Introduction to Environmental Earth Science
Chapters 2-4 – Quiz Prep for Friday Feb. 6

_____ 1. A chemical substance that cannot be broken down into other chemical substances.
A. Atom B. Proton C. Matter D. Element

_____ 2. An atom of an element with a particular number of neutrons.
A. Molecule B. Proton C. Isotope D. Electron

_____ 3. pH is a measure of water's acidic or basic characteristics. An acidic pH is __?__ the natural value of 7.
A. Above B. Below

_____4. Entropy is sometimes used to describe the second law of thermodynamics. The entropy or order of a system helps describe how energy helps to maintain a structure. A system that has high entropy is likely be…?
A. disordered B. structured C. well-organized D. utilitarian

_____ 5. The variety of species and life in the world or in a particular ecosystem…
A. population B biodiversity C. community D. biome

_____ 6. The Gaia Hypothesis asks the testable question is the Earth an ...?
A. organism B. boreal C. niche D. species

_____7. As discussed in class human populations are subject to times of reduced biodiversity, to the point some human societies have failed/collapsed. Hypothesized reasons for past human societal collapses include: Social conflicts, changing environmental conditions, tragedy of the commons and..?
A. adaptive radiation B. natural selection C. over consumption D. predation

8. Your textbook reviews how life evolves. That review ends with the top five misconceptions about evolution. Briefly describe ONE of those misconceptions, e.g. *In evolution, only the fittest individuals survive*. This suggests that only the strongest, fastest biggest of a species evolves. The correction for this misconception is… Evolution occurs in a species ability to pass along their genes to the next generation. Individuals only need one trait that is able to help move its genes forward. Being the strongest, fastest or biggest may or may not help to pass along one's genes…

9. Define term carrying capacity. Then use one of the two examples in the textbook OR one from your personal knowledge that provides evidence that supports the correct definition.

10. We began discussing how the Earth created its current arrangement of biomes. Create an answer that lists the major parts of the earth's systems and then attempt to describe how these systems worked together to develop biomes. Your answer should also include at least three biomes, that help tell the story of how the Earth's systems work to create different biome types.

11. Be able to characterize the Yellowstone – Wolves and elk relationships with respect to keystone species, vegetation and geology/geomorphology.

12. What are the differences or similarities between the Environmental Unity Principle and the Gaia Hypothesis.