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J – 4722

Reg. No. :

Name :

Second Semester M.Sc. Degree Examination, May 2020

Botany

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

(2013-2018 Admission)

Time : 3 Hours

Max. Marks : 75

I. Answer the following

1. What are Flagship species? Give example.
2. MAB.
3. Ecophenes.
4. Endemism.
5. Gaia hypothesis.
6. Hotspots.
7. Carrying capacity.
8. Name any two government agencies involved in Environmental protection in Kerala.
9. Continental drift theory.
10. Eutrophication.

(10 × 1 = 10 Marks)

P.T.O.



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

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

OR

(b) What are keystone species? How it influence the stability of an ecosystem?

12. (a) Explain the characteristic features of Tundra vegetation.

OR

(b) Explain the characteristic features of Mangrove vegetation

13. (a) Write a note on any two novel agricultural technologies implemented in Kerala.

OR

(b) Differentiate autecology and synecology.

14. (a) What are the consequences of deforestation?

OR

(b) What are the consequences of urbanization?

15. (a) Explain ecotones and edge effect citing suitable example

OR

(b) Explain different levels of diversity

(5 × 2 = 10 Marks)



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

16. (a) What is IUCN? Explain the revised IUCN threat categories of taxa.

OR

(b) What are the major aquatic ecosystems? Give a note on its floristic composition

17. (a) Explain different types of species interactions operating in an ecosystem. How this influence species distribution?

OR

(b) Write an account of major and minor forest products giving emphasis to the state of Kerala.

18. (a) What is ecological succession? Explain the steps involved in succession.

OR

(b) Explain how energy flow is being maintained in an ecosystem giving emphasis on different ecological pyramids?

19. (a) How forests influence the environment?

OR

(b) What is sustainable utilization? How sustainable development addresses the environment crisis?

20. (a) Explain green house effect. How it effect global environment?

OR

(b) Give an account of global issues on environment. How climate changes influence the distribution of biodiversity?

(5 × 5 = 25 Marks)



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

21. (a) Give an account of different bio-geographical zones of India.

OR

(b) Describe the major characteristics of populations.

22. (a) Enumerate the biodiversity conservation strategies citing suitable examples.

OR

(b) What are the major threats to Biodiversity? Explain

23. (a) Enumerate the major international initiatives for protection of nature and natural resources.

OR

(b) Explain the salient features of Savannah and tropical rain forests.

(3 × 10 = 30 Marks)

