2023/TDC(CBCS)/EVEN/SEM/
BOTDSC/GE-201T/224

TDC (CBCS) Even Semester Exam., 2023

BOTANY

(2nd Semester)

Course No. : BOTDSC/GE-201T

(Plant Ecology and Taxonomy)

Full Marks : 50
Pass Marks : 20

Time : 3 hours

The figures in the margin indicate full marks for the questions

SECTION—A

Answer any *fifteen* questions : 1×15=15

1. Write two physical properties of soil.

2. Define limiting factor.

3. What is aerenchyma?

4. Name various forms of water available to plants.

5. What is Edge effect?

6. Write two significant characteristics of plant communities.

7. Define food chain and its types.

8. Define habitat and ecological niche.

9. What is the classification of plants? Why is classification necessary?

10. Name one famous botanical garden in India.

11. Define taxon. Which is the smallest taxon in classification?

12. What is CNH?

13. What is the international size of a herbarium sheet?

14. What is the older name of Lamiaceae family?

15. What is valid publication?

16. Define holotype.

17. Give one example of system of classification.

18. Define cladogram.

19. Name the book published by Bentham and Hooker in which their classification is embodied.

20. Define chemotaxonomy.

SECTION—B

Answer any *five* questions : 2×5=10

21. Define soil profile with diagram.

22. Mention two endemic flora of Assam.

23. Mention two steps of soil formation.

24. Write two salient adaptive features in xerophytes.

25. Define herbarium and write two functions of herbarium.

26. Name two important flora published in India.

27. Write a brief note on binomial nomenclature.

28. Define taxonomic hierarchy and write the scheme for taxonomic hierarchy.

29. What is cluster analysis?

30. Write a brief note on numerical taxonomy.

SECTION—C

Answer any *five* questions : 5×5=25

31. What is adaptation? Write important adaptive features found in xerophytes with some examples. 2+3=5

32. What is endemism? What are the causes for endemism? Write a brief note on states of water available in the environment. 2+2+1=5

33. Define ecosystem. Mention briefly on the structure and function of ecosystem. 2+3=5

34. Define plant succession. Illustrate various types of plant succession with examples. 2+3=5

35. Define flora. Write the taxonomic importance of a published flora. Define taxonomic keys. 2+2+1=5

36. Write a brief note on the role of molecular data in solving taxonomic problems. Write briefly a few important functions of botanical garden. 3+2=5

37. Discuss a brief note on citation of author and valid publication. 2+3=5

38. What do you mean by type concept used in taxonomy? Mention types used in taxonomic studies. Write the new name of the families Compositae and Gramineae. 3+2=5

39. What is natural system of classification? Describe the system of classification proposed by Bentham and Hooker with merits and demerits. 1+4=5

40. Differentiate between Bentham and Hooker's system with Engler and Prantl system. Write a brief note on phanerogams. 4+1=5

★ ★ ★