

NEW ERA SENIOR SECONDARY SCHOOL, NIZAMPURA, VADODARA.
APPLIED MATHS 2026-27 CLASS-XII

MONTH	No. OF DAYS	CHAPTER
April + May	23 + 2	NUMBERS, QUANTIFICATION AND NUMERICAL APPLICATIONS <ul style="list-style-type: none"> ➤ Modulo Arithmetic ➤ Alligation and Mixture ➤ Numerical Problems ➤ Numerical Inequalities MATRICES and DETERMINANTS
JUNE	19	MATRICES and DETERMINANTS <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 CALCULUS <ul style="list-style-type: none"> ➤ Second Order Derivative ➤ Application of Derivatives ➤ Marginal Cost and Marginal Revenue using derivatives ➤ Increasing and decreasing Function ➤ Rate of Change of Quantities ➤ Tangent and Normal ➤ Maxima and Minima
JULY	26	CALCULUS (cont) Integrals <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 ➤ Basic properties of definite integrals & evaluation of definite integrals Applications of integrals <ul style="list-style-type: none"> ➤ Applications in finding the area under simple curves, ➤ Identify the region representing C.S. and P.S. graphically ➤ Apply the definite integral to find consumer surplus-producer surplus Problems based on finding ➤ Total cost when Marginal Cost is given

		<ul style="list-style-type: none"> ➤ Total Revenue when Marginal Revenue is given
AUGUST	23	<p>Differential Equations and Modeling</p> <ul style="list-style-type: none"> ➤ Introduction, order and degree of a differential equation ➤ Formation of differential equation ➤ Solution of differential equation and its application <p>PROBABILITY DISTRIBUTIONS</p> <ul style="list-style-type: none"> ➤ Random variable and its probability distribution ➤ Mean and variance of haphazard variable ➤ Mathematical Expectation ➤ Binomial Distribution ➤ Poison Distribution ➤ Normal Distribution
SEPTEMBER	23	<p>INFERENCE STATISTICS</p> <ul style="list-style-type: none"> ➤ Population and Sample ➤ Parameter and Statistics and Statistical Interferences <p>t-Test (one sample t-test and two independent groups t-test)</p> <p>INDEX NUMBERS AND TIME BASED DATA</p> <ul style="list-style-type: none"> ➤ Time Series ➤ Components of Time Series ➤ Time Series analysis for uni-variate data ➤ Secular Trend Methods of Measuring trend
OCTOBER	23	<p>INDEX NUMBERS AND TIME BASED DATA(cont)</p> <p>FINANCIAL MATHEMATIC</p> <ul style="list-style-type: none"> ➤ Perpetuity, Sinking Funds ➤ Calculation of EMI ➤ Calculation of Returns, Nominal Rate of Return ➤ Valuation of Bonds ➤ Compound Annual Growth Rate ➤ Linear method of Depreciation
NOVEMBER	11	<p># <u>Linear Programming (L.P.P.)</u></p> <ul style="list-style-type: none"> ➤ 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
DECEMBER	23	Revision and Exam