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V – 5941

Reg. No. :

Name :

Second Semester M.Sc. Degree Examination, August 2025

Botany

**BO 522 : ENVIRONMENTAL BIOLOGY, FOREST BOTANY,
PHYTOGEOGRAPHY AND CONSERVATION BIOLOGY**

(2024 Admission)

Time : 3 Hours

Max. Marks : 75

I. Answer the following :

1. Differentiate between fundamental and realized niche.
2. Explain the concept of ecosystem dynamics.
3. Explain interdemec extinction and its impact.
4. Define edge effect.
5. What is ecological succession?
6. What are ecophenes?
7. Define phytogeography.
8. What is social forestry?
9. What is IBP?
10. Differentiate between autecology and synecology.

(10 × 1 = 10 Marks)

P.T.O.



II. Answer the following questions in not more than 50 words :

11. (a) Explain the concept of metapopulation.

OR

(b) Differentiate between ecotypes and ecospecies.

12. (a) Discuss the causes of global warming.

OR

(b) Describe the biological effects of noise pollution.

13. (a) Discuss the causes of energy crisis.

OR

(b) Give an account on the various physical factors of ecosystem.

14. (a) Describe the climate characteristics of Savannah ecosystem.

OR

(b) Explain Gaia hypothesis.

15. (a) What are r-selected species?

OR

(b) Write notes on Red-Data Book.

(5 × 2 = 10 Marks)

III. Answer the following questions in not more than 150 words :

16. (a) Give an account on age- structured populations.

OR

(b) Give an account on the adaptations of mangrove vegetation.

17. (a) What are the synthetic characteristics of plant communities?

OR

(b) Explain the provisions regarding the hunting of animals in wild life act 1972.



18. (a) Elaborate the key elements in planning for sustainable industrial development.

OR

- (b) Explain in detail any one wild life conservation movement in India.
19. (a) Give an account on various renewable energy sources.

OR

- (b) What are biosphere reserves? Describe its structure and zones.
20. (a) Comment on the differences between wildlife sanctuaries and national parks.

OR

- (b) Discuss the factors affecting plant distribution.
21. (a) Give an account on Green Protocol.

OR

- (b) Discuss in detail the current environmental issues in India.
22. (a) Describe various levels of species diversity.

OR

- (b) What is symbiosis? Describe different types of symbiotic association with examples.

(7 × 5 = 35 Marks)

IV. Answer the following questions in not more than 250 words.

23. (a) Give an account on various global environment problems.

OR

- (b) Define Ecological succession. Describe different types of succession and the mechanism succession.

24. (a) Explain the structure and function of marine and estuarine ecosystem.

OR

- (b) Give an account on the influence of forest on environment and the consequence of deforestation.

(2 × 10 = 20 Marks)

