

## GOVERNMENT ZIRTIRI RESIDENTIAL SCIENCE COLLEGE

**Subject** : Zoology  
**Paper name** : Ecology and Wildlife  
**Paper No** : XII (B)  
**Semester** : Sixth

A. Multiple choice questions:

1. Synecology deals with
  - a) ecology of many species
  - b) ecology of many populations
  - c) ecology of community
  - d) None of the above
2. The bottom area where production is less than respiration in a pond ecosystem is termed
  - a) profundal zone
  - b) tidal zone
  - c) benthic zone
  - d) limnetic zone
3. The pyramid of energy in an ecosystem
  - a) is always upright
  - b) may be upright or inverted
  - c) is always inverted
  - d) None of the above
4. In an ecosystem, the energy flow is
  - a) always unidirectional
  - b) always bidirectional
  - c) in any direction
  - d) always down direction
5. The biotic component that contributes by producing food is
  - a) autotrophs
  - b) producers
  - c) Both (a) and (b)
  - d) heterotrophs
6. The cyclic movement of chemical elements of the biosphere between the organisms and the environment are referred to as
  - a) sediment-reservoir cycles
  - b) Calvin cycle
  - c) biogeochemical cycles
  - d) atmosphere reservoir cycle
7. Agrobacterium is involved in which of the following processes?
  - a) Ammonification

## GOVERNMENT ZIRTIRI RESIDENTIAL SCIENCE COLLEGE

- b) Nitrification
  - c) Reduction of nitrate to ammonia
  - d) Denitrification
8. The role of bacteria in carbon cycle is
- a) Breakdown of organic compounds
  - b) Photosynthesis
  - c) Chemosynthesis
  - d) Assimilation of nitrogen compounds
9. Which of the following processes is performed by *Thiobacillus thiooxidans*?
- a) converts sulphur to sulphates
  - b) converts sulphur to sulphides
  - c) converts sulphur to sulphites
  - d) converts organic sulphur to inorganic sulphur
10. Phosphorous cycle absorbs phosphates in the form of
- a)  $\text{HPO}_3^-$
  - b)  $\text{P}_2$
  - c)  $\text{PO}_4^{3-}$
  - d)  $\text{AlPO}_4$
11. The ability of an organism to survive in a particular habitat or to have the size of a population in a community is determined by its
- a) limiting factor
  - b) tolerance
  - c) adaptability
  - d) None of the above
12. A biotic community is a local association of several
- a) individuals
  - b) populations
  - c) species
  - d) communities
13. An intermediate transitional zone between two distinct communities is called
- a) ecotype
  - b) paratype
  - c) ecotone
  - d) midtone
14. The intermediate stage found in an ecosystem advancing towards its climax community is
- a) feral community
  - b) seral community
  - c) successful community
  - d) ecesis

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15. Global warming is said to be an effect of
  - a) pollution of rivers
  - b) industrial revolution
  - c) melting of polar ice
  - d) greenhouse gases
  
16. The minimum quantity of any factor that produces a precipitable effect on the organism is known as
  - a) threshold
  - b) rate
  - c) equilibrium
  - d) stable
  
17. The stable community that ends the succession is called
  - a) climax community
  - b) stable community
  - c) sere community
  - d) threshold community
  
18. The succession that begins in an area with adequate moisture is called
  - a) hydrach
  - b) xerach
  - c) mesarch
  - d) lithosphere
  
19. The average rise in the earth climatic system is due to
  - a)  $C_2O_2$
  - b)  $CO_2$
  - c)  $2 CO_2$
  - d)  $C_2O$
  
20. The  $O_3$  layer is present above the
  - a) mesosphere
  - b) stratosphere
  - c) lithosphere
  - d) hydrosphere
  
21. The death rate of a population is called
  - a) mortality
  - b) natality
  - c) fatality
  - d) density
  
22. A group of people occupying a particular space is called
  - a) population
  - b) community
  - c) society

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d) pack

23. Equilibrium density is denoted by
- K
  - E
  - k
  - e
24. A term used to define the number of species in an area is
- species density
  - species diversity
  - species richness
  - species quality
25. Shannon-Weiner Index is defined by the expression
- $H = \sum[(p_i) \times \ln(p_i)]$
  - $H = (p_i)$
  - $H = \sum[p_i]$
  - $H = \sum[\ln(p_i)]$

B. Fill in the blanks:

- \_\_\_\_\_ defined ecology as the study of the relationship of organisms with their environment.
- Aravalli hills ecosystem is found in \_\_\_\_\_ .
- In ecology, energy flow is also referred to as \_\_\_\_\_ flow.
- In the carbon cycle, the human body returns carbon to the atmosphere through \_\_\_\_\_ .
- \_\_\_\_\_ sequester most carbon from the atmosphere.
- The evaporation of water from the surfaces and its precipitation is known as \_\_\_\_\_ .
- Law of Tolerance was proposed by \_\_\_\_\_ .
- Ecological \_\_\_\_\_ is the process of change in the species structure of an ecological community over time.
- \_\_\_\_\_ contributes most to greenhouse gases.
- Flora and fauna are the \_\_\_\_\_ component of the environment.
- The succession that occurs after changes in an already existing ecosystem \_\_\_\_\_ succession.
- When Earth's atmosphere traps the sun's heat it is called \_\_\_\_\_ effect
- The study of ecology of individuals of the same species is called \_\_\_\_\_ ecology.
- When the density of the organisms rapidly and then stops abruptly it is denoted by \_\_\_\_\_ curve.
- \_\_\_\_\_ is a term used to define the number of species in an area (Species richness) and the distribution of these species in that ecosystem.

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## Key Answers

### A. Multiple choice questions :

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

### B. Fill in the blanks :

1. Ernst Haeckel
2. Rajasthan
3. calorific
4. carbon dioxide *or* cellular respiration
5. Plants
6. Hydrological cycle
7. Shelford
8. succession
9. Carbon dioxide
10. biotic
11. secondary
12. Greenhouse
13. population
14. J-shaped
15. Species diversity