2019/TDC/EVEN/BOTDSC/
BOTGEC–201T/037

TDC (CBCS) Even Semester Exam., 2019

BOTANY

(2nd Semester)

Course No. : BOTDSC–201T/BOTGEC–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 : 1×3=3

(a) Name one endemic plant of Assam.

(b) Give an example of hydrophytic plant.

(c) What is capillary water?

(d) What is Phytogeography?

2. Answer any *one* of the following : 2

(a) Write two adaptations of xerophytes.

(b) Write a short note on Shelford law of tolerance.

3. *(a)* Write a note on endemism in India. 5

Or

(b) Classify soil according to compositions. Cite examples. 3+2=5

UNIT—II

4. Answer any *three* of the following : 1×3=3

(a) Name a primary consumer of an ecosystem.

(b) What is the normal percentage of CO_2 in air?

(c) Define succession.

(d) Name a denitrifying bacterium.

5. Answer any *one* of the following : 2

(a) What do you mean by energy flow in ecosystem?

(b) Define food web.

6. *(a)* Write the nitrogen cycle in brief with schematic representation. 5

Or

(b) Write an account on ecological pyramids. 5

UNIT—III

7. Answer any *three* of the following : 1×3=3

(a) What do you mean by taxon?

(b) Write the acronym of herbarium of Eastern Regional Centre, Botanical Survey of India, Shillong.

(c) What is synonym?

(d) Give an example of artificial system of classification of plants.

8. Answer any *one* of the following : 2

(a) Write a note on taxonomic hierarchy.

(b) Briefly describe the functions of herbaria.

9. *(a)* Write in detail the role of palynology in solving taxonomic problems. 5

Or

(b) Write in detail about taxonomic keys. 5

UNIT—IV

10. Answer any *three* of the following : 1×3=3

(a) Write down the full form of ICN.

(b) In *Oryza sativa* L., what does 'L.' stand for?

(c) What is the suffix used for a 'class' name?

(d) Fill in the blank :

____ is the duplicate of the holotype.

11. Answer any *one* of the following : 2

(a) Write a note on author citation.

(b) What do you mean by valid publication of a name?

12. *(a)* Write down the principles of ICN. 5

Or

(b) Define holotype, lectotype and paratype with examples. 5

UNIT—V

13. Answer any *three* of the following : 1×3=3

(a) Write down the full form of OTU.

(b) Name the book published by Bentham and Hooker where they proposed their classification.

(c) Define clade.

(d) Give example of a phylogenetic system of classification.

14. Answer any *one* of the following : 2

(a) What are phenetics and cladistics?

(b) Write a note on numerical taxonomy.

15. *(a)* Write the classification of Bentham and Hooker's system of classification. 5

Or

(b) Write down the differences between natural and phylogenetic system of classifications with proper examples. 5

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