ON GENERALIZED (M, N, L)-JORDAN CENTRALIZERS OF SOME ALGEBRAS

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ABSTRACT. Let $\mathcal{A}$ be a unital algebra over a number field $\mathbb{K}$. A linear mapping δ from $\mathcal{A}$ into itself is called a generalized $(m,\ n,\ l)$-Jordan centralizer if it satisfies $(m + n + l)\delta(A^2) - m\delta(A)A - nA\delta(A) - lA\delta(I)A \in \mathbb{K}I$ for every $A \in \mathcal{A}$, where $m \geq 0, n \geq 0, l \geq 0$ are fixed integers with $m + n + l \neq 0$. In this paper, we study generalized $(m,\ n,\ l)$-Jordan centralizers on generalized matrix algebras and some reflexive algebras alg$\mathcal{L}$, where $\mathcal{L}$ is a CSL or satisfies $\vee\{L : L \in \mathcal{J}(\mathcal{L})\} = X$ or $\wedge\{L_- : L \in \mathcal{J}(\mathcal{L})\} = (0)$, and prove that each generalized $(m,\ n,\ l)$-Jordan centralizer of these algebras is a centralizer when $m + l \geq 1$ and $n + l \geq 1$.

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