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On quasi-principally injective modules. (English) Zbl 0949.16003

Algebra Colloq. 6, No. 3, 269-276 (1999).

A right R -module N is said to be M -cyclic if it is isomorphic to M/L for some submodule $L \subseteq M$, where M is a right R -module. N is defined to be M -principally injective if every homomorphism from an M -cyclic submodule of M to N can be extended to a homomorphism from M to N . N is called principally injective if it is R -principally injective. A module M is called quasi-principally injective if it is M -principally injective and a ring R is called right self-principally injective if R_R is R -principally injective.

Characterizations of M -principally injective and quasi-principally injective modules are found, primarily in terms of some qualities of the endomorphism ring of M_R and the right or left annihilators of certain ideals and elements.

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Keywords:

M -principally injective modules; quasi-principally injective modules; weakly M -injective modules