

History for 'Chapter 30 Pre-Class Assignment'

Item: Chapter 30 Pre-Class Assignment

Score: 100% (Calculated)

Due: Wednesday, October 01, 2014 11:59 PM

Submitted: Tuesday, September 30, 2014 2:52 PM

- Answers: 1. In angiosperms, a _____ is contained in the anthers or ovaries, and the _____ consists of the rest of the plant.
- sporophyte; bryophyte
 - gametophyte; sporophyte
 - sporophyte; gametophyte
 - bryophyte; sporophyte
2. A haploid structure contains _____, and a diploid structure contains _____.
- one set of chromosomes ($1n$); two sets of chromosomes ($2n$)
 - three sets of chromosomes ($3n$); two sets of chromosomes ($2n$)
 - two sets of chromosomes ($2n$); one set of chromosome ($1n$)
 - one set of chromosomes ($1n$); three sets of chromosomes ($3n$)
3. Which of the following organisms do not demonstrate a definitive alteration of generations in their life cycles? Select all correct choices.
- mosses
 - angiosperms
 - ferns
 - gymnosperms
 - Chara* green algae
4. Which of the following is a component of the spore—or zygote—wall (in mosses, ferns, gymnosperms, and angiosperms) and helps prevent the desiccation of these structures? Select all correct choices.

- sporangium
- sporopollenin
- chitin
- peptidoglycan
- sporangia

5. _____ are defined as haploid ($1n$) cells that can form gametophytes. Gametophytes, in turn, produce either haploid ($1n$) male or female _____ that can fuse to form diploid ($2n$) _____.

- Spores; gametes; zygotes
- Gametes; spores; zygotes
- Zygotes; spores; gametes
- Spores; zygotes; gametes
- Gametes; zygotes; spores

6. Which of the following forms of phytochrome promotes seed germination (i.e., is active)? Select all correct choices.

- P_r (absorbs green light)
- P_r (absorbs red light)
- P_{fr} (absorbs far red light)
- P_b (absorbs blue light)

7. Alternation of generations is thought to have evolved in response to the challenges of reproducing on land. How does the diploid multicellular generation enhance the ability of bryophytes such as mosses to reproduce on land?

- It amplifies the number of cells undergoing meiosis, and elevates them above the rest of the plant, increasing the likelihood that fertilization leads to the successful dispersal of offspring.
- It increases the number of gametes that can be formed, increasing the likelihood of cross-fertilization.
- It stimulates the growth of the gametophyte generation by elevating photosynthetic surfaces above the ground.
- It allows meiosis to occur as the first division following fertilization.

- ✔ 8. Match each of the following terms with the appropriate description: multicellular haploid, unicellular haploid, multicellular diploid, or unicellular diploid. The descriptions may be used once, more than once, or not at all.

<input type="text" value="c"/>	1. sporophyte	
<input type="text" value="d"/>	2. gametophyte	a. unicellular haploid
<input type="text" value="a"/>	3. spore	b. unicellular diploid
<input type="text" value="a"/>	4. sperm	c. multicellular diploid
<input type="text" value="a"/>	5. egg	d. multicellular haploid
<input type="text" value="b"/>	6. zygote	

- ✔ 9. Phytochrome prevents seeds of some plants from germinating when they are in deep shade by:

- the absorption of far-red wavelengths by chlorophyll.
- the absorption of red wavelengths by P_r .
- the absorption of far-red wavelengths by P_{fr} .
- the slow dark-conversion of P_r to P_{fr} .
- the slow dark-conversion of P_r to P_{fr} .

- ✔ 10. True or false: The same amount of energy is allocated to pollen production in angiosperms and gymnosperms.

- true
- false

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