

# MATHEMATICS

## I PUC

### 1. Sets

RETAINED PORTION	DELETED PORTION
Introduction Sets and their representation Empty set Finite and Infinite sets Equal sets Subsets Power sets Universal sets Venn diagram Operation on set Practical problems on union and intersection of two sets	Difference of sets. Complement of a set. Properties of Complement

### 2. Relations and Functions

RETAINED PORTION	DELETED PORTION
Introduction Cartesian products of sets Relations Functions Some functions and their graphs	$\mathbb{R} \times \mathbb{R} \times \mathbb{R}$ Sum, Difference, product and quotients of functions

### 3. Trigonometric Function

RETAINED PORTION	DELETED PORTION
Introduction Angles trigonometric functions Trigonometric functions of sum and difference of two angles Principal solutions of trigonometric equations.	General Solutions of trigonometric equations of the type: $\sin y = \sin a$ , $\cos y = \cos a$ and $\tan y = \tan a$ .

### 4. Principle of Mathematical Induction.

RETAINED PORTION	DELETED PORTION
Introduction Motivation The principle of Mathematical Induction	Nil

### 5. Complex Numbers and Quadratic Equations

RETAINED PORTION	DELETED PORTION
Introduction Complex number Algebra of complex number	Polar representation of complex numbers. Square root of a complex number

The modulus and conjugate of a complex number Argand plane	
---	--

## 6. Linear Inequalities

RETAINED PORTION	DELETED PORTION
Introduction Inequalities Algebraic solutions of linear inequalities in one variable and their graphical representation Graphical solution of linear inequalities in two variables Solution of system of linear inequalities in two variables.	Nil

## 7. Permutations and Combination

RETAINED PORTION	DELETED PORTION
Introduction Fundamental principal of counting Permutations Combination	Derivation of formulae for ${}^n P_r$ and ${}^n C_r$

## 8. Binomial theorem

RETAINED PORTION	DELETED PORTION
Nil	Full Chapter is deleted

## 9. Sequence and Series

RETAINED PORTION	DELETED PORTION
Introduction Sequence Series Arithmetic progression Geometric progression Relationship between AM and GM	Formulae for the following special sums $\sum k$ , $\sum k^2$ and $\sum k^3$ .

## 10. Straight Lines

RETAINED PORTION	DELETED PORTION
Introduction Slope of a line i) Conditions for parallelism and perpendicularity of lines in terms of their slopes ii) Angle between two lines iii) Collinearity of three points	Shifting of origin. Equation of family of lines passing through the point of intersection of two lines

Various forms of equation of the line General equation of a line Distance of a point from a line	
--	--

### 11. Conic sections

RETAINED PORTION	DELETED PORTION
Nil	Full Chapter is deleted

### 12. Introduction to Three-dimensional Geometry

RETAINED PORTION	DELETED PORTION
Introduction Co ordinate axis and planes in three dimensional space Distance between two points Section formula	Nil

### 13. Limits and Derivatives

RETAINED PORTION	DELETED PORTION
Introduction Intuitive idea of derivatives Limits Limits of trigonometric functions Derivatives	Nil

### 14. Mathematical Reasoning

RETAINED PORTION	DELETED PORTION
Nil	Full chapter is deleted

### 15. Statistics

RETAINED PORTION	DELETED PORTION
Introduction Measures of dispersion Range Mean Deviation Variance and standard deviation	Analysis of frequency distributions with equal means but different variances

### 16. Probability

RETAINED PORTION	DELETED PORTION
Introduction Random experiments Event	Axiomatic (set theoretic) probability, connections with other theories of earlier classes.