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P – 5303

Reg. No. :

Name :

Second Semester M.Sc. Degree Examination, September 2022

Botany

**BO 222 : ENVIRONMENTAL BIOLOGY, FOREST BOTANY,
PHYTOGEOGRAPHY AND CONSERVATION BIOLOGY**

(2019 Admission Onwards)

Time : 3 Hours

Max. Marks : 75

I. Answer the following :

1. What is umbrella species?
2. What is Generation time?
3. Write the principle of remote sensing.
4. What are the merits of *in situ* conservation?
5. What is Alpha diversity?
6. What is Agroforestry?
7. What are particulate pollutants?
8. Define forest management.
9. What are the consequences of eutrophication?
10. Describe mutualism with an example.

(10 × 1 = 10 Marks)

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

11. (a) Write an example of marine food chain.

OR

(b) Write a note on project Tiger with its outcome.

12. (a) What are wetlands? Give the name of any two important wetlands.

OR

(b) Describe the use of remote sensing in wildlife management.

13. (a) Write short note on wind energy with its merits and demerits.

OR

(b) Explain the different ways to use solar energy in agriculture.

14. (a) Write a note on population bottleneck.

OR

(b) Explain the different types of competition found in nature.

15. (a) Write an account on important timber yielding trees of the Indian forest.

OR

(b) Write down the adaptations of hydrophytes.

(5 × 2 = 10 Marks)

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

16. (a) Describe the diversity indices.

OR

(b) Describe the vegetation characteristics of tropical and temperate grasslands.

17. (a) Explain environmental impacts of deforestation.

OR

(b) What is the mission of Man and the Biosphere Programme of the UNESCO?

18. (a) Define threatened species and major causes of biodiversity loss.

OR

(b) Write a note on national parks and sanctuaries in India.

19. (a) Explain the causes and possible solutions to global energy crisis.

OR

(b) Write practises, methods and benefits of social forestry.

20. (a) Describe the hierarchy of categories.

OR

(b) Explain fundamental niche and realized niche with examples.

21. (a) Explain the theory of island biogeography.

OR

(b) Write a note on life tables, and its different types.

22. (a) Describe the Nitrogen cycle. What is its importance?

OR

(b) Explain the concept of climax with an example.

(7 × 5 = 35 Marks)

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

23. (a) Write an essay on current forest and wildlife legislations in India.

OR

(b) Describe the structure and functions of Estuaries.

24. (a) Write a note on different forest products of plant origin from Kerala.

OR

(b) Explain the evolution of plants through geological periods.

(2 × 10 = 20 Marks)
