

Biology 2201 - Unit 2: Homework Reading Sheet 3 (pages 164-181)

- About 2/3 of all known species of organisms come from these two groups:
 - Bacteria and Algae
 - Mammals and Birds
 - Arthropods and Flowering Plants
 - Mosses and Ferns
- Which features are shared by both plants and animals?
 - I and II only
 - I and III only
 - II and III only
 - I, II and III

I. Autotrophic II. Eukaryotic C. Multicellular
- Why do scientists think that the ancestors of modern land plants were most likely filamentous green algae?
 - They both have chlorophylls a and b in their cells
 - They both have cellulose cell walls
 - They both store food energy in the form of starch.
 - All of the above are true
- Plants are divided into two main groups based on the presence or absence of
 - Flowers
 - Seeds
 - Vascular tissue
 - Pollen
- Which term describes a structure made up of an embryo, stored food, and a protective coat?
 - Spore
 - Seed
 - Pollen
 - Fruit
- Which structures, present in some land plants, allows them to reproduce without the need for water?
 - Pollen
 - Seeds
 - Sperm

- In an alternation of generations, a lifecycle found in plants, the two stages involved are the gametophyte and the sporophyte. Which is true for these stages?

	Gametophyte		Sporophyte	
A.	Develops from union of gametes	Produces spores	Develops from spores	Produces gametes
B.	Develops from spores	Produces gametes	Develops from union of gametes	Produces spores
C.	Develops from spores	Produces spores	Develops from union of gametes	Produces gametes
D.	Develops from union of gametes	Produces gametes	Develops from spores	Produces spores

- Which stage is the dominant stage in vascular and non-vascular plants
 - Vascular - gametophyte Non-vascular - sporophyte
 - Vascular - gametophyte Non-vascular - gametophyte
 - Vascular - sporophyte Non-vascular - sporophyte
 - Vascular - sporophyte Non-vascular - gametophyte
- About 95% of the species in the Kingdom Animalia are classified as
 - Eukaryotic
 - Multicellular
 - Invertebrates
 - Vertebrates
- Which feature is NOT used to classify animals into phyla?
 - Body symmetry
 - Presence/Absence of cell wall
 - Type of Digestive System
 - Number of germ layers
- Non-vascular plants include mosses, liverworts and
 - Ferns
 - Algae
 - Hornworts
 - Conifers

12. Non-vascular plants transport water and nutrients by
 - A. Diffusion
 - B. Specialized tissues
 - C. A pumping system
13. What are the root-like structures found in mosses?
 - A. Leaflets
 - B. Rhizoids
 - C. Gametophyte
 - D. Sporophyte
14. In the moss life cycle
 - A. The gametophyte grows on the sporophyte
 - B. The sporophyte grows on the gametophyte
 - C. The sporophyte and gametophyte are independent plants
15. Which is formed from the partially-decayed bodies of the moss *Sphagnum* ?
 - A. Peat
 - B. Coal
 - C. Oil
 - D. Chalk
16. Which feature allows ferns to grow taller and live in a wider variety of environments than mosses?
 - A. Vascular tissue
 - B. Spores
 - C. Pollen
 - D. Seeds
17. Which feature is not common to angiosperms and gymnosperms?
 - A. Seeds
 - B. Vascular tissue
 - C. Cell walls
 - D. Flowers
18. Which feature(s) of land plants allow(s) them to reproduce sexually without the need for moisture?
 - A. Pollen
 - B. Seeds
 - C. Spores
 - D. Both A. and B.
19. Which term describes plants which produce seeds in cones?
 - A. Gymnosperms
 - B. Ferns
 - C. Angiosperms
 - D. Bryophytes
20. Which is an adaptation for reducing water loss in conifers?
 - A. Pyramid shape
 - B. Needle-like leaves
 - C. Do not lose leaves in winter
 - D. All of the above
21. The angiosperms develop their seeds in a structure called the
 - A. Pollen
 - B. Fruit
 - C. Cone
 - D. Stem
22. Which are the two major divisions of flowering plants?
 - A. Monocots and Dicots
 - B. Angiosperms and gymnosperms
 - C. Conifers and ferns
 - D. Seed plants and non-seed plants
23. Which feature is found in both angiosperms and gymnosperms?
 - A. Flowers
 - B. Pollination by insects
 - C. Seeds
 - D. Fruit
24. The most successful land plants are the angiosperms. Which feature accounts for this success?
 - A. Flowers
 - B. Fruit
 - C. Sunken stomata
 - D. Endosperm tissue in the seed
 - E. All of these
25. What is the main function of fruit (ripened ovary containing seeds)?
 - A. Attracts pollinators
 - B. Provides nutrients for the plant
 - C. Aids in seed dispersal
 - D. Produces flowers