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M – 5475

Reg. No. :

Name :

Second Semester M.Sc. Degree Examination, November 2021

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 the main objective of phytogeography?
2. Enlist any two megadiversity countries of the world.
3. Define the term 'wildlife' as per wildlife act.
4. What are the most used renewable energy source in the world?
5. What is afforestation?
6. What are the problems associated with leachates in dumping sites?
7. Describe the role of predation in nature.
8. What is synecology?
9. Write an example of medicinal plant obtained from forest
10. Define social forestry.

(10 × 1 = 10 Marks)

P.T.O.



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

11. (a) Describe the role of decomposers in ecosystem.

OR

(b) Give an example of sustainable use of bioresources.

12. (a) What is population ecology? Describe any three of its characteristics in detail.

OR

(b) Write a note on remote sensing. Write any two of its application in ecology.

13. (a) Write a note on demographic bottle neck.

OR

(b) When a threatened plant needs urgent measures to save it from extinction, what would be the desirable approaches?

14. (a) Write the importance of mangroves. Give two examples of mangrove sites in Kerala.

OR

(b) Differentiate static and dynamic phytogeography.

15. (a) Justify 'succession plays an important role in restoration'.

OR

(b) Explain Gaia hypothesis. Who proposed it?

(5 × 2 = 10 Marks)



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

16. (a) Explain fundamental niche and realized niche with an example. Comment on its size difference.

OR

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

17. (a) Describe the merits and demerits of artificial and natural regeneration of forests.

OR

- (b) Write down the adaptations of hydrophytes and xerophytes.

18. (a) How do you give an idea on Environmental impact assessment?

OR

- (b) Write a note on the theory of Island biogeography.

19. (a) Write the main factors that make renewable energy important.

OR

- (b) Give a note on 'plants as the source of bioenergy'.

20. (a) What is MAB? Describe its projects related to forests.

OR

- (b) Write a note on eutrophication.

21. (a) Discuss briefly the importance of agroforestry.

OR

- (b) What are climatic factors? Explain the effect of climate on structure and distribution of plants.



22. (a) How gums, resins and essential oil is procured from forest resource. Explain.

OR

- (b) Explain the causes and possible solutions to global energy crisis.

(7 × 5 = 35 Marks)

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

23. (a) Write an essay on ecological succession and explain monocl原因 and polyclimax theories.

OR

- (b) Write an essay on the use of renewable energy in agriculture.

24. (a) Explain the theory of land bridge and the effects land bridges on plant distribution.

OR

- (b) Write a note on forest types in India.

(2 × 10 = 20 Marks)

