

**NEW ERA SENIOR SECONDARY SCHOOL, NIZAMPURA, VADODARA.
CLASS -12 -MATHS SYLLABUS 2026-27**

MONTH	No. OF DAYS	CHAPTER
April + May	23 + 2	<p># <u>Relation & Function (1)</u></p> <ul style="list-style-type: none"> * Types of Relation * Types of Function * Composition of Functions & Invertible Function <p># <u>INVERSE TRIGONOMETRIC FUNCTION(2)</u></p> <ul style="list-style-type: none"> * Introduction * Basic Concepts * Properties of Inverse trigonometric function <p># <u>MATRICES and DETERMINANTS (3 & 4)</u></p> <ul style="list-style-type: none"> * Introduction of matrix * Types of Matrices * Operation on Matrices * Transpose of a Matrix * Symmetric & Sew symmetric Matrices * Elementary Operation of a Matrix * Invertible Matrices * Introduction of determinants * Properties of determinants * Area of a triangle * Minors, Cofactors and Adjoint & inverse of a Matrix * Application of Determinants & Matrices
JUNE	19	<p># <u>MATRICES and DETERMINANTS (Cont)</u></p> <p># <u>Continuity and Differentiability(5)</u></p> <ul style="list-style-type: none"> * Revision of continuity & Differentiability * Exponential and Logarithmic Functions * Logarithmic Differentiation * Derivative of Functions in Parametric Form * Second Order Derivative * Mean Value Theorem
JULY	26	<p># <u>Application of Derivatives</u></p> <ul style="list-style-type: none"> * Rate of Change of Quantities * Increasing and decreasing Function * Tangent and Normal * Approximations * Maxima and Minima <p># <u>Integrals</u></p> <ul style="list-style-type: none"> * Integration as inverse process of differentiation * Integration of different function * Integration by substitution * Integration by partial fraction and by parts * Integration of the specific types * Definite integrals as a limit of a sum * Basic properties of definite integrals & evaluation of definite integrals

AUGUST	23	<p>#Integrals (cont) # Applications of integrals (8) * Applications in finding the area under simple curves, especially lines * Areas of Circles, Parabolas, Ellipses * Area between the two above said curves</p>
SEPTEMBER	23	<p># Differential equations (9) * Introduction, order and degree of a differential equation * Formation of differential equation * Solution of differential equation (i) variable separable form (ii) Homogeneous equations (iii) linear differential equns Vector algebra * Vectors and Scalars * Magnitude and directions of vectors * Direction cosines/ ratios of vectors * Types of vectors * Position vector of point, components of vectors * Addition, multiplication of a vector by a scalar * Scalar (dot) product, projection of vector on a line * Vector (cross) product of vectors</p>
OCTOBER	23	<p># Three-dimensional geometry * Direction cosines/ratios of line joining two points * Cartesian & vector equation of a line * Coplanar and skew lines * Distance of a point from a plane * Shortest distance between (i) two lines, (ii) two planes (iii) a line and a plane # Probability * Multiplication theorem on probability * Conditional probability * Independent events * Baye's theorem * Random variable and its probability distribution * Mean and variance of haphazard variable</p>
NOVEMBER	11	<p># Probability (cont) # Linear Programming (L.P.P.) * Introduction * Definition of Constraints, Objective Functions, Optimization, * Different types of L. P. & Mathematical formulation of L.P * Graphical method of solution for Problems in two variable * Feasible & Infeasible solution, Feasible Region #</p>
TOTAL	150	
DECEMBER	23	Revision and Exam