

## ABSTRACT

The study of centralizing and commuting mappings as well as centralizing and commuting derivations of prime and semi prime rings was initiated by E.C. Posner [21]. A remarkable work has been done (see [8,13,47,9]) on these mappings during the last three decades. It is well known that every commuting mapping is centralizing but the converse is not true, in general. In order to handle the reverse situation, various commuting conditions have been investigated by a number of researchers (see[8,13,61,43]) in different environments. In this thesis, we investigate commuting conditions of centralizing derivations and their associated mappings in the appropriate class of rings, introduced in chapter No. 2 as primary and semi primary rings, which are the generalization of prime and semi prime rings respectively.