Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ # \_\_\_\_\_

**Evolution Quiz/Test Review** *(\*Classification questions at the end are on the test, not the quiz)*

1. As a naturalist, Darwin observed what islands? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What observations did he make on those islands?

1. What is survival of the fittest? Give an example
2. What is artificial selection? What’s a common example of a group of people who practice artificial selection?
3. What are the 2 major points of Darwin’s theory?
4. What is the primary force that acts on an organism? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Does this force act on genotype or phenotype?
5. What is a homologous structure vs. analogous structure?
6. Which of the above is divergent? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Convergent? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. What evidence did Darwin use to support his theory of evolution?
8. Define: Polymorphic. Give an example
9. What is a mutation? When is a mutation considered helpful? Harmful?
10. What is a gene pool?
11. What might happen to a species (organism) that lacks variation and not able to adapt to its environment?
12. What is the term for a feature that allows an organism to survive better in its environment?
13. All the individuals of a species that live in a particular area are called a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
14. The remnant of an organ that had a function in an early ancestor is known as a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ structure.
15. What is the process in which humans breed organisms for certain desirable traits?
16. What type of pre-zygotic reproductive isolation occurs when the ‘timing’ of reproduction is different between two populations?
17. Coevolution is a process in which 2 or more species evolve around the same time and are interdependent. Give an example of coevolution:
18. A river has cut a deep canyon that has separated a population of rodents into two groups. This separation is an example of what type of isolation?
19. The first organisms on Earth were most like today’s \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
20. What is the fossil record? How does it provide evidence for evolution?
21. How might a population exhibiting stabilized selection later become directional?
22. What phenotypes are ‘selected’ in a population favoring diversifying/ disruptive selection?
23. The similarity in structures among organisms is one form of evidence that organisms…?
24. What boat did Darwin travel on? How long was the voyage & where was most data collected?
25. What defines a species?
26. What is: extinction vs. endangered?
27. Why do heterozygotes have an advantage?
28. What is ‘descent with modification’? Who 1st used this phrase?
29. What is ‘fitness’?
30. What are the Hardy-Weinberg Equations? What do the p & q represent?
31. What is the smallest ‘unit’ that can evolve?
32. What are the two types of fossil dating?
33. What does the term ‘half-life’ mean?
34. Differentiate between: microevolution and macroevolution.
35. What 5 things must be true of a population in Hardy-Weinberg equilibrium?
36. What are 5 factors that contribute to microevolution?
37. Which of the 5 factors above is due to chance? Give an example.
38. What is the only way to get a new allele?
39. Sometimes speciation results in adaptive radiation. Give an example of this that Darwin observed.
40. Differentiate between gradualism vs. punctuated equilibrium.
41. How did Lamarck influence Darwin?
42. Give an example of a post-zygotic reproductive isolating mechanism.
43. Where are more recent fossils in the earth’s strata?
44. Explain the endosymbiotic theory.

**PART 2: CLASSIFICATION OF ORGANISMS**

1. What is the order of the classification system from the most broad category to the most specific?

47. What is taxonomy? Who is considered the father of taxonomy?

48. Compare/contrast: taxonomy vs. systematics

49. What are the rules of writing vs. typing a scientific (genus, species) name?

50. What is the purpose of a cladogram/ phylogenetic tree?

51. What is a dichotomous key and why is it used?

**PART 3: CHARACTERISTICS OF ‘ORGANISMS’. For this test, the emphasis will be on viruses, prokaryotes (bacteria and archaea), protists and fungi. *STUDY THE CHART GIVEN IN CLASS*!**