MATHEMATICS

Month	Topics	
March & April	Relation and Functions	Relation, Relation on a set. Types of relation
		Equivalence Relation, Equivalence Class
		Function, types of Function, Inverse of a function, bijectivity of a function
		composite function,
		Inverse trigo, pricncipal range and related formulae
May	Continuity, Differentiation	Continuity and Differentiability
		Derivative (Chain Rule), First Order and second order
May	**UT I/PT I**	
June-July	Application of Derivatives	Increasing & Decreasing Functions
		Local minima, Maxima, Absolute maxima and minima, Point of Inflexion, and word problem related to cylinder & cone, etc.
		Mean Value Theorem
		Tangent & Normal, Angle between curves at the point of intersection
		Rate measure (application in sphere, cylinder, cone etc.)
		Approximation
July	**UT II/PT II**	
August	Determinants and Matrices, L.P.P.	Determinants and properties, Area of triangles using determinats, Symmetric and Skew symmetric
		L.P.P. Mathametical formulation, Bounded and Unbounded region and Transportation problem
		Matrices (Inverse, Transpose, Adjoint and Symmetric and Skew symmetric, Solve by matrix method (Martin's Rule), Word problem by matrix method.
September	**REVISION AND BT I**	
October	Integration (Indefinite & Definite Integral), Area under curve,Differential Equation	Indefinite Integral
		Definite integral as a limit of sum, solution by substitution, by parts etc, different properties of definite integral
		Area under curve(Rough sketch of curve and calculating area by using integration)
		Differential Equations, Formation, Order & Degree, and Solve the differential equation, Method of separation, substitution, homogeneous diff equation, integrating factor and linear diff equation
November	**UT III/PT III**	

MATHEMATICS

Month	Topics	
November	Probability, Vectors,3 D geometry	Probability (Conditional), Baye's Theorem,Random Variable,Probability distribution(Binomial), Mean and Variance
		Vectors, dot products, cross products, scalar triple product, Condition of coplanarity
		Direction Cosine of line, Angle between lines, Condition of parallel and perpendicular lines, Straight line(3 D), Equation of line passing through two points, Shortest distance between two skew lines, Planes(3D), Equation of plane, Normal form, Perpendicular distance from a Point, Parallel planes, Family of planes,Vector and scalar form
November	**Revision**	
December	**PRE-BOARD-1**	
January	**PRACTICE TEST**	
Theory Paper 80 marks + Internal assessment (Periodic tests/Unit Test & Mathematics Activity) 20 marks		