

A103/A303 QUIZ # 5 WINTER 2008 PUT YOUR NAME AT THE BOTTOM ONLY

Circle the letter of the one best answer.

1. Which is TRUE about Darwin's book *Origin of Species*?

- A. It was written while at sea
- B. It is mostly about fossils.
- C. It was mostly about the human species
- D. It was published in 1759
- E. It was partly a meticulously researched study of the evidence for descent from common ancestors.
- F. It was partly a numerical study of the genetics of inheritance in plants and animals.

2. Gregor Mendel's contribution to the study of inheritance was to show that:

- A. Traits are permanently blended from the characteristics of both parents
- B. Individual particles or factors, in various combinations, determine traits
- C. Acquired characteristics can be inherited
- D. All plants are descended from peas
- E. all of the above.

3. When Mendel crossed pure bred normal (tall) pea plants with pure bred dwarf (short) plants, he found that the factor for dwarfness was weak (recessive). The hybrids from the crossing of short and tall plants were:

- A. All tall
- B. All short
- C. Two thirds tall, one third short
- D. All medium in height
- E. three fourths tall, one fourth short
- F. Half tall, half short

4. The next year Mendel pollinated the hybrids from question # 3 with themselves. Their seeds produced a crop of pea plants that were:

- A. All tall
- B. All short
- C. Two thirds tall, one third short
- D. All medium in height
- E. three fourths tall, one fourth short
- F. Half tall, half short

5. Darwin felt his theory was incomplete because of two things he could not explain:

- A. The nature of inheritance, and why selection did not eventually remove variation.
- B. How fish swim, and why environments affect evolution
- C. that the earth was very old, and that whales were mammals
- E. How breeders can produce different breeds of dogs and horses

6. Darwin's concept of evolution did NOT include:

- A. pattern of descent from a common ancestor
- B. gradualism/uniformitarianism
- C. variation
- D. details of genetics and processes of mutations
- E. over-reproduction
- F. struggle for survival
- G. Natural Selection
- H. adaptation to environment
- I. differential reproduction
- J. survival of those most fit for the environment
- K. An earth much older than 10,000 years

MATCH ONE TO ONE: Galapagos Malthus Wallace

Lyell Spencer Huxley Erasmus Beagle

Darwin studied geology while in South America from a book written by: _____
Charles Darwin's grandfather was named _____ Darwin sailed on a ship called the _____
He thought of natural selection at the same time as Darwin was finishing the idea _____
He made the word EVOLUTION popular before Charles Darwin _____
Set of islands where Darwin studied animals _____ Darwin's defender, his 'bulldog' _____
Said that all animal species tend to over reproduce, leading to a struggle for survival _____

9/10 Two point essay: Describe how Darwin would explain the adaptation of the long neck of the giraffe using natural selection: variation and differential reproduction.

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FIRST NAME _____ LAST NAME _____

BONUS QUESTION: How was Lamarck's explanation of the long neck different from Darwin's?

