

**Class: 12**  
**Subject: Biology**  
**Topic: Organisms and populations**  
**No. of Questions: 25**

- Q1. How is diapause different from hibernation?
- Q2. Define phenotypic adaptations. Give one example.
- Q3. List the attributes that populations possess but not the individuals.
- Q4. Name important defence mechanisms in plants against herbivory.
- Q5. Distinguish between the following:  
a. Hibernation and aestivation  
b. Ectotherms and endotherms.
- Q6. Define population and community.  
a. Commensalism  
b. Parasitism  
c. Camouflage  
d. Mutualism  
e. Interspecific Competition
- Q7. In a pond there were 20 Hydrilla plants. Through reproduction 10 new Hydrilla plants were added in a year. Calculate the birth rate of the population.
- Q8. Define the following terms:  
a. Migration  
b. Stratosphere  
c. Community  
d. Biosphere
- Q9. Define the following terms  
a. Mimicry  
b. Acclimatization  
c. Ectotherms  
d. Endotherms
- Q10. Give the ecological adaptations of succulents.

- Q11. Write characteristics of A-horizon of soil.
- Q12. How do the genus and community differ?
- Q13. What is allelopathy? Cite one example.
- Q14. The 'clown' fish lives among the tentacles of sea anemone. What is this interaction? Give a reason for this association.
- Q15. State Gause's competitive exclusion principle.
- Q16. Define predation.
- Q17. Explain why very small animals are rarely found in polar region.
- Q18. What is the difference between climate and weather?
- Q19. Why are coral reefs not found in the region from West Bengal to Andhra Pradesh but are found in Tamil Nadu and on the East coast of India?
- Q20. One day, Geeta a biology student, asked his teacher, "why scientists generally talk about presence of water on other planets"? He replied that water is one of the most important factors for supporting life on the earth as well as on other planets.  
Read the above passage and answer the following questions:
- What is the importance of water?
  - List important characteristic features of water?
  - Why was Geeta curious to find answers to such queries?
- Q21. Community is
- Species structure and diversity index of an area
  - Biomass
  - Autotrophic and heterotrophic components
  - All of these

- Q22. Which factor of ecosystem includes plants, animals and microorganisms?
- a) Biotic factors
  - b) Direct factors
  - c) Indirect factors
  - d) Abiotic factors
- Q23. A terrestrial animal must be able to
- a) Excrete large amounts of salts in urine
  - b) Actively pump salts out through the skin
  - c) Conserve water
  - d) Excrete large amount of water in urine
- Q24. Competition is severe in a population that has a distribution which is
- a) Random
  - b) Uniform
  - c) Irregular
  - d) Non-random
- Q25. Individuals of a species which occur in a particular area constitute
- a) Population
  - b) Fauna
  - c) Flora
  - d) Flora and Fauna

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