#### 2023

### 4th Semester Examination BOTANY (Honours)

Paper: C 9-T



#### (Plant Ecology and Phytogeography)

[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 of the following questions:

 $2 \times 5 = 10$ 

- 1. What are the autogenic and allogenic succession?
- 2. Write the two important adaptations of plants against fire.
- 3. What are the allopatric and sympatric speciation?
- 4. What is meant by biogeochemical cycle?
- 5. What is food pyramid? When is it inverted?
- 6. Write the differences between habitat and niche.

P.T.O.



2

- 7. What are the ecotone and edge effect?
- 8. Define commensalism. Cite an example.

# Group - B

Answer any four of the following questions:

 $5\times4=2$ 

- 9. Briefly describe the process of soil formation. Discuss the physical composition of soil. 3+2=5
- Briefly describe the composition of soil. Discuss the role
   of climate on soil development.
- 11. Write a brief note on different ecological adaptations of hydrophytes.
- 12. What are food webs? Explain the different models of energy flow in an ecosystem. 2+3=5
- 13. What is population dynamics? Write the characteristics of a stable population. How IVI is calculated in a vegetation?

  1+2+2=5
- 14. Briefly describe the major terrestrial biomes.

## Group - C

Answer any one of the following questions:

10×1=10

15. What is plant succession? Explain the process of plant succession. Write about the different types of plant succession. What is climax community? 2+3+3+2=10

(3)

16. What is endemism? Briefly illustrate the theory of endemism. Name two endemic plant species from India. Briefly discuss about different phytogeographical regions of India. 2+3+2+3=10