Research Proposal

Topic:

A Study on Vertex-Magic, Super Edge-Magic and its Duality of some class of graphs.

Introduction:

Graph Theory is the branch of mathematics concerned with networks of points connected by lines. The history of Graph Theory may be specifically traced to 1735, when the Swiss Mathematician Leonhard Euler solved the Konigsberg bridge problem. His proof involved only references o the physical arrangement to the bridges, but essentially he proved the first theorem in Graph Theory.

The concept of magic labeling was first introduced by Sedlacek in the year 1964. These labeling have been studied by Stewart in 1966, who called a labeling as Super magic if the labels are consecutive positive integers.

Keywords:

Graph, Edge-magic, Vertex magic, V-Super Edge-magic, E-Super Edge-magic, V-Super Vertex-magic, E-Super Vertex-magic and Duality of Edge Magic.

Abstract:

Magic labelings provides an introduction to the more general topic of graph labelings. This topic is large and growing.

Our aim is to study the duality of V-Super Edge-Magic of some class of Graphs are E- Super Edge-Magic.

Outcomes:

We have studied the duality of V- super edge-magic of some graphs are duality of E-Super edge-magic. Its magic constants are given below:

- Cycle (C_n), k' = k + v.
- Star ($k_{1,n}$), k' = k + n – 2.
- Path (p_n), k' = k + v – 2.