

Contents

	Page No.
PART I	
Chapter 1 Introduction	
1.1 General Introduction	1
1.2 Review of Past Work	3
1.3 Pre-view of Present Work	7
PART II <u>New Solutions to Existing Inventory Models</u>	
Chapter 2 Stochastically Best Solution	
2.1 Introduction	10
2.2 Classical Newsboy Problem, Total Expected Cost and its distribution	11
2.3 Proposed Optimal Solution :	14
Chapter 3 Solutions Through Mode Minimization (Maximization)	
3.1 Introduction	16
3.2 Mode-Minimizing Solution for Classical Newsboy Problem.	17
3.3 Mode Maximizing solution.	31
Chapter 4 Dimensional Analysis in Inventory Models	
4.1 Introduction	38
4.2 (R, T) Policy	39
4.3 Approximations to R	40
4.4 Some Alternative Approximation	42

	Page No.
Part III	<u>Extensions of Existing Inventory Models</u>
Chapter 5	Generalizations of a Classical Model
	5.1 Introduction 44
	5.2 Model 45
	5.3 Case of linear unit production cost 51
	5.4 Case of exponential form of unit production cost 57
	5.5 Numerical Illustration 62
Chapter 6	Extension of EOQ Under Permissible Delay in Payments
	6.1 Introduction 67
	6.2 Model with Time Dependent Demand Rate 68
	6.3 Model Incorporating Random One Point Demand 71
	6.4 Model with Constant Rate of Demand and Random Lead Time 79
Chapter 7	Inventory Models For Deteriorating Items
	7.1 Introduction 84
	7.2 Probabilistic inventory model with time dependent decay rate 85
	7.3 An EOQ with deteriorating items facing time and selling price dependent demand for an optimum number of reorder time 93
	7.4 An EOQ with deteriorating item facing random demand for an optimum number of reorder time. 99
References	110

PART – I