

Tissues & Anatomical Terminology (use your lecture notes, textbook and the bones & joints handout to answer the following)

1. What is anatomical position? Describe the relative position (e.g. superior/inferior, proximal/distal, medial/lateral) terms discussed in class and give examples for each pair.
2. Describe the three major classes (fibrous, cartilaginous, synovial) of joints discussed in class and give an example for each. Give some examples of the various types of synovial joints.
3. List and describe the movement terms discussed in class (e.g. flexion/extension, pronation/supination). Give examples of joints that do each of the movements.
4. What are the four main tissue types? What is the definition of a tissue? What are tissues made of?
5. What are the primary functions of epithelial tissue? Where is it usually found in the body?
7. List the major types of connective tissues discussed in class. What is the characteristic that pretty much all connective tissues have in common? For the specialized connective tissues (blood, bone & cartilage) describe the cells found in each and the matrix of each. What do they have in common?
9. List and describe the three types of muscle tissue. Which one(s) are voluntary and which one(s) are involuntary? Where would you find each in the body?
10. Give some examples of the locations and general functions of nervous tissue.

Musculoskeletal System (use the lecture notes and bones & joints handout)

1. A. What kind of cells are found in bone tissue? B. What are osteons, central canals and lacunae? What is hydroxyapatite?
2. A. Which bones are part of the axial skeleton a. Appendicular skeleton?
3. A. What is the difference between tendons and ligaments? B. What is meant by antagonistic pairs with regards to muscles? C. What are synergists? And prime movers?

Nervous System

1. Which parts of the nervous system are responsible for the following functions of the nervous system: sensory input, integration and motor output. B. What are some other overall functions of the nervous system in relation to how the body functions.

2. What are the two major divisions (and their abbreviations) of the nervous system? B. What are these two divisions made up of physically (parts) C. What are the functions of these two divisions?

3. A. The PNS consists of two divisions: the Somatic and Autonomic. What are the overall functions of these two divisions? Give some examples of systems controlled by each. B. The autonomic portion of the PNS is also divided into two different functions: the sympathetic and parasympathetic. What are the overall functions of these two divisions? Give some examples of a systems/structures controlled by each.

7. A. Name and describe some of the structures that protect your CNS. B. What are some of the major functions of the spinal cord?

8. A Describe the structures and pathways involved in transmitting the impulses of each of the five special senses to the brain. B. What are the three main types of sensory receptors (functionally)? Which senses have which type?

Digestive System

7. A. Follow the path of food in the alimentary canal in humans (write out in order) and be able to identify them on a diagram. Also, be able to identify the accessory organs that aid in digestion.

8. A. Name and explain the functions(s) of each of the following structures: mouth/oral cavity, teeth, tongue, salivary glands B. Saliva contains the enzyme salivary amylase. What does this enzyme do? C. What types of digestion occur in the mouth (mechanical/chemical)? Explain.

9. A. Where is the pharynx located? B. Describe the structure and function of the esophagus. C. What is peristalsis?

10. A. What are two different functions of the stomach? B. What substances are produced by gastric glands and what are their functions? C. What is the approximate pH of gastric juice? D. What is heartburn?

11. A. For each structure listed, explain what part it plays in chemical digestion of food in the small intestine (where it is and what it does/makes): liver, pancreas, gall bladder.

12. A. What is the primary function of the small intestine? B. What is the main function of the large intestine? C. What leads to constipation? Diarrhea?

Nutrition

1. A. Name and explain two important reasons why you ingest food. B. Name the three macromolecules your body needs for proper nutrition. C. Why are carbohydrates important for nutrition? D. Why should you eat whole wheat bread instead of white?

2. A. Why are lipids important in your diet? B. Why are proteins important in your diet? C. What are essential amino acids? D. What is the difference between complete and incomplete proteins. Give some examples of each.

3. A. What are the two main categories of Micronutrients B. Why are they called micronutrients C. Why are vitamins and minerals important for proper nutrition? D. Name the 4 fat-soluble vitamins. E. Name the groups of water-soluble vitamins.

Circulatory System and Blood

1. A. What are the functions of the circulatory system? B. Name and describe the main structures of the circulatory system.

2. A. What is the basic function of a heart? What is pulmonary circulation and what is its purpose? C. What is systemic circulation and what is its purpose?

5. A. What is atherosclerosis? B. What causes a heart attack? What is a by-pass surgery?

6. Describe the following blood vessels in terms of location and/or direction of blood flow, relative sizes, and basic structure: arteries, veins, arterioles, venules, capillaries.

8. Blood: A. What is plasma? What is it composed of and what percent of the blood does it represent? B. Cellular components of the blood account for what percentage of blood volume?

C. Name and describe the structures and functions of the three cellular components (RBCs, WBC's, Platlets) of blood.

Respiratory System

1A. Name and explain the functions of the respiratory system as outlined in class.

2 A. What process/chemical reaction occurs within our cells that transforms glucose into energy? B. What is the usable form of energy called that results from this process? C. Review (write) the formula for this process.

3. A. Name the major structures in the human respiratory system and give their functions B. Which are used for air transport and which for gas exchange? C. Be able to locate them on a diagram.

4. A. Which blood gas concentration controls breathing? B. By what process is gas exchanged between the capillaries and the tissues of the body? C. Why does your breathing rate increase when you exercise? D. What structures expand or "move" to allow the chest cavity to expand during air intake?

Reproduction and Development

1. A. Briefly describe the function of the following human male reproductive structures: testes, scrotum, epididymis, vas deferens, seminal vesicle, prostate gland, urethra, penis. Be able to locate these on a diagram. B. Why are testes located outside the abdominal cavity?

2. A. Briefly describe the function of the following human female reproductive structures: ovaries, oviducts (fallopian tubes), uterus, cervix, vagina. Be able to locate these on a diagram.

3. A. Where does fertilization occur in the female reproductive tract (specifically)? C. When is the optimum time for fertilization in the woman's cycle? D. If the egg is not fertilized, what happens next? What is an ectopic pregnancy?

6. Compare/contrast egg and sperm production given the following parameters: A. Name and location of the gonad. B. Name of the gamete. C. Number of gametes made per month. D. When does gamete production begin? E. Relative size of gamete.