

COMMON POOL OF GENERIC ELECTIVES (BOT-GE)

GENERIC ELECTIVES (BOT-GE-6)

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

| Course title & Code | Credits | Credit distribution of the course | | | Eligibility criteria | Pre-requisite of the course |
|---------------------------------------|----------|-----------------------------------|----------|--------------------|----------------------|-----------------------------|
| | | Lecture | Tutorial | Practical/Practice | | |
| Ethnobotany BOT-GE-6 | 4 | 2 | 0 | 2 | Nil | Nil |

Learning Objective:

- To have the knowledge of the plants used by the local communities, tribals, ethnic groups, their nutritive and medicinal value.

Learning Outcomes:

- After studying this course the student will have an understanding of the value and usefulness of the natural products and their efficient use by the local communities as food and medicine and their conservation practices.

SYLLABUS OF BOT-GE-6

Unit 1: Introduction to Ethnobotany and Basic Taxonomy **Weeks: 03**

Introduction, concept, scope and objectives; Ethnobotany as an interdisciplinary science; The relevance of ethnobotany in the present context; Major and minor ethnic groups or tribes of India, and their lifestyles; Plants used by the indigenous societies: a) Food plants, b) Medicinal plants, c) intoxicants and beverages, d) Resins and oils and miscellaneous uses.

Unit 2: Applied Ethnobotany **Weeks: 3.5**

Role of ethnobotany in modern Medicine, Medico-ethnobotanical sources in India; Significance of the following plants in ethnobotanical practices (along with their habitat and morphology): a) *Azadirachta indica*, b) *Ocimum sanctum*, c) *Vitex negundo*, d) *Gloriosa superba*, e) *Tribulus terrestris*, f) *Pongamia pinnata*, g) *Cassia auriculata*, h) *Indigofera tinctoria*.

Unit 3: The Ecology of Ethnobotany **Weeks: 3.5**

Ethnobotany—Spirits, Lore, Material Cultures, Folk Magic, Narcotics, Stimulants; Nutritional Ethnobotany – Agriculture, foraging and wild foods; Linguistic Ethnobotany—Botanical

Classification and Ethics; Medicinal Ethnobotany and Ethnopharmacology; Ethnoveterinary knowledge.

Unit 4: Research Methods in Ethnobotany **Weeks: 03**

Etic and Emic Perspectives: a) Field work; b) Herbarium; c) Ancient Literature and oral traditions; d) Archaeological finding inferences; e) Religious and sacred places.

Unit 5: Protecting Knowledge **Weeks: 02**

Ethnobotany and legal aspects, Ethnobotany as a tool to protect interests of ethnic groups, Sharing of wealth concept with few examples from India, Biopiracy, Intellectual Property Rights and Traditional Knowledge; databases and knowledge resource (Traditional Knowledge Digital Library); Case studies of traditional medicines leading to development of modern pharmaceutical products (use of *Trichopus zeylanicus* by Kani tribe and *Artemesia* sp. for malaria cure).

Practicals:

1. Collection, identification and preparation of herbarium of three ethno-botanically important plants with appropriate references. **(Week: 02)**
2. Preparation of crude extract of ethnobotanically important plants with appropriate references (any method to be used). **(Weeks: 04)**
3. Project work-documentation, literature survey, and collection of information on ethno-botanically useful plants from traditional healers). **(Weeks: 09)**

Suggested Readings:

1. Jain, S.K. (2010). Manual of Ethnobotany. Rajasthan: Scientific Publishers.
2. Martin, G.J. (1995). Ethnobotany: A Methods Manual. Chapman Hall
3. Cunningham, A.B. (2001). Applied Ethnobotany: People, Wild Plant Use and Conservation. Earthscan, London.
4. Young, K.J. (2007). Ethnobotany. Infobase Publishing, New York.
5. Schmidt, B.M., Cheng, D.M.K. (Eds.) (2017). Ethnobotany: A Phytochemical Perspective. John Wiley & Sons Ltd. Chichester, UK.
6. Research papers from various Scientific Journals for case studies.