## Contents

Prefa	ce	vii	
Cha	pter 1 Oscillation of Difference Equations		
1.1.	Introduction and the supplement bedraying	.81.1	
1.2.	Oscillation of Scalar Difference Equations	2	
1.3.	Oscillation of Orthogonal Polynomials	8	
1.4.	Oscillation of Functions Recurrence Equations	14	
1.5.	Oscillation in Ordered Sets	19	
1.6.	Oscillation in Linear Spaces	22	
1.7.	Oscillation in Archimedean Spaces	24	
1.8.	Oscillation of Partial Recurrence Equations	27	
1.9.	Oscillation of System of Equations	32	
1.10.	Oscillation Between Sets	36	
1.11.	Oscillation of Continuous–Discrete Recurrence Equations	39	
1.12.	Second Order Quasilinear Difference Equations	42	
1.13.	Oscillation of Even Order Difference Equations	56	
1.14.	Oscillation of Odd Order Difference Equations	65	
1.15.	Oscillation of Neutral Difference Equations	73	
1.16.	Oscillation of Mixed Difference Equations	79	
1.17.	Difference Equations Involving Quasi-differences	94	
1.18.	Difference Equations with Distributed Deviating Arguments	117	
1.19.	Oscillation of Systems of Higher Order Difference Equations	143	
1.20.	Partial Difference Equations with Continuous Variables	149	
Chapter 2 Oscillation of Functional Differential			
Equations			
2.1.	Introduction		
2.2.	Definitions, Notations and Preliminaries	167	
2.3.	Ordinary Differential Equations	173	

2.4.	Functional Differential Equations	180
2.5.	Comparison of Equations of the Same Form	199
2.6.	Comparison of Equations with Others of Lower Order	205
2.7.	Further Comparison Results	208
2.8.	Equations with Middle Term of Order $(n-1)$	225
2.9.	Forced Differential Equations	235
2.10.	Forced Equations with Middle Term of Order $(n-1)$	242
2.11.	Superlinear Forced Equations	244
2.12.	Sublinear Forced Equations	247
2.13.	Perturbed Functional Equations	249
2.14.	Comparison of Neutral Equations with Nonneutral Equations	252
2.15.	Comparison of Neutral Equations with Equations	
	of the Same Form	261
2.16.	Neutral Differential Equations of Mixed Type	265
2.17.	Functional Differential Equations	
	Involving Quasi-derivatives	275
2.18.	Neutral and Damped Functional Differential Equations	
	Involving Quasi-derivatives	286
2.19.	Forced Functional Differential Equations	
	Involving Quasi-derivatives	291
2.20.	Systems of Higher Order Functional Differential Equations	309
Refe	erences	318
Sub	ject Index	336