

(6 pages)

Reg. No. :

Code No. : 30383 E Sub. Code : AMZO 51

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

Fifth Semester

Zoology — Core

ECOLOGY AND TOXICOLOGY

(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. Animals which ingest herbivores live on living plants and are known as
 - (a) Secondary consumers
 - (b) Primary consumers
 - (c) Tertiary consumers
 - (d) Producers

2. The biotic factors refer to _____ present in an ecosystem
 - (a) Temperature
 - (b) Living beings
 - (c) Humidity
 - (d) Sunlight
3. In a given ecosystem, various food chains are linked together and intersect each other to form a complex network called as
 - (a) Food link
 - (b) Food web
 - (c) Bio-geochemical cycle
 - (d) Nutrient complex
4. Unit of energy is called as _____.
 - (a) Joule
 - (b) Mole
 - (c) Lux
 - (d) Curie
5. The collection of individuals which belongs to the same species when live together in a region is known as _____.
 - (a) Keystone species
 - (b) Community
 - (c) Guild
 - (d) Population
6. Which of the following defines the separation of two different communities?
 - (a) Ecotone
 - (b) Edge effect
 - (c) Ecade
 - (d) Resistance

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7. In India, new Wild Life Protection Act was passed in _____.

- (a) 1972 (b) 1982
(c) 1962 (d) 1992

8. _____ is the process of detecting and monitoring the physical characteristics of an area by measuring its reflected and emitted radiation at a distance.

- (a) Artificial intelligence
(b) Remote sensing
(c) Data science
(d) Robotic science

9. Find out toxic metal in the given following list.

- (a) Potassium iodide
(b) Methyl mercury
(c) Barium chloride
(d) Calcium sulphate

10. The toxicity of organo-chlorine pesticides like DDT cause

- (a) Inhibiting Na^+ , K^+ and Mg^+ adenosine tri-phosphatase activity in the nerve endings of animals
(b) Cause damage to heart
(c) Cause damage to muscle
(d) Cause damage to skin

PART B — ($5 \times 5 = 25$ marks)

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

Each answer should not exceed 250 words.

11. (a) Discuss the role of temperature as an ecological factor.

Or

(b) Comment decomposers as one of the biotic factor in an environment.

12. (a) What is food chain? Describe different food chains with examples.

Or

(b) Describe the phenomenon of commensalism by providing examples.



13. (a) Write short notes on the age pyramids.

Or

- (b) Describe in brief about techniques of measurements of population density with reference to natality.

14. (a) List out the different causes for threat to biodiversity.

Or

- (b) List out different measures control of urbanizations.

15. (a) List out the importance and applications of toxicology.

Or

- (b) Analyze the possible toxic effects of carcinogens.

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 ecological factor.

Or

- (b) Describe the structure of an ecosystem by taking an example of pond ecosystem.

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17. (a) How does energy flow in an ecosystem?

Or

- (b) Describe different kinds of ecological pyramids.

18. (a) Summarize different adaptations seen in cave animals.

Or

- (b) Enlist the different types of Population dispersion.

19. (a) Critically analyse the reasons for urbanization.

Or

- (b) List out any five national parks with its importance.

20. (a) Discuss the different route of entry of toxicants in our body.

Or

- (b) Analyze the basic ideas about toxic effects of pesticides.

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