

B.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2023.

Fifth Semester

Botany — Core

PLANT ECOLOGY AND PHYTOGEOGRAPHY

(For those who joined in July 2021–2022)

Time : Three hours Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Which among the following is an abiotic factor?
(a) Phytoplanktons (b) Zooplanktons
(c) Benthos (d) Water
2. Which of the following is known as an edaphic factor?
(a) Light (b) Soil
(b) Air (d) Water

3. The interaction between biotic factors and abiotic factors is called
(a) Niche (b) Ecad
(c) Ecosystem (d) Habitat
4. Root pockets are found in
(a) Halophytes (b) Xerophytes
(c) Psammophytes (d) Hydrophytes
5. Interbreeding individuals are called
(a) Genera (b) Species
(c) Ecospecies (d) Coenospecies
6. In ecosystem development, ecesis refers to the
(a) Movement of propagules
(b) Establishment of propagules
(c) Elimination of propagules
(d) Spreading of propagules
7. Lichens are good bioindicators for
(a) Environmental radiation
(b) Soil pollution
(c) Water and air pollution
(d) Thermal pollution

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8. What is the unit of Specific Oxygen rate (SOUR)?
(a) grams of oxygen consumed per gram of volatile suspended solids per hour
(b) milligrams of oxygen consumed per gram of volatile suspended solids per hour
(c) kilograms of oxygen consumed per gram of volatile suspended solids per second
(d) milligrams of oxygen consumed per gram of volatile suspended solids per second.
9. Who among the following has proposed the Continental drift theory?
(a) Wallace (b) Darwin
(c) Wagner (d) Theophrastus
10. Where is National Remote Sensing Agency situated?
(a) Bengaluru (b) Hyderabad
(c) Chennai (d) Dehradun

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PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Give an account of plants as a biotic factor.
Or
(b) Explain fire as an ecological factor.
12. (a) List down the types of ecosystem.
Or
(b) Classify the plants based on ecology.
13. (a) Give an account of autecology.
Or
(b) Explain the concept of community.
14. (a) Bring out the features of xenobiotics.
Or
(b) List down the types of bioremediation.
15. (a) What do you mean by continental drift? Explain with example.
Or
(b) Explain the role of remote sensing in phytogeographical studies.

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PART C — (5 × 8 = 40 marks)

Answer ALL questions choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Draw the nitrogen cycle.

Or

(b) Discuss the light as a climatic factor.

17. (a) Evaluate the morphological and anatomical adaptations of hydrophytes.

Or

(b) Examine the physiological adaptations of xerophytes.

18. (a) Write an essay on units of vegetation.

Or

(b) How will you study the vegetation using quadrat method?

19. (a) Critically examine the features of phytoremediation.

Or

(b) Discuss, in detail, the role of bioindicators in environmental monitoring.

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20. (a) Write an essay on endemism.

Or

(b) Critically review the vegetation types of Tamil Nadu.

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