

# BLOOD LAB : PLASMA, HEMATOCRIT and SEDIMENTATION

Write neatly or type lab. All drawings must be neat, in color and to scale with proper labels

**Part 1 BLOOD PROTEINS:** Identify, explain the function and what Normal levels of each of the major proteins are in blood.

Name and source where made	Function	Normal values
Hepatocytes		
albumins		
fibrinogen		
globulin		

**Part 2 Blood Typing:** Find a site that explains the process of blood typing: LINK:

Draw neatly in color Blood types A, B, AB and O. With each diagram, explain why clumping occurred. Write the possible genotypes for each diagram. What is anti-sera and which ones were used to determine each type.

Blood Type Diagram				
Anti-seru added				
Possible genotype				

Use

<http://www.nobelprize.org/educational/medicine/landsteiner/landsteiner.html> to identify the blood types of the three patients

**Part 3: Talquist** Find an internet site that shows a picture of the test. LINK:

1. What is the purpose of this test? Why kind of information can it give you? Qualitative, quantitative?
2. What information does a talquist test provide. Draw three different possible outcomes and possible explanations for these results.

**Part 4: BLOOD LAB: SEDIMENTATION RATE and HEMATOCRIT**

3. When performing these tests why are heparinized microcapillary tubes used?
4. What is the significance of time in the sedimentation tests?

NORMAL VALUES FOR SEDIMENTATION: ADULTS=

NORMAL VALUES FOR RBC (packed cell volume PVC) on hematocrit.

Male 47.0  $\pm$  5 Female 42.0  $\pm$  5

Clinical implications for sedimentation:

LOWER Values

VERY HIGH Values

Clinical implications for hematocrit: An abnormal increase in the number of RBCs (polycythemia )

A decrease in the number of RBCs results in anemia. (the term anemia simply indicates a decreased oxygen-carrying capacity of the blood that

may result from a decrease in RBC number or size, or from a decreased hemoglobin content in the RBCs.)

Draw a normal hematocrit and show your calculations. Then draw a diseased hematocrit and give possible causes for the calculations

