

## ABSTRACT

The present thesis entitled “**Phytochemical and Biological studies on certain Medicinal Plants of North-East India**” is the study of phytochemical and biological investigation made on wild herbs/plant, *Phyllanthus acidus* (L)Skeels and *Croton caudatus* Geiseler growing in Jiribam, Manipur and Silchar, Assam, North-East India.

In **Chapter I**, introduction to natural products from various sources and their uses in different field were discussed.

In **Chapter II**, botanic description and distinctive features of the plant species (*Phyllanthus acidus* (L)Skeels and *Croton caudatus* Geiseler) growing locally are presented.

In **Chapter III**, reviews of literature of both the plants were discussed.

In **Chapter IV**, the preliminary phytochemical studies of the methanol extract of both the plants were studied.

In **Chapter V**, an Antioxidant property and Total Phenolic Content (TPC) of the plant extracts (*Phyllanthus acidus* (L)Skeels and *Croton caudatus* Geiseler) is described.

In **Chapter VI**, antimicrobial activity of root bark extract of *Croton caudatus* Geiseler and stem bark extract of *Phyllanthus acidus* (L.)Skeels at different concentrations against selected species of bacterial and fungal pathogens were evaluated. The minimum inhibitory concentration (MIC) of both the plant extracts are also evaluated against selected bacterial strains.

In **Chapter VII**, to evaluate the acute toxicity and sub-acute toxicity study, animal experiment by feeding with the plant extracts were executed and studied.

In **Chapter VIII**, the hepatoprotective activity of the methanol extract of root bark of *Croton caudatus* Geiseler were studied.

In **Chapter IX** and **Chapter X**, isolation, characterisation and chemical analysis of the compound isolated from methanol extract of root bark of *Croton caudatus* Geiseler and *Phyllanthus acidus* (L)Skeels were studied.