

# HUMAN BODY REVIEW SHEET FOR TEST

## SKELETAL SYSTEM – 206 bones

- Functions**
  - produces blood cells in bone marrow
  - stores minerals
  - shape and structure
  - allows body to move
  - protects organs
- Place where bones meet is called a joint. This tissue holds bone to bone ligaments
- Flexible material called cartilage lines joints and makes up nose, ear.
- Ball and socket joint example - hip, shoulder. Hinge joint example - knee, elbow, fingers

## MUSCULAR SYSTEM – ABOUT 600 muscles

**Function** - Muscles let you or parts of your body move.

- voluntary muscles are muscles you can control. Ex. skeletal muscles
- involuntary muscles are muscles you **cannot** control. EX. Smooth and cardiac
- 3 Types** 1. cardiac 2. Smooth 3. skeletal

Cardiac found in the heart

Smooth found lining the Digestive System

Skeletal attached to bones

- Muscles Contract, they **pull** DO NOT PUSH. **Tendons** attach bone to muscle.

## EXCRETORY SYSTEM

Label 1-4 Some will be on test

**Function** – Process of removing waste products from the body.

3 systems are involved-

integumentary removes waste products and water in sweat.

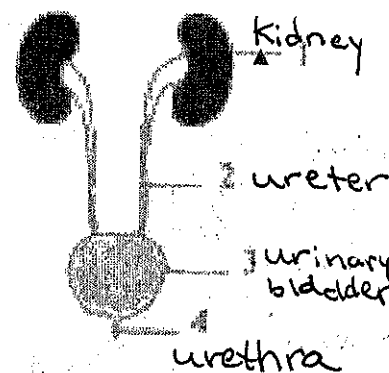
respiratory release water and carbon dioxide.

urinary system removes excess water and wastes such as urea. (nitrogen product)

Kidneys are a PAIR of organs that clean the blood.

Urine (yellow fluid – water and wastes) stored in the urinary bladder until is excreted from the body.

Nephrons are the filtering unit of the kidneys.



# DIGESTIVE SYSTEM

**Functions** – Digest food so that the nutrients can be **absorbed** and used by the body.

Pathway that food passes through -- Mouth, Esophagus, Stomach, small intestine  
Large intestine Rectum, Anus.

Part of Digestive System but food does not pass through. Salivary Glands, Liver, Pancreas  
Gall Bladder

Mouth begins Mechanical and Chemical Digestion.

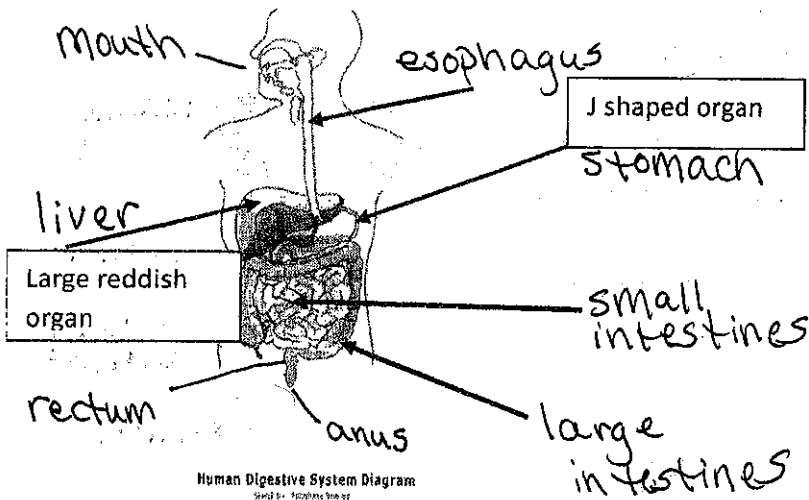
Stomach churns food and has enzymes and acid to break down food.

Small intestine does most of the digestion. Absorption occurs here through the action of small fingerlike projections called Villi.

Large intestine absorbs water and eliminates undigested material through rectum and anus

Liver produces bile which is stored in the Gall bladder.

## LABEL ORGANS



## Respiratory System –

**Function** – process where the body gets and uses oxygen and releases carbon dioxide and water. **Organs** – nose, throat, lungs and passage ways that lead to the lungs. Diaphragm is the muscle involved in breathing.

