EXAM IV. Sample questions. BIO 213. SPRING 2004

1. What distinguishes a keystone predator?
a. It is extremely abundant.
b. It regulates its pry 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.