

Name _____

Introduction to Biology

Practice Exam

Chapters 1 and 15

Hand in Paper Copy September 12 at 9:20am SM 36

This should represent YOUR OWN work, and is designed to help you learn. Plagiarized or copied work will not be graded.

Section 1: Multiple Choice - Circle one answer per question

1. Organisms belonging to the same _____ would be the most closely related.
a. Phylum b. Class c. Family d. Kingdom e. Order
2. Which of the following organisms is NOT ultimately dependent on the sun as a source of energy?
a. a night blooming flower pollinated by a bat
b. an earthworm living underground
c. a cave fish feeding on material that washes down to it
d. All of the choices ARE ultimately dependent on the sun.
e. All of the choices are NOT ultimately dependent on the sun.
3. Which of these is a peculiarity of form, function, or behavior that promotes the likelihood of a species' continued existence?
a. Adaptation b. trait c. domain d. ecosystem e. homeostasis
4. From which of the physical sciences did the theory of uniformitarianism originate?
a. Geography
b. Astronomy
c. Physics
d. Geology
e. Chemistry
5. Which is NOT one of the preconditions in a population where natural selection is at work?
a. There is variation that can be inherited in a population.
b. The population becomes adapted to its environment.
c. Many more individuals are produced by a population than can survive and reproduce.
d. Adaptive characteristics in some individuals make them more likely to survive and reproduce

Section 2 : Fill-in-the-Blanks (2 points)

(In midterms a word bank will be provided)

1. A(n) _____ consists of the interactions between groups of different individuals and the non-living factors in a particular area.
2. _____ - is a measure of the number of species living in a particular area.
3. _____ -- is the study of the geographical distribution of species.
4. An example of _____ structures are the wings of bats and birds as both share the same origin via a common ancestor.
5. _____ are structures or traces of past life preserved in sedimentary rocks.

Section 3 : Written Questions (5 points each)

Answer only two questions.

1.1.b. What is the ultimate source of energy for nearly all life on earth? Provide examples of organisms that depend upon this source of energy (a) directly and (b) indirectly. What names are used in ecology to describe organisms that obtain their energy (a) directly and (b) indirectly upon this source of energy.

1.1.g. List the levels of biological organization occurring above the level of the molecule in increasing order of size and complexity.

15.2.i. What is artificial selection? Provide an example of artificial selection. . How does artificial selection differ from natural selection?

15.2.j. Peter and Rosemary Grant carefully made and recorded observations a population of Medium Ground Finches on Daphne Major in the Galapagos. What data did they collect (one from the finches, one environmental). What correlation did they establish? How did they explain this pattern of change in a population over time?