

## Unit VI: The Human Body

### I. Anatomy and Physiology

A. **Anatomy**- study of the \_\_\_\_\_ and \_\_\_\_\_ of the body and body parts and their relationship to each other (from Greek ana-apart and tomy-to cut)

B. **Physiology**- study of how the body and its parts

\_\_\_\_\_ or \_\_\_\_\_ (from Greek physio- nature and ology- the study of)

II. **Levels of Structural Organization**- biologist have identified levels of organization that make it easier to classify and describe the cells within an organism

### III. Organ System Overview- 11 systems in the human body

A. **Integumentary System**- external covering of the body (the \_\_\_\_\_)

1. \_\_\_\_\_ organ of the body

2. \_\_\_\_\_ body and

\_\_\_\_\_ deeper tissues from injury

5. Secretes \_\_\_\_\_ and

\_\_\_\_\_ (waste products) in perspira-

tion (regulates \_\_\_\_\_ -

\_\_\_\_\_)

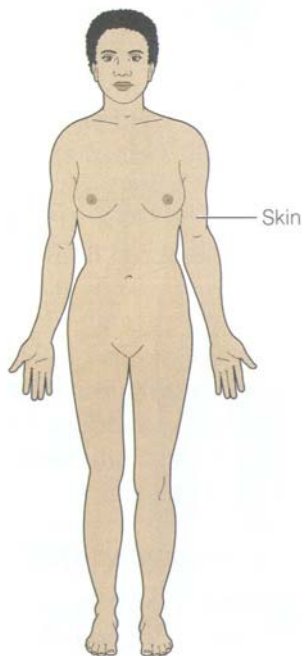
4. \_\_\_\_\_

\_\_\_\_\_ in skin (temp, pres-  
sure, pain, etc.)

5. Serves as barrier against

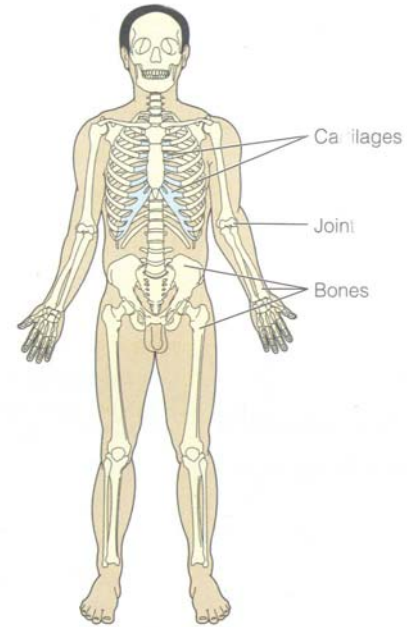
\_\_\_\_\_ and

protection from \_\_\_\_\_



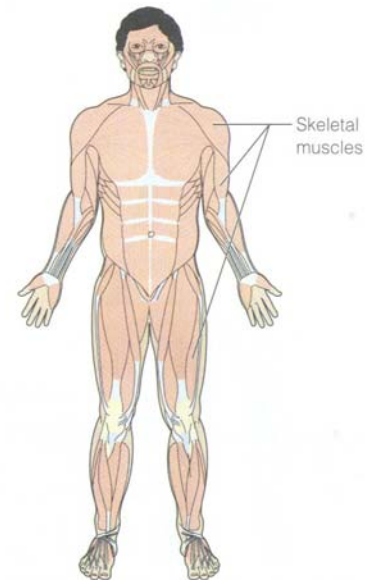
B. **Skeletal System**- consists of bones, cartilages, ligaments and joints

1. \_\_\_\_\_ the body
2. Provides framework for \_\_\_\_\_
3. Protection
4. Produces \_\_\_\_\_ in cavities of skeleton
5. Storehouse for \_\_\_\_\_



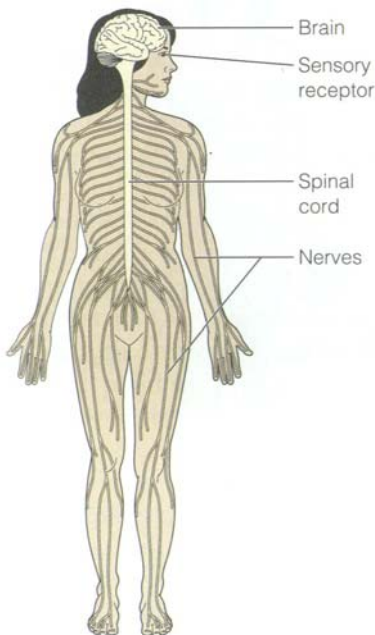
C. **Muscular System**- to produce movement by-

1. \_\_\_\_\_ muscles- allows body to \_\_\_\_\_
2. Heart muscle and of other hollow organs- move \_\_\_\_\_ (blood, urine) and other substances (such as food, wastes, hormones, etc.)

