Review Questions for Econ. 6535 Resource and Environmental Economics

First Set

I. An Introduction to NR and Environmental Economics

1. Define the following terms in a way that an Econ. 2010 student would understand:
   efficiency, equity, market failures, and nonmarket failures.

2. What does it mean to say that resources are scarce, and what does that scarcity have to do
   with the environment.

3. Define an efficient allocation of resources.

4. Define an efficient allocation of resources in an intertemporal context.

5. Who should be included in the definition of society when one considers equity and
   efficiency? Why?

6. What is a market failure? Give me an example of an environmental market failure, and
   explain why it is a market failure. Choose an example that has not been discussed in class.
   Note that this question has three parts.

7. Does a system of perfectly competitive markets result in an efficient allocation of society's
   scarce resources? Explain.

8. Assume a world that consists of two time periods. Denote the individuals in period 1 as
   generation 1, and denote the individuals in period two as generation 2. Assume a world of
   just two goods, cases of beer and copies of the book David Copperfield. Further assume
   individuals in generation 1 are willing to trade beer for books at the rate of 2 cases for one
   book, and generation 2 is willing to trade beer for books at the rate of one case for one
   book. Currently each generation has 10 cases of beer and 10 books. Is the current
   intertemporal allocation of beer and book efficient? Explain. Which generation is the
literary generation? (Assume books are divisible. That is, generation 1 would trade one case of beer for a half of a book.)

9. Would you expect the number and magnitude of perceived environmental and recreational externalities to increase or decrease over time? Defend your answer.

10. Make a Coasian argument that the market will internalize externalities such that government intervention is unnecessary. Now argue that, in practice, government intervention will sometimes be required to eliminate the inefficiency caused by the externality.

11. Assume that the competitive firms in the widget industry produce excess air pollution from an efficiency perspective because the air is a common property resource. If this inefficiency is eliminated by a “pigouvian” tax air pollution, what will happen to the number of firms in the widget industry? Is this a good or bad thing?

12. What is meant by the term property rights? If one owns the property rights for a resource, what powers are conferred by those rights.

13. What is a market transaction (trade)? Do not give me an example of a market transaction, but rather tell me what a transaction is, and what properties it must have to be a market transaction. How does a market transaction differ from other types of transactions? Now, give me an example of a market transaction. Now give me an example of a transaction that is not a market transaction.

14. What is a common property resource? Give me an example of an environmental resource
that is a common property resource. Now provide an example of an environmental resource that is not common property resource.

15. What is a externality? Give me an example of an environmental externality? Give an example of an action by one economic agent that affects another economic agent that is not an externality. Explain why your example is not an externality.

16. Identify for me one of your concerns about the environment, and discuss whether those concerns are efficiency based, equity based or both. Argue that your concerns can be described as efficiency based and/or, equity based, even if you believe they are not. One page or less please.

17. I live in the woods with Goldilocks and three bears. Goldilocks and I recently inherited a bunch of stuff. After receiving the UPS boxes of stuff, we traded our dead relatives’ trinkets until the only exchanges between the two of us that would make one better off would make the other worse. However, if either Goldilocks or I then trade some trinkets for honey both parties to that trade can be made better off without hurting the non-trading person.

Before the trade with the bears, is society’s allocation of stuff efficient? Yes or No and explain.

Now consider another scenario.

I live in the woods with Goldilocks and three bears. Goldilocks and I recently inherited a bunch of stuff. After receiving the UPS boxes of stuff, we traded our dead relatives’ trinkets until the only exchanges between the two of us that would make one better off
would make the other worse. However, if either Goldilocks or I then give the bears some trinkets for some honey, the bears are made better off, but the person is not made better off or worse off by the exchange.

Before the exchange with the bears, is society’s allocation of stuff efficient? Yes or No and explain.