Exam Ch. 5 review

1. Define diffusion.
2. Define osmosis.
3. What type of molecules are the major structural components of a cell membrane?
4. How do membranes vary?
5. Describe the structure and function of each:
   1. Cholesterol
   2. Integral protein
   3. Polysaccharides attached to glycoproteins
   4. Peripheral proteins
6. What kind of molecules pass through a cell membrane easily?
7. What are the characteristics of a carrier protein?
8. Define the following;
   1. Passive transport
   2. Active transport
9. What type of transport would be considered passive? What types would be active?
10. How does water pass through a membrane?
11. Define: hypotonic, hypertonic and isotonic
    1. Be able to describe how water flows if a living cell is placed in each – animal and plant
12. What is the voltage across a membrane called?
13. Why is the sodium-potassium pump called an electrogenic pump?
14. What would increase the electrochemical gradient across a membrane?
15. What is the difference between receptor mediated endocytosis and pinocytosis?
16. What happens when the membrane receptors are activated?
17. How do plant hormones differ from animal hormones?
18. Where is the receptor for a steroid?
19. How does Testosterone function inside a cell?
20. Know the parts of the signal pathway:
    1. Reception
    2. Transduction
    3. Response
21. How does a signal transmitted via phosphorylation affect the proteins in its series?
22. What did Sutherland discover?
23. What is the greatest advantage of having multiple steps in transduction pathway?
24. What is GTPase role in the regulation of signal transduction?