

PART C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) Critically examine the role of light as a climatic factor.
Or
(b) Draw the Nitrogen Cycle.
17. (a) Discuss, in detail, the morphological and anatomical adaptations of hydrophytes.
Or
(b) Examine the anatomical and physiological adaptations of xerophytes.
18. (a) Discuss, in detail, the process of plant succession.
Or
(b) How will you measure the vegetation by Quadrat method?
19. (a) Discuss, in detail, the phytoremediation.
Or
(b) Write an essay on bio indicators.
20. (a) What is meant by continental drift? How is it relevant in phytogeography?
Or
(b) Bring out the vegetation types of Tamil Nadu.

Reg. No. :

Code No. : 30371 E Sub. Code : AEB 051

B.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2022.

Fifth Semester

Botany — Core

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. Plants growing under direct sunlight are known as
(a) Heliophytes
(b) Sciophytes
(c) Psamophytes
(d) Pyrophytes
2. A mutual relationship between two organisms, where both of them are benefitting from watching the other is called
(a) Mutualism (b) Symbiosis
(c) Parasitism (d) Predator



3. The mass of living material at a trophic level at a particular time is called
 - (a) Standing rate (b) Standing plant
 - (c) Standing crop (d) Standing state
4. Where you come across root pockets?
 - (a) Xerophytes (b) Halophytes
 - (c) Hydrophytes (d) Mesophytes
5. A biological community together with the associated abiotic environment is
 - (a) Biomes (b) Population
 - (c) Community (d) Ecosystem
6. In ecological succession, the intermediate developmental phase is known as
 - (a) ecesis (b) climax
 - (c) nudation (d) sere
7. Which bioremediation approach involves mixing contaminated soil with water, carbon dioxide and fertilizers in a bioreactor to stimulate biodegradation?
 - (a) In situ hybridization
 - (b) Slurry-phase bioremediation
 - (c) Biopile treatment
 - (d) Ex situ bioremediation
8. Which among the following group of plants is a good indicator of air pollution?
 - (a) Lichens (b) Bryophyte
 - (c) Pteridophyte (d) Gymnosperms

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9. The plant which has restricted distribution to a particular locality is called?
 - (a) Epidemic (b) Endemic
 - (c) Rare (d) Endangered
10. Littoral swamp forests are present in Tamil Nadu in
 - (a) Nilgiris (b) Thanjavur
 - (c) Thiruvannamalai (d) Tenkasi

PART B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

11. (a) Explain wind as a factor.
Or
(b) Describe the role of microbes in the environment.
12. (a) List down the components of the ecosystem.
Or
(b) Classify the ecosystem.
13. (a) Explain the concept of community.
Or
(b) Expound the terms plant formation and association.
14. (a) Give an account of biomonitoring.
Or
(b) Highlight the importance of biosensors in monitoring environmental pollution.
15. (a) Explain the principles of phytogeography.
Or
(b) Describe the phenomenon of endemism.

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