

D 121199**(Pages : 2)****Name.....****Reg. No.....****FOURTH SEMESTER M.Sc. DEGREE (REGULAR/SUPPLEMENTARY)
EXAMINATION, APRIL 2025****(CBCSS)****Botany****BOT 4E01-2.—ENVIRONMENTAL BIOLOGY AND BIODIVERSITY CONSERVATION****(2019 Admission onwards)****Time : Three Hours****Maximum : 30 Weightage****Section A (Short Answer Type Questions)***Answer any **four** questions.**Each question carries 2 weightage.*

1. What is the Ramsar Convention, and what does it aim to achieve ?
2. What were Rachel Carson's contributions to ecology ?
3. Define interspecific competition and its impact on community dynamics.
4. What are the primary sources and factors contributing to nitrogen pollution in ecosystems ?
5. What factors contribute to the growth and expansion of human populations worldwide ?
6. Describe the forest types found in Kerala.
7. What are the key ecological roles and benefits of mangrove ecosystems ?

(4 × 2 = 8 weightage)**Section B (Short Essay Type Questions)***Answer any **four** questions.**Each question carries 3 weightage.*

8. Explain the concept of ecological niche.
9. Discuss the contributions of Rabindranatha Tagor and Mahatma Gandhi on ecology.
10. Describe the objectives of the Stockholm conference in 1972.
11. What are the strategies for effectively conserving and restoring ecosystem capital ?

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12. Discuss the potential impacts of climate change on biodiversity and ecosystems.
13. How does the Biodiversity Act of 2002 contribute to biodiversity governance and management ?
14. Discuss the contributions of sacred groves to biodiversity conservation.

(4 × 3 = 12 weightage)

Section C (Long Essay Type Questions)

*Answer any **two** questions.*

Each question carries 5 weightage.

15. Discuss the importance of genetic diversity in maintaining ecosystem resilience.
16. How do density-independent and density-dependent mechanisms influence population size and dynamics, and what examples can illustrate these concepts in natural ecosystems ?
17. What are the key components of disaster management, and how do preparedness, response, and recovery efforts contribute to effective disaster mitigation and recovery ?
18. How do libraries, databases, and virtual libraries contribute to managing biodiversity information, and what are the challenges and opportunities associated with distributing this information through metadatabases and taxonomic database working groups ?

(2 × 5 = 10 weightage)