

CHAPTER 15 PRACTICE TEST

Multiple Choice.

- 1) Which of the following statements describe what all members of a population share?
 - a. They are behaviorally isolated from each other.
 - b. They are geographically isolated from each other.
 - c. They are members of the same species.
 - d. They have identical genes.

- 2) The separation of populations by barriers such as rivers, mountains, or bodies of water is called:
 - a. Timing isolation
 - b. Geographic isolation
 - c. Behavioral isolation
 - d. Genetic equilibrium

- 3) A single species that has evolved into several different forms that live in different ways has undergone:
 - a. Adaptive radiation
 - b. Convergent evolution
 - c. Punctated equilibrium
 - d. Mass extinction

- 4) The three-domain system recognizes fundamental differences between two groups of:
 - a. Prokaryotes
 - b. Eukaryotes
 - c. Protists
 - d. Multicellular organisms

- 5) Earth's most recent era is the:
 - a. Paleozoic
 - b. Mesozoic
 - c. Cenozoic
 - d. Precambrian

- 6) Sometimes, organisms that are not closely related look similar because of:
 - a. Convergent evolution
 - b. Adaptive radiation
 - c. Punctated equilibrium
 - d. Mass extinction

- 7) A genus is composed of a number of related:
 - a. Kingdoms
 - b. Phyla
 - c. Orders
 - d. Species

- 8) An analysis of derived characters is used to generate a:
 - a. Fossil record
 - b. Phylogenetic tree based on DNA
 - c. Cladogram
 - d. Traditional classification system

- 9) In the past, mass extinctions encourage the rapid evolution of surviving species:
- By changing developmental genes
 - By providing new opportunities for them
 - Because they killed all organisms that had evolved together
 - Because they spared all organisms that had evolved convergently.
- 10) All organisms in the kingdoms Protista, Plantae, Fungi, and Animalia are:
- Multicellular
 - Photosynthetic
 - Eukaryotic
 - Prokaryotic

Fill in the blank.

- 11) The study of the processes of organisms as they develop from fertilized eggs to multicellular organisms ready for birth is called _____.
- 12) The similar body structure but different ancestry of sharks and dolphins indicates that these groups have undergone _____, a process in which unrelated species from similar environments have adaptations that seem very similar.

Short answer.

- 13) Describe the differences between homologous structures and analogous structures.

- 14) Describe two methods used to date fossils.

- 15) What are four barriers that can contribute to reproductive isolation?

KEY:

1 – C

2 – B

3 – A

4 – A

5 – C

6 – A

7 – D

8 – C

9 – B

10 – C

11 – embryology

12 – convergent evolution

13, 14, 15 – refer to study guide