distribution</li> <li>Normal Distribution</li> <li>Index Numbers</li> <li>Construction of Index numbers</li> <li>Test of adequacy of Index numbers</li> </ul> <p><b>Unit 1 &amp; 3</b></p> <p><b>Internal Assessment:</b> The weightage of internal assessment may be as under:</p> <table border="1"> <thead> <tr> <th>Term</th> <th>Area and Weightage</th> <th>Assessment Area</th> <th>Marks allocated</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Term 1</td> <td rowspan="2">Project</td> <td>Project work and record</td> <td>5</td> </tr> <tr> <td>Term-end Presentation + Viva of the Project</td> <td>5</td> </tr> <tr> <td colspan="3">Total</td> <td>10</td> </tr> </tbody> </table>	Term	Area and Weightage	Assessment Area	Marks allocated	Term 1	Project	Project work and record	5	Term-end Presentation + Viva of the Project	5	Total			10
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<p><b>October</b></p>	<p>UNIT-3 CALCULUS (Cont'd)</p> <p>UNIT - 5 INFERENCEAL STATISTICS</p> <p><b>Pre-board Term 1 Exam</b></p>	<ul style="list-style-type: none"> <li>Integration</li> <li>Indefinite Integrals as family of curves</li> <li>Definite Integrals as area under the curve</li> <li>Application of Integration</li> <li>Differential Equations</li> <li>Application of Differential Equations</li> <li>Population and Sample</li> <li>Parameter and Statistics and Statistical Interferences</li> <li>t-Test (one sample t-test and two independent groups t-test)</li> </ul> <p><b>Unit 1, 2, 3, 4 &amp; 6</b></p>														

<b>November</b>	UNIT – 6 INDEX NUMBERS AND TIME BASED DATA	<ul style="list-style-type: none"> <li>• Time Series</li> <li>• Components of Time Series</li> <li>• Time Series analysis for univariate data</li> <li>• Secular Trend</li> <li>• Methods of Measuring trend</li> </ul>														
<b>December</b>	UNIT - 7 FINANCIAL MATHEMATICS	<ul style="list-style-type: none"> <li>• Perpetuity, Sinking Funds</li> <li>• Valuation of Bonds</li> <li>• Calculation of EMI</li> <li>• Calculation of Returns, Nominal Rate of Return</li> <li>• Compound Annual Growth Rate</li> <li>• Linear method of Depreciation</li> </ul>														
<b>January</b>	UNIT - 8 LINEAR PROGRAMMING  <b>Periodic Assessment -3</b>  <b>Term 2 Internal Assessment</b>	<ul style="list-style-type: none"> <li>• Introduction and related terminology</li> <li>• Mathematical formulation of Linear Programming Problem</li> <li>• Different types of Linear Programming Problems</li> <li>• Graphical method of solution for problems in two variables</li> <li>• Feasible and Infeasible Regions</li> <li>• Feasible and infeasible solutions, optimal feasible solution</li> </ul> <p><b>Unit 3, 5 and 6</b></p> <p><b>Internal Assessment:</b> The weightage of internal assessment may be as under:</p> <table border="1"> <thead> <tr> <th>Term</th> <th>Area and Weightage</th> <th>Assessment Area</th> <th>Marks allocated</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Term 2</td> <td rowspan="2">Practical</td> <td>Performance of practical and record</td> <td>5</td> </tr> <tr> <td>Term-end test of any one practical + Viva</td> <td>5</td> </tr> <tr> <td colspan="3">Total</td> <td>10</td> </tr> </tbody> </table>	Term	Area and Weightage	Assessment Area	Marks allocated	Term 2	Practical	Performance of practical and record	5	Term-end test of any one practical + Viva	5	Total			10
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<b>February</b>	<b>Pre-board Exam Term 2</b>	<b>UNIT 3, 5, 6 7 &amp; 8</b>														
<b>March</b>	<b>CBSE Board Exam</b>	<b>UNIT 3, 5, 6 7 &amp; 8</b>														

