

## CONTENTS

<b>Acknowledgement</b>	i
<b>Abstract</b>	ii
<b>Abstrak</b>	iii
<b>Introduction</b>	iv
<b>Chapter 1 Introduction and preliminaries</b>	
1.1 Introduction	1
1.2 Some basic results on group rings	3
1.3 Some results on group theory	4
1.4 Direct sums and products	6
1.5 Idempotents and annihilators	9
1.6 Nil and nilpotent	12
1.7 Chain conditions	12
1.8 Prime and Jacobson radicals	14
1.9 Regularity	17
1.10 Polynomial rings	17
<b>Chapter 2 On essential right ideals and right singular ideals</b>	
2.1 Introduction	21
2.2 Definitions	22
2.3 Essential right ideals	23
2.4 Right singular ideals	30
2.5 Some relations and applications	38

<b>Chapter 3</b>	<b>On right finite dimensional group rings</b>	
3.1	Introduction	49
3.2	Finite dimensional modules	50
3.3	On necessary and sufficient conditions for a group ring to be right finite dimensional	61
<b>Chapter 4</b>	<b>On right nonsingular group rings and some related topics</b>	
4.1	Introduction	67
4.2	Some results on nonsingular rings	68
4.3	On necessary and sufficient conditions for a group ring to be nonsingular	76
4.4	Some relations between $Z(RG)$ , $P(RG)$ and $J(RG)$	84
<b>References</b>		91