Some New Results on Weak Integer Additive Set-Labeling of Graphs

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Abstract

Let $\mathbb{N}_0$ denote the set of all non-negative integers and $P(\mathbb{N}_0)$ be its power set. An integer additive set-labeling (IASL) of a graph $G$ is an injective function $f : V(G) \to P(\mathbb{N}_0)$ such that the induced function $f^+ : E(G) \to P(\mathbb{N}_0)$ is defined by $f^+(uv) =$
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\[ f(u) + f(v) \]

, where \( f(u) + f(v) \) is the sumset of
\( f(u) \)
and
\( f(v) \).

An IASL \( f \) is said to be an integer additive set-indexer (IASI) if the associated edge-function \( f + \) is also injective. An IASL \( f \) of a given graph \( G \) is said to be a weak integer additive set-labeling (WIASL) of \( G \) if the cardinality of the set-label of every edge of \( G \) is equal to the cardinality of the set-label of at least one end vertex of it. In this paper, we study the admissibility of weak integer additive set-labeling by different graphs.

References

15. N. K. Sudev, K. A. Germina and K. P. Chithra, Weak Integer Additive Set-Labeled


Index Terms

Computer Science

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