

QUIZ # 7 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. A body of scientific evidence that supposedly 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. Sickle cell anemia persisted in high malaria environments for thousands of years because:

- A. natural selection favored homozygous individuals in high malaria areas
- B. People with normal hemoglobin were more fit in high malaria areas
- C. humans changed the environment through farming, and that caused mutations in mosquitos
- D. The malaria plasmodium does not thrive as well in slightly anemic people (heterozygous).
- E. all of the above are part of the chain of causality.

3. 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

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 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. Which is TRUE about PROTEINS?

- A. A different allele of a gene can produce a different version of a protein
- B. genes are recipes for making a proteins
- 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 and activate other genes
- F. All of the above

6. Which is TRUE?

- A. DNA stands for deoxyribonucleic acid
- B. The arms of chromosomes are DNA in the form of a long ladder wound in a helix
- C. In protein synthesis, messenger RNA carries the code to the site outside the nucleus where proteins are made
- D. Transfer RNA are the molecules that assemble the string of amino acids from the tRNA code
- E. Humans have 46 chromosomes
- F. All of these are true

7. The sex of a child is genetically determined by:

- A. Both the mother and father
- B. Mother only
- C. Father only
- D. Neither, it is random

8. Two individuals who are heterozygous for the sickle cell allele marry; 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

9. Which is NOT one of the four factors that cause evolutionary change?

- A. Random genetic drift
- B. Gene flow
- C. Gene pool
- D. mutations
- E. Natural selection

10. WHICH IS FALSE?

- A. Two codominant alleles would both be expressed in the individual who had both
- B. If a gene is Mendelian then it only affects one physical trait, such as sickle cell and hemoglobin
- C. If a gene is polygenic, then it affects many visible characteristics
- D. Environment can affect the expression of Mendelian genes, but not polygenic ones
- E. Ordinary human body cells have 46 chromosomes

PRINT YOUR FIRST NAME _____ LAST NAME _____

what was Mucci’s explanation for the “hammer in the rock” in the video?

