



**2022/TDC(CBCS)/EVEN/SEM/
BOTHCC-403T/275**

TDC (CBCS) Even Semester Exam., 2022

BOTANY

(Honours)

(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*

SECTION—A

Answer any *ten* questions of the following : $2 \times 10 = 20$

1. Name the largest herbarium of India with its acronym.
2. Define bracketed key.
3. Name one State flora with its author(s).
4. Define paratype with example.



(2)

5. What do you mean by taxonomic hierarchy?
6. Identify the rank :
 - (a) Magnoliophyta
 - (b) Malvales
7. Define artificial system of classification with an example.
8. Who is known as the father of Botany?
9. How many series are there in dicotyledons in Bentham and Hooker's system of classification?
10. What do you mean by character and character state?
11. Define OTU.
12. What is cluster analysis?
13. Define polyphyly.
14. What do you mean by co-evolution?
15. Define clade.

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(Continued)

(3)

SECTION—B

Answer any five questions of the following : 6×5=30

16. What do you mean by cytotaxonomy? Discuss the role of cytological data in solving taxonomic problems. 1+5=6
17. Write the role of herbarium in teaching and research. Define flora. 5+1=6
18. Write down the principles of ICN. 6
19. Write an elaborate note on biological species concept. 6
20. Write an overview of Takhtajan's system of classification. 6
21. Write a brief account of angiosperm phylogeny group (APG III) classification. 6
22. Write notes on phenogram and cladogram. 6
23. Write down the principles of numerical taxonomy with merits and demerits. 6
24. Write a brief note on the origin of angiosperms. 6
25. Define the following : 3+3=6
 - (a) Homology and analogy
 - (b) Parallelism and convergence

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