The present research work pertains to the study entitled “ETHNOBOTANICAL AND PHYTOCHEMICAL STUDIES ON SOME MEDICINAL ARID ZONE PLANTS OF NAGAUR” which has been divided into twelve chapters. The introduction and review of literature of all the chapters have been given in the beginning whereas summary and highlights are in the end. Bibliography is given in the last, tables and graphs are given at the end of each chapter.

Four plant species *Abutilon indicum* (Linn.) sweat, *Datura Stramonium* (Linn.), *Withania somnifera* (Linn.) Dural and *Tribulus terrestris* (Linn.). were selected in present work. Fresh, healthy and mature plants were collected from two different sites of Kuchaman city area of Nagaur district.

1. Palada pond area
2. Bherun nada area

The evaluation of various nutritive contents of roots, shoots and fruits of all the selected plant species collected from two different sites of Kuchaman city area of Nagaur district have been carried out.

Qualitative and quantitative estimation of amino acids from various plant parts of all the four plant species collected from kuchaman city area have been carried out.

Mineral contents have been quantitatively estimated from different plant parts of all the four plant species collected from two different sites.

Various plant parts collected from two different sites have been analysed for their free endogenous ascorbic acid.

Seasonal variation in chlorophyll contents in the leaves of various plant species collected from Kuchaman city area of Nagaur district have been estimated.

Identification and isolation of phytosterols from the various plant parts such as roots, shoots and fruits of all the four plant species collected from Kuchaman city area of Nagaur district.

Identification and isolation of steroidal sapogenins from the various plant parts such as roots, shoots and fruits of all the four plant species collected from kuchaman city area of Nagaur district.
Quatitative and quantitative estimation of pyrethrins from the floral parts of *Datura Stramonium* and *Tribulus terrestris* collected from Kuchaman city area of Nagaur district.

**Techniques applied in present study:**

(A) Herbarium Technique

(B) Chromatographic Analysis
   
   I - Paper Chromatography
   
   II - Thin Layer Chromatography (TLC)
   
   III - Preparative Thin Layer Chromatography

(C) Spectrophotometric Analysis

   I - Absorption spectroscopy
   
   II - Ultraviolet spectroscopy
   
   III - Infra-Red spectroscopy

(D) Titration Method

Corning glasswares were used in experimental work. The ‘p’ grade chemicals ‘Analar’ of British Durg House (BDH) or E-merck were used in present study.

Double glass distilled water was used in the experimental work.