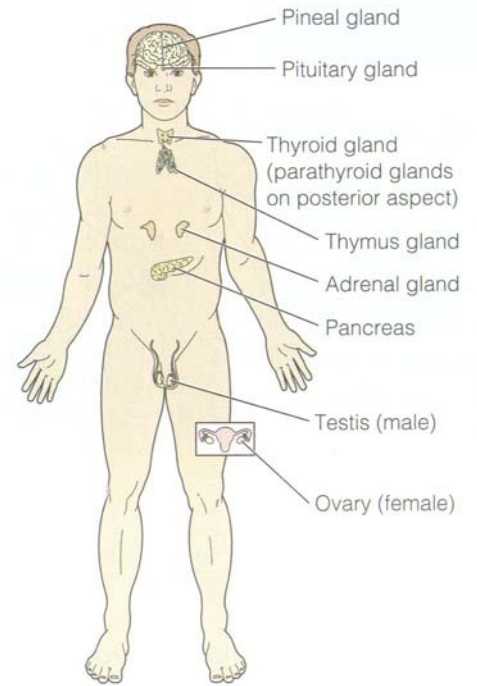


D. **Nervous System**- brain, spinal cord, nerves, and sensory receptors

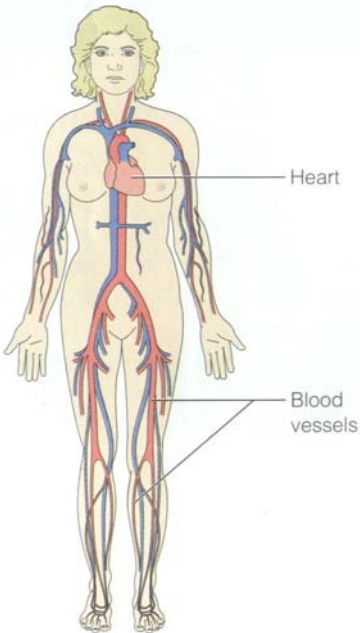
1. Allows body to respond to \_\_\_\_\_ (light, sound, temperature, pressure, etc.)
2. Operates on \_\_\_\_\_ impulses
3. Responds to \_\_\_\_\_ and \_\_\_\_\_ changes by activating appropriate \_\_\_\_\_ or \_\_\_\_\_



E. **Endocrine System**— controls \_\_\_\_\_, but acts more \_\_\_\_\_ than nervous system (pituitary, thyroid, adrenals, pancreas, pineal, ovaries, testes)

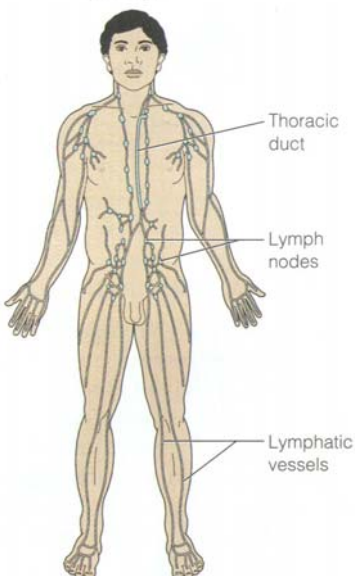


1. Endocrine glands produce \_\_\_\_\_ and release them into the bloodstream
2. \_\_\_\_\_ other structures (growth, reproduction, food use by cells, etc.)
3. Regulated by \_\_\_\_\_ that function to maintain \_\_\_\_\_



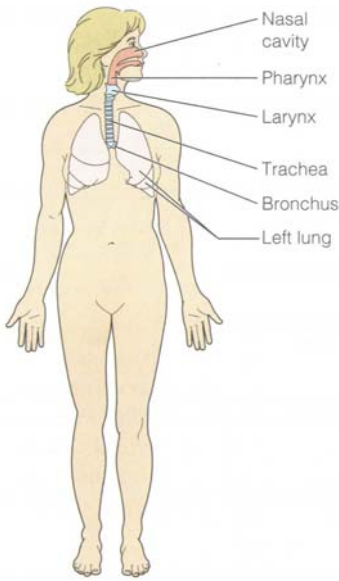
F. **Circulatory System**— composed of the **cardiovascular** and **lymphatic systems**

1. Heart and blood vessels make up \_\_\_\_\_ system
2. \_\_\_\_\_ carries oxygen, nutrients, hormones, and other substances around the body
3. \_\_\_\_\_ system picks up fluid (lymph) leaked from blood, filters it, and returns it to the blood via network of vessels



G. **Respiratory System**—

1. Keeps blood constantly supplied with \_\_\_\_\_ and removes \_\_\_\_\_ (waste product).

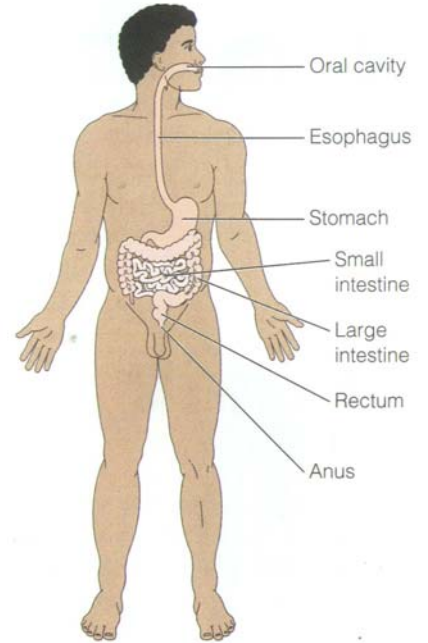


2. \_\_\_\_\_ occurs through walls of the air sacs of the lungs

H. **Digestive System**- basically a tube running from mouth to anus (mouth, oral cavity, esophagus, stomach, small and large intestines, rectum and anus

1. Breaks down

\_\_\_\_\_ (with help of \_\_\_\_\_) and delivers products to the blood

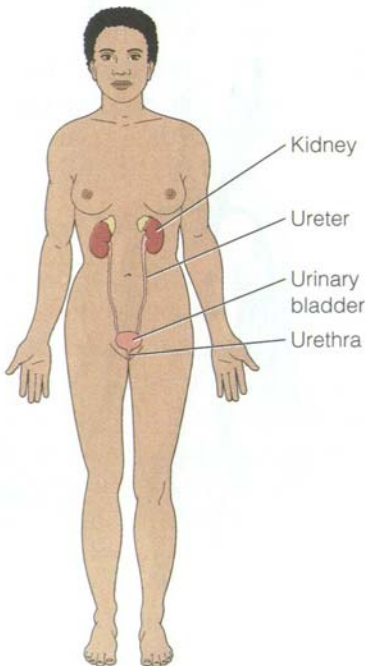


2.

I. **Urinary System**- rids body of

\_\_\_\_\_ wastes (urea and uric acid) includes

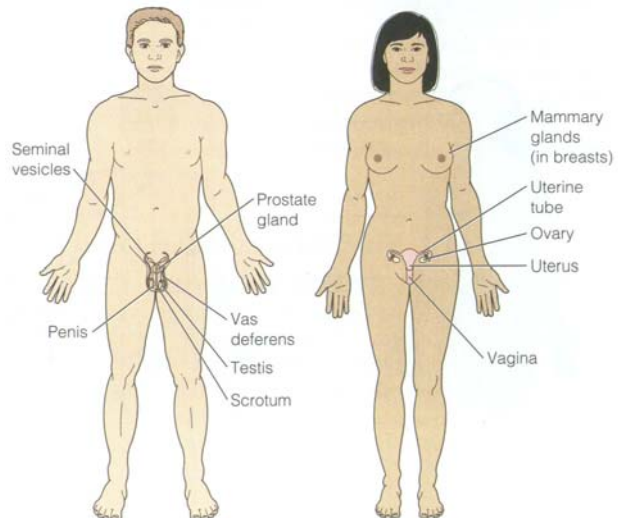
\_\_\_\_\_, ureters, bladder, urethra



1. Maintains bodies \_\_\_\_\_ balance of water, salt, nitrogenous wastes

2. Regulates \_\_\_\_\_ balance of the blood

J. **Reproductive System**- exists primarily to:



K. **Immune System**- your bodies primary defense against pathogens  
(disease causing agent)

1. Non-specific defenses

a. First line of defense- your

b. Second line of defense-

\_\_\_\_\_ response

2. Specific defense- called

\_\_\_\_\_

**Homeostasis**- as a result of coordinated structures and functions of organ systems, the internal environment of the human body remains relatively stable (homeostatic), despite changes in the outside environment

