Quiz #2

Ten questions – one point each
Question 1

Which of the following claims is supported by the graph?

a. As the number of parasites to which the tadpoles were exposed increased, the percentage of surviving frogs with deformities increased.

b. As the number of parasites to which the tadpoles were exposed increased, the percentage of surviving tadpoles decreased.

c. Adding 16 parasites per tadpole to a group of tadpoles that already had 32 parasites affected tadpole survival more than adding 16 parasites to those without parasites.

d. Both a and b

e. Both a and c
Question 2

Which of the following statements about ecological studies is true?

a. They usually focus on individuals.
b. They usually focus on populations.
c. They usually focus on communities.
d. They usually focus on ecosystems.
e. The can focus on any level of biological organization from individuals to ecosystems.
Question 3

A group of individuals of a single species of swamp sparrows lives in the Quabbin Reservoir in Massachusetts, and these individuals interact with one another. This is an example of a(n)

a. biosphere.
b. community.
c. ecosystem.
d. population.
e. None of the above
Question 4

Which of the following represents the correct order, from largest to smallest, of levels of biological organization?

a. Biosphere; ecosystem; community; population
b. Ecosystem; biosphere; community; population
c. Biosphere; ecosystem; population; community
d. Biosphere; population; ecosystem; community
e. Ecosystem; biosphere; population; community
Question 5

Which of the following is a biotic feature of the environment?

a. The average minimum temperature at night
b. The number of days during which at least 1mm of rain falls
c. The pH of the soils
d. Both a and b
e. None of the above
Question 6

Which of the following traits cannot evolve by natural selection?

a. A trait that increases the time during which females are reproductively competent
b. A trait whose value in the offspring is not a reflection of its value in the parents
c. A trait that increases the ability of an organism to survive low temperatures, at the expense of survival at high temperatures
d. A trait that increases the ability of an organism to survive high temperatures, at the expense of survival at low temperatures
e. All of the above can evolve via natural selection.
Question 7

Ecologists try to reduce the likelihood that variables not under the control of the experimenter will unduly influence the results of an experiment by
a. replicating each treatment, including the control.
b. assigning treatments to subjects or plots at random.
c. never performing the same experiment twice, but trying instead to improve each experiment.
d. Both a and b
e. None of the above
Question 8

Which of the following was a result of experiment?

a. Exposure to UV light was capable of decreasing survival of tadpoles.

b. Exposure to nitrate was capable of decreasing the survival of tadpoles.

c. UV light was capable of decreasing survival of tadpoles only at low elevations.

d. UV light and nitrates together reduced the survival of tadpoles.

e. All of the above
In equatorial regions, the sun’s rays strike Earth’s surface at a more _______ angle than they do toward the poles. This means that the same amount of energy is spread over a _______ area in equatorial regions than in polar regions.

a. perpendicular; larger
b. perpendicular; smaller
c. acute (less than 90° angle); larger
d. acute (less than 90° angle); smaller
e. parallel; smaller
Question 10

Which of the following statements about atmospheric circulation patterns is false?

a. The condensation of water vapor into clouds is a warming process.

b. Cool air can hold more water vapor than warm air can.

c. Thunderclouds potentially reach only to the boundary between the upper region of the troposphere and the bottom of the stratosphere.

d. Air cools as it rises in the troposphere.

e. All of the above are true.