

ST. PHILOMENA'S COLLEGE (AUTONOMOUS)

Affiliated to University of Mysore
Accredited by NAAC with 'B++' Grade
Bannimantap, Mysore, Karnataka,
India-570015



DEPARTMENT OF BOTANY

The Board of Studies in Botany which met on 20/04/2023 has approved the syllabus and pattern of examination for the OE paper entitled Medicinal Plants in Health Care.

BOS COMMITTEE MEMBERS

Sl. No.	Name	Designation
1	Ms. Dorothy .P	Chairman
2	Dr. Amruthesh K.N	University Nominee
3	Prof. Mallikarjunaiah M.N	Member
4	Dr. Sr. Sahaya Mary	Member
5	Ms. Jeevitha Saldanha	Member
6	Ms. Lima Jasmine	Member
7	Mr. Alex	Member

**BSc Botany
Core Course Content**

Course Title: Medicinal Plants in Health Care	Course Credits: 3
Course Code: BOTOE402	L-T-P per week: 3-0-0
Total Contact Hours: 42	
Formative Assessment Marks:40	Summative Assessment Marks:60

Pedagogy: Written Assignment/Presentation/Project / Term Papers/Seminar/Field studies

Formative Assessment		
Assessment Occasion	Assessment type	Weightage in Marks
C1 First component	Test-40 marks test for 90 minutes	10
C1 Second Component	Assignment	10
Quiz		10
Presentation		10
Total		40

Course Objectives:

1. To introduce students to the wide variety of plants that have medicinal properties.
2. To classify and identify plants used in traditional and modern medicine.
3. To investigate the active compounds found in medicinal plants and their pharmacological effects on human health.
4. To understand the principles behind plant-based remedies and their effectiveness in treating various diseases.

Course Learning Outcomes

1. Recognize the basic medicinal plants
2. Apply techniques of conservation and propagation of medicinal plants.
3. Setup process of harvesting, drying and storage of medicinal herbs
4. Propose new strategies to enhance growth of medicinal herbs considering the practical issues pertinent to India

COURSE CONTENT

Units	Course Content	Teaching hours
Unit-I	<p>History and Traditional System of Medicine History, Scope and Importance of Medicinal Plants; Traditional systems of medicine; Definition and Scope. Ayurveda: History, origin, panchamahabhutas, saptadhatu and tridosha concepts, Rasayana, plants used in ayurvedic treatments, Siddha: Origin of Siddha medicinal systems, Basis of Siddha system, plants used in Siddha medicine. Unani: History, concept: Umoor-e-tabiya, tumors treatments / therapy, polyherbal formulations.</p>	14
Unit-II	<p>Conservation, Augmentation and Ethnobotany and Folk Medicine Conservation of Eendemic and endangered medicinal plants, Red list criteria; <i>In situ</i> conservation: Biosphere reserves, sacred groves, National Parks; <i>Ex situ</i> conservation: Botanic Gardens, Ethnomedicinal plant Gardens. Propagation of Medicinal Plants: Objectives of the nursery, its classification, important components of a nursery, sowing, pricking, use of greenhouse for nursery production, propagation through cuttings, layering, grafting and budding. Ethnobotany and Folk medicines. Definition; Ethnobotany in India: Methods to study ethnobotany; Applications of Ethnobotany: National interacts, Palaeo-ethno-botany. Folk medicines of ethnobotany, ethnomedicine, ethnoecology, ethnic communities of India.</p>	14
Unit-III	Medicinal Plants	14

	<p>Brief description of selected plants and derived drugs, namely Guggul (<i>Commiphora</i>) for hypercholesterolemia, <i>Boswellia</i> for inflammatory disorders, Arjuna (<i>Terminalia arjuna</i>) for cardioprotection, turmeric (<i>Curcuma longa</i>) for wound healing, antioxidant and anticancer properties, Kutaki (<i>Picrorhiza kurroa</i>) for hepatoprotection, Opium Poppy for analgesic and antitussive, Salix for analgesic, Cincona and Artemisia for Malaria, Rauwolfia as tranquilizer, Belladonna as anticholinergic, Digitalis as cardiotoxic, Podophyllum as antitumor.</p>	
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References

Sl. No	Text books
1.	Akerle, O., Heywood, V. and Synge, H. (1991). The Conservation of Medicinal Plants. Cambridge University Press.
2.	AYUSH (www.indianmedicine.nic.in). About the systems—An overview of Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy. New Delhi: Department of Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy (AYUSH), Ministry and Family Welfare, Government of India.
3.	CSIR- Central Institute of Medicinal and Aromatic Plants, Lucknow (2016). <i>Aush Gyanya: Handbook of Medicinal and Aromatic Plant Cultivation</i> .
4.	Dev, S. (1997). Ethno-therapeutics and modern drug development: The potential of Ayurveda. <i>Current Science</i> 73:909–928.
5.	Evans, W.C. (2009). Trease and Evans Pharmacognosy, 16 th edn. Philadelphia, PA: Elsevier Saunders Ltd.
6.	Jain, S.K. and Jain, Vartika. (eds.) (2017). <i>Methods and Approaches in Ethnobotany: Concepts, Practices and Prospects</i> . Deep Publications, Delhi
7.	Kapoor, L.D. (2001). <i>Handbook of Ayurvedic medicinal plants</i> . Boca Raton, FL: CRC Press.
8.	Saroya, A.S. (2017). <i>Ethnobotany</i> . ICAR publication.
9.	Sharma, R.(2003). <i>Medicinal Plants of India-An Encyclopaedia</i> . Delhi: Daya Publishing House.
10.	Sharma, R. (2013) <i>Agro Techniques of Medicinal Plants</i> . Daya Publishing House,

	Delhi.
11.	Thakur, R.S., H.S. Puri, and Husain, A.(1989). Major medicinal plants of India. Central Institute of Medicinal and Aromatic Plants, Lucknow, India.

OPEN ELECTIVE -4.2
SCHEME OF BOTANY THEORY EXAMINATION

**IV SEMESTER
MODEL QUESTION PAPER**

Title of the Paper: MEDICINAL PLANTS IN HEALTH CARE

Time: 2 Hours

Max Marks- 60

Instructions: Draw neat labelled diagrams wherever necessary

I. Define/Explain any Four of the following

2X4=8 Marks

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

II. Answer any Four of the following

5X4=20 Marks

- 7.
- 8.
- 9.
- 10.
- 11.
- 12.

III. Answer any Four of the following

8X4=32 Marks

- 13.
- 14.
- 15.
- 16.
- 17.
- 18.

Weightage of Marks OPEN ELECTIVE – 3-1				
Units	2 marks	5 marks	8 marks	Total Mks.
I	2X2=4	5X2=10	8X2=16	30
II	2X2=4	5X2=10	8X2=16	30
III	2X2=4	5X2=10	8X2=16	30
	12 Marks	30Marks	48 Marks	90 Marks

