

## ABSTRACT

The purpose of this study is to investigate the graph theoretic aspects of the graph on a Weyl group. The graph on a Weyl group depends upon the associated root system. We determine the type of root system for which the graph on a Weyl group is a line graph or an interval graph or a bipartite or a bicolourable graph. We also study about the factorization of the graph on a Weyl group. In each case we first consider an irreducible root system and then after proving some necessary results we solve the problem completely for a reducible root system.

---

KEY WORDS: Root systems, Weyl group, Line graph, Interval graph, Bipartite graph, Bicolourable graph, factorization.