

(6 pages)

Reg. No. :

Code No. : 30386 E Sub. Code : CMZO 54

B.Sc. (CBCS) DEGREE EXAMINATION,
APRIL 2025.

Fifth Semester

Zoology — Core

ECOLOGY

(For those who joined in July 2021 and 2022 only)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. The two main components of an ecosystem are
 - (a) Autotrophs and Heterotrophs
 - (b) Biotic and Abiotic factors
 - (c) Flora and Fauna
 - (d) Producers and Decomposers
2. Which abiotic factor primarily influences photosynthesis?
 - (a) Soil
 - (b) Water
 - (c) Light
 - (d) Temperature
3. The process by which plants absorb CO₂ from the atmosphere is called
 - (a) Respiration
 - (b) Photosynthesis
 - (c) Decomposition
 - (d) Combustion
4. In mutualism, both species
 - (a) Benefit
 - (b) Are harmed
 - (c) One benefits, the other is harmed
 - (d) One benefits, the other is unaffected
5. Lotic ecosystems refer to
 - (a) Standing water bodies
 - (b) Flowing water bodies
 - (c) Marine ecosystems
 - (d) Desert ecosystems

6. What is an ecotone?
(a) A zone of transition between two ecosystems
(b) A deep-sea ecosystem
(c) A region of desertification
(d) A type of forest ecosystem
7. Acid rain is caused by
(a) Carbon dioxide and oxygen
(b) Sulfur dioxide and nitrogen oxides
(c) Methane and ammonia
(d) Ozone and lead
8. Biomedical waste is mainly generated by
(a) Factories
(b) Hospitals and research labs
(c) Schools
(d) Households
9. What does IUCN stand for?
(a) International Union for Conservation of Nature
(b) Indian Union for Conservation of Nature
(c) International Union for Climate and Nature
(d) Indian Union for Climate and Nature

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10. Which of the following is a Tiger Reserve in Tamil Nadu?
(a) Mudumalai Tiger Reserve
(b) Sundarbans Tiger Reserve
(c) Bandipur Tiger Reserve
(d) Gir National Park

PART B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

11. (a) Explain the trophic levels in an ecosystem.
Or
(b) Write an account on pyramids.
12. (a) Write short notes on Mutualism.
Or
(b) Give an account on Parasitism.
13. (a) Write short notes on Ecotone.
Or
(b) Give an account on Savanna ecosystem.

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14. (a) Write an account on nuclear hazards.

Or

(b) Explain e-waste.

15. (a) What is IUCN? Explain its role in biodiversity conservation.

Or

(b) What is afforestation, and why is it important for environmental conservation?

PART C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) Discuss the role of light as an important ecological factor.

Or

(b) Define the term population. What are the important characteristics of a population?

17. (a) Explain the Carbon cycle.

Or

(b) Explain the Nitrogen cycle.

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18. (a) Write an account on marine ecosystem.

Or

(b) Illustrate the patterns of ecological succession.

19. (a) Discuss types, causes, effects and management of water pollution.

Or

(b) Write an account on pesticide pollution.

20. (a) Give an account of endangered species and their conservation.

Or

(b) Give an account of sanctuaries and national parks in Tamil Nadu.

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