

Names: _____

Date _____

Instructor/section _____ / _____

Lab day (circle) **M Tu W Th Sat**

Group A**INSTRUCTIONS**

Students will work together in groups **not to exceed 4 students** for this portion of the exam. The names of the students in your group must be written in the space above. Each group will work together to produce the indicated results for the 3 problems below. Once the group portion of the exam is complete, give this group exam to your instructor after which each student will be given an individual exam.

Problem #1A (6 points)

*As a group, measure the following **as accurately as possible** using the resources at your table and record each measurement in the table below:*

- the **weight in grams** of the object marked with **green tape**
- the **volume in ml** of the colored water in the flask marked with **red tape**
- the **length in mm** of the cardboard rectangle marked with **yellow tape**

Weight of object	Volume of Liquid	Length of Cardboard
_____ g	_____ ml	_____ mm

Problem #2A (5 points)

Use the molecular model kit at your table to build the 2 amino acids listed below. Once complete, join these amino acids to form a dipeptide being sure that the amino acids are joined in the order shown below.

ALANINE – SERINE

NOTE: Hold onto your model so that each student may refer to it during the individual portion of the exam. The last person in your group to finish the individual exam should turn the model in to your instructor.

Problem #3 (15 points)

The Test Tube labeled 3 may contain plain water or any combination of the following compounds: STARCH, SUGAR, or PROTEIN. Use the materials available in the lab to design and carry out a controlled experiment to determine which of these are in your test tube. Carefully outline the procedures that you used, indicate the controls, and record the color of each result. Interpret each result to indicate the presence (+) or absence (-) of the substance being tested and indicate at the bottom of the page what substances are present in your unknown sample.

A. Test for Sugar (5 pts)

Procedure:

negative control = _____

positive control = _____

	color	+ or -
negative control		
positive control		
unknown		

B. Test for Starch (4 pts)

Procedure:

negative control = _____

positive control = _____

	color	+ or -
negative control		
positive control		
unknown		

C. Test for Protein (4 pts)

Procedure:

negative control = _____

positive control = _____

	color	+ or -
negative control		
positive control		
unknown		

In summary, we conclude that Test Tube A contains: _____ (2 pts)