**Alveoli** (air sacs) are the structures where oxygen and carbon dioxide are exchanged.

## NERVOUS SYSTEM

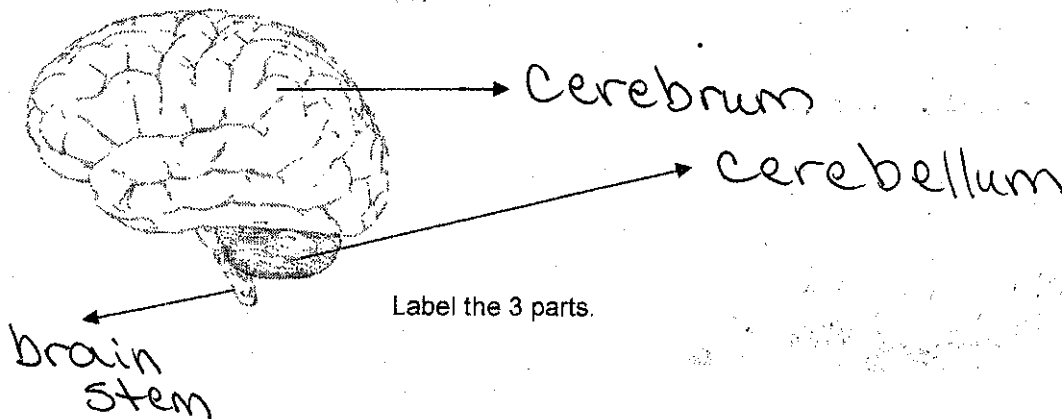
Function – 1. Gathers and interprets information 2. Responds to the information

- Central Nervous System – Brain and Spinal cord
- Peripheral Nervous system – all other parts (nerves carry information between your body and CNS)

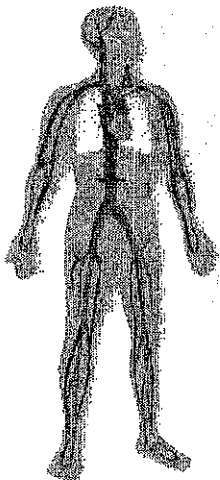
Brain 3 main parts. ---

- Cerebrum – largest part that controls thinking, sensing, and voluntary movement.
- Cerebellum – controls balance and body's position
- brain stem – controls involuntary processes (breathing, heart rate, etc.)

Neuron is a nerve cell.



## CIRCULATORY SYSTEM



- The circulatory system is also called the **CARDIOVASCULAR** system.
- THREE PARTS: Heart, Blood, and Blood vessels.
- FUNCTIONS:
  - Carries nutrients to cells (oxygen and glucose)
  - Carries waste products away from cells (carbon dioxide)
  - Maintains homeostasis

## Blood Vessels

- Large blood vessels
  - arteries: carry blood WITH OXYGEN. Carry blood AWAY from the heart.
  - vein: carry blood WITHOUT OXYGEN. Carry blood Towards the heart.
- SMALL blood vessels
  - capillaries: one-cell thick – Diffusion occurs here.
    - Oxygen and Glucose pass from the capillaries INTO the cells
    - Carbon dioxide and other wastes pass from the cell INTO the capillaries

## PARTS of the BLOOD

- PLASMA: liquid part of the blood; 90% water;
- BLOOD CELLS:
  - white blood cells: Fights infection (pus = dead wocs)
  - red blood cells: made in the bone marrow; carries oxygen from the lungs to the cells; has HEMOGLOBIN which helps the red blood cells carry oxygen;  
↳ contains iron.
- PLATELETS
  - Small pieces of cells that help the blood to clot - Scab forms

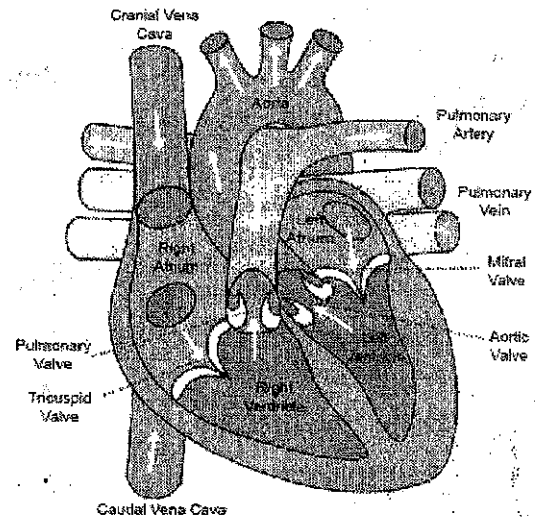
## Parts of the Heart

atria - plural  
atrium - singular

- Heart has 4 chambers -- **Right atrium, right ventricle**, (oxygen poor)
- left atrium, left ventricle -- (oxygen rich)
- atria on top – receives blood
- ventricles on bottom – pumps blood to lungs and body

BLOOD FLOW through the HEART - color code  
blue oxygen poor; red oxygen rich

- Blood without oxygen enters the RIGHT ATRIUM and goes to the RIGHT VENTRICLE.
- Blood leaves the heart and goes to the LUNGS to get OXYGEN.  
in lungs, diffusion of  $O_2$  and  $CO_2$  happens  
\* across the blood cell membrane and alveoli in the lungs.
- Blood with OXYGEN enters the LEFT ATRIUM and then the LEFT VENTRICLE.
- Blood leaves the heart through the AORTA and is pumped all over the body.



AORTA largest artery in the body.