2. REVIEW OF LITERATURE

Plants have potent bio chemicals and have components of phyto medicine. Since time was immemorial. Man is able to obtain from them a marvellous assortment of industrial chemicals. Plant based natural constituents can be derived from any part of the plant like bark, leaves, flowers, roots, fruits, seeds, etc (Gordon and David, 2001) i.e. any part of the plant may contain active components. The beneficial medicinal effects of plant materials typically result from the combinations of secondary products present in the plant. The medicinal actions of plants are unique to particular plant species or groups and are consistent with this concept as the combination of secondary products in a particular plant is taxonomically distinct (Wink, 1999). They are usually subdivided according to their substituents into flavanols (kaempferol, quercetin), anthocyanins, flavones, flavonones and chalcones. These flavonoids display a remarkable array of biochemical and pharmacological actions viz., anti-inflammatory, antioxidant, anti-allergic, hepatoprotective, antithrombotic, antiviral and anticarcinogenic activities (Middleton and Kandaswami, 1993). These compounds appear to play vital roles in defence against pathogens and predators and contribute to physiological functions such as seed maturation and dormancy (Winkel-Shirley, 2002). They are synthesized from phenyl propanoid and acetate derived precursors. Flavonoids are important for human beings due to their antioxidative and radical scavenging effects as well as their potential estrogenic and anticancer activities (Springob and Saito, 2002). Quercetin belongs to this group of plant pigments called flavonoids that are largely responsible for the colours of many fruits, flowers and vegetables. Quercetin works as anti-inflammatory, antioxidant, anticancer agents. (Lamson and Brignale, 2000 and Mahesh and Vidya, 2008). Based on the above literature are reviewed and presented in this chapter under following headings:

2.1. Introduction
2.2. Biological activity of GLV flowers
2.3. Essential oil extraction from GLV flowers
2.4. Chemical constituents of GLV flowers
2.5. Clinical pharmaceutical activity of GLV flowers
2.6. Antioxidant activity of GLV flowers
2.7. Antimicrobial activity of GLV flower