Name:_____

Fish 310 Spring 2015

Equipment needed: - 1 compound scope - 1 dissecting scope

Introduction to Shellfish Biology

In today's lab, you will have the opportunity to observe animals from four different phyla and begin to think about what unites animals from each of these groups. Today's lab is also designed to get you comfortable in the laboratory, practicing skills and techniques we will use for the rest of the quarter. This includes observing and drawing live and preserved animals, using microscopes and micropipettes, thinking critically, and asking questions (do lots of this!).

1 These animals are all from the phylum Cnidaria. What do you think are three characteristics that might define this phyla?

2 These animals are all from the phylum Mollusca. What do you think are three characteristics that might define this phyla?

3 These animals are all from the phylum Arthropoda. What do you think are three characteristics that might define this phyla?

4 These animals are all from the phylum Echinodermata. What do you think are three characteristics that might define this phyla?

5 Softly touch the anemone's tentacles. What do they feel like?

6 These mollusc shells show extremely different shell morphology.

6a) Which do you think is closest to the ancestral shell type—the shell type from which all the others evolved? Why do you think so?

6b) Try to list the shells (1-8) in order from ancestral to the most evolved

6c) Under what conditions might a mollusc develop a shell like B? What is one advantage and one disadvantage to this shell type?

7 Look at the organism on the dissecting scope. What phylum does this organism belong to? How many different pairs of appendages do you

count? Are any of the appendages modified?

8 Look at the organism on the compound microscope. Please draw what you see. Can you identify which phylum this animal belongs to?

9 List all phyla represented in the live tank.

10 What unites all the animals you saw today? Do you think that shellfish is a biologically meaningful term?