D 131958 **(Pages : 2)** **Name.....**

Reg. No.....

THIRD SEMESTER M.Sc. DEGREE (REGULAR/SUPPLEMENTARY) EXAMINATION, NOVEMBER 2025

(CBCSS)

Botany

BOT 3C 08—ANGIOSPERM MORPHOLOGY, ANGIOSPERM TAXONOMY AND PLANT RESOURCES

(2019 Admission onwards)

Time : Three Hours Maximum : 30 Weightage

Section A (Short Answer Type Questions)

Answer any **four** *questions.*
Each question carries 2 *weightage.*

1. What is the significance of millets in agriculture and food production ?
2. What are the key morphological features of the rice plant, and which part of it is used as food ?
3. What are the differences in morphology between maize and other cereals ?
4. What does the term "floras" refer to in taxonomic literature ?
5. What do you mean by chemotaxonomy ?
6. Define qualitative characters in taxonomy.
7. Define essentialism in taxonomy.

(4 × 2 = 8 weightage)

Section B (Short Essay Type Questions)

Answer any **four** *questions.*
Each question carries 3 *weightage.*

8. Briefly explain the significance of DNA barcoding in molecular taxonomy.
9. Write a short note on the APG system of classification.
10. Define a herbarium and outline the steps involved in developing and maintaining it.

Turn over

11. Briefly explain the key features and major provisions of the International Code of Botanical Nomenclature.

12. What are the chemical and pharmacognosic properties of *Adhatoda* ?

13. Explain the significance of monophyly and polyphyly in phylogenetic classification.

14. Discuss the importance of typification and author citation in naming plant species.

(4 × 3 = 12 weightage)

Section C (Long Essay Type Questions)

Answer any **two** *questions.*
Each question carries 5 *weightage.*

15. Discuss the significance of botanical gardens in taxonomic research, with specific examples of national and international institutions.

16. What are the current theories in the origin of angiosperms, and what evidence supports these ideas ? How do researchers determine the ancestral stock of angiosperms, and what is the significance of understanding the time and place of their origin ?

17. Explain the distinguishing characteristics of species, genus, family, and infraspecific categories.

18. Compare phenetic and phylogenetic systems of classification, and explain the role of cladistics in modern taxonomy.

(2 × 5 = 10 weightage)