TRIVANDRUM

(Pages : 4) **N – 2596**

Reg. No. : .....

Name : .....

Third Semester B.Sc. Degree Examination, March 2022

First Degree Programme Under CBCSS

Botany

Complementary Course

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

(2019 & 2020 Admission)

Time : 3 Hours Max. Marks : 80

SECTION – A

Answer the following. Answer **all** questions in a word or one or two sentences. Each question carries **1** mark. Draw diagrams only if specified in the question.

1. Define capitulum.
2. What is the type of fruit in mango?
3. Name a plant with corymb inflorescence.
4. What is meant by obdiplostemonous condition?
5. Mention any two ethnobotanical uses of neem.
6. What is lodicule?
7. What is the morphology of cotton fiber?
8. Mention the botanical name and family of ragi.

P.T.O.

9. What is meant by acclimatization?

10. Define Heterosis.

(10 × 1 = 10 Marks)

SECTION – B

Answer **any eight** questions. **Each** question carries **2** marks. Answer not to exceed one paragraph.

11. Describe the significance of plant taxonomy.

12. What is meant by artificial system of classification? Give one example.

13. Name any two botanical gardens in Kerala.

14. Describe the stamen of Malvaceae.

15. What is gynostegium?

16. Comment on papilionaceous corolla.

17. Mention the botanical name any two important plants of Solanaceae.

18. Differentiate multiple fruit and aggregate fruit with examples.

19. Mention the botanical name and family of any two spices.

20. What are the medicinal Uses of Adhatoda.

21. Comment on the ethnobotanical importance of '*Jeevani*'.

22. What is clonal selection?

23. Differentiate vertical and horizontal resistance.

24. What is gamma garden?

25. Mention the role of NBPGR.

26. What is hybridization? Name an example for inter generic hybridization.

(8 × 2 = 16 Marks)

SECTION – C

Answer **any six** of the following. (Answer not to exceed **120** words). **Each** question carries **4** marks.

27. Explain the structure of spikelet with suitable diagram.

28. Comment on the Androecium in Asteraceae and Apocynaceae.

29. List the principles of ICBN.

30. Write a brief note on cyathium with a labelled diagram.

31. Explain the floral features of Apocynaceae.

32. Comment on adnation types in Solanaceae.

33. Discuss the economic importance of Solanaceae and Euphorbiaceae.

34. What is meant by aestivation? Mention the different types of aestivations.

35. Mention the importance of herbarium in taxonomy.

36. Describe the floral characteristics of Annonaceae.

37. Write the botanical name, family and morphology of useful parts of any two plants categories mentioned below.
    (a) Cereals
    (b) Sugar yielding plants
    (c) Timber plants
    (d) Oil yielding plants
    (e) Resin yielding plants

38. Describe mass selection.

(6 × 4 = 24 Marks)

SECTION – D

Answer **any two** questions. (not more than three pages). **Each** question carries **15** marks.

39. Write an essay on Bentham and Hookers system of classification. Mention its merits and demerits.

40. Briefly describe the floral characteristics of Asteraceae? Mention the advanced characters of Asteraceae.

41. Write an essay on different types of inflorescences with suitable examples and sketches.

42. Compare and contrast the sub-families of Leguminosae. Mention the economic importance of the family.

43. What is pure-line selection. Explain the process of pure-line selection.

44. Briefly describe the objectives of plant breeding with suitable examples. Add note on important achievements of plant breeding.

(2 × 15 = 30 Marks)
