ON THE REDUCTION AND THE EXTENSION OF (m,n)-RINGS

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The concept of (m,n)-rings was introduced in 1965, by Cupona [4] and in a speciale case (n=2) by Boccioni [1]. Further, (m,n)-rings were examined by Crombez [2],[4] Purdea [11], Dudek [6], Leeson-Butson [7], in which some familiar results for ordinary rings (m=n=2) were generalized. Also, Boccioni [1] respectively Crombez [3] and Leeson-Butson [7] proved that a generalization of the Post coset theorem [9,p 218] could be obtained for (m,2)-rings, respectively for (m,n)-rings.

In this paper we define some extensions and reduces of (m,n)-rings and the connection between them through the change of the n-semigroup operation of the (m,n)-ring.