

(6 Pages)

Reg. No. :

Code No. : 20374 E Sub. Code : AEBO 51

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

Fifth Semester

Botany

Major Elective - I — PLANT ECOLOGY AND
PHYTOGEOGRAPHY

(For those who joined in July 2020 onwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. The natural residence of every organism is known as
(a) Biome (b) Niche
(c) Habit (d) Habitat
2. Which among the following is a sedimentary cycle
(a) Phosphorus cycle
(b) Nitrogen cycle
(c) Hydrogen cycle
(d) Oxygen cycle

3. Which of the following is the most stable ecosystem?
(a) Desert (b) Ocean
(c) Forest (d) Mountain
4. Presence of sunken stomata is the characteristic feature of
(a) Psammophytes (b) Xerophytes
(c) Hydrophytes (d) Lithophytes
5. The study of relationship of a single environment is called
(a) Synecology
(b) Autecology
(c) Ecosystem ecology
(d) Population ecology
6. Ecological succession in sand is called
(a) halosere (b) xerosere
(c) hydrosere (d) psammosere
7. Which bioremediation approach involves using plants to degrade pollutants?
(a) Biopile (b) Phytoremediation
(c) Composting (d) Phycoremediation

8. Identify the organism which is popularly called "oil eating microbe"
- (a) *Escherichia coli*
 (b) *Pseudomonas putida*
 (c) *Pseudomonas aeruginosa*
 (d) *Salmonella typhi*
9. Who among the following had proposed the continental drift theory?
- (a) Engler (b) Darwin
 (c) Wallace (d) Wegener
10. Indian remote sensing satellites are called
- (a) INSAT (b) IRS
 (c) GSAT (d) IRS SAT
- PART B — (5 × 5 = 25 marks)
- Answer ALL questions choosing either (a) or (b).
 Each answer should not exceed 250 words.
11. (a) Examine fire as a factor.
 Or
 (b) Ascertain the role of plants in the ecosystem.
12. (a) Highlight the anatomical adaptations of hydrophytes.
 Or
 (b) Bring out the physiological adaptations of xerophytes.
13. (a) Explain the concept of population.
 Or
 (b) Expound the terms consociation and society.
14. (a) Define xenobiotics. How it is useful in ecosystem monitoring?
 Or
 (b) List down the types of bioremediation.
 Or
15. (a) What is mean by continental drift? How it is relevant in phytogeography?
 Or
 (b) Bring out the climatic regions of India.

PART C — (5 × 8 = 40 marks)

Answer ALL questions choosing either (a) or (b).
Each answer should not exceed 600 words.

16. (a) Describe the soil as an important factor in the ecosystem.

Or

- (b) Illustrate the carbon cycle.

17. (a) List down the components of the ecosystem.

Or

- (b) Classify the ecosystem.

18. (a) Explain the concept of community.

Or

- (b) Quadrat method of vegetation analysis is easy to conduct - Justify.

19. (a) Examine the concept of biomonitoring.

Or

- (b) Highlight the importance of biosensors in monitoring environmental pollution.

20. (a) Explain the principles of phytogeography.

Or

- (b) Describe the phenomenon of endemism.