

**2024/TDC (CBCS)/EVEN/SEM/  
BOTHCC-403T/032**

**TDC (CBCS) Even Semester Exam., 2024**

**BOTANY**

**( 4th Semester )**

Course No. : BOTHCC-403T

**( Plant Systematics )**

*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 two questions : 2×2=4**

- (a) What do you mean by taxonomy? How does it differ from systematics?
- (b) What is e-flora? Give a brief note on Journals in plant taxonomy.
- (c) Define binomial nomenclature. Write two important rules of nomenclature.

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*( Turn Over )*



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2. Answer any *one* question : 6

- (a) Write a brief note on botanical garden and herbarium. Give a brief account on role of botanical garden and herbaria in conservation of biodiversity. 3+3=6
- (b) Discuss briefly how phytochemical evidences help in solving taxonomic problems. Name two important flora published in India. 4+2=6

UNIT—II

3. Answer any *two* questions : 2×2=4

- (a) What is taxonomic hierarchy? Write the categories of hierarchy.
- (b) Write a brief note on effective and valid publication.
- (c) Write in brief on nomenclature of hybrids.

4. Answer any *one* question : 6

- (a) What is ICN? Write notes on important principles and rules formulated by ICN. 1+(2+3)=6
- (b) Write an account on concept of species. What do you mean by typification of plants in taxonomy? 6

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( Continued )

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UNIT—III

5. Answer any *two* questions : 2×2=4

- (a) Write the salient contributions of Takhtajan.
- (b) What is APG III classification?
- (c) Write the striking features of Hutchinson's classification.

6. Answer any *one* question : 6

- (a) What do you mean by natural system of classification? Describe briefly the Bentham and Hooker system of classification with merits and demerits. 1+(3+2)=6
- (b) Define phylogenetic system of classification. Give a brief account on striking differences between Engler and Prantl system of classification with Bentham and Hooker system of classification. 1+5=6

UNIT—IV

7. Answer any *two* questions : 2×2=4

- (a) Write a brief note on selection of characters in taxonomy.
- (b) What do you mean by variations of taxonomic characters?
- (c) Write a note on cluster analysis.

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8. Answer any *one* question : 6

(a) Write notes on OTUs and coding of characters. What do you mean by taxometrics? (2+2)+2=6

(b) What do you mean by phenograms and cladograms? Write important differences between phenograms and cladograms. 6

UNIT—V

9. Answer any *two* questions : 2×2=4

(a) What do you mean by homology and analogy?

(b) Write two important features of primitive angiosperms with examples.

(c) Write a brief note on coevolution of angiosperms and animals.

10. Answer any *one* question : 6

(a) What is a clade? Write a brief role of clade in taxonomy. Give an account on methods of illustrating evolutionary relationships. 2+2+2=6

(b) Discuss various theories explaining origin and evolution of angiosperms. 3+3=6

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