Arthropod Test Review 2011

1. Study concepts covered in book questions and class notes.
2. Study concepts covered in crayfish lab (external and internal will be covered on the exam).
3. Study the anatomical structures on the handout given in class (two-sided paper, all diagrams).
4. List the three respiratory or gas exchange in arthropods. Diagram or explain how each respiratory system works in performing gas exchanges.
5. Define molting. What is its primary purpose? Identify the hormone controlling molting in a crayfish.
6. Distinguish the differences between the stages of complete, incomplete, and direct metamorphosis. What purpose does this process serve in natural selection?
7. Name five key characteristics of an arthropod.
8. Make a table that describes the body plan of each subphylum covered in class-cephalothorax, antennae, abdomen, legs, wings, carpace, etc…
9. Identify which arthropod would use an antennal gland or green gland to remove waste. What type of waste is being generated? How do these structures work?
10. What is a malpighian tube? How does it work? Name an arthropod that would use this system.
11. List the distinguish features and differences between a centipede and a millipede.
12. Draw and label the spiracles, tracheae, and taenidia. Identify a few organism(s) that use these anatomical structures for gas exchanges.

13. What is a cheliped? Name the subphylum that would have this appendage.

14. Name the subphylums covered in class and give examples of each.

15. Describe how nitrogen is removed from the body of aquatic arthropods? How does the aquatic animal accumulate Nitrogen?

17. What is Lyme disease? What is its vector? Is there a possible cure? If so, how is it treated by a physician? Explain.

18. Define hemocoel.

19. Name the oldest ancestral and most widely-occurring larva in the Crustacea.

20. Review the circulatory system of a crayfish.

21. Compare the exoskeleton of an arthropod with the cuticle of an annelid.

22. Describe the advantages and disadvantages of jointed appendages.

23. What is the primary function of antennules in crayfish?

24. Describe the nervous system of an arthropod.

25. Define the term homologous.

26. What is a nauplius?

27. Describe the muscular system of a crustacean.

28. A field biologist finds an unknown animal in the jungles of South America. The animal has three walking legs and other paired appendages. What phylum does this animal belong to? What subphylum? What order?

29. What type of spider releases a neurotoxic chemical causing paralysis?

30. Sketch the body plan of a tick.

31. What appendage is used by spiders to inject venom?