

## Module wise Study Plan

Module	Maths
Module 1	Cartesian Product of Sets
	Relations
	Functions
Module 2	Types of Relations
	Types of Functions
	Composition of Functions and Invertible Function
	Binary Operations
Module 3	Permutations
	Combinations
Module 4	Cumulative test based on Module 1,2,3
Module 5	Binomial Theorem for Positive Integral Indices
	General and Middle Terms
	Arithmetic Progression (A.P)
	Geometric Progression (G.P)
	Sum to n Terms of Special Series
Module 6	Slope of a Line
	Various Forms of the Equation of a Line
	General Equation of a Line
	Distance of a Point from a Line
	Sections of a Cone
	Circle
	Parabola
	Ellipse
Hyperbola	
Module 7	Complex Numbers
	Algebra of Complex Numbers
	The Modulus and the Conjugate of a Complex Number
	Argand Plane and Polar Representation
	Quadratic Equations
Module 8	Cumulative test based on Module 5,6,7
Module 9	Types of Matrices
	Operations on Matrices
	Transpose of a Matrix
	Symmetric and Skew Symmetric Matrices
	Invertible Matrices
	Determinant
	Properties of Determinants
	Area of a Triangle
	Minors and Cofactors
	Adjoint and Inverse of a Matrix
	Applications of Determinants and Matrices
Module 10	Angles
	Trigonometric Functions
	Trigonometric Functions of Sum and Difference of Two angles
	Trigonometric Equations
	Measures of Central tendency

## Module wise Study Plan

	Measures of Dispersion - Range and Mean Deviation
	Measures of Dispersion - Variance and Standard Deviation
	Analysis of Frequency Distributions
	Random Experiments
	Events
	Axiomatic Approach to Probability
Module 11	
Module 12	Cumulative Test based on Module 9,10,11
	Conditional Probability
	Multiplication Theorem on Probability and Independent events
	Random Variables and its Probability Distributions
	Bernoulli Trials and Binomial Distribution
Module 13	
	Limits
	Limits of Trigonometric Functions
	Derivatives
Module 14	
	Continuity
	Differentiability
	Derivatives of Composite Functions
	Derivatives of Implicit Functions
Module 15	
Module 16	Cumulative Test based on Module 13, 14, 15
	Properties of Inverse Trigonometric Functions
Module 17	
	Derivatives of Inverse Trigonometric Function
	Exponential and Logarithmic Functions
	Logarithmic Differentiation
	Derivatives of Functions in Parametric Forms
	Second Order Derivative
Module 18	
	Mean Value Theorem
	Rate of Change of Quantities
	Increasing and Decreasing Functions
	Tangents and Normals
	Approximations
	Maxima and Minima
Module 19	
Module 20	Cumulative Test based on Module 17, 18, 19
	Methods of Integration
	Integrals of Some Particular Functions
	Integration by Partial Fractions
	Integration by Parts
Module 21	
	Definite Integral
	Fundamental Theorem of Calculus
	Some Properties of Definite Integrals
	Area under Simple Curves
	Area between Two Curves
Module 22	
	Differential Equations - Basic Concepts

## Module wise Study Plan

	General and Particular Solutions of a Differential Equation
	Formation of a Differential Equation whose General Solution is Given
	Methods of Solving First Order, First Degree Differential Equations
Module 23	
Module 24	Cumulative Test based on Module 21, 22, 23
	Types of Vectors
	Addition of Vectors
	Multiplication of a Vector by a Scalar
	Product of Two Vectors
Module 25	
	Direction Cosines and Direction Ratios of a Line
	Equation of a Line in Space
	Angle between Two Lines
	Coplanarity of Two Lines
	Plane
	Angle between Two Planes
	Distance of a Point from a Plane
	Angle between a Line and Plane
Module 26	
Module 27	Cumulative Test based on Module 25, 26
Module 28	Revision Test 1
Module 29	Revision Test 2
Module 30	Revision Test 3
Module 31	Revision Test 4
Module 32	Revision Test 5
Module 33	Revision Test 6
Module 34	Revision Test 7
Module 35	Revision Test 8
Module 36	Revision Test 9
Module 37	Revision Test 10