

Name _____

Introduction to Biology
Practice Exam
Chapters 1 and 2

Hand in Paper Copy February 13 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 the following is NOT a characteristic of Life?
a. contains water
b. capable of growth
c. able to maintain homeostasis
d. responds to the environment
e. capable of transforming one form of energy into another

4. Human blood has a pH of about 7.4. This is
a. neutral
b. very acidicslightly acidic
d. slightly basic

5. Which carbohydrate is found in the cell walls of plants?
a. Starch
b. Chitin
c. Cellulose
d. Glycerol
e. Glycogen

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

(In midterms a word bank will be provided)

1. _____ is best described as the maintenance of stable conditions inside of the body compared to the exterior environment.
2. _____ is a relationship where event B would not have occurred unless event A has occurred.
3. _____ - is a measure of the number of species living in a particular area.
4. Lemon juice is acidic due to it's high concentration of _____ ions.
5. Both glucose and starch are examples of _____

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.

2.2.d. Water is described as a 'polar' molecule. Draw a molecule of water labeling the atoms. Show the relative charges on each atom. Finally, describe three properties of water that are due to its polar nature.

3.5.b. What do the letters DNA stand for and what are the 4 nucleotides that make up DNA?