RUBY PARK PUBLIC SCHOOL

SYLLABUS FOR THE ACADEMIC SESSION 2022-23

Subject - Mathematics

CLASS - X

Month	Unit	Topic	Sub - Topic	Activity
April	1.	Real numbers	Fundamental Theorem of Arithmetic Revisiting irrational numbers Proof of irrationality of $\sqrt{2}, \sqrt{3}, \sqrt{5}$.	
	2.	Trigonometry	Introduction to trigonometry Trigonometric identities Height and distance	
Periodic Test 1				
May	4.	Polynomials	Zeroes of a polynomial Relationship between zeros and coefficients of a Quadratic polynomial.	
	5.	Probability	Classical definition of probability. Simple problem on finding the probability of an event.	
	6.	Circles	Tangent to a circle at, point of contact Theorems based on Tangent properties of a circle	
June	7.	Triangles	Definitions, examples, counter examples of similar triangles Theorem based on similarity of triangles.	Activity on Similarity
July	8.	Pair of linear equations in two variables	Pair of linear equations in two variables and graphical method of their solution, consistency/inconsistency Algebraic conditions for number of solutions. Solution of a pair of linear equations in two variables algebraically - by substitution, by elimination. Simple situational problems	Conditions of Consistency and Inconsistency of a pair of Linear Equations in Two Variables

Month	No.	Topic	Content	
	9.	Statistics	Mean, median and mode of grouped data (bimodal situation to be avoided)	
August	10.	Coordinate Geometry	Review: Concepts of coordinate geometry, graphs of linear equations. Distance formula. Section formula (internal division).	
	11.	Arithmetic Progression	Motivation for studying Arithmetic Progression .Derivation of the nth term and sum of the first n terms of A.P. and their application in solving daily life problems.	Derivation of formula for sum for sum of first 'n' natural numbers
Periodic Test 2				
September	12.	Quadratic equation	Standard form of a quadratic equation $ax^2 + bx + c = 0, (a \neq 0)$. Solutions of quadratic equations (only real roots) by factorization, and by using quadratic formula. Relationship between discriminant and nature of roots.	
October	13.	Quadratic equation continued	Situational problems based on quadratic equations related to day to day activities to be incorporated.	
November	14.	Areas related to circles	Area of sectors and segments of a circle. Problems based on areas and perimeter / circumference of the above said plane figures. (In calculating area of segment of a circle, problems should be restricted to central angle of 60°, 90° and 120° only.	
	15.	Surface Area and Volume	Surface areas and volumes of combinations of any two of the following: cubes, cuboids, spheres, hemispheres and right circular cylinders/cones.	
Revision				
Periodic Test 3				
December	Practice Test			
January	Pre Board (Entire Syllabus as prescribed by CBSE)			