

**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.

( 4 )

## 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*?

( 5 )

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

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