Cells

1. A cell is the _____ and _____ unit of life.
2. Biochemical functions of cells are dictated by _____ and specific _____ _____
3. Are cells diverse?
4. Cells size, shape, and subcellular components lead to differences in _____
5. Cells have 3 basic parts what are they
    a. P_____ M_____- flexible outer boundary
    b. Cytoplasm- _____ _____ containing organelles
    c. N_____- DNA containing control center

Plasma Membrane

1. What are the functions of the plasma membrane
    a. It acts as a _____ separating intracellular fluid and extracellular fluid
    b. It is a _____ surface
        i. Cell _____- connecting to other cells or a surface
        ii. Cell _____ _____- says the cell is from the body and aren't foreign
        iii. _____- for various chemicals and hormones

c. Controls what _____ and _____ the cell

d. Has enzyme systems so it is the site of _____ _____

2. What is the shape of the plasma membrane?

3. Is this membrane very flexible

4. What is the name of this model

5. What are the 2 types of membrane proteins

a. I_____ proteins

b. P_____ proteins

6. How are integral proteins attached to the membrane

7. What are the functions of integral proteins

a. T_____ P_____

b. E_____

c. R_____

8. How are peripheral proteins attached to the plasma membrane

9. What are the functions of peripheral proteins

a. E_____

b. M_____ P_____

c. Cell to _____ connections

d. Part of the glycocalyx, which are _____ _____ for cell recognition

e. R_____

Cell Junctions

1. Some cells are _____ but most are bound

2. What are the 3 ways can be bound to each other

   a. T_____ junctions

   b. D_____

   c. G_____ junctions

3. How are tight junctions held together?

4. What do tight junctions prevent?

5. Where are tight junctions found?

6. How are desmosomes held together?

7. What areas do you find desmosomes in?

8. What are gap junctions?

9. What are these “tunnels” used for?

10. These junctions are found in _____ and _____ muscle cells

Membrane Transport

1. Membranes are _____ _____
2. 2 different types of transport- _____ and _____ transport
3. Passive processes require no/some energy
4. Passive transport that moves up/down a concentration gradient
5. 2 types of passive transport
    a. D_____- movement of molecules down their concentration gradient with no energy expended
    b. F_____- type of transport that usually occurs across capillary walls
6. Simple diffusion happens when substances do what?
    a. This transports smaller materials such as fat-soluble vitamins, steroid-hormones, oxygen, and carbon dioxide
7. Facilitate diffusion needs _____ or_____ to help transport glucose, amino acids, and ions
    a. How do carriers work?
    b. What are the 2 types of channels
        i. L_____- always open and allow ions to pass through at anytime

ii. G_____- must be stimulated by chemical or electrical means in order to open

iii. *note* water channels are called _____

8. What is osmosis?
    a. If solute concentration goes up water concentration goes _____
    b. Tonicity is the ability of a solution to change the _____ or _____ of cells by altering the cells _____ _____ volume
    c. Isotonic solution-
    d. Hypertonic solution-
    e. Hypotonic solution-
    f. What is crenation-
    g. What is lysing-
9. Active transport requires _____
10. Active transport moves up/down the concentration gradient
11. When does active transport occur?
12. What is the difference between Primary and Secondary active transport?
13. What is a really good example of the body's primary active transport?

14. Vesicular transport is the transport of large things within _____

15. What are the 3 types of vesicular transport?

    a. E_____- cell membrane surrounds something and brings it into the cell

    b. E_____- vesicle merges with plasma membrane and transports something out of the cell

16. What is “cell drinking”

17. What is “cell eating”