

1. The finches of the Galapagos that Darwin observed were an example of:

- A. Stasis B. adaptive radiation C. Continental drift
D. recessives becoming dominant alleles

2. Which is true about the Punctuated Equilibrium theory? It suggests that:

- A. The same four factors of natural selection, genetic drift, mutation, & gene flow are the causes of change.
B. Most evolutionary change happens quickly, and in small populations.
C. Stasis is common in large, distributed species.
D. Random genetic drift is more common than previously thought.
E. New species arise frequently, but only some survive.
F. All of these are part of the theory.

3. If the allele for brown eyes is dominant to the allele for blue eyes in parrots, and a pair of brown eyed parrots have a blue eyed chick, then:

- A. Mom is in trouble, this cannot happen.
B. Both parents are heterozygous
C. The chick is homozygous dominant
D. Both parents are homozygous recessive
E. Both parents are homozygous dominant

4. Gene flow refers to:

- A. Migrations that bring genes from one local gene pool to another B. Genetic Inheritance
C. Loose denims D. Natural selection E. Mutations F. All of these

5. Which is TRUE about Random genetic drift?

- A. It is likely to have the greatest effect when the population is small
B. It is the statistical sampling effect we see in inheritance from generation to generation
C. It include the founder effect, as a new population is only a sample of the gene pool of the whole species
D. All of these

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

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

7. Darwinian gradualism question: Natural selection can change a species over time because it can bring out the hidden variation; but it can change a species into a completely new species only if it is combined with: A. Mutations B. Gene flow C. Genetic drift

8. Speciation (or "Adaptive radiation" or "cladogenesis" = one species becoming two or more species) always involves:

- a. genetic isolation, a lack of gene flow between populations b. increased gene flow
c. recessives becoming dominant d. rabbits e. gene flow between distant populations

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

- a. scientific creationism b. Darwin's theory, as published in the *Origin of Species*
c. cultural anthropology d. the modern synthetic theory of evolution e. archaeology

10 Which is TRUE?

- A. Much of the time natural selection produces no significant change.
B. If you have two identical alleles, one from each parent, then you are said to be heterozygous
C. the first life forms on earth were single celled organisms with a nucleus to hold the chromosomes.
D. Multicellular organisms appeared after sexual reproduction did.
E. All of these are true

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Bonus: Natural selection by itself would soon grind to a halt; why?

