PREFACE

Natural products have played and continue to play an invaluable role in the drug discovery process. At least 119 compounds derived from 90 plant species are important drugs in current clinical use and 77% of these compounds are derived from plants employed in traditional medicine (based on ethnomedical or ethnobotanical information). India has a rich heritage of medicinal plants and one fifth of all the plants found in India are used for various medicinal purposes including epilepsy. Only 7% of the plants were evaluated systematically and still there are several plants which are to be exploited. Thus a natural wealth waits to be explored scientifically for the benefit of mankind.

Natural herbal Plants are the major sources for various therapeutic agents in the treatment of a wide variety of diseases. The potency of herbal drugs against diseases is mainly due to the presence of different chemical constituents within them. Plants with flavanoids and related compounds (polyphenols) belong to the recently popular Phytochemicals. Plants with these compounds possess various therapeutic properties, which includes antiviral, antiallergic, antiplatelet, antiestrogen, anticarcinogenic, antiproliferative, antioxidant, antiepileptic and analgesic properties etc.

In the present work, four different plants such as *Acalypha fruticosa*, *Barringtonia racemosa*, *Erythrina stricta* and *Gossypium herbaceum* of plant kingdom were undertaken to evaluate antiepileptic activity. In this study, the potency of Petroleum
ether, Chloroform, Ethanol and Aqueous extracts of the above plants were tested against convulsions induced by MES, PTZ and INH.

The research work embodied in this thesis is planned to prepare different extracts of the above plants and evaluate antiepileptic activity. The plan of work consists of plant collection, preparation of extracts, acute toxicity studies, antiepileptic activity of various plants which are incorporated in eight chapters. At the end of all the chapters literature citations are given.