**Review: Origins, Macroevolution, Systematics**

**AP Biology**

1. Define species. Define it again, by another set of criteria.
2. List categories and examples of mechanisms that prevent interbreeding between individuals of different species. Order them along a continuum.
3. Macroevolution is dependent upon reproductive isolation. Explain.
4. Compare and contrast allopatric and sympatric speciation. Which is more common?
5. What is the general attitude towards hybrids? What is the reality?
6. Compare the gradualism hypothesis of evolution with that of punctuated equilibrium. Which fits Darwins view of selection? Which best fits polyploidy? Explain.
7. How is polyploidy evidence of evolution? What effect does it have on the rate of speciation?
8. How is extinction also evolution? How is today’s extinction event different from those in the past?
9. Summarize Linnean taxonomy. What are the limitations of this approach to classification? What is the value of classical taxonomy in this age of phylogenetics?
10. Explain how scientific names are generated. What is the value in this system?
11. How do phylogenetic trees and cladograms illustrate relatedness? How does this relate to speciation? Compare and contrast a phylogenetic tree with a cladoram.
12. Differentiate between the domains of life. Differentiate between the kingdoms of Eukarya
13. Which domains/kingdoms include organism with cells walls? Distinguish between the cell wall of each.
14. Describe the first cells. List in order the dates of key events leading to multicelled, eukaryotic, autotrophic life.
15. Discuss the chemical evolution that had to have preceded life. Describe Miller and Urey’s seminal experiment. What other conditions would have supported the evolution of life?
16. Summarize the RNA World Hypothesis.