

1. Evidence that made people consider evolution as a way of explaining why there are so many species of plants and animals on earth included all but the following:

- (A) the failure to find skeletons of modern horses deep underground
- (B) the finding of modern birds perfectly adapted for their particular environmental needs
- (C) the finding of animal fossils with features of two different species
- (D) the finding of similar structures within lungs and gills**

2. In 1831, Charles Darwin took a job as a biologist on the HMS Beagle and observed birds on the Galapagos Islands off the coast of Ecuador in South America. What observations did he make?

- 1. Many birds on the Galapagos Islands resembled birds in Ecuador.
- 2. Many birds looked alike except their beaks seemed specially designed for obtaining particular types of food.
- 3. Birds with one type of beak did not mate with birds with another type of beak.
- 4. The birds had a pecking order that allowed certain birds to feed first.

- (A) 1 and 2
- (B) 1, 2, and 3**
- (C) 1, 2, 3, and 4
- (D) 1, 3, and 4

3. According to Darwin, _____.

- (1) man descended from monkeys
- (2) alligators developed their unique adaptations from random changes in their genetic code
- (3) horses and deer have a common ancestor with features of both horses and deer
- (4) frogs and man have a common distant ancestor with features of both frogs and man

- A. 1 and 3
- B. 1, 2, and 3
- C. 2 and 3
- D. 2, 3, and 4**

4. Archaeopteryx was discovered in southern Germany around 1861. It had wings and feathers, and a mouth full of teeth. These findings suggest that _____.

- 1. birds evolved from reptiles
- 2. birds and reptiles have a common ancestor
- 3. wings and feathers served a purpose in reptiles
- 4. wings and feathers gave early birds an advantage in survival

- A. 1 and 3
- B. 1, 3, and 4
- C. 1, 2, and 4
- D. 1, 2, 3, and 4**

5. Snakes listen for vibrations in the sand or dirt by resting their jaw on the ground. Snakes have multiples bones in their jaw but only a single bone in their inner ear. Mammals have only one bone in their jaw but three bones in their inner ear. According to Darwin, _____.

- (A) The bones in a snake’s jaw moved over millions of years into the inner ear of mammals in order to improve mammalian hearing.
- (B) The bones in a snake’s jaw moved over millions of years into the inner ear of mammals in order to improve the ability of mammals to survive and reproduce.
- (C) The bones in a snake’s jaw moved over millions of years into the inner ear of mammals because it improved the ability of mammals to survive and reproduce.**
- (D) The bones in a snake’s jaw moved over millions of years into the inner ear of mammals in order to strengthen the mammalian jaw bone and make it better adapted for feeding.

6. The Mesozoic Era (the age of reptiles and dinosaurs) is made of the Cretaceous Period, and the Triassic Periods. The reason for dividing the history of earth at these points is that _____.

- (A) There was widespread destruction of plant and animal life at the end of each period.**
- (B) There were major geologic changes at the end of each period.

- (C) There were major changes in oxygen levels in the atmosphere at the end of each period.
- (D) There was fossil evidence of major DNA changes at the end of each period.

7. Anatomic structures that have the same structure but different function are called _____.

- (A) vestigial
- (B) analogous
- (C) homologous**
- (D) functional

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- (A) vestigial
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9. Anatomic structures that have no real function, but did in the plant’s or animal’s ancestors are _____.

- (A) vestigial structures**
- (B) analogous structures
- (C) homologous structures
- (D) functional structures

10. A bird's beak and a mammal's lips are _____.

- (A) **analogous**
- (B) homologous
- (C) deciduous
- (D) vestigial

11. Carbon dating is useful for dating which of the following?

- (A) rocks less than 50,000 years old
- (B) **teeth less than 50,000 years old**
- (C) rocks less than 250,000 years old
- (D) teeth less than 250,000 years old

12. The key assumption in carbon dating is that _____.

- (A) oxygen was available in the air at the time the animal lived
- (B) carbon-14 was present in the air at the time the animal died
- (C) the ratio of carbon-14 to oxygen is the same now as it was when the animal died
- (D) **the ratio of carbon-14 to carbon-12 is the same now as it was when the animal died**

13. After three half-lives, what percentage of radioactivity is left?

- (A) 30%
- (B) 15%
- (C) **12.5%**
- (D) 6.25%

14. Unrelated species that resemble each other have likely undergone _____.

- (A) analogous evolution
- (B) **convergent evolution**
- (C) parallel evolution
- (D) homologous evolution

15. The difference between a postulate and a hypothesis is that _____.

- (A) a postulate explains a broad variety of observations while a hypothesis only explains one or a few observations
- (B) **a postulate is assumed to be true and doesn't need to be supported by an experiment while a hypothesis is not assumed to be true and does need to be supported by an experiment**
- (C) a postulate can never be proven while a hypothesis can with a proper experiment
- (D) a postulate cannot be supported by an experiment