(PAGES 2)

D1BBT2502

Name: .....

Reg. No.: .....

FIRST SEMESTER FYUGP EXAMINATION NOVEMBER 2025

(Regular/Improvement/Supplementary)

MINOR

BOT1MN101: PLANT ECOLOGY, CONSERVATION AND PLANT INTERACTIONS

Time: 2 Hrs. **Maximum Marks: 70**

M: Mark BL: Bloom's Taxonomy Level (1 to 6) CO: Course Outcome

Section A: Answer all questions. Each carries 3 marks.

Ceiling: 24 Marks

No.	Question	M	BL	CO
1.	Define the term "Ecology" and briefly explain its significance.	3	1	CO1
2.	Identify two anatomical adaptations of Xerophytes, such as Opuntia, and explain their purpose in arid conditions.	3	3	CO1
3.	Give an account on biodiversity hot spots of India.	3	4	CO2
4.	Comment on the types of biodiversity.	3	3	CO2
5.	Evaluate the importance of preserving biodiversity to sustain human livelihoods.	3	5	CO2
6.	Describe ex-situ conservation and list two common ex-situ conservation methods.	3	2	CO2
7.	State how national parks contribute to preserving endangered species.	3	4	CO2
8.	Explain the role of cryopreservation in biodiversity conservation.	3	2	CO2
9.	List out the various strategies plants employ to defend themselves against herbivores.	3	4	CO3
10.	Create a proposal for a conservation strategy that enhances plant-animal interactions to improve ecosystem services in a specific habitat.	3	6	CO3

Section B: Answer all questions. Each carries 6 marks.

Ceiling: 36 Marks

No.	Question	M	BL	CO
11.	Evaluate the impact of human activities on biotic and abiotic factors within ecosystems, and suggest potential conservation strategies.	6	5	CO1
12.	Explain how epiphytes, such as Vanda, obtain nutrients and water. What adaptations do they possess for survival in their unique habitats?	6	2	CO1
13.	Analyze the ecological roles of halophytes, epiphytes, and parasites in their respective ecosystems. How do these groups contribute to biodiversity?	6	4	CO1

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14.	Evaluate the threats to biodiversity posed by overexploitation and invasive species. What strategies can be implemented to mitigate these threats?	6	5	CO2
15.	Give an account on pollination syndromes and floral specialization.	6	6	CO2
16.	Describe the mutualistic relationship between plants and mycorrhizal fungi. How do mycorrhizae enhance plant growth and nutrient uptake?	6	2	CO3
17.	Explain the concept of endemism and IUCN plant categories.	6	3	CO3
18.	Comment on Ant-plant interactions.	6	5	CO3

Section C: Answer any one question. Each carries 10 marks. (1 x 10 = 10 Marks)

No.	Question	M	BL	CO
19.	Explain the process of ecological succession and give a detailed note on various stages in hydrosere.	10	2	CO1
20.	Define biodiversity conservation and its significance. Compare in-situ and ex-situ conservation methods with examples.	10	4	CO2