

CHAPTER I

INTRODUCTION

The main purpose of this thesis is to study the structure of finite-dimensional associative algebras B over a field K .

In Chapter III, we shall see that the algebra B is a direct sum of a semisimple subalgebra and a nilpotent subalgebra.

Chapter IV gives the structure theory of semisimple rings with minimum condition.

Chapter V classifies the nilpotent algebras of dimension 1, 2 and 3. This chapter also gives a necessary and sufficient condition for the existence of an isomorphism between a nilpotent algebra of dimension $n-1$ and a quotient algebra of a polynomial algebra $K_0[x]$ by the ideal (x^{n-1}) .