1. What is the National Childhood Vaccine Injury Act and why was it enacted? (6 pts)

What are the 2 things required of people who administer vaccines as a result of this act?

Where does the money come from to fund this program?
2. Draw the body’s response to antigenic stimulation following primary and secondary doses of a vaccine (i.e. [antibody] vs. time, label your axes). (10 pts)

Give examples of 4 different properties relating to antigenic stimulation and how their primary and secondary responses differ.

What would happen if you were to administer a booster dose 10 days after the primary dose instead of 4 weeks later?
3. What is passive immunization and what are the two most common forms of passive immunization? (4 pts)

4. What is active immunity and what are the two main ways in which this immunity is achieved? (4 pts)

5. Label the following on the structure below of the influenza haemagglutinin-antibody complex:  
   a) the antibody;  
   b) the antigen;  
   c) the epitope;  
   d) the hypervariable region  (4 pts)
6. What are the two main classes, or types, of vaccines? Provide 2 advantages and disadvantages of each type. (10 pts)

14. Why is it dangerous to give an intramuscular immunoglobulin prep intravenously? (2 pts)

15. A parent brings her young daughter to your pharmacy to fill a prescription for an ear infection. She wants to also bring her daughter up-to-date on her immunizations. Would the vaccinations be contraindicated at this visit? (2 pts)
16. What is a conjugate vaccine? (2 pts)

17. MMR is not given to children < 12 months of age because of interference from circulating maternal antibodies. Do you also need to worry about passive immunization through breast feeding? (2 pts)

18. If the minimum interval between 2 doses of a vaccine is 6 weeks and the second dose was given 4 weeks after the first dose, does it count or is re-vaccination necessary? What if the second dose was given after 16 weeks. Does it count or is re-vaccination necessary? (4 pts)