

Part B Content of the Course

Total No. of Lectures + Practical (in hours per week): L-1 Hr/ P-1 Lab Hr

Total No. of Lectures/ Practical: L-30 hrs/ P-30 hrs

Module	Topics	No. of Hours
I	General aspects of Medicinal Plants 1.1 Definition, history, present and future needs 1.2 Introduction of plant parts (fruit, leaves, roots, stem, seeds and their modification). 1.3 Cultivation and harvesting practices. 1.4 Processing and storage practices. 1.5 Marketing of medicinal products. 1.6 Role in human health and balanced diet. 1.7 Basic idea of quality control and contribution of national research laboratories like CDRI, CIMAP, NBRI, etc. 1.8 Precautions during use of herbal medicinal products.	10
II	Important Indian Medicinal Plants 1.1 Plant parts used as powder: Identification and utilization of Amla (<i>Embelica officinalis</i>), Behra (<i>Terminalia bellerica</i>), Harad (<i>Terminalia chebula</i>), Turmeric (<i>Curcuma longa</i>), Garlic (<i>Allium sativum</i>), Bitter guard (<i>Momordica charantia</i>), Black plum (<i>Syzygium cumini</i>), Fenugreek (<i>Trigonella foenumgraecum</i>), Cinnamon (<i>Cinnamomum verum</i>), Sarp Gandha (<i>Raulfia serpentina</i>), Black pepper (<i>Piper nigrum</i>), Ashwagandha (<i>Withania somnifera</i>), Psyllium husk (<i>Plantago ovata</i>) 1.2 Plant parts used as juice/ decoction: Identification and utilization of Amla (<i>Embelica officinalis</i>), Ginger (<i>Zingiber officinalis</i>), Onion (<i>Allium cepa</i>), Bottle guard (<i>Lagenaria siceraria</i>), Basil (<i>Oscimum santum</i>), Arjun (<i>Terminalia arjuna</i>), Neem (<i>Azadirachta indica</i>), Gwarpatha (<i>Aloe vera</i>), Brahmi (<i>Bacopa monnieri</i>), Giloy (<i>Tinospora cordifolia</i>), Shankhpushpi (<i>Convolvulus prostrate</i>), Bael (<i>Aegle marmelos</i>)	10
III	Important Indian Medicinal Plant (Part - 02) 1.1 Plant Parts Used as Lotion and Ointments: Identification and utilization of Gwarpatha (<i>Aloe vera</i>), Fenugreek (<i>Trigonella foenumgraecum</i>), Pot marigold (<i>Calendula officinalis</i>), Neem (<i>Azadirachta indica</i>) 1.2 Plant Parts Used as Oil: Clove (<i>Syzygium aromaticum</i>), Neem (<i>Azadirachta indica</i>), Coconut (<i>Coccus nucifera</i>), Nilgiri (<i>Eucalyptus</i> sp.) 1.3 Plant Parts Used as Surgical Fibres, Sutures and Dressings: Identification and utilization of cotton (<i>Gossypium</i> sp.), Jute (<i>Corchorus capsularis</i>), Bana (<i>Musa</i> sp.)	10

Handwritten signatures and initials in blue ink, including a large signature on the right and several smaller ones on the left.

	1.4 Plant Parts Used as Poultice: Identification and utilization of Turmeric (<i>Curcuma longa</i>), Nilgiri (<i>Eucalyptus</i> sp.), Ginger (<i>Zingiber officinalis</i>), Garlic (<i>Allium sativum</i>), Onion (<i>Allium cepa</i>), Dhatura (<i>Dhatura</i> sp.), Lak (<i>Calotropis</i> sp.), Arandi (<i>Ricinus communis</i>)	
	Practical	
I	<ol style="list-style-type: none"> 1. Identification of locally available common medicinal plants 2. Basic preparation of herbal products as kadha, powder (Ex. Neem leaf, moringa leaf, tulsi leaf, giloy, arandana), Juice (Ex. Amla, Aloe vera), Trifala, Chyavanprash, Amla candy, herbal tea, etc. 3. Study and documentation of commercial production of at least five medicinal plants. (Using website/ You Tube) 	15
II	<ol style="list-style-type: none"> 1. Submission of digital photo album of at least ten medicinal plants with brief description. 2. Study of basic tools/ instruments/ apparatus used in making herbal medicines. 3. Cultivation maintenance and reporting of at least five medicinal plants within college campus. 	15
Educational visit to herbal medicine factory/small processing unit/ medicinal agriculture field and submission of project report. (At least 01)		
Part C – Learning Resources		
Text Books, Reference Books and other resources		
Suggested Readings:		
<ol style="list-style-type: none"> 1. Panda H., Hand Book of Ayurvedic Medicines, National Institute of Industrial Research, Delhi 7 2. CSIR – Cultivation and Utilization of Medicinal Plants 3. Brahmvarchas, <i>Ayurved ka Pran: Vanoshadhi vigyan</i>, Vedmata Gayatri Trust, Shaktikunj Haridwar 2004 4. Chaudhry R. D., Herbal Drug Industry, Eastern Publication 5. Atal and Kapoor, Cultivation and Utilization of Medicinal Plants, RRL Jammu Tavi. 1982 6. Raphael Ikan, Natural Products: A Lab Guide, Academic Press, 1991, 2nd edition 7. Dutt Ashwin, An Introduction to Medicinal Plants, Adhyayan Publishers and distributors, 2009, 1st edition 		