

**Curriculum Plan: B.Sc. (Hons) Mathematics (Semester III)- Discrete Mathematics
(Including Practical) 2024-25 Odd Sem**

Anjali Assistant Professor Department of Mathematics Kalindi College University of Delhi Delhi- 110008 Mobile: 8708175676 E- mail: anjali@kalindi.du.ac.in		Marks Distribution	Theory - 90
			Internal Assessment- 30 Practical - 40
		Classes Assigned	Lectures: 1 per week
	References	1. Davey, B. A., & Priestley, H. A. (2002). Introduction to Lattices and Order (2nd ed.). Cambridge University press, Cambridge. 2. Goodaire, Edgar G., & Parmenter, Michael M. (2006). Discrete Mathematics with Graph Theory (3rd ed.). Pearson Education Pvt. Ltd. Indian Reprint. 3. Lidl, Rudolf & Pilz, Gunter. (2004). Applied Abstract Algebra (2nd ed.), Undergraduate Texts in Mathematics. Springer (SIE). Indian Reprint	
	Week	Topics	
	1st week	Switching circuits.	
	2nd week	Integrability Switching circuits and applications	
	3rd week	Algebras to logic gates and a Boolean table of logic gates.	
	4th week	Representation theorem, Boolean algebras, and their examples.	
	5th week	Boolean polynomials, Equivalence of Boolean polynomials.	
	6th week	De Morgan's laws, Boolean homomorphism.	
	7th week	Boolean polynomial functions and its examples.	
	8th week	Disjunctive normal form and conjunctive normal form of Boolean polynomials	
	9th week	Minimal forms of Boolean polynomials.	
	10th week	Quine-McCluskey method.	
	11th week	Karnaugh diagrams.	
	12th week	Set theory	
	13th week	Probability theory.	
	14th week	Class Test and Assignment.	
	15th week	Revision and Assignment problem.	