

NEW ERA SENIOR SECONDARY SCHOOL, NIZAMPURA, VADODARA.
MATHS SYLLABUS 2026-27 **CLASS-XI**

MONTH	No. OF DAYS	CHAPTER
APRIL + MAY	23 + 2	<p># <u>SETS</u> *Sets and their representations. *Different kind of sets. Subsets. Power set. Universal set*Subsets of a set of real numbers specially intervals (with notations). *Venn diagrams. * Union and Intersection of sets. Difference of sets. *Complement of a set and Properties * Word problems</p> <p># <u>Relations & Functions (2)</u> * Cartesian Product of sets * Definition of Relation, Domain Co- domain, Range * Function, Real valued function of real variable * Types of function & Sum, Diff., Product & Quotient of fn</p>
JUNE	19	<p># <u>Relations & Functions (contd.) (2)</u> # <u>Trigonometric Functions(3)</u> * Positive & Negative Angles. * Measuring angles in radians and in degrees & conversion * Signs of trigo functions, Basic identities * Expression of trigo fn in the form $X \pm Y$, $2X$, $3X$, * Deduction of identities of $\sin x \pm \sin y$ & for other functions</p>
JULY	26	<p># <u>Trigonometric Functions(contd.)</u> # <u>Complex numbers & Quadratic equation(5)</u> * Need for complex numbers, * Operation on complex numbers * Argand plane and polar representation of complex numbers * Solution of quadratic equations in complex number system</p>
AUGUST	23	<p># <u>Complex numbers & Quadratic equation(5) (cont)</u> # <u>Linear Inequalities (6)</u> * Linear Inequalities & its Algebraic solution in one variable * Graphical solution of L.E. in two variable # <u>Permutations & Combinations (7)</u> * Fundamental principle of counting * Factorial n * Permutations and combination word problems * Derivation of formulae and their connections</p>
SEPTEMBER	23	<p># <u>Binomial Theorem (8)</u> * Statement & proof of the binomial theorem * Pascal's triangle * General & middle term in binomial exp. & its application # <u>Limits & Derivatives</u> * Introduction to limit & limits of function * Definition of derivative * Derivative by first principle * Derivative of sum, difference, product & quotient * Derivative of polynomial and trigonometric functions</p>
OCTOBER	23	<p># <u>Limits & Derivatives (Cont)</u> # <u>Sequence & Series (9)</u> * Introduction to Sequence & Series * Arithmetic Progression, Geometric Progression,</p>

		<ul style="list-style-type: none"> * Relation between A.M. & G.M. * Sum of n terms of special series
NOVEMBER	11	<p># <u>Straight lines (10)</u></p> <ul style="list-style-type: none"> * Slope of a line & angle between two lines * Various forms of lines : <ul style="list-style-type: none"> - Parallel to axes - Slope – intercept form - Point-slope form - Intercept form - Slope – intercept form - Normal form - Two point form * General equation of line & distance of point from line
DECEMBER	23	<p># <u>Straight lines (Cont)</u></p> <p># <u>Three Dimensional Geometry (12)</u></p> <ul style="list-style-type: none"> * Coordinate axes & coordinate planes in three dimensions, * Coordinates of a point * Distance between two points and section formula <p># <u>Conic Section (11)</u></p> <ul style="list-style-type: none"> * Circle : General equation of circle, equation of circle when radius & centre of circle is given, Intersection of circle with line & co-ordinate axes, simple application * Parabola : Introduction, definition, symmetry, Equation of parabola, Latus Rectum. * Ellipse : Definition, Eccentricity, Relation between const a, b, c. Standard equation of ellipse, latus Rectum * Hyperbola : Definition, Eccentricity, Standard equation, latus Rectum
JANUARY	22	<p># <u>Conic Section (cont)</u></p> <p># <u>Probability (15)</u></p> <ul style="list-style-type: none"> * Random experiments, outcomes, sample space, event * Axiomatic approach of probability * Probability of ‘not’ & ‘or’ events
FEBRUARY	23	<p># <u>Statistics (14)</u></p> <ul style="list-style-type: none"> * Measure of dispersion : Mean deviation, variance, and standard deviation * Analysis of frequency distributions with equal means but different variances. <p>REVISION</p> <p># Annual Exam</p>