

M. Sc. DEGREE END SEMESTER EXAMINATION - OCTOBER 2025**SEMESTER 3 : BOTANY****COURSE : 24P3BOTT09 : ANGIOSPERM SYSTEMATICS***(For Regular - 2024 Admission)*

Time : Three Hours

Max. Weights: 30

PART A**Answer any 8 questions****Weight: 1**

1. Briefly explain the structure of the gynoecium of the family Lamiaceae. (U, CO 4)
2. What are Homonyms? (U, CO 1)
3. What is resupination? Give an example. (U, CO 4)
4. Briefly explain the structure of the gynoecium of the family Scrophulariaceae. (U, CO 4)
5. Citing a suitable example, briefly explain how petiole anatomy can be used to resolve taxonomic problems. (A, CO 2)
6. Define 'Nomen dubium' and explain why such a name is considered invalid in botanical nomenclature. (U, CO 1)
7. Briefly explain the gynoecium of the family Fabaceae. (U, CO 4)
8. Citing a suitable example, briefly explain how leaf anatomy can be used to resolve taxonomic problems. (A, CO 2)
9. Which symbol is used in a floral formula to represent an obdiplostemonous androecium? (A, CO 3)
10. Which symbol is used in a floral formula to represent the stamen fascicles? (A, CO 3)
(1 x 8 = 8)

PART B**Answer any 6 questions****Weights: 2**

11. With the help of suitable diagrams, explain the androecium and gynoecium in Verbenaceae. (U, CO 4)
12. Write any five merits and demerits of the APG system. (A, CO 3)
13. What is Cytotaxonomy? Discuss the role of various phytochemicals in resolving taxonomic problems, providing suitable examples. (U, CO 2)
14. List and briefly explain the main principles of ICN. (U, CO 1)
15. Explain the floral features of the family Campanulaceae. (U, CO 4)
16. Briefly explain the economic importance of the family Poaceae. (A, CO 4)
17. Explain the primitive features of the family Magnoliaceae. (An, CO 4)
18. What symbols are used in floral formulas to denote the fusion of floral organs, both within the same whorl and between different whorls? (U, CO 3)
(2 x 6 = 12)

PART C**Answer any 2 questions****Weights: 5**

19. Compare the floral features of the families Combretaceae and Myrtaceae. (A, CO 4)

20. With the help of suitable diagrams, explain the general characteristics of the family Orchidaceae. (A, CO 4)
21. Explain the role of anatomical features in resolving taxonomic problems, citing suitable examples. (A, CO 2)
22. With the help of suitable diagrams, explain the general characteristics of the family Poaceae. (A, CO 4)
- (5 x 2 = 10)**

OBE: Questions to Course Outcome Mapping

CO	Course Outcome Description	CL	Questions	Total Wt.
CO 1	Apply the principles of plant nomenclature in systematics.	A	2, 6, 14	4
CO 2	Understand the various data sources of taxonomy and its applications in plant identification, classification and phylogeny	A	5, 8, 13, 21	9
CO 3	Understand the various classification systems and literatures relevant to plant taxonomy	U	9, 10, 12, 18	6
CO 4	Identification of angiosperms up to species level	A	1, 3, 4, 7, 11, 15, 16, 17, 19, 20, 22	27

Cognitive Level (CL): Cr - CREATE; E - EVALUATE; An - ANALYZE; A - APPLY; U - UNDERSTAND; R - REMEMBER;