Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Study Guide (Blood)**

1. Describe a blood sample (with percentages). Define: hematocrit.

2. Describe the shape of a blood cell. How many red blood cells would you find in a ml of blood?

3. List all of the scientific names for red blood cells, white blood cells, and platelets.

4. What are platelets? Why are they important?

5. Describe the events in blood clot formation, such as what would occur after an injury.

6. List the 4 blood types and their associated genotypes.

7. List the two white blood cells that are classified as agranulocytes. List the ones that are granulocytes.

8. Describe how antibodies and antigens work (related to blood transfusions) What blood type can give to what blood type?

What type of antibodies with a person with type O blood have in their bloodstream?

8. What is plasma and what is it composed of?

9. What is sickle cell anemia? How is it inherited (genetics)? What is the treatment for sickle cell disease?
Ex. Aa x aa

10. What is hemophilia? How is it inherited (genetics)? What is the treatment for hemophilia?

Ex. XHXhx XHY

11. What is the Rh factor? How can it affect a pregnancy?

12. What is leukemia? What does a blood sample look like if someone has leukemia? How is leukemia treated?

13. What is anemia (general)? What are the different types of anemia? What is the most common type?

14. What is septicemia? How does a person become septic?

15. What causes coagulation? What chemical prevents it? What is an embolism? Thrombus?

16. What organ removes damaged or old blood cells? What do you call cells that destroy (eat) other cells?

17. List the plasma proteins. Which one is responsible for maintaining blood pressure?

18. What is hematopoeisis? Where does this occur in adults?

19. Be able to do a variety of genetic crosses (punnett squares) to show what blood types are possible.
Ex. AB x O AB x A what are all the possible offspring?

20. Describe the events of hemostasis. Define hemostasis. What is vasoconstriction and what chemical causes it?

21. Identify a type of white blood cell on a picture (neutrophil, eosinophil, basophil, monocyte, lymphocyte).

22. What causes an inflammatory reaction? What white blood cell secretes this substance?

23. What is carbon monoxide and why is it dangerous?

24. What white blood cell attacks parasites? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Which one has a large round nucleus and is responsible for making cell antibodies? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
What is an active phagocyte, and also the most common white blood cell? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_