

TDC (CBCS) Even Semester Exam., 2022

BOTANY

(2nd Semester)

Course No. : BOTDSC/GEC-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. What is soil profile?
2. Give an example of floating hydrophytes.
3. What is endemism?
4. What is adaptation?
5. What is the significance of food web?

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6. What is ecotone?
7. Define ecological succession.
8. What do you mean by abiotic and biotic components?
9. What is herbarium?
10. Name one important botanical garden of India.
11. Define taxonomic hierarchy.
12. Who is the author of *Flora of Assam*?
13. Who proposed the binomial system of nomenclature?
14. What is author citation?
15. What is binomial system of plant nomenclature?
16. What is the smallest unit of classification?
17. What is numerical taxonomy?

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18. What is OTU?
19. Who is the author of *Species Plantarum*?
20. Name the botanist who wrote the book, *Genera Plantarum*.

SECTION—B

Answer any *five* questions : 2×5=10

21. Define Shelford's law of tolerance.
22. Why is phytogeography important?
23. Differentiate between primary succession and secondary succession.
24. What do you mean by biogeochemical cycle?
25. Write the taxonomic significance of herbarium.
26. What do you mean by single-access key and multiaccess key?
27. Write a note on valid publication.

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28. What do you mean by principle of priority and its limitation?
29. Name all the seven series of monocotyledons recognized by Bentham and Hooker in their plant classification.
30. Name the primitive families of dicotyledons and monocotyledons given by Bentham and Hooker's system of classification.

SECTION—C

Answer any *five* questions : 5×5=25

31. Write a note on biogeographical zones of India.
32. Discuss the adaptive features of hydrophytes with example.
33. Describe the different types of ecological pyramids.
34. What is carbon cycle? Discuss the steps of carbon cycle with diagram.
35. What is phytochemistry? Discuss some of the important sources of taxonomic evidence from phytochemicals.

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(Continued)

(5)

36. Write a note on flora with examples.
37. Write the six principles of ICN/ICBN.
38. Write a note on typification.
39. Give the outline scheme of Engler and Prantl's system of classification of plants. Describe the main features, and merits and demerits of this system. 3+1+1=5
40. What do you understand by artificial and natural systems of classification of angiosperms? Give an outline of the natural system of classification by Bentham and Hooker. 2+3=5

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