Worksheet 6:
Protists/Plants Answers
Supplemental Instruction
Iowa State University

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Course: Bio 211 (4)
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Date: 9/12/12

1. In the gametic life cycle all cells except the ___gametes___ are diploid. And gametes are produced by ___meiosis___.

2. Reproduction is ciliates

a) In the Asexual phase the organisms go through _____mitotic division_____

b)The sexual phase is known as __conjugation_____, in which the organisms exchange ___micronuclei___ .

3. Why did plants leave the water and move to land?

Less competition, little/no predators, water is crowded, more sunlight

4. What are the adaptions that plants needed to live on land?

Carotinoids→UV radiation protector
Conservation of water → cuticle
Autotrophs
Sporopollenin→ protective coating protects spores and pollen from desiccation
Guard cells → let air in (when open) and Prevent water loss when closed
Gamotangia → protects gametes
Xylem and Phloem → (some) vascular tissue
Seeds → some
Secondary plant products → (some) plant products (chemicals) that discourage animal predation

5. Define the following:

Sporophyte- the diploid generation of plants (or protists) that have a sporic life cycle

Sporangia- structures that produce and disperse the spores of plants (or protists)

Spore- a haploid reproductive structure of plants that is dispersed into the environment and is able to grow into a new plant gametophyte

Sporopollenin- the tough material that composes much of the walls of plant spores and helps to prevent cellular damage during transport in the air.