A Review of Graph Labeling Methods in Combinatorics

Vandana Kashyap[1] and Dr. Manish Kumar Singh[2]

Research Scholar, Department of Mathematics[1]

Research Guide, Department of Mathematics[2]

Sunrise University, Alwar, Rajasthan, India

Abstract: *We discuss a few items on various areas of graph labelling in this study, Labelled graphs serve as helpful mathematical models for a wide range of applications such as coding theory, including the design of good types codes, synch-set codes, missile guidance codes, and convolutional codes with optimal autocorrelation properties. Labelling a graph is the assignment of integers to the vertices or edges or both, subject to certain conditions that have been motivated by practical problems. In this study, we explore the neighbourhood prime labelling of the crown graph, the route union of a limited number of copies of the growth of the crown graph, and magic labelling of type (1, 1, 1) for wheels and subdivided wheels. Next, we demonstrate that a wheel allows for magic labelling of type (0, 1, 1).*

Keywords: Graph Labelling, Problems, Crown graph, Neighbourhood prime labelling, Magic labelling of type (a, b, c).