



INTRODUCTION

In this thesis we consider two main problems. The first problem we study is the relationship between the properties of an A.C. semiring and the properties of its difference ring and also the relationship between the properties of a O-M.C. semiring and the properties of its quotient O-semifield.

In [2] Sutep generalized the concept of a semifield. The second problem we study is to find a generalization of the concept of O-M.C. so that semiring in this property can be embedded in Sutep' s generalized semifields. Also, we consider the question of generalized quotient semifields so that Sutep' s generalized semifield can be the quotient semifields of our generalized O-M.C. semirings.

In Chapter I, we introduce some notations, give definitions and recall some theorems that will be used.

In Chapter II, we study the relationship between properties of an A.C. semiring and properties of its difference ring.

In Chapter III, we study the relationship between properties of a O-M.C. semiring and properties of its quotient O-semifield.

In Chapter IV, we study the structure of almost multiplicatively cancellative semirings and give interesting examples.

In Chapter V, we study the problem of whether or not a given almost multiplicatively cancellative semiring can be embedded in a semifield and if so whether or not a generalized quotient semifield exists.