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Code No.: 30209 E Sub. Code: SEBO 6 A

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

Sixth Semester

Botany

Major Elective-III — PLANT ECOLOGY AND PHYTOGEOGRAPHY

(For those who joined in July 2017-2019)

Time: Three hours

Maximum: 75 marks

PART A - (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer:

- 1. The word Environment is derived from
 - (a) English
 - (b) Latin
 - (c) French
 - (d) Greek

- Cleaning up of toxic contaminants in the environment using microbes is called
 - (a) Biodegradation
 - (b) Phytoremediation
 - (c) Bioleaching
 - (d) Bioremediation
- 8. Which one can degrade hydrocarbons?
 - (a) Pseudomonas
 - (b) Polyporus
 - (c) Aspergillus
 - (d) Streptococcus
- 9. The occurrence of a species or gems in a restricted geographical area is called
 - (a) Endangered
 - (b) Endemic
 - (c) Holotypic
 - (d) Monotypic
- 10. The continentals drift was proposed by
 - (a) Crick
- (b) Chase
- (c) Watson
- (d) Wegner

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- - (a) 75
- (b) 78
- (c) 73
- (d) 70
- 3. The word ecosystem was coined by
 - (a) Linnaeus
- (b) Bateson
- (c) Tansley
- (d) Punnet
- 4. The pyramid of energy is
 - (a) Always upright
 - (b) Always inverted
 - (c) Either upright or inverted
 - (d) None of the above
- More than two species are dominant in plant formation is called
 - (a) consociation
 - (b) association
 - (c) location
 - (d) plant formation
- Quadrate method was first used by
 - (a) Turner
- (b) Chase
- (c) Morgan
- (d) Clements

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PART B — $(5 \times 5 = 25 \text{ marks})$

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

Each answer should not exceed 250 words.

11. (a) Give an brief account in carbon cycle.

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- (b) Explain the role of microbes which influence on vegetation.
- 12. (a) Describe forest ecosystem.

Or

- (b) Explain the anatomical adaptations for hydrophytes.
- 13. (a) Explain the Line-transect method adopted to study plant community.

Or

- (b) Write short notes on consociation.
- 14. (a) Give a brief account on phyto remediation.

Or

(b) Write short notes on Biosensors.

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15. (a) Write short notes on Endemism.

Or

(b) Briefly describe the vegetations types of Tamilnadu.

PART C - (5 \times 8 = 40 marks)

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

Each answer should not exceed 600 words.

(a) Give a detailed account on abiotic factors.

Or

- (b) Write an essay on Nitrogen cycle.
- (a) Explain Aquatic ecosystem.

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- (b) Give a detailed account on various kinds of adaptations seen in xerophytes.
- 18. (a) Write an essay on association.

Or

- (b) Describe the quadrate method adopted to study plant community.
- 19. (a) Give a detailed account on Bioremediation.

Or

(b) Write an essay on Biodegradation.

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20. (a) Write an essay on remote sensing.

Or

(b) Describe the principles of phyto-geography.

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