

Anatomy and Physiology (0-1) Homework A—Orientation to the Class: The Structure of Anatomy and Physiology

1. State the relationship between anatomy (morphology) and physiology (function):

Give an example at the—

Cell level: _____

Tissue level: _____

Organ level: _____

Organ system level: _____

2. What is the concept that will help us organize most of our thinking for this course? _____

How will this concept be helpful? _____

3. What are the three major goals that characterize the interaction of a biological organism with its environment?

(a) _____
(b) _____
(c) _____

4. Once we know the three major goals that characterize the interaction of a biological organism with its environment, what question do we ask about these goals that help us further organize our thinking? _____

5. List the two major body functions that accomplish the goal of acquiring energy and biomaterials.

(a) _____
(b) _____

6. List the five major body functions that accomplish the goal of maintaining a stable internal environment.

(a) _____
(b) _____
(c) _____
(d) _____
(e) _____

7. List the two major body functions that accomplish the goal of persisting in the environment as an individual and as a species.

(a) _____
(b) _____

8. Match the two following terms with the correct corresponding process:

Catabolism Building up of biological macromolecules

9. Systems that maintain balance within the body of a biological organism are called

10. Describe the three basic steps in the functioning of a homeostatic control mechanism.

(a) _____

(b) _____

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(c) _____

11. Match the following types of feedback with the correct corresponding result of the feedback:

Positive Feedback Acts to increase a change in the internal environment

Negative Feedback Acts to decrease a change in the internal environment

12. Give an example of positive feedback: _____

Of negative feedback: _____

13. List the body systems associated with the major functions listed in questions 5, 6, and 7.

Functions

Body System(s)

(a) Digestion

(b) Metabolism

(a) Maintaining Boundaries _____
(b) Responsiveness _____

(c) Movement _____
(d) Distribution of Biomaterials _____

(e) Excretion _____

(a) Growth and Development _____
(b) Reproduction _____

Total Points: 56