

**2024/TDC (CBCS)/EVEN/SEM/
BOTDSC/GE-201T/029**

TDC (CBCS) Even Semester Exam., 2024

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*

UNIT—I

1. Answer any three of the following questions :

1×3=3

- (a) Define soil profile.
- (b) Give an example of submerged hydrophyte.
- (c) What is adaptation?
- (d) What is endemism?

(2)

2. Answer any *one* of the following questions : 2
- (a) Write two adaptations of xerophytes.
 - (b) Write a note on the types of precipitation.

3. Answer any *one* of the following questions : 5
- (a) Write a note on the states of water available in the environment.
 - (b) Discuss the adaptive features of hydrophytes with examples.

UNIT—II

4. Answer any *three* of the following questions : 1×3=3
- (a) Define ecotone.
 - (b) Define ecological succession.
 - (c) Name a primary consumer of an ecosystem.
 - (d) Name the abiotic components of an ecosystem.
5. Answer any *one* of the following questions : 2
- (a) What do you mean by biogeochemical cycle?
 - (b) Write a note on food web.

(3)

6. Answer any *one* of the following questions : 5
- (a) Describe the carbon cycle with schematic diagrams.
 - (b) Describe the different types of ecological pyramids.

UNIT—III

7. Answer any *three* of the following questions : 1×3=3
- (a) What is herbarium?
 - (b) Define taxonomic hierarchy.
 - (c) Name one botanical garden of India.
 - (d) What do you mean by taxon?
8. Answer any *one* of the following questions : 2
- (a) Briefly describe the functions of herbaria.
 - (b) What do you mean by single-access key and multiaccess key?
9. Answer any *one* of the following questions : 5
- (a) Write in detail the role of palynology in solving taxonomic problems.
 - (b) Write in detail about taxonomic keys.

UNIT—IV

10. Answer any *three* of the following questions : 1×3=3
- (a) What is the full form of ICN?
 - (b) What is author citation?
 - (c) What is binomial system of plant nomenclature?
 - (d) What is the duplicate of holotype?
11. Answer any *one* of the following questions : 2
- (a) Write a note on valid publication.
 - (b) What do you mean by principles of priority and its limitations?
12. Answer any *one* of the following questions : 5
- (a) Write the principles and rules of ICN.
 - (b) Write a note on typification.

UNIT—V

13. Answer any *three* of the following questions : 1×3=3
- (a) What is OTU?
 - (b) Define clade.
 - (c) Give an example of phylogenetic system of classification.
 - (d) Who is the author of *Species Plantarum*?

14. Answer any *one* of the following questions : 2
- (a) Name the primitive families of dicotyledons and monocotyledons given by Bentham and Hooker system of classification.
 - (b) Write a note on numerical taxonomy.
15. Answer any *one* of the following questions : 5
- (a) Write down the differences between natural and phylogenetic system of classification with examples.
 - (b) Give an outline scheme of Engler and Prantl system of classification of plants. Describe the merits and demerits of the system. 3+2=5
