

## Science 1206 Unit 1 (Part 1) - Sample Questions

1. Which of the following best describes an intimate ecological association in which the organism is unharmed when living on or within the host, but which generally has a negative effect on that host?  
(A.) Mutualism (B.) Saprophytism (C.) Commensalism (D.) Parasitism
2. Which concept most completely describes the place an organism is found in an ecosystem?  
(A.) habitat (B.) niche (C.) food web (D.) chemical cycle
3. In the succession: weathered rock -- lichen – moss grass shrubs which organisms are the pioneer organisms?  
(A) shrubs (B) grasses (C) mosses (D) lichens
4. Which term best describes the wet marsh-like border of a pond?  
(A.) population (B.) Succession (C.) Ecotone (D.) biome
5. Which statement is TRUE concerning an ecological niche?  
(A.) Within the same habitat, two or more species can occupy the exact same niche.  
(B.) The niche is defined as the microhabitat where an organism is found.  
(C.) The concept of the ecological niche is multidimensional including information not only in the functional role of the organism in the ecosystem but also its habitat.  
(D.) The type of niche occupied by the organism depends only on the organism's mode of nutrition.
6. As energy flows through the ecosystem, the amount available to each trophic level  
(A.) decreases (B.) increases (C.) remains the same (D.) Increases, then decreases
7. Which biotic factor most affects the wind speed at ground level in an ecosystem?  
(A) Height of plant plant life (B) Time of day (C) Air temperature (D) Number of predators
8. As an ecosystem passes through the stages of succession (A.) its species diversity decreases  
(B.) its biomass increases (C.) it becomes less stable (D.) its ability to withstand stress decreases
9. Competition  
(A.) describes an interaction in which one organism is adversely affected while the other is unaffected  
(B.) occurs only over food sources  
(C.) may result in one species dying off or being forced to change its ecological niche  
(D.) occurs only between closely related organisms
10. When we eat celery we are acting as  
(A.) producers (B.) primary consumers (C.) secondary consumers (D.) decomposers

1. Using the diagram at the right, explain what is meant by a pyramid of biomass.

2. Give a possible food chain for the pyramid of biomass shown here.

3. How would the pyramid of energy compare with the biomass pyramid for this food chain?

4. In some logging operations, all the trees in an area are cut (clearcutting). Is this a sustainable practice? Explain. Suggest a sustainable logging practice

5. Describe the series of changes that would occur if a section of paved roadway was unused for 50 years.

