Contents

Chapter	1. Algebraic Properties of Boolean Algebras1
1.1	Algebraic Systems and Constructions
1.2	Definitions and the Simplest Properties of Boolean Algebras 15
1.3	Ideals and Quotient Algebras of Boolean Algebras
1.4	The Stone Theorem on Representations of Boolean Algebras 39
1.5	The Vaught Criterion
1.6	Linearly Ordered Generating Sets
1.7	Generating Trees
1.8	Ershov Algebras and The Isomorphism Problem 71
Chapter	2. Elementary Classification of Boolean Algebras
2.1	Basic Notions and Methods of Model Theory 91
2.2	Definable Ershov–Tarski Ideals and Elementary Characteristics
	of Boolean Algebras
2.3	Countably Saturated Boolean Algebras and Elementary Classi-
	fication
2.4	Model-Complete Theories of Boolean Algebras
2.5	Consistent Complete Theories of Boolean Algebras $\ldots \ldots \ldots 132$
2.6	Restricted Theories of Boolean Algebras

Contents

Chapter	3. Constructive Boolean Algebras	149
3.1	Basic Notions of the Theory of Algorithms and Constructive	
	Models	150
3.2	Constructibility in Linear Orders and Boolean Algebras	174
3.3	Trees Generating Constructive Boolean Algebras	180
3.4	Decidable Boolean Algebras	190
3.5]	Restricted Fragments of the Theory of Boolean Algebras and	
]	Decidable Algebras	214
3.6	Algorithmic Dimension of Boolean Algebras	249
3.7	Algorithmic Properties of Subalgebras and Quotient Algebras of	
	Constructive Boolean Algebras	261
3.8	Automorphisms of Countable Boolean Algebras	290
Reference	es	303
Subject i	ndex	315