

ANTH A105/A303 QUIZ # 5 Spring 2007 CIRCLE THE LETTER OF THE ONE BEST ANSWER:

- 1. Charles Darwin knew his own theory was incomplete because he lacked explanations of:**
- A. Both the source of variation, and how inheritance was not blending B. How new species originate
C. Why all mammals have nipples. D. Why human anatomy was similar to that of apes.
E. Why dominant genes were more common.
- 2. Darwin's theory of evolution included all these ideas except one:**
- A. Natural selection B. Descent from a common ancestor C. Use and disuse of organs
D. Adaptation of a species to environmental change E. Variation among members of a species
- 3. Which is true of Gregor Mendel?**
- A. discovered the chromosome with his microscope B. met Darwin
C. founded a university school of genetic studies D. Proved that particulate inheritance was false
E. discovered that each of the traits in peas had two factors of inheritance: one from each parent
F. proved that inheritance was irreversible blending G. Thought of natural selection before Darwin
- 4. Which is true about natural selection?**
- A. It explains everything about evolution. B. It includes the idea of descent from a common ancestor
C. by itself it tends to increase the variation in a species D. It cannot work if there is no variation
E. ALL of these are true
- 5. The Allele for shortness (dwarf) in peas is a recessive. When Mendel crossed pure-bred tall pea plants with short ones, the hybrids were:**
- A. all tall B. all short
C. in the ratio of 3 tall to 1 short D. two-thirds tall, one third short E. All medium
- 6. Which is FALSE about Darwin?**
- A. His trip on the Beagle went all around South America then around the world
B. He published "On the Origin of Species" in 1859
C. He was a lousy student and earned a degree in divinity, not in biology
D. As a boy he was an avid collector of plants and animals, a hunter, and a naturalist
E. He formulated his theory of evolution at sea, finishing "Origin" during his trip on the Beagle
- 7. Which is TRUE about Gregor Mendel?**
- A. He wrote a book on geology that Darwin read on his voyage B. He was known as "Darwin's bulldog"
C. He believed inheritance was not blending D. He said "everything is evolution", popularizing that word
E. He wrote "ON Population", a popular book about over-reproduction and a struggle for survival
F. All of these are true
- 8. Darwin said that the mechanism that caused evolutionary change over time was Natural Selection; which of these is NOT part of the process of natural selection?**
- A. Individuals of a species show variation in physical characteristics
B. More individuals are born than can live and reproduce generation after generation
C. In any environment, individuals with certain physical characteristics have an advantage over those without them, and thus are more likely to survive the struggle for survival, and reproduce
D. Offspring tend to resemble their parents
E. Evolution requires that every single individual of a species must change in its lifetime

Brief essay: Look at question # 8 above; use the four correct ideas to explain the evolution by natural selection of the long neck of giraffes.

Print first name _____ Last Name _____

BONUS how was Lamarck's theory of evolution different from Darwin's?