

# GOVERNMENT ZIRTIRI RESIDENTIAL SCIENCE COLLEGE

Subject: Zoology

Paper name: Ecology and Wildlife

Paper No: ZL-XXIII

Semester: 6 Semester

## A. Multiple choice questions [25 (5 from each unit)]

- Ernst Haeckel defined ecology as
  - The total relation of the animal to both its organic and its inorganic environment.
  - The science of all the relations of all organisms to all their environments.
  - The scientific study of the distribution and abundance of organisms.
  - The study of environmental interactions which control the welfare of living things.
- The term ecosystem was proposed by
  - Karl Mobius
  - S.A. Forbes
  - A.G. Tansley
  - Fruederichs.
- Example of grazing food chain is
  - Producer → herbivore → carnivore
  - Phytoplanktons → zooplanktons → fish
  - Primary → secondary → tertiary
  - All of the above.
- Lake ecosystem provides a typical example for
  - Pyramid of biomass
  - Pyramid of energy
  - Pyramid of number
  - None of the above
- The first law of thermodynamic states that
  - Energy is neither created nor destroyed.
  - Energy is transformed from one kind to another.
  - Energy is generated by kinetic
  - Energy is created by potential.
- Biogeochemical cycles are also known as
  - Sedimentary cycling
  - Gaseous cycling
  - Material cycling
  - Liquid cycling.
- Phosphorous cycle absorbs phosphates in the form of
  - $\text{HPO}_3$
  - $\text{PO}_4^{3-}$
  - $\text{P}_2$

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- d)  $\text{AlPO}_4$
8. The main nitrogen reservoir in the biosphere is the
- Ocean
  - Rocks
  - Organism
  - Atmosphere
9. Which is the most common available form of S to plants
- S
  - $\text{SO}_4^{2-}$
  - $\text{SO}_2$
  - $\text{H}_2\text{S}$
10. The hydrological cycle is driven by
- Solar and energy.
  - Solar and gravity.
  - Solar and light
  - All of the above.
11. The transitional series of communities which develop in a given area are called
- Sere or seral stages.
  - Climax.
  - Succession.
  - Ecesis
12. According to Shelford's Law of Tolerance the region at either end of the zone of compatibility is called
- Zone of tolerance
  - Biokinetic zone
  - Lethal zone
  - Zone of compatibility
13. Name the term which defines the ability of community return to its original state after being displaced?
- Clumped
  - Dispersed
  - Resistance
  - Resilience
14. What is called for the phenomenon when the radiation absorbed by the atmosphere is reradiated towards the surface of the earth?
- Newton effect.
  - Greenhouse effect.
  - Smog
  - Darwin effect.
15. Which one of the following cause global warming?
- Oxygen

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- b) Nitrogen
  - c) Carbon dioxide
  - d) Hydrogen
16. Natality is characteristic of a population which means
- a) A total number of individuals present per unit area at a given time
  - b) Loss of individuals due to death in a population under given environmental conditions.
  - c) Increase in number of individuals in a population under given environmental conditions.
  - d) The movement of individuals into and out of population.
17. Which of the following survivorship curve is suitable for the organisms who breeds several times during the course of their life span?
- a) Type IV
  - b) Type III
  - c) Type II
  - d) Type I
18. The ratio of deaths in an area to the population of that area; expressed per
- a) 1000 per year.
  - b) 10000 per year.
  - c) 2000 per year
  - d) 20000 per year.
19. How do human activities affect species diversity?
- a) Due to conserving the forests
  - b) Due to over-exploitation of humans.
  - c) Due to a decline in population growth in humans
  - d) Due to decrease in the pollution causing by industries
20. Density with reference to the actual area of habitat available to the species is
- a) Crude density
  - b) Numerical density
  - c) Ecological density
  - d) Biomass density
21. Chipko movement is a Hindi word which means
- a) To embrace or to hug.
  - b) To protect.
  - c) To conserve.
  - d) To deplete.
22. Which one of the following is not included in wildlife management?
- a) The restoration of the habitat
  - b) Enforcement of the law to stop poaching completely
  - c) Prevention of competition from domestic livestock.
  - d) Allow poaching of some wildlife animals.

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23. In India the project called 'Save the Crocodiles' was started in
- 1970
  - 1974
  - 1976
  - 1978

24. Water resource management should ensure that
- There is no wastage or misuse of water
  - Pure water is made available to man for various purposes
  - Water storage and distribution is done in a scientific way.
  - All of the above.

25. Human activities account for over one-third of
- N<sub>2</sub>O emissions
  - CO<sub>3</sub> emissions
  - CO<sub>2</sub> emissions
  - NO<sub>2</sub> emissions

### B. Fill up the blanks [15 (3 from each unit)]

- The effect of interspecific competition on niches is to make \_\_\_\_\_
- Each stage in food chain is called an \_\_\_\_\_ level.
- Ecosystem is smallest unit of \_\_\_\_\_
- \_\_\_\_\_ is critical elements of the ecosystem because it is essential element.
- \_\_\_\_\_ are the most important agents for carbon dioxide fixation.
- The phosphorous cycle lacks an \_\_\_\_\_ components.
- Law of tolerance is proposed by \_\_\_\_\_
- The global warming rate is measures by \_\_\_\_\_
- The most abundantly found greenhouse gas is \_\_\_\_\_
- \_\_\_\_\_ indices is used to measure diversity in categorical data.
- \_\_\_\_\_ is the number of different species represented in an ecological community.
- The actual loss of individuals under a given environmental condition is \_\_\_\_\_ mortality.
- Rama Rao called soil \_\_\_\_\_ as **creeping death of the soil**.
- The term \_\_\_\_\_ designates an effect or object resulting from human activity.
- The Wildlife Protection Act was passed in \_\_\_\_\_.

### Key Answers

#### A. Multiple choice questions

- |         |         |         |         |         |         |         |
|---------|---------|---------|---------|---------|---------|---------|
| 1. (a)  | 2. (c)  | 3. (b)  | 4. (c)  | 5. (a)  | 6. (b)  | 7. (b)  |
| 8. (d)  | 9. (b)  | 10. (b) | 11. (a) | 12. (c) | 13. (d) | 14. (b) |
| 15. (c) | 16. (c) | 17. (d) | 18. (a) | 19. (b) | 20. (c) | 21. (a) |
| 22. (d) | 23. (b) | 24. (d) | 25. (a) |         |         |         |

#### B. Fill up the blanks

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1. Smaller
2. Energy
3. Biosphere
4. Nitrogen.
5. Algae.
6. Atmospheric.
7. Victor Ernest Shelford.
8. Climatologist.
9. water vapour.
10. Shannon-Weaver
11. Species richness.
12. Ecological.
13. Erosion.
14. Anthropogenic
15. 1972.