

Name _____

AP Biology

TEXT: *Biology, Campbell and Reece*

7th Edition

Chapter 7

**Cell Biology – Membrane Structure and Function
Thematic Review Guide**

1. What evidence supports the fluid mosaic model of the cell membrane?

2. What is meant by membrane fluidity?

3. How is fluidity reduced in animal cells?

4. Describe the orientation of the membrane proteins

a. Peripheral _____

b. Integral _____

5. How are the two sides of the membrane different?

6. List and briefly define the roles of the membrane proteins.

a. _____

b. _____

c. _____

d. _____

e. _____

f. _____

7. What membrane structures are important for cell-cell recognition?

8. Which molecules easily cross the membrane?

9. How are molecules transported that do not easily cross the membrane?

10. Define the following:

a. Diffusion _____

b. Osmosis _____

c. Hypotonic _____

d. Hypertonic _____

e. Isotonic _____

11. What do cells do when placed in solutions that are:

a. Hypotonic _____

b. Hypertonic _____

c. Isotonic _____

12. How does the Paramecium maintain osmoregulation?

13. What is meant by facilitated diffusion?

14. How do active and passive transport differ?

15. The sodium-potassium pump uses _____ to pump _____
out of the cell and _____ into the cell.

16. How does the membrane generate voltage?

17. What can the cell do with the voltage generated in the membrane?

18. Define cotransport and give an example.

19. What is the difference between exocytosis and endocytosis?

20. Describe an example of receptor-mediated endocytosis.
