Unit 11 Test Review

Name: Answer Key Date: _____ Test #: _____

Define the following keywords.

1. Taxonomy: the science of classifying living things
2. Phylogenetic Tree: A diagram that shows which organisms are still living, which organisms are extinct, and common ancestors
3. Cladogram: A diagram that depicts the degree of evolutionary relationships, based on related structures and adaptations
4. Derived Character: each particular feature on a cladogram that is used to assign an organism to a group
5. Dichotomous Key: tool used to identify organisms using their characteristics
6. Which scientist developed the naming system we use today that assigns a genus and a species name?
   Carolus Linnaeus
7. A domestic dogs is also known as *Canis familiaris*.
   a. What is this organism's genus? Canis
   b. What is this organism's species? familiaris
   c. What is the scientific name? Canis familiaris
8. What language is used to describe scientific names? Latin
9. Why do we use the language described in number 8?
   a. Language of scientists around the world.
   b. Studied and written, but not spoken.
   c. It is descriptive and the root of many other language.
10. Why do scientists not use common names of organsims?
    a. The same organism may have many common names.
    b. Common names are misleading.
    c. Common names vary with different languages.

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11. What are the seven levels of biological hierarchy in correct order? (Begin with Kingdom.)

a. Kingdom (LEAST SPECIFIC)
b. Phylum
c. Class
d. order
e. Family
f. Genus
g. Species (MOST SPECIFIC)

12. If classes are divided into orders, then what are orders divided into? Family

13. How do scientists classify organisms today? Physicial similarities, chemical similarities, and behavioral similarities

14. Briefly describe the six kingdoms and domains. They are organized by the three domains.

a. Domain Archaea: prokaryotic organisms that live in extreme environments
   i. Kingdom Archeabacteria: examples: halophiles (salt-loving) and hyperthermopniles (heat-loving)
b. Domain Bacteria: common prokaryotic organisms found almost everywhere
   i. Kingdom Eubacteria: examples: bacteria and cyanobacteria
c. Domain Eukarya: eukaryotic organisms that are most of the world's visible living things
   i. Kingdom Plantae: multicellular eukaryotic which can make food through photosynthesis
   ii. Kingdom Animalia: multicellular eukaryotic organisms that must ingest food
   iii. Kingdom Protista: eukaryotic unicellular organisms, protozoa and algae
   iv. Kingdom Fungi: multicellular eukaryotic organisms plant-like in structure but cannot make own food, molds and mushrooms

15. Be able to read cladograms, phylogenetic trees, and dichotomous keys.