

### Quiz Chs 4 & 5 (ANSWER KEY)

#### Chapter 4: Evolution, Biodiversity, and Population Ecology

##### Multiple-Choice Questions

- 1) Endemic species \_\_\_\_\_.
- A) are generalists
  - B) cause disease
  - C) are invasive species that cause extinction
  - D) have high rates of mutations that lead to large numbers of offspring
  - E) are only found in one place on the planet
- 2) The functional role of a species in its community is its \_\_\_\_\_.
- A) habitat
  - B) trophic level
  - C) biotic potential
  - D) niche
  - E) carrying capacity
- 3) Groups of organisms with low biotic potential \_\_\_\_\_.
- A) are r-strategists
  - B) are K-strategists
  - C) are density-independent organisms
  - D) include the golden toads of Monteverde and many species of frogs
  - E) have slowly growing populations
- 4) Scientists hypothesize that the average time that a species spends on Earth is \_\_\_\_\_ years.
- A) 1,000-5,000
  - B) 100,000-400,000
  - C) 500,000
  - D) 1-10 million
  - E) 100 million
- 5) Charles Darwin and Alfred Wallace are best known for their ecological studies of \_\_\_\_\_.
- A) wolves and derived dog breeds
  - B) Brassica oleracea and crops such as broccoli, cauliflower, cabbage, and Brussels sprouts
  - C) golden toads in the cloud forests of Monteverde
  - D) exotic animals in the Galapagos Islands and Malay Archipelago
  - E) passenger pigeons
- 6) Approximately \_\_\_\_\_ species are thought to presently inhabit Earth.
- A) 1,000-100,000
  - B) 500,000
  - C) 1 million
  - D) 1.5-100 million
  - E) 1 billion
- 7) Which of the following best describes Costa Rica?
- A) Uniform habitat with low biodiversity.
  - B) Ecologically diverse tropical nation estimated to contain 5-6% of all known species.
  - C) Most of the species present in the country have been introduced into the area from elsewhere.
  - D) It is home to large expanses of dry savannah.
  - E) It is the only place left on Earth rich in biodiversity.
- 8) Which of the following is hypothesized to be true regarding Earth's mass extinction events?
- A) They have occurred over a dozen times.
  - B) The most recent extinction was due to massive volcanism.
  - C) They usually wipe out 10-20% of Earth's species each time they occur.
  - D) The most recent was the most massive.
  - E) The most recent occurred 65 million years ago and brought an end to the dinosaurs.
- 9) Which of the following are characteristics of K-selected species?
- A) long-lived, large size, small numbers of offspring
  - B) reproduce early in life, short-lived, rapidly dispersing
  - C) no parental care, high mortality of juveniles
  - D) chaotically fluctuating population size, close to carrying capacity
  - E) small size, reproduce early in life
- 10) A J-shaped population growth curve \_\_\_\_\_.
- A) is evident in populations restrained by limiting environmental factors
  - B) demonstrates growth by a fixed percentage over time
  - C) is typical for populations that are large and dense
  - D) was never predicted by early visionaries such as Thomas Malthus
  - E) demonstrates logistic growth