Bio 205 Sample Questions for Exam #1, Fall 2005

Multiple Choice

1. The initial, thread-like growth produced by a germinating moss spore is called:

a. Protonema
b. Seta
c. Sporophyte
d. Antheridiophore

2. Plant life cycles are know as the alternation of generations. Which one of the terms below describe something in the *haploid* stage?

a. Sperm
b. Sporangium
c. Sporophyte
d. Strobilus

3. Spores are produced by which process?

a. Meiosis
b. Gametogenesis
c. Mitosis
d. Fertilization

Short Answer

4. Hardy-Weinburg Equilibrium incorporates five basic assumptions. Name **one** of these assumptions and an example of a violation of this assumption.

5. What is the difference between a root and a rhizoid?

6. What does an antheridium produce?

7. What is the name of the biologist that developed the theory of natural selection?

8. What is a strobilus?

Word Bank

9. _____ Spore-producing structures.

10. _____ Name given to the arms on *Equisetum* spores and uncurl when dry, aiding the dispersal of the spore.

11. _____ The part of the hornwort sporophyte that is embedded in the gametophyte and transfers nutrients to the sporophyte.

12. _____ Name given to the leaf-like flaps of tissue of *Psilotum*.

True or False

13. Gametophytes are the dominant generation in mosses **T** **F**

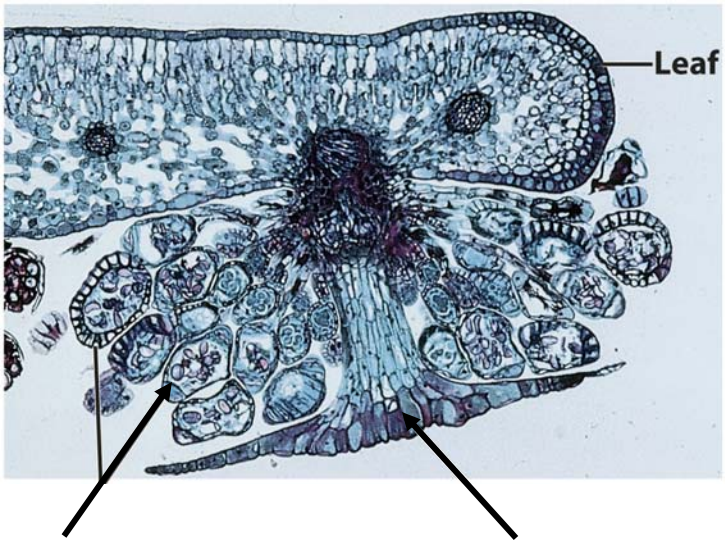
14. The name of the division/phylum that liverworts belong to is the Anthocerophyta **T** **F**

15. Bryophytes require water for reproduction **T** **F**

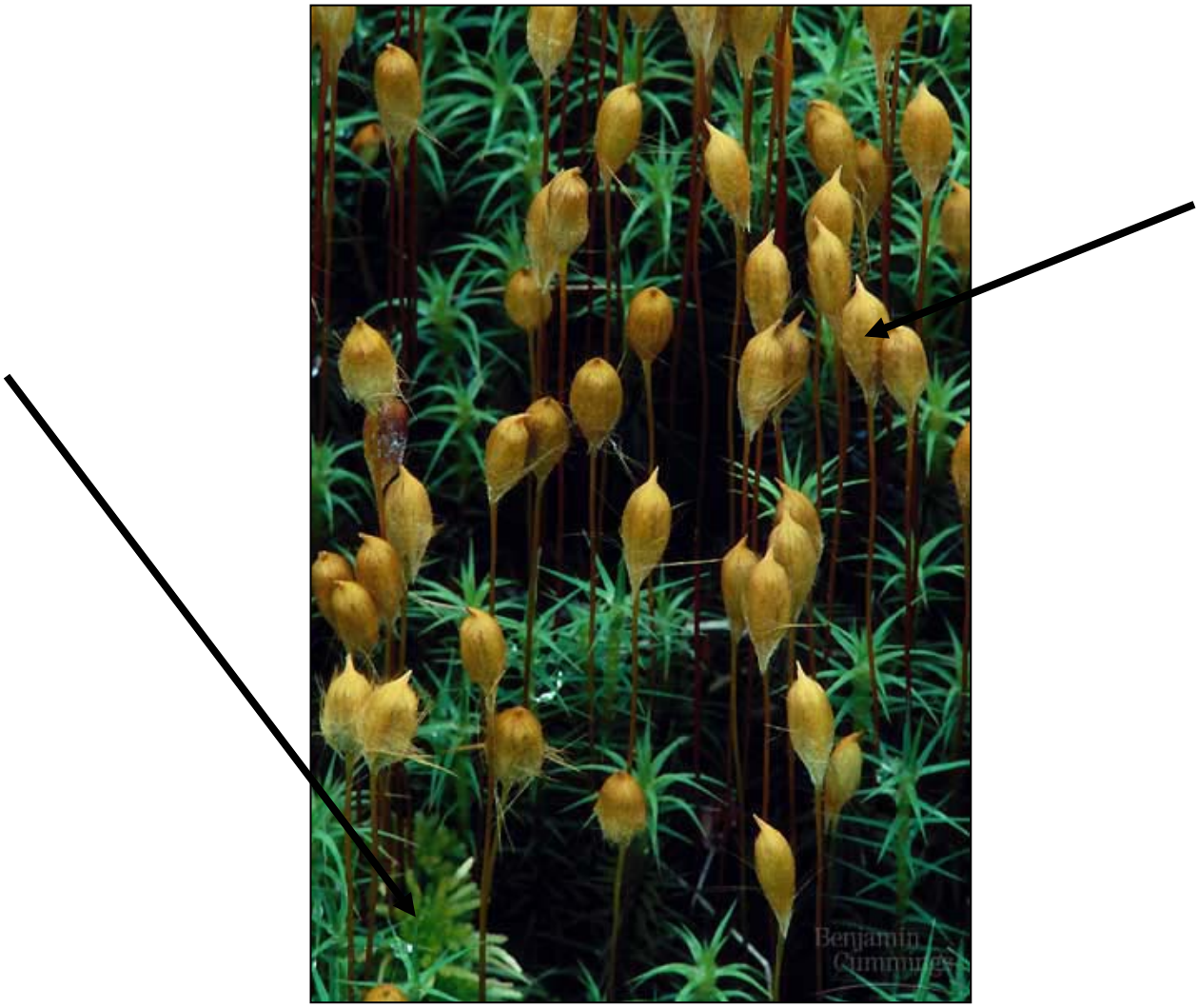
16. Algae represent many endosymbiotic events throughout time **T** **F**

Label the Diagram

Label a sporangium and the indusium of the fern sorus below



On the moss below, label the sporophyte and the gametophyte



Long Answer

Sample questions – the test will have a choice of 1 out of 3. You may use diagrams, but a diagram alone is not sufficient for full credit in the long answer section.

Discuss the difference between microphylls and megaphylls.

Discuss the differences between a homosporous life cycle and a heterosporous life cycle.

Explain how a moss (Bryophyta) capsule disperses spores. *Include in your answer* how it can tell when conditions are right for dispersal, and how it keeps the spores safe inside when conditions are not right.