

**Biology Chapter 17: Organizing Life's Diversity****True/False**

Indicate whether the statement is true or false.

- \_\_\_ 1. Aristotle recognized that species evolve over time.
- \_\_\_ 2. A kingdom is the broadest of all the taxa.
- \_\_\_ 3. A dichotomous key gives each species a scientific name that has two parts.
- \_\_\_ 4. A taxonomic class contains related orders.
- \_\_\_ 5. Characters are inherited biochemical features.
- \_\_\_ 6. When a population becomes geographically isolated from other members of the species, it often evolves different adaptations from the rest of the species.
- \_\_\_ 7. The branches of a cladogram indicate known ancestry.
- \_\_\_ 8. Mushrooms belong to Domain Eukarya and Kingdom Plantae.
- \_\_\_ 9. The virus that causes the common cold is a member of Kingdom Bacteria.
- \_\_\_ 10. Plants are predominantly autotrophic, with some heterotrophic exceptions.

**Multiple Choice**

Identify the choice that best completes the statement or answers the question.

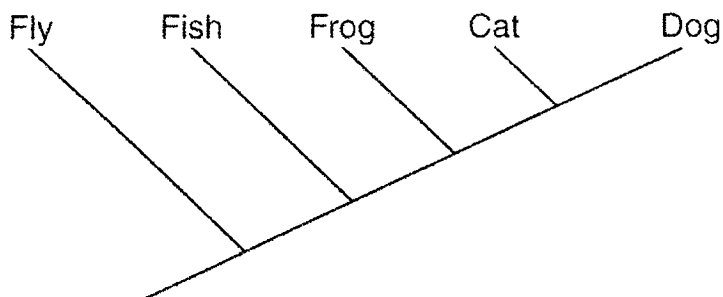
- \_\_\_ 11. Which of the following is the correct way to write the scientific name of the Northern cardinal?
  - a. *cardinalis cardinalis*
  - b. *Cardinalis cardinalis*
  - c. *cardinalis Cardinalis*
  - d. *Cardinalis Cardinalis*
- \_\_\_ 12. Which of the following is a taxon of related phyla or divisions?
  - a. class
  - b. domain
  - c. kingdom
  - d. order
- \_\_\_ 13. Which of the following is the most general taxon?
  - a. genus
  - b. kingdom
  - c. phylum
  - d. species
- \_\_\_ 14. Which of the following lists the taxa from broadest to most specific?
  - a. domain, kingdom, class, order, phylum, family, genus, species
  - b. species, genus, family, order, class, phylum, kingdom, domain
  - c. domain, kingdom, phylum, class, order, family, genus, species
  - d. phylum, kingdom, class, family, order, genus, domain, species
- \_\_\_ 15. To which domain does the American black bear belong?
  - a. Animalia
  - b. Carnivora
  - c. Chordata
  - d. Eukarya
- \_\_\_ 16. Which of the following is a limitation of the phylogenetic species concept?
  - a. It does not account for extinct species.
  - b. Evolutionary histories are not known for all species.
  - c. It does not account for asexual species.
  - d. Some organisms that are different species occasionally reproduce.

17. Which of the following is an example of a morphological character used for classification of taxa?

- a. DNA analysis
- b. RNA analysis
- c. the hip structure of theropods
- d. the chromosomes of broccoli and cauliflower

18. Which type of character is found within an entire line of descent of a group of organisms?

- a. ancestral
- b. biochemical
- c. derived
- d. morphological



**Figure 17-1**

19. Which of the following groups in Figure 17-1 is the outgroup?

- a. cats
- b. dogs
- c. fish
- d. flies

20. What assumption is made when constructing a cladogram?

- a. the fewer derived characteristics shared by groups, the more recently the groups share a common ancestor
- b. the more derived characteristics shared by groups, the more recently the groups share a common ancestor
- c. the fewer ancestral characteristics shared by groups, the more recently the groups share a common ancestor
- d. the more ancestral characteristics shared by groups, the more recently the groups share a common ancestor

21. Which of the following are prokaryotes that contain peptidoglycan in their cell walls?

- a. Archaeobacteria
- b. Eubacteria
- c. Fungi
- d. Protists

22. Which domain includes organisms that are called extremophiles?

- a. Animalia
- b. Archaea
- c. Bacteria
- d. Eukarya

23. Which of the following Kingdoms is not included in the Domain Eukarya?

- a. Bacteria
- b. Fungi
- c. Plantae
- d. Protista

24. Which character distinguishes Fungi from Plantae?

- a. presence of membrane-bound organelles
- b. presence of membrane-bound nucleus
- c. cell walls with chitin
- d. multicellular

Name: \_\_\_\_\_

ID: A

25. What are the Domain and Kingdom of a paramecium?

- a. Domain Bacteria, Kingdom Eubacteria
- b. Domain Archaea, Kingdom Plantae
- c. Domain Eukarya, Kingdom Protista
- d. Domain Archaea, Kingdom Protista