

M.Sc. BOTANY
SEMESTER III EXAMINATION DECEMBER 2025

Paper Name: **Plant Resource Utilization and Medicinal Botany** Paper Code: **MBOCC303**

Time: **2½ hours**

Maximum Marks: **60**

Note: This paper has 3 sections A, B, and C.

Section A: Attempt **ALL** the questions.

Section B: Attempt any **FOUR** questions.

Section C: Attempt any **TWO** questions.

CLO 1: describe origin, domestication, evolution and development strategies to improve agricultural crops through conventional plant breeding and genetic engineering (understand);

CLO 2: analyze botanical description, cultivation and uses of major economically important crops (analyze);

CLO 3: recall history of Indian system of medicine and evaluate chemical constituents from the various medicinally important plants (remember/evaluate) and;

CLO 4: access role of medicinal plants in modern medicine (evaluate).

BTL-Bloom's Taxonomy Levels

1-Remembering; 2-Understanding; 3-Applying; 4-Analyzing; 5-Evaluating; 6-Creating

SECTION A

Very Short Answer Questions (Attempt **ALL** the questions)

(15 x 1 = 15 marks)

Q. No.	Questions	Marks	CLO	BTL
1.	What is meant by secondary centre of origin?	1	1	1
2.	Define germplasm.	1	1	1
3.	Give two examples of fibre-yielding crops.	1	2	1
4.	Name the plant that is a major natural source of omega-3 fatty acids.	1	2	1
5.	Mention the family of <i>Atropa belladonna</i> .	1	3	1
6.	Define mixed farming.	1	2	1
7.	What is a cash crop? Give one example.	1	2	1
8.	Who is regarded as the founder of Siddha system of medicine?	1	3	1
9.	What is a botanical survey?	1	4	2
10.	Define crude drug standardization.	1	3	2
11.	Expand AYUSH	1	3	1
12.	Identify the source plant of reserpine.	1	3	1
13.	Mention one morphological adulterant found in herbal raw drugs.	1	3	1
14.	Mention one medicinal plant of India listed in the IUCN Red List.	1	4	1
15.	Give two primary uses of <i>Aloe vera</i> .	1	3	1

SECTION B

Short Answer Questions (Attempt any **FOUR** of the following)

(4 x 5 = 20 marks)

Q. No.	Question	Marks	CLO	BTL
1.	Explain the role of mutation breeding in crop improvement.	5	1	3
2.	Give a brief account of the practices followed for cultivation of lentil.	5	2	2
3.	Elucidate the therapeutic importance of bioactive compounds isolated from <i>Digitalis purpurea</i> .	5	3	4
4.	Enlist <i>ex-situ</i> conservation strategies for threatened medicinal plants.	5	4	2
5.	Comment on various physico-chemical methods of crude drug evaluation.	5	3	3
6.	Discuss the significance of sacred groves in conservation of medicinal plants.	5	4	2

SECTION C

Long Answer Questions (Attempt any **TWO** of the following)

(2 x 12.5 = 25 marks)

Q. No.	Question	Marks	CLO	BTL
1.	Give a detailed account of the botanical characteristics, cultivation techniques, processing and economic importance of soybean.	12.5	2	2
2.	Discuss in detail the distribution, classification, chemical constituents, adulteration patterns and medicinal applications of <i>Rauwolfia serpentina</i> .	12.5	3	3
3.	Explain the scope and modern applications of ethnobotany, highlighting its role in documentation and conservation of traditional medicinal knowledge	12.5	4	4

END OF QUESTION PAPER