

**Faculty of Science**  
**Bachelor of Science (B.Sc.)**  
**SUBJECT: BOTANY**

VI Semester

Group B- Paper-2

Paper- Biodiversity and Economic Botany (Theory)  
 Discipline Specific Elective (DSE) 1  
(S3-BOTA4D)

**Course Outcomes**

CO.No.	Course Outcomes	Cognitive Level
CO1	Apprehend plant products used in daily life.	U
CO2	Assess the diversity of plants and the plant products in human use.	U
CO3	Understand core concepts of Economic Botany.	U, A
CO4	Get acquainted with the resources of millets, cereals, pulses, vegetables, flowers, fibre and wild food plants.	U, A
CO5	Recognise the importance of plants for enhancing immunity and their role in various medicinal systems.	K, U

**Credit and Marking Scheme**

	Credits	Marks		Total Marks
		Internal	External	
Theory	3	40	60	100 (Min. Passing Marks: 35)
Practical	1	40	60	100 (Min. Passing Marks: 35)
Total				200

**Evaluation Scheme**

	Marks	
	Internal	External
Theory	3 Internal Exams of 20 Marks (During the Semester) (Best 2 will be taken)	1 External Exams (At the End of Semester)
Practical	2 Internal Exams (20 Marks) + Attendance of 10 Marks (During the Semester) (Both will be taken + Attendance)	1 External Exams (At the End of Semester)

11/09/23

S. J. Rao

2025

G. D. D.

## Content of the Course

### Theory

No. of Lectures (in hours per week): 2 Hrs. per week

Maximum Marks: 60

Total No. of Lectures: 45 Hrs.

