**Environmental Science Midterm Review Part 2 Answer Key**

1. How does a population differ from a community?

**A population is a group of organisms that are the same species in the same geographic location while a community is a group of different organisms.**

1. Why are decomposers important in an ecosystem?

**They break down dead plant and animal material into nutrients that are essential for other organisms.**

1. Describe primary succession.

**Primary succession occurs only in places where there is barren rock- such as after natural disasters. Then lichen comes in as a pioneer species to break down the rock along with decomposers. The action of lichen coupled with decomposers creates soil—which paves the way for other populations to establish.**

1. How are keystone species different from invasive species?

**Keystone species are essential to an ecosystem and play a unique role while invasive species are nonnative species that are destructive to the local ecosystem.**

1. How can humans negatively impact the environment?

**Deforestation, burning fossil fuels, poaching, invasive species, pollution**

1. What are two disadvantages of ex situ remediation?

**Animals don’t live as long in captivity and they are more likely to get diseases**

1. How do greenhouse gases differ from non-greenhouse gases?

**Greenhouse gases trap heat**

1. How are humans causing ocean acidification? What are some of the negative consequences of ocean acidification?

**By burning fossil fuels --- causes shells to deteriorate**

9) Why are climate proxies important for proving climate change is happening?

**They are used to reconstruct climate history. This way we can compare CO2 levels and temperature from hundred of thousands of years ago to present day levels.**

1. Label the following feedback cycles as positive or negative, explain why, and draw a model of the feedback loop. If the feedback loop is positive, explain something that could stabilize it. If it is negative, list something that could cause it to shift towards an extreme.

A) You have so much homework every night that you are very sleep-deprived. Because you are so tired, your brain does not function very well and it takes you even longer to finish your work. As a result, you end up staying up even later and becoming even more sleep-deprived.

**Positive feedback!**

B) In the carbon cycle, an increase in the amount of CO2 in the atmosphere increases plant growth. With increased plant growth, there is an increase in the amount of photosynthesis. With more photosynthesis, more CO2 is removed from the atmosphere.

**Negative feedback cycle**