



FURTHER MATHS SCHEME
CLASS: SS1

SN	TOPICS	BREAKDOWN/ANALYSIS	EMPHASIS
1	SETS THEORY	-Definition, terms associated with sets e.g. finite sets, infinite sets, universal sets, subsets and super sets, equality sets, null sets, unit sets. - Intersection of sets, union of sets, compliment of sets	Emphasis on intersection, union compliments and the use of Venn diagram
2		- Disjoint sets and power sets. - Algebra of sets, De-Morgan's law of sets algebra -Venn diagrams	Emphasis on intersection, union compliments and the use of Venn diagram
3	BINARY OPERATIONS	-Definition and introduction of basic terms - Rules of combination - Properties of binary operation -Closure -Commutative - Associative -Distributive -Operation of binary as a rule of association - The identity and an inverse elements of an operation	Emphasis on the rule of operation, the identity element an inverse element
4	INDICES	-Notations - Laws of indices - Proves of laws and other related theorem. - Indicial equations * Simple equation *Quadratic equation etc. Graphs of indices or indicial graphs	Emphasis lay upon indicial equations.
5	LOGARITHMS	Definition and basic ideas - Relationship with indices - Laws of logarithms and related proves of the laws and theorems -Equation involving logarithms	Logarithmic equations and introduction of logarithm to indicial equation

		-Introduction of logarithms to indicial equations. Natural logarithms	
6	SURDS	-Definition of surds - Examples of surds - Basic forms of surds -Similar surds -Conjugation of surds.	
		- Rationalization of surds - Equality of surds - Radical equations - Other ideals involving surds	Radicals, Rationalization of surds.
7	EQUATIONS	Solving simple equation and fundamentals of algebra	

		- Understanding equations - Solving simple equations - Solving simultaneous equations - Quadratic equation and methods of solutions	Emphasis laid on Quadratic equations and methods of solutions
8	ROOTS OF QUADRATIC EQUATION	- Definition of quadratic formular, - The discriminant 'D' - Analysis of the roots of quadratic equations * Real and district roots * Equal roots * Complex or imaginary roots - Formation of equation using the roots (sum of roots and product of roots)	Emphasis on roots analysis
9	LINEAR INEQUALITIES	- Notation and basic rules of operation - Linear inequalities in one variable. - Problems involving inequalities _ Graphical representation and other theoretical problems.	Emphasis on Graphing.
10	QUADRATIC INEQUALITIES	Definitions - Basic operations and rules - Quadratic inequalities in one variable - Analysis of solutions	
		- Geographical representations in	Discrimination of

		quadratic forms - Discrimination of solutions - Absolute values and operations	solutions
11	INEQUALITIES IN TWO VARIABLES	Introduction and basic concepts Graphing and feasible domain	
12	INEQUALITIES IN TWO VARIABLES	- Linear programming -Methods of solution - Applications	Applications
13	MAPPINGS	Definitions - Basic ideas of mappings * One-to-one *Onto	

14	MAPPING AND FUNCTIONS	Definition of functions and mapping - Special mapping *identity * constant - Composite mapping - Inverse mapping/ functions - images, ranges and co-domain of functions	Rules of correspondence of mapping
15	LOGIC	-Definition - Statements * Simple statements * Compound Statements - truth tables - Negation of Statements. * Disjunctive Statements * Conjunctive Statements *Conditional Statements.	Show statements using truth falls
		* Converse Statements * Inverse Statement *Contra-positive Statement -Chain rule of arrangement or syllogism. - Tautology and a contradictive Statement	Tautology and a contradiction
16	CALCULATING *PROCESSING DEVICE II	Number systems and fundamentals. - Decimal systems - Binary systems -Octal systems -Hexadecimal systems	

17	CALCULATING * PROCESSING DEVICE	Conversion to base 10 and from base 10 to a binary base - Relationship b/w binary, octal and hexadecimal numbers -The use of 3-bits and 4-bits equivalent forms	Emphasis on the relationship b/w binary, octal and hexadecimal number
18	TRIGOMETRY	Definition of trigonometry - Quadrants and angles	The use of cast CAST OR ACTS
		- trigonometric ratios -Special angles - Trigonometrical identities	Proves of identities
19	EQUATION ON TRIGOMETRY	Trigonometrical equations - Reduction the known form of an equation	