1. The number and location of bones of many fossil vertebrates are similar to those in living vertebrates. Most biologists would probably explain this fact on the basis of
   A. The needs of the organisms
   B. A common ancestor
   C. The struggle for existence
   D. The inheritance of acquired traits

2. When lions prey on a herd of antelope, some antelope are killed and some escape. Which part of Darwin’s concept of natural selection might be used to describe this situation?
   A. Acquired characteristics
   B. Overproduction
   C. Survival of the fittest
   D. Descent with modification

3. According to Darwin’s theory of natural selection, the individuals that tend to survive are those that have
   A. Characteristics their parents acquired by use and disuse
   B. Characteristics that plant and animals value
   C. The greatest number of offspring
   D. Variations best suited for the environment

4. Darwin’s theory of evolution is based on the idea(s) of
   A. Natural variation and natural selection
   B. Use and disuse
   C. A tendency toward perfect, unchanging species
   D. The transmission of acquired characteristics

5. When a farmer breeds only his or her best livestock, the process involved is
   A. Natural selection
   B. Artificial selection

6. Natural Selection and Evolution Quiz
C. Artificial variation
D. Survival of fittest

6. **Which concept is NOT included in the modern theory of evolution?**
   A. Descent with modification
   B. Natural selection
   C. Transmission of acquired traits
   D. Competition among the members of a population

7. **An adaptation is an inherited characteristic that can be**
   A. Physical or behavioral
   B. Physical or geographical
   C. Acquired during the organism’s lifetime
   D. The result of natural selection

8. **Which statement is in agreement with Darwin’s theory of evolution?**
   A. More offspring are produced that can possibly survive
   B. The organisms that are the fittest are always the largest and strongest
   C. The number of offspring is not related to fitness
   D. Acquired characteristics are the cause of evolution

9. **Darwin’s theory of evolution suggests that**
   A. Species change over time
   B. Extinct species are not related to living species
   C. Different species can interbreed
   D. Animals that look alike are the most closely related

10. **Darwin called the ability of an organism to survive and reproduce in the environment**
    A. Diversity
    B. Fitness
    C. Adaptation
12. Inherited variation in Darwin’s finches

13. Charles Darwin studied finches on the Galapagos Islands. The finches on each island had slightly different shaped beaks. Darwin concluded that natural selection led to the evolution of different beak shapes in finches. According to Darwin, which of the following most likely happened?

A. Finches were born only where their beaks were better shaped to eat the available types of food.
B. Finches with beaks better shaped to eat the available types of food survived and reproduced most often.
C. The finches changed their beak shapes to eat the available types of food.
D. The different food types on each island caused each individual finch’s beak to change shape.

14. A pesticide was used on two species of flies in an area. After several years of pesticide treatment, Species 1 was extinct in the area, but Species 2 was present in large numbers. Which statement below best explains this difference in survival?

A. There was greater genetic variability in Species 1 than Species 2.
B. Some members of Species 2 were resistant to the pesticide and survived.
C. Species 1 was more likely to have new mutations than Species 2.
D. Species 2 was able to change its traits to become resistant to the pesticide.
13. All of the members of a particular species are genetically identical. To what extent will evolution by natural selection most likely occur in this species?

A. It can occur only if the species is in an environment with many niches.
B. It will occur because some members will survive and others will not.
C. It cannot occur as long as there are no variations that can be inherited.
D. It can occur only if the species is in a changing environment.