**ABSTRACT**

A dominating set for a graph G = (V,E) is a subset D of V such that every vertex not in D is adjacent to at least one member of D. The domination number γ(G) is the number of vertices in a smallest dominating set for G.

In this paper a new parameter, split total dominating Set D has been introduced. A dominating set is called split total dominating set if <V-D> is disconnected and every vertex v in V is adjacent to an element of D. The split total domination number is given by γst(G). We considered the split total domination number of some undirected graphs, non-trivial, connected, and finite. The bounds for split total domination number and the Nordhaus-Gaddum type results on split total domination number has been discussed. Also a few results on split total domination numbers have been obtained.