PREFACE

This thesis is broadly divided into four chapters 0, 1, 2, and 3. Chapter 0 is devoted to collect all the necessary preliminaries which will be useful in our discussions in the main text of the thesis. Even though these preliminaries are well known for those working in Lattice Theory, it will be convenient for others to have all these elementary notions and results in the beginning of the thesis for the sake of ready reference. The proofs of most of the results presented in chapter 0 are either straightforward verifications or well known and hence we simply state the results and skip the proofs.

The main text of the thesis is in chapters 1, 2 and 3. Chapter 1 is on L-fuzzy ideals and filters of a general lattice, where L is a given frame. We divide the chapter 1 into four sections. Chapter 1 contains sufficient number of definitions, examples, results in L – fuzzy ideals and filters of a general lattice. The contents of this chapter are communicated for publication.

Chapter 2 is on L-fuzzy prime ideals and maximal ideals of lattices. We divide the chapter 2 into six sections, which covers irreducible elements in lattices, prime ideals and maximal ideals, prime L-fuzzy ideals, L-fuzzy prime ideals, maximal L-fuzzy ideals, L-fuzzy maximal ideals. The contents of this chapter are also communicated for publication.

Chapter 3 is on primeness and maximality in L-fuzzy filters. We divide the chapter 3 into four sections, which covers fundamental properties of these and we introduce the notions of prime L-fuzzy filter and L-fuzzy prime filter and extend the results proved for L-fuzzy ideals to these, maximal L-fuzzy filter, L-fuzzy maximal filter of lattice.

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