

EXAM IV. Sample questions. BIO 213. SPRING 2004

1. What distinguishes a keystone predator?
 - a. It is extremely abundant.
 - b. It regulates its prey below the carrying capacity of the habitat.
 - c. It is a specialist, meaning that it preys only on one species.
 - d. It has a large impact on the community, even though it is not particularly abundant.

2. What is competitive exclusion?
 - a. Interactions that cause a species to occupy a realized niche that is different from its fundamental niche.
 - b. Interactions that allow species to occupy their fundamental niche.
 - c. The degree to which the niches of two species overlap.
 - d. The claim that species with the same niche cannot coexist.

3. An example of Müllerian mimicry is
 - a. a butterfly that resembles a leaf.
 - b. a butterfly with spots that look like large eyes.
 - c. two poisonous frogs that resemble each other in coloration.
 - d. a beetle that resembles a scorpion.

4. An example of cryptic coloration is the
 - a. green color of a plant.
 - b. bright markings of a poisonous tropical frog.
 - c. stripes of a zebra
 - d. bright colors of an insect-pollinating flower.

5. The observation that the relative abundances of species across environmental gradients (e.g. of moisture or temperature) vary independently from each other supports the
 - a. holistic view of a community.
 - b. the individualistic view of a community.
 - c. the trophic cascades theory of community structure.

6. Which of the following ecosystems would you expect to have the highest primary productivity?
 - a. subtropical desert
 - b. boreal forest
 - c. temperate grassland
 - d. tropical wet forest

7. Most of the net primary production that is consumed in an ecosystem is used for what?

- a. respiration by herbivores
- b. respiration by carnivores
- c. growth by herbivores
- d. growth by secondary consumers

8. Scientists at Hubbard Brook demonstrated that clear-cutting had what effect on ecosystem dynamics?

- a. It increased aboveground biomass.
- b. It increased secondary production.
- c. It increased nutrient export.
- d. It increased the pool of soil organic matter.

9. One level of the biodiversity crisis is the potential loss of ecosystems. The most likely serious consequence of a loss in ecosystem diversity would be the

- a. increase in global warming and thinning of the ozone layer.
- b. loss of ecosystem services on which human depend.
- c. increase in the dominance of edge-adapted species.
- d. loss of species for bioprospecting.

10. What is the greatest threat to biodiversity?

- a. overexploitation of commercially important species.
- b. introduced species that compete with or prey on native species.
- c. the high rate of destruction of tropical forests.
- d. human alteration, fragmentation, and destruction of terrestrial and aquatic habitats.