PREFACE

Since 1979, we undertook research in Mathematics and this Thesis is a sweet outcome of our efforts. We have included a major portion of the study that we carried out during all these years.

There are two parts in the Thesis, namely Part-A and Part-B.

The main theme of our study in Part-A is the study of comparability criteria such as general comparability, partial comparability and related concepts either for elements or for projections in a *-ring. In Chapter-I our considerations revolve around elements and in Chapter-II, around algebraic equivalence for projections.

Our emphasis in Part-B is on the prime spectrum and/or minimal spectrum of either the semiprime rings without involution or semiprime rings with involution. In the first case prime ideals are involved (Chapter-III). Whereas in the second case prime strict ideals are involved (Chapter-IV).

Definitions, lemmas, propositions, theorems are numbered consecutively sectionwise. The references are given at the end of each Chapter and at the end of introductions to Part-A and Part-B.