ABSTRACT
The present thesis entitled "Chemical Investigation On Biologically Active Flavonoidal Constituents Of Some Leguminosae Plants" deals with the isolation, purification and characterisation of the flavonoidal constituents from following three Leguminosae plants.

1. Bauhinia variegata Linn.
2. Abrus precatorius Linn.
3. Albizzia julibrissin Durazz.

It consists of six chapters, each of which is briefly described below:

**CHAPTER-1**

**INTRODUCTION**

This chapter deals with the significance and importance of medicinal plants. It includes an account of the numerous physiological activities with special reference to flavonoids from plant origin right from primitive age. It provides an updated account of recent phytochemical examination carried out on the Leguminosae family. It also incorporates the applications of modern techniques for separation, isolation and structural establishment of bioactive constituents.

**CHAPTER-2**

**ISOLATION AND STUDY OF A NEW FLAVONE GLYCOSIDE: 5-HYDROXY-7,3',4', 5'-TETRAMETHOXY FLAVONE 5-O-β-D-XYLOPYRANOSYL (1→2)-O-α-L-RHAMNO-PYRANOSIDE FROM THE SEEDS OF BAUHINIA VARIEGATA LINN.**

This chapter incorporates with the isolation and structural elucidation of a new flavone glycoside (KM) obtained from acetone soluble fraction of the ethanolic extract of the seeds of Bauhinia variegata Linn. The compound (KM) (0.0182%) had molecular formula C_{30}H_{36}O_{15}, m.p.252-253°C,[M]+636(EIMS). Its structure was established as 5-hydroxy-7,3',4',5'-tetramethoxy flavone-5-O-β-
D-xylopyranosyl (1→2)-O-α-L-rhamnopyranoside on the basis of various colour reactions, alkaline degradations and spectral techniques.

**CHAPTER-3**

**ISOLATION AND STUDY OF A NEW FLAVONOL GLYCOSIDE: 3,4′- DIHYDROXY 7,3′,5′-TRIMETHOXY FLAVONE-3-O-β-D-GALACTOPYRANOSYL (1→4)-O-α-L-XYLOPYRANOSIDE FROM THE SEEDS OF ABRUS PRECATORIUS LINN.**

A new flavonol glycoside (MM) (0.0165%) obtained from chloroform soluble fraction of the ethanolic extract of the seeds of this plant which had molecular formula C_{29}H_{34}O_{16}, m.p. 260-262°C and [M]+ 638 (EIMS). Its structure has been characterised as 3,4′-dihydroxy-7,3′,5′-trimethoxy flavone-3-O-β-D-galactopyranosyl (1→4)-O-α-L-xylopyranoside by various chemical degradations, colour reactions and spectral analysis.
CHAPTER-4

ISOLATION AND STUDY OF A NOVEL FLAVONE GLYCOSIDE: 5,7,8-TRIHYDROXY-3-METHOXY FLAVONE-8-O-[(E)-2-METHYL BUTENOATE]-7-O-β-D-GLUCOPYRANOSYL (1→4)-O-α-L-RHAMNOPYRANOSIDE FROM THE BARK OF ALBIZZIA JULIBRISSIN DURAZZ.

This chapter includes the isolation and structural elucidation of a novel flavone glycoside (MS) (0.024%) molecular formula C₃₃H₃₈O₁₆, m.p. 254-256⁰C and [M]+ 690 (EIMS), obtained from the ethyl acetate soluble part of ethanolic extract of bark of this plant. Its structure has been determined as 5,7,8-trihydroxy-3-methoxyflavone-8-O-[(E)-2-methyl butenoate]-7-O-β-D-glucopyranosyl (1→4)-O-α-L-rhamnopranoside by various spectral data, chemical degradations and colour reactions.
CHAPTER-5

ISOLATION AND STUDY OF A NEW FLAVONOL GLYCOSIDE: 3,5,4'-TRIHYDROXY-7,3'-DIMETHOXY FLAVONE-3-O-β-D-GLUCOPYRANOSYL(1→4)-O-α-L-XYLOPYRANOSIDE FROM THE SEEDS OF ALBIZIA JULIBRISSENN DURAZZ.

A new flavonol glycoside (BS) (0.018%) molecular formula C_{28}H_{36}O_{16}, m.p. 212-214°C and [M]^+ 624 (EIMS) isolated from the chloroform soluble fraction of ethanolic extract of this plants. On the basis of various colour reactions, alkaline degradations and spectral techniques, its structure was identified as 3,5,4'-trihydroxy-7,3'-dimethoxy flavone-3-O-β-D-glucopyranosyl (1→4)-O-α-L-xylopyranoside.

CHAPTER-6

ANTIMICROBIAL ACTIVITY OF THE VARIOUS COMPOUNDS ISOLATED FROM PLANTS

Antibacterial and antifungal activity of the compounds of the seeds of Abrus precatorius Linn, Albizia julibrissin Durazz and bark of Albizia julibrissin Durazz were performed on broad spectrum various bacteria and fungi using filter paper disc diffusion plate method with chloramphenicol and streptomycin as standard drugs and the growth of inhibition in millimeters was determined.