Chapter 1: The Human Organism

I. Anatomy and Physiology

A. Anatomy - study of structure
   1. Studying structural changes from conception to adulthood is called: ________________
   2. Embryology is the study of ________________________________ ____________________________
   3. The study of cellular structure is referred to as ________________________________
   4. A histologist studies the anatomical structure of ________________________________
   5. Gross anatomy refers to __________________________________________________________
   6. Studying one body system at a time is _____________________________________________
   7. Studying all structures contained in the arm is ______________________________________
   8. Surface Anatomy refers to _______________________________________________________
   9. Creating pictures of internal body structures is ________________________________

B. Physiology - study of function
   1. A cell physiologist would study ______________________________________________________
   2. Studying how the mouth, esophagus, stomach, and intestines function together to digest food would be an example of ________________________________

II. Structural and Functional Organization

A. Chemical Level
   1. Basic components are ________________________________
   2. The basic components are joined together to form ________________________________

B. Cell Level
   1. Basic unit of ________________________________
   2. Made up of small structures called ________________________________
C. Tissue Level
1. Composed of: _________________________________________________
   ____________________________________________________________
2. Four basic types: ___________________, _______________________
   _________________________, and ___________________________

D. Organ Level
1. Composed of: _________________________________________________
   ____________________________________________________________

E. Organ System Level
1. Composed of: _________________________________________________
   ____________________________________________________________

F. Organism Level
1. In humans a __________________________________________________
   ____________________________________________________________

III. The Human Organism - Characteristics of Life
A. Organization
1. Large _________________ are organized into _________________
   which in turn form _________________

B. Metabolism
1. Consists of _________________________________________________

C. Responsiveness
1. Sense _______________________________ and
   _______________________________ to the changes

D. Growth
1. Due to cells increasing in _________________ or _________________

E. Development = _______________________________________________
   1. A primitive cell becoming specialized for vision is _________________
   2. Body changes that occur at puberty are __________________________
F. Reproduction
   1. Involves formation of _________________ or _________________

IV. Homeostasis
A. Homeostasis is ___________________________________________________
   ___________________________________________________
   1. Body conditions that change over time are known as _________________
   2. The normal value for a body condition is referred to as _______________
   3. Body conditions are not constant but vary within a _________________

B. Negative Feedback
   1. Negative means that ____________________________________________
   2. Negative feedback maintaining homeostasis involves:
      a. Deviation from the set point called a _________________
      b. The deviation being detected by a _________________
      c. The deviation being analyzed by the _________________
      d. The _________________ moving the variable back toward the set point.

C. Positive Feedback
   1. Positive means that a deviation from set point causes ______________
      __________________________________________________________________

V. Terminology and the Body Plan
A. Body Positions
   1. Describe "anatomic position": __________________________________________________________________
      __________________________________________________________________
      __________________________________________________________________
   2. If you lay down on your back you are _________________
   3. If you lay down on your stomach you are _________________

B. Directional Terms
   1. The proper anatomical term for up is _________________
   2. The proper anatomical term for down is _________________
3. The proper anatomical term for front is ______________________
4. The proper anatomical term for back is ______________________
5. The term "cephalic" is synonymous with ______________________
6. The term "caudal" is synonymous with ______________________
7. In humans the term "ventral surface" refers to the _______________
8. In humans the term "dorsal surface" refers to the _______________
9. The end of a structure nearer the point of origin is _______________
10. The end of a structure farther from the point of origin is ___________
11. A structure closer to the midline of the body is said to be ____________
12. A structure farther from the midline of the body is _________________
13. Structures near the body surface are referred to as _______________
14. Structures that are in the interior of the body are said to be __________

C. Body Parts and Regions

1. The body from the shoulder to the elbow is properly called ______________
2. The body from the elbow to the wrist is properly called _________________
3. The body from the hip to the knee is properly called _________________
4. The body from the knee to the ankle is properly called _________________
5. Label the four quadrants of the abdomen on the diagram below:

   Right
   ______________________
   | ______________________|
   | _______________
   | ______________________|
   | _______________
   | ______________________|
   Left
6. Label the nine regions of the abdomen on the diagram below:

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D. Planes

1. What vertical plane divides the body into right and left portions?
   _________________

2. What vertical plane divides the body into equal right and left halves?
   _________________

3. What plane divides the body into superior and inferior portions?
   _________________

4. What vertical plane divides the body into anterior and posterior portions?
   _________________

5. Cutting through the long axis of an organ creates a _________________

6. Cutting at right angles to the long axis of an organ creates a _____________

7. An oblique section is created by ________________________________

E. Body Cavities

1. Thoracic Cavity
   a. Located: ________________________________
   b. Median portion, which is known as the ________________________________
c. On either side of the median portion are found the __________________

2. Abdominal Cavity
   a. Enclosed by ________________________________
   b. Contains the ________________________________

3. Pelvic Cavity
   a. Enclosed by ________________________________
   b. Contains the ________________________________

4. Term "abdominopelvic cavity" refers to ________________________________

F. Serous Membranes
   1. Found ________________________ and ________________________
   2. Visceral serous membrane will be found ________________________
   3. Parietal serous membrane will be found ________________________
   4. Between serous membranes is ________________________ which ______
      ________________________________

   5. The pericardial cavity is found ________________________________
   6. The pleural cavity is found ________________________________
   7. The peritoneal cavity is found ________________________________

8. Mesenteries
   a. Composed of ________________________________
   b. Connect what to what? ________________________________

   c. Functionally mesenteries ________________________________ and ________________________________
   d. Organs that are directly attached to the body wall and covered only with a parietal peritoneum are referred to as being ________________________