Gujarat Board Class 11th Maths Syllabus 2024-25

Unit	Topics
Unit-I: Sets and Functions	1. Sets: Definitions, representations, empty sets, finite and infinite sets, equal sets, subsets, universal set, Venn diagrams, operations on sets.
	2. Relations & Functions: Ordered pairs, Cartesian products, relations, functions, domain, co-domain, range, various types of functions (constant, polynomial, etc.), operations on functions.
	3. Trigonometric Functions: Definitions, identities, angles in radians and degrees, domain, range, graphs, and applications of trigonometric functions.
Unit-II: Algebra	1. Complex Numbers and Quadratic Equations: Introduction to complex numbers, algebraic properties, Argand plane.
	2. Linear Inequalities: Solutions, graphical representation of linear inequalities in one variable.
	3. Permutations and Combinations: Counting principles, permutations, combinations, and related formulas.
	4. Binomial Theorem: Statement, proof, and applications of the binomial theorem, Pascal's triangle.
	5. Sequence and Series: Arithmetic Mean (A.M.), Geometric Progression (G.P.), general term, sum of G.P., and relation between A.M. and G.M.
Unit-III: Coordinate Geometry	1. Straight Lines: Slope, angle between lines, forms of line equations (parallel, point-slope, slope-intercept, two-point, intercept), distance from a point.
	2. Conic Sections: Circles, ellipses, parabolas, hyperbolas, standard equations, and properties.
	3. Introduction to Three-Dimensional Geometry: Coordinate axes, planes, point coordinates, distance between points in 3D.
Unit-IV: Calculus	1. Limits and Derivatives: Introduction to derivatives, limits of various functions, derivative rules (sum, difference, product, quotient), and polynomial/trigonometric derivatives.

Unit-V: Statistics and Probability	1. Statistics: Measures of Dispersion (range, mean deviation, variance, standard deviation) for ungrouped and grouped data.
	2. Probability: Events, mutually exclusive events, exhaustive events, axiomatic probability, and calculations for different event types ('not', 'and', 'or').