25U125 (Pages: 2) Name : .....

Reg. No : .....

FIRST SEMESTER UG DEGREE EXAMINATION, NOVEMBER 2025

(FYUGP)

(Regular/Supplementary/Improvement)

CC24UBOT1MN101 - PLANT ECOLOGY, CONSERVATION AND PLANT INTERACTIONS

(Botany - Minor Course)

(2024 Admission onwards)

Time: 2.0 Hours Maximum: 70 Marks

Credit: 4

Part A (Short answer questions)

Answer ***all*** questions. Each question carries 3 marks.

1. Summarize the role of sunlight as an abiotic factor in ecosystems. [Level:2] [CO1]
2. Explain the difference between indicator species and flagship species. [Level:2] [CO2]
3. Explain two IUCN categories of plant species that are relevant to the Western Ghats. [Level:2] [CO2]
4. Describe habitat fragmentation. [Level:2] [CO2]
5. Report two benefits of seed banks in preserving biodiversity. [Level:2] [CO3]
6. Classify in-situ and ex-situ conservation based on their differences. [Level:2] [CO3]
7. Summarize how pollination contributes to biodiversity in ecosystems. [Level:2] [CO4]
8. Explain what is meant by plant-herbivore interactions with one example. [Level:2] [CO4]
9. Explain the concept of plant-microbe interactions with reference to mycorrhizae. [Level:2] [CO4]
10. Explain how pollination contributes to ecosystem services. [Level:2] [CO4]

(Ceiling: 24 Marks)

Part B (Paragraph questions/Problem)

Answer ***all*** questions. Each question carries 6 marks.

11. Illustrate the significance of anatomical modifications in hydrophytes with the help of a diagram. [Level:2] [CO1]
12. Classify primary and secondary succession with examples. [Level:2] [CO1]
13. Illustrate the consequences of overexploitation on biodiversity. [Level:2] [CO2]

14. Explain any two biodiversity hotspots in India. [Level:2] [CO2]

15. Explain any three impacts of loss of gene pool and ecosystem service on biodieversity. [Level:2] [CO2]

16. Illustrate the ways in which biodiversity supports the global economy. [Level:2] [CO2]

17. Explain the salient features of biosphere reserve in conserving biodiversity. [Level:2] [CO3]

18. Discuss how plants benefit from ant-mediated protection. [Level:2] [CO4]

(Ceiling: 36 Marks)

Part C (Essay questions)

Answer any ***one*** question. The question carries 10 marks.

19. Explain the morphological and anatomical adaptations of Avicennia, Vanda, and Cuscuta, and how these adaptations enable them to thrive in their respective ecological niches. [Level:2] [CO1]

20. Explain the major steps of cryopreservation. [Level:2] [CO3]

(1 × 10 = 10 Marks)

****