NON-SPLIT PERFECT TRIPLE CONNECTED DOMINATION NUMBER OF SEMI PRODUCT OF PATHS AND CYCLES

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ABSTRACT. Recently the concept of non-split Perfect Triple connected domination number was introduced by G. Mahadevan et.al., and obtained many interesting results along with some product related graphs. A subset S of V of a non-trivial graph G is said to be non-split perfect triple connected dominating set, if S is a triple connected dominating set and $<V\text{-}S>$ is connected and has at least one perfect matching. The minimum cardinality taken over all non-split perfect triple connected dominating sets in G is called the non-split perfect triple connected domination number of G and is denoted by $\gamma_{nsptc}(G)$. In this paper, we investigate this parameter for various semi product of paths and cycles

1. INTRODUCTION

By a graph we mean a finite, simple, connected and undirected graph G(V,E), where V denotes its vertex set and E its edge set. Unless otherwise stated, the graph G has p vertices and q edges. We denote a path on m vertices by P_m. The concept of triple connected graphs was introduced by J. Paulraj Joseph et.al., A graph G is said to be triple connected if any three vertices lie on a path in G. A dominating set S is said to be triple connected dominating set, if the sub graph $<S>$ is triple connected. The minimum cardinality taken over all triple

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