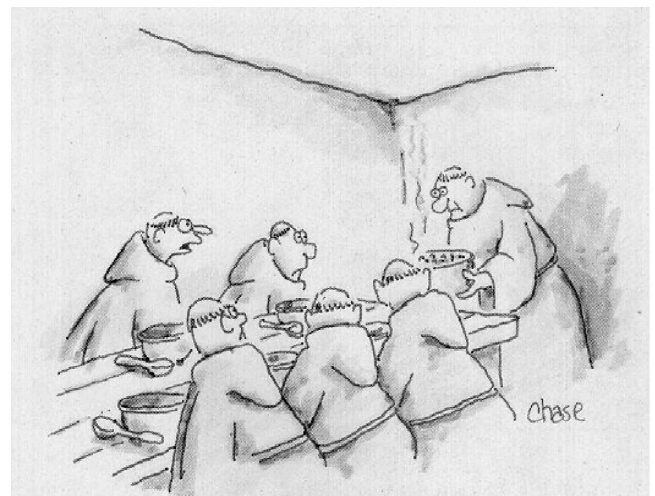


ANTH A105/A303 QUIZ # 5 Spring 2009 CIRCLE THE LETTER OF THE ONE BEST ANSWER:

1. He was Darwin's "Bulldog", who defended his ideas against those who opposed evolution
A. Lamarck B. Malthus C. Spencer D. Huxley E. Mendel
2. Charles Darwin knew his own theory was incomplete because it lacked explanations both of how inheritance was not blending, and of why:
A. dominant genes were more common.
B. variation did not disappear. C. all mammals have nipples.
D. human anatomy was similar to that of apes. E. evolution was slow and gradual.
3. Darwin's theory of evolution included all these ideas except one:
A. Inheritance of acquired characteristics B. Natural selection
C. Descent from a common ancestor D. Adaptation of a species to environmental change
E. Variation among members of a species F. Differential reproduction
4. Two individuals who are heterozygous for the sickle cell allele marry; which is true?
A. 50% of their kids are likely to be victims of full blown sickle cell disease
B. 25% of their kids are likely to be victims of full blown sickle cell disease
C. All of their children will be carriers of the sickle cell trait (heterozygous)
D. They must both have African ancestors
E. 50% of their kids are likely to be homozygous for the normal form of hemoglobin
5. If you get identical copies of a certain gene from both parents, you are said to be:
A. a carrier B. homozygous C. heterozygous D. a hybrid E. polymorphic F. Mendelian
6. Which is true of Gregor Mendel?
A. discovered the chromosome B. he founded a university school of heretical studies C. met Darwin
D. discovered that each of the traits he studied in peas had two factors of inheritance: one from each parent
E. proved that inheritance was irreversible blending was true, and that particulate inheritance was false
7. Which is true about natural selection?
A. the environment changes species because of their variation, and the resulting differential reproduction
B. Both Darwin and Wallace thought of it C. by itself it tends to reduce variation
D. It cannot work if there is no variation E. ALL of these are true
- 8a. The alternate, variant forms of a gene that already exist in the gene pool are called:
A. Chromosomes B. Covenes C. alleles D. gametes E. nucleuses
- 8b. Your overall physical appearance, what we can see, measure, and test for, is called your:
A. genotype B. gene pool C. phenotype D. chromotype E. phene pool
9. Sickle cell anemia persisted in high malaria environments for thousands of years because:
A. natural selection favored heterozygous carriers
B. People with normal hemoglobin were not as fit there
C. humans changed the environment through farming, and that caused an evolutionary response in humans
D. The malaria plasmodium cannot thrive in slightly anemic people (heterozygous)
E. all of the above are part of the chain of causality.
10. The Allele for shortness 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 intermediate

Print first name _____ Last _____

BONUS: Lamarck said that evolution occurs because individuals change and that change is inherited; how was Darwin's idea different?



"Brother Mendel! We grow tired of peas!"
Cartoon by J. Chase.