

BIO 213. Diversity and Ecology

Sample questions, Exam II

1. When biologists refer to protists, they mean all eukaryotes except which groups?
 - a. Extinct forms
 - b. Land plants, fungi and animals
 - c. Multicellular forms
 - d. Those with cells containing a cytoskeleton and nucleus
2. According to the endosymbiotic theory, what type of organism is the ancestor of the chloroplast?
 - a. A photosynthetic archaea
 - b. A photosynthetic bacteria
 - c. A primitive photosynthetic eukaryote
 - d. A modified mitochondrion
3. What do seeds contain?
 - a. Male gametophyte and nutritive tissue
 - b. Female gametophyte and nutritive tissue
 - c. Embryo and nutritive tissue
4. In what sense are C4 photosynthesis and CAM alike?
 - a. They represent a step that precedes the Calvin-Benson cycle
 - b. They are adaptations to reduce photorespiration
 - c. They fix carbon dioxide
 - d. All of the above
5. Only one group of fungi has any type of motile cells. These are the flagellated gametes found in what group?
 - a. Chytridiomycota
 - b. Zygomycota
 - c. Basidiomycota
 - d. Ascomycota
6. The hyphal growth habit leads to a body with a high surface-area-to-volume ratio. Why is this important?
 - a. Hyphae are specialized for an absorptive way of life
 - b. Hyphae are long, thin tubes
 - c. Hyphae can infiltrate living or dead tissues

7. Among the characteristics unique to animals is
 - a. Heterotrophic nutrition
 - b. Gastrulation
 - c. Sexual reproduction
 - d. Multicellularity

8. Animals get their energy and nutrients from other organisms and decomposing matter
 - a. Through digestion
 - b. Through absorption
 - c. Through ingestion

9. If you were using cladistic analysis to build a phylogenetic tree of birds, which of the following would be the best choice for an outgroup?
 - a. Cattle egret
 - b. Thick-billed parrot
 - c. Bald eagle
 - d. Acorn woodpecker
 - e. Iguana

10. If pumas and lions belong to the same family, then they must also belong to the same
 - a. Genus
 - b. Species
 - c. Order
 - d. Family