**Biology 11 – End of Chapter 7-3 and 7-4 ANS KEY**

**Section 7-3: The Cell Boundaries – End of Chapter Questions ANS KEY**

**Questions Page 199 # 1 to 5**

1. B

2. A

3. C

4. E

5. D

**Page 197 #6 to 8 and 19 to 24**

6. A

7. D

8. C

19. The core of the cell membrane is made up of a lipid bilayer. Protein molecules run through this layer. The proteins form channels and pumps that enable materials to move across the cell membrane.

20. The concentration of a solution is the mass of solute in a given volume of solution, or mass/volume. Example: 12 g of salt in 3 liters of water, the concentration of the solution would be 12g/3L or 4g/1L

21. In diffusion, particles tend to move form an area where they are more concentrated to an area where they are less concentrated. When diffusion is complete, the system has reached equilibrium.

22. Osmosis is the diffusion of water through a selectively permeable membrane. Only water can move by osmosis.

23. An isotonic solution would have the same concentration of solute on both sides of a membrane. The result of placing cells in an isotonic sugar solution would be that the cells would neither shrink nor swell.

24. Cell wall prevents damage by preventing cells from expanding.

**Section 7-4: The Diversity of Cellular Life – End of Chapter Questions ANS KEY**

**Page 193 #1 – 4**

1. Multicellular organisms have cell specialization.
2. Individual cells, tissues, organs, and organ systems.
3. Both unicellular and multicellular organisms grow, respond to the environment, transform energy, and reproduce.
4. Muscle cells have a large number of mitochondria, because mitochondria release energy from stored food molecules and muscle cells need great amounts of energy to do the tasks they do.

**Page 197 # 9 and 10**

9. D (stomata)

10. A (similar cells)

**Page 198 # 29 and 31**

#29. Because muscle cells are responsible for movement, they require more energy than skin cells. Therefore, skin cells contain fewer mitochondria.

#31. An organelle which produces enzymes is lysosomes (digestive tract of human).

**Page 199 # 1 to 9**

1. B
2. A
3. C
4. E
5. D
6. E
7. E
8. B
9. D