

TABLE OF CONTENTS

1 INTRODUCTION	2
1.1 Introduction	3
1.2 Literature Review	6
1.3 The Research Problem	12
1.4 Overview Of The Thesis	14
2 A SINGLE PERIOD INVENTORY MODEL WITH DISCRETE DEMAND	20
2.1 Introduction	21
2.2 Notations	22
2.3 The Proposed Model	22
2.4 An Illustrative Example	29
3 A SINGLE PERIOD INVENTORY MODEL WITH POISSON DEMAND	32
3.1 Introduction	33
3.2 Notations	36
3.3 The Proposed Model	36
3.4 An Illustrative Example	43
4 A DISCRETE INVENTORY MODEL WHEN SALE PRICE VARIES WITH STOCK LEVEL	46
4.1 Introduction	47
4.2 Notations	51
4.3 The Proposed Model	51
4.4 Algorithm	58
4.5 An Illustrative Example	59

5 A DISCRETE INVENTORY MODEL WHEN SALE PRICE DECREASES WITH TIME	62
5.1 Introduction	63
5.2 Notations	66
5.3 The Proposed Model	67
5.4 Algorithm	75
5.5 An Illustrative Example	75
6 A DISCRETE INVENTORY MODEL WHEN SALE PRICE VARIES AT RANDOM TIME	80
6.1 Introduction	80
6.2 Notations	82
6.3 The Proposed Model	82
6.4 Algorithm	92
6.5 An Illustrative Example	93
Appendix	95
Bibliography	106

TABLE OF FIGURES

Figure 2.3(a) Inventory Level v/s Time for Continuous Demand	23
Figure 2.3(b) Inventory Level v/s Time for Discrete Demand	23
Figure 2.4 Expected Total Cost as a Function of n.....	30
Figure 3.1(a) Inventory Level over Time for Uniform Demand	34
Figure 3.1(b) Inventory Level over Time for Stochastic Demand.....	34
Figure 3.4 Expected Total Cost as a Function of n for Poisson Demand	44
Figure 4.5 Expected Total Cost as a Function of n when Sale Price varies with stock level.....	60
Figure 5.5 Expected Total Cost as a Function of n when Sale Price decreases with Time	78
Figure 6.5 Expected Total Cost as a Function of n when Sale Price varies at Random Time	94