

**Department of Botany
School of Chemical & Life Sciences
Jamia Hamdard, New Delhi-110062**

Your Roll No

**B.Sc. (HONS) BOTANY
I SEMESTER EXAMINATION FEBRUARY-MARCH 2024**

Paper Name: **Basics of Plant Identification**

Paper Code: **BBO-SEC101**

Time: **2 hours**

Maximum Marks: **45**

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

Section A: Answer all the questions. **Section B:** Attempt any 5 out of 6.

Section C: Attempt any 2 out of 3.

Instructions: An equal representation of each course outcome should be done in each section.

Abbreviations used:

CO-Course Outcomes

CLO1: Demonstrate a comprehensive understanding of the importance of plant identification in various fields such as botany, agriculture, horticulture, and ecology.

CLO2: Evaluate the role of herbaria and botanical gardens in plant identification and their significance in conservation and research.

CLO3: Analyze and identify plant specimens using various morphological and anatomical features and understand the importance of these features in plant identification.

CLO4: Demonstrate knowledge of the process of specimen preparation and drying, mounting, and labeling of plant specimens, and the importance of accurate labeling in plant identification.

CLO5: Apply critical thinking skills and the scientific method to accurately identify and classify plant specimens, and effectively communicate findings using appropriate scientific terminology and visual aids.

BTL-Bloom's Taxonomy Levels

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

SECTION A

Very Short Type Question (15 questions)

15 x 1 = 15 marks

Q.No.	Questions	Marks	CO	BTL
1	What is plant identification?	1	1	1
2	Give one difference between panicle and spike.	1	3	1
3	Define the term 'taxonomy'.	1	1	1
4	List the primary organs of a plant.	1	3	1
5	What are the main types of plant tissues?	1	3	1
6	Define the term 'stomata'.	1	5	1
7	List three taxonomic aids used in plant identification.	1	5	1
8	What is the purpose of poisoning of plant specimens for herbarium preparation?	1	2, 4	1
9	Enlist three special inflorescence types and specify the plant families they are found in.	1	3	1
10	What is epicalyx?	1	5	1
11	Name any one computer-added device or software used for plant identification.	1	5	1
12	Capitulum inflorescence is the characteristic feature of the family.....	1	5	1
13	Ovary is called inferior in.....position.	1	3	1
14	Define term 'e-flora'.	1	5	1
15	Standard size of herbarium is.....xcm in India	1	2, 4	1

Please turn over

SECTION B

Short Type Question. (Attempt any five out of six)

5 x 3 = 15 marks

Q.No.	Question	Marks	CO	BTL
1	Explain why plant taxonomy is important for plant identification.	3	1	2
2	What are the diagnostic features used for recognizing typical plant families like Malvaceae, Asteraceae, Solanaceae, Lamiaceae, and Poaceae?	3	3	2
3	During a field trip, you come across an unknown plant. Outline the steps you would take to identify it using both traditional and modern identification techniques.	3	5	4
4	Evaluate the significance of plant identification across different fields such as agriculture, ecology, and horticulture. Consider the potential consequences of incorrect plant identification in each field.	3	1	5
5	Explain how plant anatomy contributes to the identification of plant species.	3	3	2
6	Compare between drupe and berry with suitable diagram.	3	3	4

SECTION C

Long type Question (Attempt any two out of three)

2 x 7.5 = 15 marks

Q.No.	Question	Marks	CO	BTL
1	Explain the roles of herbaria and botanical gardens in plant identification	7.5	2	3
2	How would you categorize plants based on their venation patterns of leaves? Provide a detailed explanation accompanied by appropriate examples and illustrations.	7.5	3	3
3	Compare and contrast the floral structures of monocots and dicots. How do these differences aid in the classification and identification of plant species?	7.5	3	4