

CHAPTER I

INTRODUCTION

Our main problems are to characterize the maximal locally cyclic subgroups of abelian groups and, as application, to characterize the anticenters of abelian groups in terms of local cyclicity.

In Chapter II of this thesis, we introduce the notions of direct product and direct sum of groups, and then we characterize the locally cyclic groups as direct limits of cyclic groups.

In Chapter III, we characterize the maximal locally cyclic subgroups of abelian groups.

In Chapter IV, we study the anticenters of groups.

In Chapter V, we characterize the anticenter of an abelian group as the intersection of its maximal locally cyclic subgroups.

