

Sample Questions for Exam 1, Anth 150. Fall 2008

Directions: Choose or write in the best answer for each question.

1. The early scientist who suggested the idea of **Catastrophism** was
 - a) Linneaua
 - b) Lamarck
 - c) Cuvier
 - d) Newton
 - e) Mendel

2. Which statement is NOT true of Darwin's Theory of Natural Selection?
 - a) Variation is heritable
 - b) Variation occurs in every population
 - c) Some individuals are better at reproduction and survival in a population
 - d) Traits can be altered within an individuals lifetime and passed on to offspring
 - e) Competition for resources occurs within populations

3. Which scientist first worked out the fundamental rules of inheritance?
 - a) Lamarck
 - b) Mendel
 - c) Hutton
 - d) Lyell
 - e) Malthus

4. Sex cells have _____ chromosomes.

5. Which statement below is NOT a misconception about evolution?
 - a) Natural selection produces traits that are bigger, faster, and better
 - b) The current use of a trait is its evolved function
 - c) Natural selection always works
 - d) Evolution can produce non-adaptive structures

6. There are four main forces of evolution. Name two.
 - 1)
 - 2)

7. The idea that evolution occurs at a slow steady rate is referred to as _____

8. Which hypothesis of human variation is most accepted among scientists?
 - a) Multi-regional hypothesis
 - b) Out –of – Africa hypothesis

9. What process acts to halve the number of chromosomes in a given cell to produce gametes?
 - a) Mitosis
 - b) DNA replication
 - c) Meiosis
 - d) Protein Synthesis

10. Which of these nucleotides is NOT present in RNA?
- Adenine
 - Uracil
 - Cytosine
 - Thymine
11. What part of DNA is not kept to code for a protein?
- Intron
 - Exon
 - Gene
 - Nucleotide
12. Which best describes Mendel's Law of Independent Assortment?
- The segregation of any pair of chromosomes does not affect the probability of segregation for other pairs of chromosomes
 - Sex cells contain one of each pair of alleles
 - The exchange of DNA between chromosomes during meiosis
 - Both alleles at a given locus are always identical
13. Which term best describes what you should be looking at when trying to decide which phylogenetic tree is the most likely?
- Linkage
 - Parsimony
 - Pleiotropy
 - Heritability
14. On what key aspect of organisms does evolution act?
- Variation
 - DNA Recombination
 - Intelligence
 - Linkage
15. The presence of wings in insects and wings in bats is an example of what?
- Primitive Trait
 - Genetic Drift
 - Convergent Evolution
 - Homology
16. Genetic analysis of modern humans indicates
- Modern populations split approximately 1 million years ago
 - Most genetic variation (90%) is between populations; only 10% of genetic differences are within populations
 - Humans have approximately 100,000 genes, far more than other primates
 - Genetic differences among populations reflect migration and isolation by distance

Answers: 1.c, 2.d, 3.b, 4.23, 5.d, 6. drift, flow, mutation, natural selection, 7. gradualism, 8.b, 9.c, 10.d, 11.a, 12.a, 13.b, 14.a, 15.c, 16.d