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THE GRACEFUL LABELLING OF THE GRAPH OBTAINED FROM THE SPLITTING GRAPH OF CYCLES BY ADDING PENDANT VERTICES TO EACH VERTEX

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Abstract

A graceful labelling of a simple, undirected graph G of size n is an assignment of labels from the set $\{0, 1, 2, \dots, n\}$ to the vertices of G such that when each edge has assigned a weight defined by the absolute difference of its end vertices, the resulting weights are distinct. In this paper, we give the graceful labelling of the graph $S''[C_n, t]$, for n = 4, 5 and 6, where $S''[C_n, t]$ is the resultant graph obtained by adding 2n pendant vertices to the splitting graph $S'(C_n)$ of the cycle C_n such that every pendant vertex is incident with a unique vertex of the splitting graph.

Key Words : Graceful labelling, Cycles, Splitting graph of cycles.

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