SUPER EDGE MAGIC LABELING ON SUBCLASSES OF TREE

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Abstract

Let $G(V, E)$ is a graph with vertex set $V(G)$ and edge set $E(G)$. A mapping $f$ from $V(G) \cup E(G)$ to $\{1, 2, 3, \ldots, p + q\}$ where $p$ is the order and $q$ is the size of the graph called super edge magic labeling if $f$ is a bijectif function and $V(G)$ is mapped to $\{1, 2, 3, \ldots, p\}$ and $f(E(G)) = \{p + 1, p + 2, p + 3, \ldots, p + q\}$ such that each edge $xy$ in $G(V, E)$ satisfies $f(x) + f(xy) + f(y) = k$ where $k$ is a constant called magic number. At this final project, carried out the labeling on regular caterpillar $C_{m,n}$, regular firecracker $F_{m,n}$ and regular banana tree $B_{m,n}$ with $m$ and $n$ are positive integers that qualifies super edge magic labeling. After getting the label. The specifies the labeling pattern on the vertex and edge so we get the magic number $k$ then analyzing the magic number which is obtained.

Key-words: Caterpillar, Firecracker, Banana Tree, Super Edge Magic Labeling.