

# C O N T E N T S

CHAPTER I.	INTRODUCTION	5
CHAPTER II.	BASIC DEFINITIONS	7
2.1	ARITHMETIC. Galois Fields, Quadratic Numbers, Legendre Symbol, Fermat Numbers, Cyclotomic Numbers	7
2.2	BALANCED INCOMPLETE BLOCK DESIGNS. BIBD, $(b, v, r, k, \lambda)$ -configurations, SBIBD, $(v, k, \lambda)$ -configurations	12
2.3	MATRICES. Incidence Matrices, Hadamard Matrices, Kronecker Products	13
2.4	DIFFERENCE SETS. Cyclic Difference Sets, Group Difference Sets	19
2.5	GRAPHS. Subgraphs, One-factorizations, Edge Colourings	21
2.6	GROUPS AND GENERALIZATIONS. Groupoid, Semigroup, Quasigroup, Loop, Latin Squares	23
2.7	PARTITIONS. $(k, A_i)$ -subsets, Maximal Sum-free Sets, $\lambda(G)$ , Schur Function, n-fold Regular	26