
Contents

Preface	v
1 Introduction	1
2 Consumer Behaviour	4
2.1 Description of Tastes and Preferences	
2.2 Basic Assumptions	
2.3 A Two-good Example	
2.4 A General Model of Demand	
2.5 A Generalized Model of Consumer Behaviour	
2.6 A Time Allocation Model	
3 Production Planning	25
3.1 Meeting a Production Target	
3.2 Activity Analysis	
3.3 Searching for Improvement	
3.4 The Optimal Position	
4 Computation and Valuation	42
4.1 The Simplex Method	
4.2 Derivation of the Supply Curve	
4.3 Value at the Margin	
4.4 A Decomposition Algorithm	
5 Behaviour of the Firm	65
5.1 Economic Models of the Firm	
5.2 Perfect Competition	
5.3 Non-linearities; Variable Returns to Scale and Monopolies	
5.4 Market Games	
5.5 Alternative Objectives	

6	Transport Planning	87
6.1	The Transportation Problem	
6.2	The Interpretation of Shadow Costs	
6.3	Problems of Traffic Planning	
6.4	Application to Urban Planning Problems	
7	Traffic Control	106
7.1	A Bid System	
7.2	A Ballot System	
7.3	Congestion of Road Space	
7.4	Choice of Time of Travel	
8	Models of Location	123
8.1	Location and Economic Rent	
8.2	Location of Industrial Activity within a Region	
8.3	Distribution of Residential Activity	
8.4	A Model of Industrial Location and Trade between Regions	
9	Linear Techniques and the Economy	137
9.1	A Complete Productive System	
9.2	Perfectly Competitive Equilibrium	
9.3	Input–Output Analysis	
10	Consideration of Time	151
10.1	Consumer Behaviour	
10.2	Production Planning	
10.3	Growth in the Economy	
	References and Further Reading	157
	Appendix A: Mathematical Notes	160
	Appendix B: Mathematical Programming: Summary	167
	Index	171