

B.Sc./4th Sem (H)/BOT/24(CBCS)

#### 2024

# 4th Semester Examination BOTANY (Honours)

Paper: C 10-T

(Plant Systematics)

[CBCS]

Full Marks: 40

Time: Two Hours

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

#### Group - A

Answer any five questions of the following:

 $2 \times 5 = 10$ 

- 1. Define flora and vegetation.
- 2. Write two significance in plant taxonomy.
- 3. Write about the relationship of systematics and taxonomy.
- 4. Write the difference between Holotype and Lectotype.
- 5. What do you mean by numerical taxonomy?

P.T.O.

- 6. Mention two importance of herbarium in taxonomic study.
- 7. What is called 'Adansonian Taxonomy'? Who first coined this term?
- 8. Define the term Archichlamydeae and Metachlamydeae with example.

## Group - B

Answer any *four* of the following:  $5\times4=20$ 

- 9. Discuss about the role of palynology in solving Taxonomic problems.
- 10. State the principles of ICN and which year ICN introduced in replace of ICBN.
- 11. Write about convergence and parallelism. Discuss the principles of priority.
- What are clade and cladogram? Write the difference between cladogram and phenogram. Mention one molecular trait used to construct cladogram. 2+2+1
- 13. What is Author's citation? Write about types of Author's citation. What is the meaning of 'CAL'? 2+2+1
- 14. Briefly describe about the Angiosperm Phylogeny group.Who discovered it? What is eudicot? 3+1+1

### Group - C

Answer any one question of the following:

 $10 \times 1 = 10$ 

- 15. Give an outline of Bentham and Hooker's system of classification, upto series. Compare the Artificial, Natural and phylogenetic system of classification. Mention the merit and demerit of this clarification.

  5+2+3
- 16. Discuss about primitive and advanced characters used in taxonomic study. Briefly discuss the contribution of A. Conquest in angiosperm classification. What is biological species?
  5+3+2