

BOTN6014

3 Yr. Degree/4 Yr. Honours 6th Semester Examination, 2026 (CCFUP)

Subject : Botany

Course : BOTN6014 (MAJOR)

(Plant Systematics)

Full Marks: 40

Time: 2 Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers in their own words
as far as practicable.*

2×5=10

1. Answer any five of the following:

- (a) Define Nomen confusum (*Women. confus.*) with example.
- (b) Distinguish between pleisomorphic and apomorphic characters.
- (c) What are intraspecific categories? Write these ranks from higher to lower sequence.
- (d) Distinguish between characters and characteristics.
- (e) Distinguish between parallelism and convergence. Cite one example to each.
- (f) What are taxonomic manuals? Cite an example.
- (g) Who wrote '*Vrikshayurveda*'? How many categories of plants were mentioned in this book?
- (h) Define nothotaxon. Give an example.

5×2=10

2. Answer any two of the following:

- (a) Write the principles of ICN.
- (b) Name the cytological characters used to solve taxonomic problems.
- (c) Mention the different kinds of nomenclatural types and define each of them.
- (d) Explain role of herbaria in taxonomic study.

10×2=20

3. Answer any two of the following:

2½×4

(a) Differentiate between the following:

- (i) Homology and Analogy
- (ii) Apomorphy and Plasiomorphy
- (iii) Cladogram and Phenogram
- (iv) Monograph and Revision

(b) Give an outline of the classification system of Bentham and Hooker up to series. Write two merits and two demerits of this system.

8+2

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(2)

(c) Give a comparative analysis of phenetics and cladistics on the basis of the following parameters: 2½×4

(i) Principles

(ii) Methodology

(iii) Character weighing and coding

(iv) Operational units

(d) With examples write a note on the application of palynology in resolving the taxonomic problems. Write a short note on the different steps adopted in authentication of an unknown specimen. 5+5
