I. Cell Types

A. prokaryote

B. eukaryote

II. Cell Theory

A.

B.

C.

III. Cell membrane structure – Plasma membrane

A. phospholipid

B. phospholipid bilayer

C. Membrane lipids

1. Phospholipid

2. Cholesterol

3. Glycolipid

D. Membrane proteins

1. Recognition

2. Adhesion

3. Receptor

4. Transport

IV. Function of the plasma membrane

A. Semipermeable barrier

1. Permeable

2. Impermeable

3. Selectively permeable (differentially permeable)

B. Transport across the membrane

1. Simple diffusion

2. Facilitated diffusion

3. Active transport

4. Osmosis

a. solute

b. solute

c. solution

d. isotonic

e. hypotonic

f. hypertonic

5. Endocytosis

a. phagocytosis

\*food vacuole

b. pinocytosis

6. Exocytosis

V. Cell structures

A. Prokaryote

1. Cell wall

2. Plasma membrane

3. Nucleoid

4. Ribosome

B. Eukaryote

1. Plasma membrane

2. Nucleus

3. Nucleolus

4. Ribosome

a. free

b. attached

5. Endoplasmic reticulum

a. rough

b. smooth

6. Golgi complex

7. Mitochondria

a. internal structure

b. endosymbiotic theory

8. Chloroplast

a. internal structure

b. endosymbiotic theory

9. Lysosome

a. hydrolytic enzymes

10. Cytoskeleton

a. microtubules

b. Intermediate filaments

c. microfilaments

11. Centrosome – centriole

a. 9+0

12. Cilia

a. 9+2

13. Flagella

a. 9+2

14. Plastids

a. chloroplast

b. chromoplast

c. amyloplast

\*leukoplast

15. Central sap vacuole

16. Food vacuole

17. Contractile vacuole

18. Cell wall

VI. Macromolecule destination

A. Carbohydrate

1. Mouth

a. enzyme

2. Stomach

3. Small Intestine

a. enzyme

4. Circulatory system

5. Respiratory system

6. Mitochondria

B. Protein

1. Mouth

2. Stomach

a. enzyme

3. Small Intestine

a. enzyme

4. Circulatory system

5. Excretory system

6. Ribosome

C. Lipid

1. Mouth

2. Stomach

3. Small Intestine

a. enzyme

4. Circulatory system

D. Nucleic acid

1. Mouth

2. Stomach

3. Small Intestine

a. enzyme

4. Circulatory system