ON THE EDGE-BALANCED INDEX SETS OF PRODUCT GRAPHS

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Abstract. We characterize strongly edge regular product graphs and find the edge-balanced index sets of complete bipartite graphs without a perfect matching, the direct product $K_n \times K_2$. We also prove a lemma that is helpful to determine the edge-balanced index sets of regular graphs.

Key words: Edge-labeling, partial-coloring, edge-friendly labeling, friendly labeling, cordiality, friendly index set, edge-balanced index set.