No. of Lectures

45

12

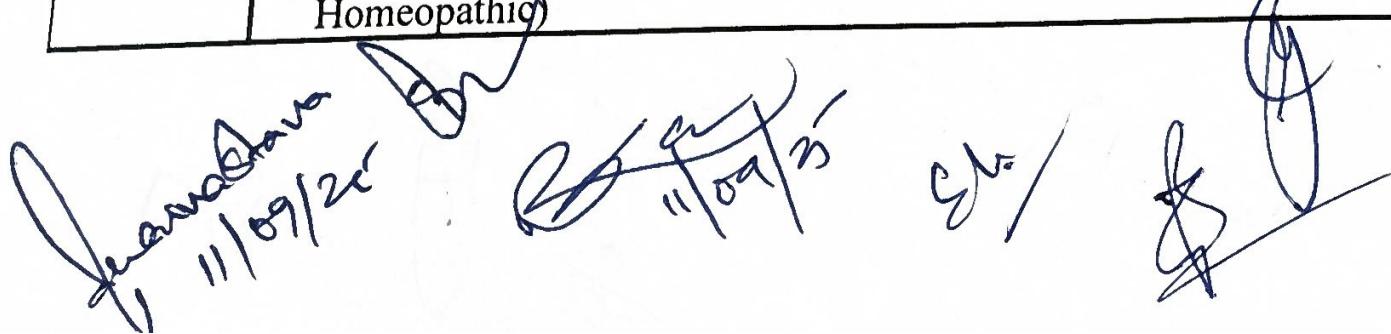
12

12

12

12

Unit	Topics	No. of Lectures
1	<b>1. Concept of Biodiversity-</b> 1.1 Concept, definition, scope and constraints. Genetic Diversity, 1.2 Types of biodiversity, - Genetic species/Organism Diversity, Ecological/ Ecosystem, Agro and urban Biodiversity 1.3 Centre of Biodiversity 1.4 Brief knowledge of types of plants-Terrestrial, Aquatic, epiphytic, Parasitic and Saprophytic plants.	12
2	<b>2. Threats of Biodiversity-</b> 2.1 Habitat Destruction, Fragmentation, Transformation, Degradation and Loss 2.2 IUCN threatened category, Endangered and endemic species, Invasive species. 2.3 Effect of Pollution- impact of Pesticides, over exploitation. 2.4 Biodiversity indices. <b>3. Biodiversity conservation</b> 2.1 Strategies of Biodiversity conservation 2.2 Ecosystem services	12
3.	<b>3. Plant Resources</b> 3.1 Resource survey and documentation in local markets 3.2 Checklist of locally used underutilized and discontinued plants. 3.3 Economic potential and Geographical distribution- Minor Millets, Cereals, Pulses, Vegetables, Flowers and wild edible Plant resources. 3.4 Economical potential of Fodders and wild Relatives of cultivated crops 3.5 Traditional water and soil management.	12
4.	<b>4. Other Economical Plant Resources</b> 4.1 Types of Fibers, their marketing potential-Cotton, Coir, Agave, Jute, Banana based products. 4.2 Natural dyes and locally available dye yielding plants 4.3 Herbal cosmetics, (Skin and hair care) 4.4 Sweeteners like Jaggery, Palm, Cane sugars and stevia. 4.5 Differences between stimulating and alcoholic beverages- Coffee, Tea and a range of Herbal Teas.	12
5.	<b>Medicinal Plant Resources:</b> 1.1 Raw drugs and related MFP 1.2 Any 10 plants used in traditional medicine (Ayurveda, Unani, Siddha and Homeopathic)	12


  
 11/09/2025



St. Aloysius' College Jabalpur, M.P. (Autonomous) Reaccredited A++ by NAAC with CGPA 3.58/4.00  
 College with Potential for Excellence (CPE) DSTFIST supported and DBT Star College Scheme  
 Department of Botany and Microbiology  
 Session 2025-26

1.3 Lower plants like algae and fungi in medicines and Nutraceuticals.  
 1.4 Plants used in common ailments as home remedies.  
 1.5 Plant and herbal products used as Antibiotics and immunity boosters

**Keywords/Tags:** Biodiversity, Plant resources, Economical plant resources Medicinal resources

**PART C- Learning Resources**

Text Books, Reference Books, Other resources

1. Chrispeels, M.J. and Sandava, D. E. Plants, Genes and crop biotechnology, Jones and Bartlett Publishers, ISBN 978-0763715861. (2003)
2. Kochhar S.L. Economic Botany in Tropics, 4<sup>th</sup> edn. Macmillan and Co, New Delhi, India, ISBN 978-9350590676. (2012)
3. Sammbamurty, A.V.S.S. Text book of Modern Economic Botany, 1st Edn. CBS publishers. ISBN 978-8123906294. (2008)
4. Simpson B.B and Ogorzaly M.C Economic Botany : Palnts in our world McGraw Hill, USA ISBN 978-0072909388 (2000)
5. Wickens, G.E Economic Botany : Principles and Practices, Panima Publishing Corporation, New Delhi ISBN 978-811285683(2007)
6. Jadhav, Dinesh Medicinal plants of Madhya Pradesh and Chattisgarh, Day Publishing House, Delhi (2008)
7. Dey, S.C, Indoor Gardening, Agrobios (India) Jodhpur (2003)

**Suggested equivalent online course:-** [www.eshiksha.mp.gov.in](http://www.eshiksha.mp.gov.in)

**Part D- Assessment and Evaluation**

**Suggested Continuous Evaluation Methods:**

**Maximum Marks:100**

**Continuous Comprehensive Evaluation (CCE):40 Marks University Exam (UE):60Marks**

**Internal Assessment :**

Continuous  
Comprehensive Evaluation(CCE)

Class Test  
Assignment/Presentation  
objective

**40**

**External Assessment:**  
University Exam Section Time:  
03.00 Hours

Section(A): viva, Etc. Questions  
Section(B): Short Questions  
Section (C): Long Questions

**60**

**40+60=100**

*Janardhan  
11/09/25*

*11/09/25*

*SLV*

*g*

*Day*