

Reg. No. : .....

Name : .....

Third Semester B.Sc. Degree Examination, January 2023

First Degree Programme under CBCSS

Botany

Complementary Course

BO 1331 : SYSTEMATIC BOTANY, ECONOMIC BOTANY,  
ETHNOBOTANY, PLANT BREEDING

(2014-2018 Admission)

Time : 3 Hours

Max. Marks : 80

- I. Answer **all** the questions.
1. Didynamous stamen.
2. Perianth.
3. Zygomorphic flower.
4. Acclimitization.
5. Clonal selection.
6. Define ethnobotany.
7. Name the fruit seen in family Asteraceae.
8. Colchiploidy.
9. Perigynous flower.
10. Name the binomial of Asafoetida.

(10 × 1 = 10 Marks)

P.T.O.

II. Answer any **eight** questions.

11. What do you mean by floral diagram and floral formula?
12. Write a note on the phylogenetic classification.
13. What do you mean by plant introduction?
14. Differentiate synthetic variety and composite variety.
15. Differentiate valvate aestivation and imbricate aestivation.
16. Give an account on the significance of herbaria.
17. Write a short note on plants used by tribes you have studied.
18. Write a note on the papilionaceous corolla with a labeled diagram.
19. What are the applications of polyploidy breeding in crop improvement?
20. What are the facts which substantiate flower as a modified shoot?
21. Give an account on the achievements of plant introduction.
22. Write a note on the scope and significance of taxonomy.

**(8 × 2 = 16 Marks)**

III. Answer any **six** of the following.

23. Explain briefly the procedure of mutation breeding.
24. What do you mean by heterosis? Explain its utilization in plant breeding.
25. Differentiate mass selection and pure line selection.
26. Write the binomial, family and useful part of four spices and condiments you have studied.
27. Briefly explain the distinguishing features of the family Poaceae.

28. What do you mean by placentation? Mention different types of placentation with suitable diagrams.
29. Give an account on cyathium inflorescence with a labeled diagram.
30. Describe briefly the procedure of breeding for disease resistance in plants.
31. Compare and contrast the families Solanaceae and Apocynaceae.

**(6 × 4 = 24 Marks)**

IV. Answer any **two** of the following.

32. Write a detailed essay on basic rules of binomial nomenclature.
33. Give an account on Bentham and Hookers system of classification with its merits and demerits.
34. Describe in detail the procedure of hybridization and types of hybridization.
35. Compare and contrast the floral characters of polypetalous families you have studied.

**(2 × 15 = 30 Marks)**