C22 HW4
Transport of Respiratory Gases

1. If hemoglobin (Hb) is fully oxygenated (100% Hb) then how many oxygen molecules are attached to hemoglobin?
2. When does Hb have a high affinity for oxygen?
3. What happens when PO2 is low?
4. What happens to Hb's affinity to bind O2 after O2 binds to Hb?
5. What happens at the top of the "dissociation curve"?
6. What chemical reaction uses carbonic anhydrase? (write out the chemical equation
7. The acid created in #6 then releases H+ (that is why we call it an acid). Where does the H+ bind to and then what occurs?
8. Again, where are these events taking place? (in lungs or body tissue)
9. What happens to the bicarbonate inside the RBC?
10. What the deal with the cloride ion (Cl-)? Why must it "shift"?
11. Why is Hb a buffer? (Do you know the definition of a buffer?)
12. What is the Bohr Effect?
13. If pH important in the function of our respiratory system?
14. What is the difference between fetal Hb and maternal Hb? Which one has a greater affinity for oxygen? What is the significance?