

A Characterization of Frobenius Derivations and Automorphisms of a Class of Local Near-Rings

Abstract

In this chapter, we use the idealization procedure for finite rings to construct a class of local quasi-3 prime Near-Rings N with a Jordan ideal $J(N)$ and admitting a Frobenius derivation. The structural characterization of $N ; J(N)$ and commutation of N via the Frobenius derivations have been explicitly determined. This work has also been extended to an investigation of the symmetries of the graphs $\mathcal{G}(N)$ of the classes of near-rings N studied. Indeed some structures and orders of the automorphism groups of $\mathcal{G}(N)$ have been determined.

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