MULTIPLE CHOICE

10. The Geologic Time Scale begins at the formation of Earth approximately years ago.

a. 4.6 thousand

c. 46 million

b. 4.6 million

d. 4.6 billion

ANS: D

STO: Bio8e

11. While looking for fossils on an eroded hillside, you discover fossil coral and fish in one layer. In a layer just above, you find the fossil imprint of a fern frond and some fossil moss. Assuming the rock has not been disturbed, which of the following is the most probable conclusion?

- a. The area had been a sea until recent times.
- b. A forest had once grown there but had become submerged by water.
- c. A sea had been replaced by land in ancient times.
- d. A saltwater sea had changed to a freshwater lake in ancient times.

ANS: C STO: Bio8e

12. A clear fish imprint in a rock indicates that the rock is probably _____

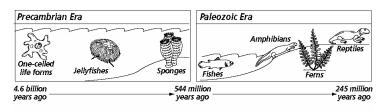
a. volcanic

c. metamorphic

b. sedimentary

d. igneous

ANS: B STO: Bio8e



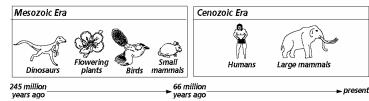


Figure 14-4

13. According to Figure 14-4, what was the earliest form of multicellular life on Earth?

- a. fish
- b. jellyfish
- c. land plants
- d. reptiles

14. According to Figure 14-4, the correct chronological order of organisms as they develop are _____.

- a. birds, dinosaurs, jawed fish, bacteria
- b. dinosaurs, jawed fish, birds, bacteria
- c. jawed fish, dinosaurs, bacteria, birds
- d. bacteria, jawed fish, dinosaurs, birds

15. According to Figure 14-4, in how many eras have mammals existed?

- a. 2
- b. 4
- c. 5

d. 7

- 16. New species are formed when two populations
 - a. differ phenotypically.
 - b. are separated by a geographic barrier.
 - c. live under different climatic conditions.
 - d. can no longer interbreed.
- 17. Whether or not a particular trait is advantagous to an organism is determined by
 - a. the genotype for that trait.
 - b. the environment in which the organism lives.
 - c. the number of individuals possessing an allele for the trait.
 - d. whether the allele for the trait is dominant or recessive.
- 18. When making evolutionary comparisons the part of the finch that is significant is
 - a. the beak
- b. the feet
- c. the coloring
- d. number of eggs
- 20. Which combination of characteristics in a population would provide the <u>greatest</u> potential for evolutionary change?
 - a. small population, few mutations
- c. large population, few mutations
- b. small population, many mutations
- d. large population, many mutations
- 21. Why might the beak of the Akialoa, pictured in Figure 15-7, developed this way?

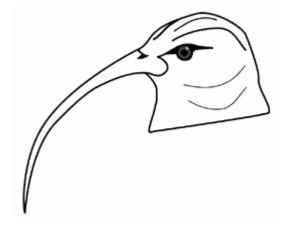


Figure 15-7

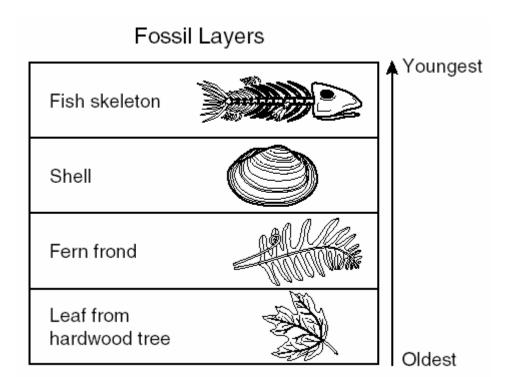
- a. to reach nectar in flowers
- c. to scoop up fish
- b. to dig through tree bark for insects
- d. to crack open seeds
- 22. An important distinction in the definition of a species is that members of different species do not
 - a. live in the same location.
 - b. produce offspring under any circumstances even when they are closely related.
 - c. breed and produce fertile offspring under natural conditions.
 - d. do not live in the same evolutionary time period.
- 26. Natural selection can best be defined as the _____.
 - a. survival of the biggest and strongest organisms in a population
 - b. elimination of the smallest organisms by the biggest organisms

- c. survival and reproduction of the organisms that occupy the largest area
- d. survival and reproduction of the organisms that are genetically best adapted to the environment
- 27. What is the movement of genes into and out of a gene pool called?
 - a. random mating

c. gene flow

b. nonrandom mating

d. direct evolution



- 31. During a severe drought a dry lake was explored for fossils. The diagram represents the fossils uncovered and the layers they were in. According to this information, this area was once a
- forest that was replaced by a freshwater lake C. saltwater sea that was replaced by a forest
- freshwater lake that was replaced by a desert d. freshwater lake that was replaced by a forest