



RUBY PARK PUBLIC SCHOOL

SYLLABUS FOR THE ACADEMIC SESSION 2022-23

Subject - Mathematics

CLASS - XI

Month	Topics	Sub-Topics
June-July	Bridge course (Logarithm, Theory of Quadratic Equations) Sets, Relations and Functions	Bridge course (Logarithm, Theory of Quadratic equations)
		Sets, Types of Sets, Subsets, Power Sets, Venn Diagram, Union, Intersection and Difference of Sets, Algebra of Sets
		Cartesian Product, Relations, Domain and Range
		Functions, Types of different functions with graphs, Domain, Co-Domain and Range of functions
	Trigonometry	Measurement of Angles, Conversion between Degrees and Radians, Definition of Trigonometric Functions with the help of unit circle, Trigonometric Identities, Domain and Range of Trigonometric Functions
July-August		Compound Angles and Associated Angles
		UT 1
	Trigonometry	Transformation of Sum and Product Multiple and Sub-Multiple Angles, Associated Trigonometric Graphs.
August	Complex Numbers and Quadratic Equations (complex)	Properties, Geometrical presentation, Modulus, Argument, Solutions of Quadratic Equations
	Linear Inequalities	Linear Inequalities and graph (Algebraic solutions of linear inequalities in one variable and representation on number line)
August and September	Sequence and Series	Introduction, AP, GP, nth Term, Sum of n Terms, AM, GM, Infinite GP and related sums
	Equation of the Straight Line	Distance and Section Formula, Area of Triangle, Collinearity

		Equation of Lines and Different Forms
		Angle Between Lines, Parallel, perpendicular lines, distance between a point and a line
BT 1		
October November	Permutation and Combination	Counting Theory, Difference of Permutation and Combination -Related Sums
	Binomial Theorem	Binomial Theorem (proof) only for positive integral indices, nth term, Middle term, Pascal's Triangle
	Conic Sections (Circle, Parabola)	Conics as a Section of Cone, Equation of Circle (Standard form only), Related formulae and sums
Equation of Parabola (Standard form only), Related formulae and sums		
UT 2		
December	Ellipse, Hyperbola, 3-D Geometry, Probability	Equation of Ellipse (Standard form only), Related formula and sums
		Equation of Hyperbola (Standard form only), Related formula and sums
		3D- Geometry (Distance Formula)
		Probability
UT - 3		
January	Statistics	Statistics (Mean, Median, Standard Deviation, Variance and Mean Deviation)
	Limits, Differentiation	Idea of Limits, Formulae and Properties of Limits
		Differentiation- 1st. Principle and Properties, Differentiation using formulae.
Revision		
February	Annual Examination	

