St. Aloysius College (Autonomous), Jabalpur
Department of Botany & Microbiology
I year
Vocational Course
Medicinal Plant
2021-22

Part A Introduction		
Programme: Certificate Course	Year: First Year	Session: 2021-22
Course Code	**VI-BOT-MPLT**	
Course Title	Medicinal Plants	
Course Type	Vocational	
Pre-requisite (If any)	Open for all	
Course Learning Outcomes (CLO)	After studying this course, the students will be able to understand :- • The utility of plants as medicines • The preparation of basic herbal medicinal products • The idea of cultivation practices • The storage, packaging and marketing of herbal medicines • To work with individual plant and plant products	
Expected Job Role/ Career opportunities	Students will be able to :- • Start processing unit of selected medicinal plant products • Cultivate the medicinal plants. • Get employment opportunities in area of health services as community services, rural health services and NGO related with health awareness, etc. • Set up a venture of nursery of medicinal plants. • Start sales and marketing of herbal medicines.	
Credit Value	**4**	

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 (*Embelica officinalis*), Behra (*Terminalia bellerica*), Harad (*Terminalia chebula*), Turmeric (*Curcuma longa*), Garlic (*Allium sativum*), Bitter guard (*Momordica charantia*), Black plum (*Syzygium cumini*), Fenugreek (*Trigonella foenumgraecum*), Cinnamon (*Cinnamomum verum*), Sarpgandha (*Raulfia serpentina*), Black pepper (*Piper nigrum*), Ashwagandha (*Withania somnifera*), Psyllium husk (*Plantego ovata*) 1.2 **Plant parts used as juice/ decoctation:** Identification and utilization of Amla (*Embelica officinalis*), Ginger (*Gingiber officinalis*), Onion (*Alium cepa*), Bottle guard (*Lagenaria siceraria*), Basil (*Oscimum santum*), Arjun (*Terminalia arjuna*), Neem (*Azadirecta indica*), Gwarpatha (*Aloe vera*), Brahmi (*Bacopa monnieri*), Giloy (*Tinospora cordifolia*), Shankhpushpi (*Convolvulus prostrate*), Bael (*Aegle marmelos*)	10
III	**Important Indian Medicinal Plant (Part - 02)** **1.1 Plant Parts Used as Lotion and Ointments:** Identification and utilization of Gwarpatha (*Aloe vera*), Fenugreek (*Trigonella foenumgraecum*), Pot marigold (*Calendula officinalis*), Neem (*Azadirecta indica*) **1.2 Plant Parts Used as Oil:** Clove (*Syzygium aromaticum*), Neem (*Azadirecta indica*), Coconut (*Coccus nucifera*), Nilgiri (*Eucalyptus* sp.) **1.3 Plant Parts Used as Surgical Fibres, Sutures and Dressings:** Identification and utilization of cotton (*Gossipium* sp.), Jute (*Corchorus capsularis*), Bana (*Musa* sp.)	10

	1.4 Plant Parts Used as Poultice: Identification and utilization of Turmeric (*Curcuma longa*), Nilgiri (*Eucalyptus* sp.), Ginger (*Gingiber officinalis*), Garlic (*Allium sativum*), Onion (*Alium cepa*), Dhatura (*Dhatura sp.*), Aak (*Calotropis* sp.), Arandi (*Ricinus communis*)	
	Practical	
I	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	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: 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, *Ayurved ka Pran: Vanoshadhi vigyan*, 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 distributers, 2009, 1st edition		