

**DELHI PUBLIC SCHOOL, JAMMU**  
**SYLLABUS BIFURCATION**  
**SESSION: 2025-26**

Class: XI

Subject: App.Maths(241)

**Objectives:**

The broad objective of teaching Mathematics at Senior School stage intends to help the students:

1. To develop positive attitude to think, analyze and articulate logically.
2. To feel the flow of reasons while proving a result or solving a problem
3. To develop interest in the subject by participating in the related competitions
4. To develop an interest in the students to study Mathematics as a discipline.

S.No	Month	Name of units
1	April	<b>Sets, Relations and functions</b> <b>Foundation worksheet:-</b> To understand students previous knowledge and for the revision of previous concepts of well defined collections and collection which are not well defined. <b>Activity-1:-</b> To find the number of subsets of a given set and verify that if a set has n number of elements , then the total number of subsets is $2^n$ .
2	May	<b>Trigonometric Functions</b> <b>Assignment-1</b> on the topic Trigonometric Functions to provide opportunity for students to practice and also develop critical thinking and independent problem-solving skills. <b>Activity-2:-</b> To verify the relation between degree measure and radian measure of an angle. <b>Kahoot Quiz</b> on Trigonometric functions to test the knowledge of students. <b>Sample paper -1:</b> <b>Topics:</b> <ol style="list-style-type: none"><li>1. Sets</li><li>2. Relations and functions</li></ol>
3	June	<b>Algebra ( Complex numbers and quadratic equations)</b> <b>Class test-1:-</b> To evaluate the understanding of abstract concepts of the students on the topic Sets, Relations and functions and Trigonometric Functions <b>Team exercise (Power point presentation)</b> on Trigonometric Functions.
4	July	<b>Algebra (Linear Inequalities, Permutation and combination)</b> <b>Foundation worksheet</b> on linear inequalities for the revision of previous concepts. <b>Assignment-2</b> on the topic Linear Inequalities, Permutation and combination.
5	August	<b>Algebra ( Binomial Theorem, Sequence and Series)</b> <b>Experiential learning:</b> - To enhance the knowledge and skill of the students. <b>Assignment-3</b> on the topic Binomial Theorem, Sequence and Series. <b>Sample paper -2:</b> <b>Topics:</b> <ol style="list-style-type: none"><li>Sets</li><li>1. Relations and functions</li><li>2. Trigonometric Functions</li><li>3. Complex numbers and quadratic equations</li><li>4. Linear Inequalities</li><li>5. Permutation and combination</li><li>6. Binomial Theorem</li><li>7. Sequence and Series</li></ol>

6	September	<b>Coordinate Geometry(Straight lines, Conic sections)</b> <b>Kahoot quiz</b> on the topic Straight lines to reiterate important concepts. <b>Experiential learning</b> to enhance the knowledge and skill of the students.  ❖ <b>Activity-3:-</b> To verify the equation of a line passing through the point of intersection of two lines. ❖ <b>Activity-4:-</b> To construct different types of conic sections. <b>Assignment-4</b> on the topics Straight lines, Conic sections.
7	October	<b>Coordinate Geometry (Introduction to Three dimensional geometry)</b> <b>Assignment-5</b> on the topics Introduction to Three dimensional geometry. <b>Class test-3:-</b> To evaluate the understanding of the students on the topics Straight lines, Conic sections.
8	November	<b>Calculus(Limits and derivatives)</b> <b>Kahoot quiz</b> on the topic Limits and derivatives. <b>Assignment-8</b> on the topics Limits and derivatives. ❖ <b>Activity-5:-</b> Verification of geometrical significance of derivative.
9	December	<b>Statistics, Probability</b> <b>Assignment-8</b> on linear programming and Probability. ❖ <b>Activity-6:-</b> To write the sample space, when a coin is tossed once, two times, three times and four times. <b>Sample paper-3:-</b> <b>Topics:</b> <ol style="list-style-type: none"> <li>1. Sets</li> <li>2. Relations and functions</li> <li>3. Trigonometric Functions</li> <li>4. Complex numbers and quadratic equations</li> <li>5. Linear Inequalities</li> <li>6. Permutation and combination</li> <li>7. Binomial Theorem</li> <li>8. Sequence and Series</li> <li>9. Straight lines</li> <li>10. Conic sections</li> <li>11. Introduction to Three dimensional geometry</li> <li>12. Limits and derivatives</li> <li>13. Statistics</li> <li>14. Probability</li> </ol>
10	January	➤ <b>Case study questions</b>
11	February	➤ <b>Revision</b>
12	March	➤ <b>Revision</b>

### **Exam Schedule:**

#### **Syllabus of Formative Assessment-1:**

3. Sets
4. Relations and functions

#### **Syllabus of Half –Yearly:**

8. Sets
9. Relations and functions
10. Trigonometric Functions
11. Complex numbers and quadratic equations
12. Linear Inequalities
13. Permutation and combination

- 14. Binomial Theorem**
- 15. Sequence and Series**

**Syllabus of Formative Assessment-2:**

- 1. Straight lines**
- 2. Conic sections**
- 3. Introduction to Three dimensional geometry**

**Syllabus for Final Examination:**

- 15. Sets**
- 16. Relations and functions**
- 17. Trigonometric Functions**
- 18. Complex numbers and quadratic equations**
- 19. Linear Inequalities**
- 20. Permutation and combination**
- 21. Binomial Theorem**
- 22. Sequence and Series**
- 23. Straight lines**
- 24. Conic sections**
- 25. Introduction to Three dimensional geometry**
- 26. Limits and derivatives**
- 27. Statistics**
- 28. Probability**

**Subject Coordinator**