

FACULTY OF SCIENCE

VALUE ADDED ELECTIVE COURSE

VASC- 011 - IMPACT OF MEDICINAL PLANTS ON SOCIETY

Unit - I:

Medicinal Plants - Importance and Scope. Cultivation of medicinal plants - Processing and utilization. Chemical nature of crude drugs - Extraction, Preparation and preservation of crude drugs.

Unit - II:

Traditional herbal teas. Herbs for woman, Babies and children. Concepts of Herbal garden- Home, School Herbal gardens.

Unit - III:

Classification and Estimation of primary metabolites- Carbohydrates, fatty acids, aminoacids and Proteins. Secondary Metabolites - Classification , General characters, Chemical nature, Extraction and Estimation methods for Glycosides, Tannins, Volatile oils, Resinous substances, Terpenoids - Phenolic compounds and Alkaloids.

Unit - IV:

Antioxidants - Role of antioxidants - Estimation of antioxidants - Ascorbic acid, α - Tocopherol.

Unit - V:

Post-harvest technology in medicinal plants: scope and importance. Importance of herbal marketing -Future prospects and constraints of the herbal drug industry - Regulatory status of herbal medicine in India.

Practicals:

Estimation of Carbohydrates

Estimation of Proteins

Estimation of fatty acids

Estimation of Phenols

Estimation of Flavionoids

Preparation of crude extracts

Herbarium preparation

Estimation of Ascorbic acid and α - Tocopherol.

References:

1. Farooqi, A.A. and B. S. Sreeramu, 2004. Cultivation of medicinal and aromatic crops. Revised edition, Universities Press (India) Private Limited, Hyderabad.
2. WHO, 2002. Quality control methods for medicinal plant materials, World Health Organization, Geneva, A.I.T.B.S., Publishers and Distributors, New Delhi.
3. Harbone, J.B. 1998. Phytochemical Methods; A guide to modern techniques of plant analysis. 3rdEdn., Springer (India) Private Limited , New Delhi.
4. Halliwall, B. and J.M.Gutteridge. 1985. Free radicals in Biology and medicine. Oxford university press.