Name _____ Biology 102, Spring 2008

Sec. # _____ Lab 10: Evolution

Answer the following questions in your OWN words and in COMPLETE sentences.

1. (2 pts) Suppose all the tree trunks in the forest were sprayed with paint, so that both forms of moth were equally visible to predators. What would you expect to happen?

2. (2 pts) Based on what you did in the lab this week, explain what is meant by adaptation in your own words. Cite an example(s) from the natural world other than those used in the lab as part of your explanation

3. (2 pts) Refer to your data from Part II (Changing Food Source) of the Clipbird exercise. After the final season of feeding, you should have observed the population of small-billed birds on the East Side of the island drop to zero, with the same occurring for the large-billed birds on the West Side. If the number of small (or large) billed birds drops to zero, does this mean that at this point they are *permanently* lost from the population? If food sources were to suddenly shift back to previous levels, could we possibly see these bill types resurface in the population? Explain why or why not, and be sure to reference genotypic and phenotypic ratios.

4. (2 pts) Calculate the frequencies of B and b alleles for a population of a wild flower species in which 449 have blue petals (BB), 442 individuals have violet petals (Bb), and 109 individuals have white petals (bb).

5. (2 pts) Next week we are doing Plant Diversity exercise. Read through pages 153-162 of your lab manual and come up with 5 reasons why plants are important for people.

   Reason 1:

   Reason 2:

   Reason 3:

   Reason 4:

   Reason 5: