TABLE OF CONTENTS

PREFACE XI

PART 0: AN INTRODUCTION TO GENERAL INTENSIONAL LOGICS

CHAPTER 0 / Consequence Relations 3
0. Basic Notions 4
1. Basic Completeness Theorem 14
2. Dependence of One Semantics on Another 21

PART 1: AN INTRODUCTION TO ONE DIMENSIONAL MODAL LOGICS

CHAPTER 1 / Basic Notions 27
3. The Syntax 27
4. The Interpretation 30
5. The Completeness Theorem 31

CHAPTER 2 / General Theory of Unary Intensional Connectives 36
6. Neighbourhood Systems 37
7. Kripke Systems 39

CHAPTER 3 / Basic Necessity Systems 44
8. The Main Predicate Calculi 44
9. The Barcan Formula 48
10. Special Topics 52

CHAPTER 4 / Basic Tense Systems 61
11. Basic Tense Systems 62
12. Exercises 69

CHAPTER 5 / Possible Worlds with Varying Domains 71
13. Neighbourhood Structures with Varying Domains 71
14. Kripke Structures with Varying Domains 75
15. Exercises 79

CHAPTER 6 / Equality and Proper Names 81
16. Pure Theory of Equality 81
17. Equality in Kripke Structures 84
18. Proper Names 92

CHAPTER 7 / Propositional Statability Operators 94
19. Tensed Statability Operators 94
20. Modal Statability Operators 103

PART 2: TECHNICAL RESULTS FOR PROPOSITIONAL CALCULI

CHAPTER 8 / The Finite Model Property 109
21. Ordinary Filtration 109
22. Extensions of *S4.3* 113
23. Lack of the Finite Model Property 117
24. An Extension of S4 Without the Finite Model Property 121

CHAPTER 9 / Selective Filtration 124
25. Selective Filtration in Non-reflexive World Structures 124
26. Reflexive Systems 132
27. Exercises 134

PART 3: INTRODUCTION TO MANY DIMENSIONEL MODAL LOGICS AND APPLICATIONS

CHAPTER 10 / Two Dimensional Propositional Tense Logics 139
28. The Systems *G4* and $G^2 4$ 141
29. The Systems *GJ4* and $G^2 J4$ 142
30. The System $K_t^2 4$ 146
31. The System $K_t^2 J4$ 150
32. The System G_2 153

CHAPTER 11 / An Appendix 157
33. A Theory of Proper Names and Conceptual Change 157

CHAPTER 12 / Some Applications 165
34. Tense Logics and the Tenses of English 165

PART 4: SPECIAL SYSTEMS

CHAPTER 13 / Relative Necessity Operators and the Subjunctive Conditional 179
35. n-ry Entailment and Necessity Operators 179
36. A General Theory of the Conditional in Terms of a Ternary Operator 187

CHAPTER 14 / Propositional Quantifiers 193
37. Systems Without the Comprehension Axiom 193
38. The Comprehension Axiom 198

CHAPTER 15 / Basic Entailment Type Logics 202
39. Weak Entailment Systems 202

PART 5: THE DECISION PROBLEM

CHAPTER 16 / The Reduction Method 215
40. The Reduction Method for Modal Systems 217
41. Some Completeness Theorems 223

CHAPTER 17 / Some Decidability Results 230
42. Simple Results 230
43. More Decidability Results 232
44. Transfer Property 238
45. Exercises 248
46. On Decidable, Finitely Axiomatizable, Modal and Tense Logics Without the Finite Model Property 248

CHAPTER 18 / The Decision Problem for Predicate Systems 266
47. Undecidability Results 266
48. Decidability Results 271

PART 6: SPECIAL TOPICS

CHAPTER 19 / Completeness for Frames 275

49. Completeness for Kripke Frames 275
50. Completeness for Neighborhood Frames 278

CHAPTER 20 / The Interpolation Theorem 282
51. The Interpolation Theorem 282

PART 7: NOTES AND SOME REFERENCES

SCHEME OF THE BOOK 299

REFERENCES 301

INDEX OF NAMES 305