## **ASSESSMENTS SYLLABUS**

### **1. Periodic Assessment-1 (August)**

UNIT-2 ALGEBRA

### **2. Periodic Assessment-2 (September)**

UNIT-1 NUMBERS, QUANTIFICATION AND NUMERICAL APPLICATIONS

UNIT- 3 CALCULUS

### **3. Pre-board Exam-1/Term 1 End Exam**

UNIT-1 NUMBERS, QUANTIFICATION AND NUMERICAL APPLICATIONS

UNIT-2 ALGEBRA

UNIT- 3 CALCULUS

UNIT- 4 PROBABILITY DISTRIBUTIONS

UNIT – 6 INDEX NUMBERS AND TIME BASED DATA

### **4. Periodic Assessment-2 (Dec-Jan )**

UNIT- 3 CALCULUS

UNIT - 5 INFERENTIAL STATISTICS

UNIT – 6 INDEX NUMBERS AND TIME BASED DATA

### **5 Pre-board Exam-2/ Term 2 End Exam**

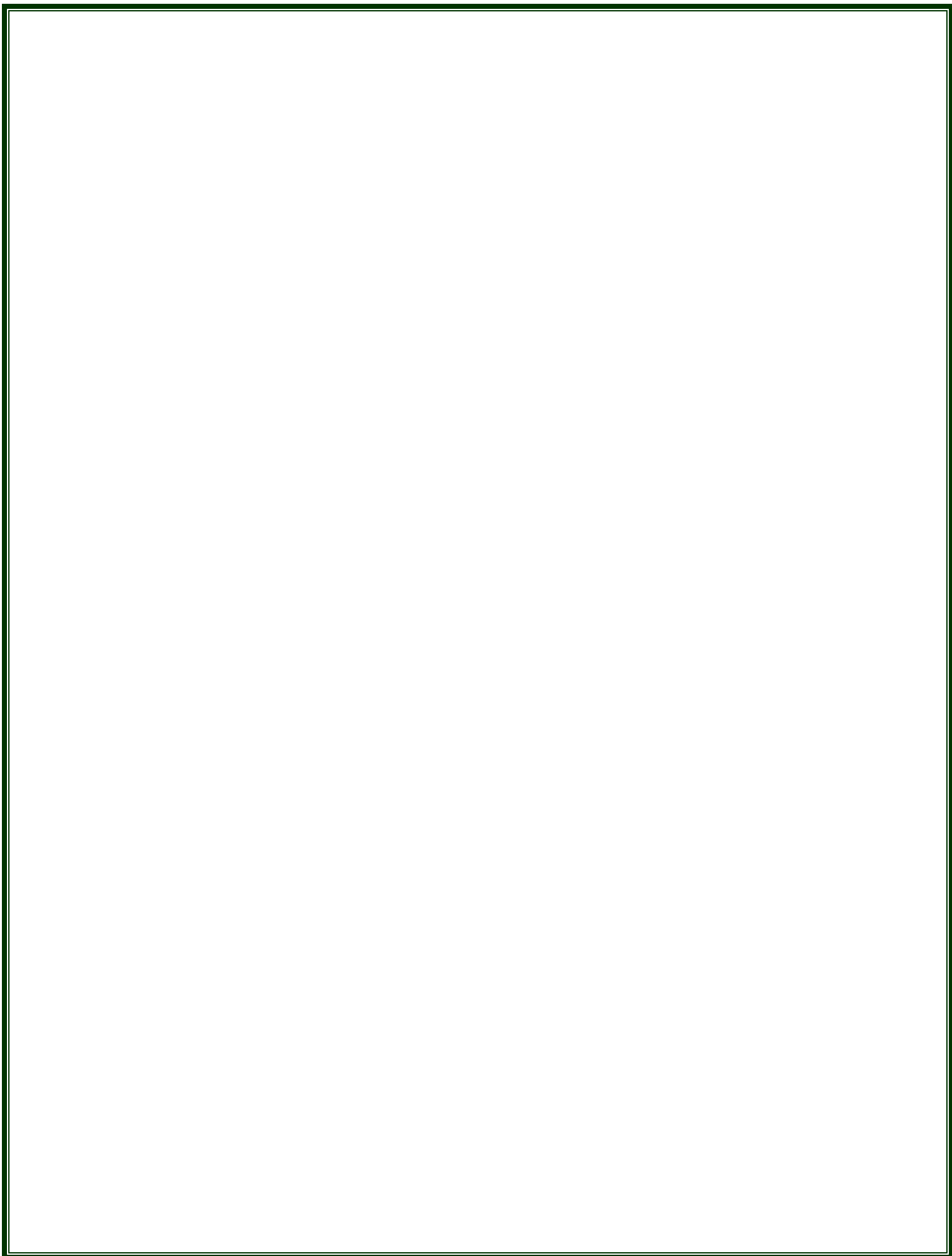
UNIT- 3 CALCULUS

UNIT - 5 INFERENTIAL STATISTICS

UNIT – 6 INDEX NUMBERS AND TIME BASED DATA

UNIT - 7 FINANCIAL MATHEMATICS

UNIT - 8 LINEAR PROGRAMMING



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