**AP Biology QW11 12-10**

1. The high degree of similarity between chimp and human DNA suggests that  
   a. chimps and humans are in the same genus                   
   b. chimps are descended from humans  
   c. chimps and humans probably  both descended from a more primitive apelike ancestor  
   d. humans are descended from chimps
2. Sickle-cell trait was selected for by nature in west and central Africa because  
   a. it provides some immunity to anemia b. it provides some immunity to malaria  
   c. it helps people have larger families d. none of the above
3. In order for an animal to be able to judge distance,   
   a. its eyes must be forward-facing b. it must be able to see color  
   c. it must be able to walk d. all of these
4. A biologist analyzes the DNA sequences of 3 different primates. She finds that primates A and B have almost exactly the same DNA sequences, whose those of primate C are different in several places. She would most likely infer  
   a. primates A and B are more closely related to one another than either is to primate C  
   b. all 3 primates appeared on Earth at the same time  
   c. either primate A or primate B must be a direct ancestor of primate C  
   d. primate C must have been the ancestor of both A and B.
5. Lucy’s skeleton revealed that she was bipedal. This means that she  
   a. walked using all 4 limbs b. lived in trees c. walked on 2 legs d. crawled on the jungle floor
6. The hypothesis that *Homo sapiens* evolved in Africa is supported by the finding that  
   a. all *Homo sapiens* have the same number of chromosomes.  
   b. mitochondrial DNA is inherited only from one’s mother  
   c. the fewest number of mitochondrial mutations are found among modern Africans  
   d. the greatest variety of mitochondrial sequences are found among modern Africans
7. A living fossil is  
   a. a computer-animated extinct creature, such as the dinosaurs in Jurassic Park  
   b. a fossil that still contains recoverable DNA and traces of metabolic activity  
   c. a missing link  
   d. a modern organism that has changed little from its ancient fossil ancestors
8. 184. During human evolution, people who lived in \_\_\_\_\_\_ parts of the Earth found light colored skin to be most adaptive.   
   a. hot, sunny b. wet c. cool, cloudy
9. 186. Which vitamin is destroyed by UV light?
10. a. folate b. vitamin D
11. 187. Which vitamin is made by UV light?
12. a. folate b. vitamin D
13. 190. Which is an example of the founder effect?
    1. all of the deer on an island were killed off, but the population was restored by immigration of a small
14. number of deer from the mainland  
    b. when the climate of a desert changed, the main species of mouse evolved into two different species
15. specializing for slightly different environments.  
    c. most of the native birds were lost when cats were introduced to a tropical island, but the populations have
16. recently grown again.
17. d. an introduced fungus killed off all of the American elm trees in the Midwest.
18. Humans have genes in common with all of these, but with which do they have the most genes in common?   
    a. bacteria b. mice c. fish d. jellyfish
19. Apes evolved a unique \_\_\_\_\_\_\_\_\_ which helps them climb and swing through trees.   
    a. head b. tail c. shoulder d. pelvis