

1. To be a victim of full blown sickle cell anemia, you must:

- A. first be infected with malaria B. be of African ancestry
 C. get an allele for the sickle version of hemoglobin from mom and another one of the same from dad.
 D. engage in farming E. all of the above

2. The concept of punctuated equilibrium emphasizes that:

- A. evolution is the result of constant gradual change due only to natural selection
 B. evolutionary change occurs only in species with many large populations that are spread over many diverse environments
 C. most evolutionary change occurs during occasional rapid bursts that are more likely to happen in small populations
 D. newly created species have no ancestors
 E. random genetic drift (sampling error) is not important

3. The fact that the few members of a population who colonize a new, uninhabited area don't represent the genetic variety of the whole original population is called:

- a. meiosis b. the founder effect c. mutation
 d. sociobiology e. particulate inheritance

4. Which, by itself, always tends to decrease variation in a population?

- a. natural selection b. sexual reproduction c. mutation
 d. gene flow e. all of these

5. Adaptive radiation (cladogenesis or just speciation; one species becoming two or more species) always involves:

- a. geographical and genetic isolation b. recessives becoming dominant
 c. increased gene flow d. rabbits e. gene flow between distant populations

6. The sum total of our knowledge about natural selection, genetic drift, genetics, mutations, speciation, population genetics, etc., is called:

- a. biological anthropology
 b. Darwin's theory
 c. cultural anthropology
 d. the modern synthetic theory of evolution
 e. archaeology

7. Which is NOT one of the four factors that cause evolutionary change?

- a. natural selection b. mutation c. random genetic drift
 d. gene flow e. punctuated equilibrium

8. The process by which genes spread from one semi-isolated population ("deme") to another is called:

- a. random genetic drift b. gene flow c. gene pool d. gene running

9. Which is TRUE about the geology and history of the earth?

- A. The earth started out warm and then cooled off; the oldest rocks became solidified 4.6 Billion years ago
 B. Multicellular organisms appeared before sexual reproduction did.
 C. Amphioxus (pictured in your textbook) is an early animal with a notochord
 D. the first life forms on earth were single celled organisms without a nucleus.
 E. All of these seem to be true

10. This refers only to an allele that is always expressed in a heterozygous individual:

- A. Homozygous B. Mutation C. Dominant D. Recessive E. Zygote

FIRST NAME _____ LAST NAME _____

BONUS Q: The finches of the Galapagos that Darwin observed are now seen as an example of:

- A. Darwinian gradualism
 B. Speciation or adaptive radiation
 C. Continental drift
 D. recessives becoming dominant alleles
 E. Spontaneous generation

