

**ANTH A105 QUIZ # 6 Winter 2003 CIRCLE THE LETTER OF THE ONE BEST ANSWER:**

**1. The meaning of "Creation Science" (or "Scientific Creationism") in the video we saw is:**

- A. The belief that God is responsible for the Big Bang 10 billion years ago.
- B. The knowledge gained from reading the Bible.
- C. Attempts to find scientific evidence that supports the hypothesis that the earth is about 10,000 years old.
- D. Any belief in a creation by a superior being.
- E. The modern theory of evolution based on Darwin and genetics.

**2. In the video we saw, the "human footprints" found with dinosaur prints turned out to be:**

- A. Real (humans did walk with dinosaurs)
- B. fakes placed under water
- C. miracles
- D. 3-toed dinosaur prints with a deep heel impression
- E. prints of alien visitors from another planet

**3. 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

**4. Which is true about mutations?**

- A. when the environment changes, beneficial mutations always occur to prevent extinction.
- B. When the environment does not change, no mutations will occur.
- C. Mutations are the source of new variations
- D. mutations that happen to adults during mitosis will be passed on to their children
- E. All of these are true

**5. Human sperm are examples of:**

- A. zygotes
- B. cells produced by mitosis
- C. gametes
- D. cells with 46 chromosomes
- E. diploid cells

**6. The fact that hidden recessives can reappear in future generations is proof that inheritance is:**

- A. Irreversible blending
- B. Particulate in nature
- C. Acquired characteristics
- D. All of these

**7. Which is TRUE about PROTEINS?**

- A. A different allele of a gene can produce a different version of a protein
- B. Every gene is a recipe for making a protein
- C. A protein is a molecule made up of a long string of amino acids
- D. Some proteins are structural (such as collagen), the building blocks of cells and tissues
- E. Some proteins are enzymes and hormones, molecules that control physiology
- F. All of these are true

**8. Which is FALSE?**

- A. Genes are spread from one isolated population to another by the process called random genetic drift
- B. The arms of chromosomes are DNA in the form of a long ladder wound in a helix.
- C. One species can become two species only if two populations are genetically isolated from each other.
- D. Transfer RNA are the molecules that assemble the string of amino acids from the mRNA code.
- E. "Dominant" refers only to an allele that is always expressed in a hybrid individual.

**9. In the 1920's, Tennessee schoolteacher Scopes was tried for teaching evolution; what happened?**

- A. He was convicted, paid a fine, and teaching evolution continued to be illegal in many states for decades.
- B. He was found innocent, and evolution was then legal.
- C. The jury was deadlocked, so the US Supreme Court found Scopes innocent
- D. He was found innocent because he also taught strict Creationism, but all courts ruled then and now that creationism must be taught alongside evolution in public schools

**10. Two individuals marry who are heterozygous for the sickle cell allele; which is true?**

- A. They can produce children of four different genotypes for the hemoglobin gene
- 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
- D. Only Africans and their descendants are carriers.
- E. Half of their kids are likely to be homozygous for the normal form of hemoglobin

**PRINT YOUR FIRST NAME \_\_\_\_\_ LAST NAME \_\_\_\_\_**

**Bonus question (use the back): Why has natural selection allowed the sickle cell allele to continue to exist even though it is fatal to homozygous individuals?**