Oct 3, 2005

Name: _____ Pledge (sign): _____

Envr 201 Test #1

Point Total: 100 pts possible

4 pts 1. How long does it take global biodiversity to 'rebound' from a mass extinction event? Circle one:

(a) 1–2 decades
(b) 1–2 human generations
(c) Several centuries
(d) Several millenia
(e) Millions of years

20 pts 2. Define the following terms:

(a) ecosystem

(b) keystone species

(c) ecosystem functioning

(d) ecosystem stability

6 pts 3. List four distinct ecosystem services and briefly describe each.

6 pts 4. What does Aldo Leopold mean when he says that we must learn to ‘think like a mountain?’

8 pts 5. In some detail, summarize Gifford Pinchot’s vision for natural resource conservation.

8 pts 6. Distinguish between *multiple use* and *dominant use* criteria for the management of public land. Give examples of each.

8 pts 7. Vandermeer and Perfecto maintain that small-scale farms are *not* a true cause of rain forest destruction. Explain their reasoning.

8. Gregg Easterbrook has trouble with the fact that the spotted owls are protected by the Endangered Species Act despite the fact that they are actually a subspecies, not a true species.

6 pts (a) What is the difference?

8 pts (b) What is the main biological justification for protecting subspecies?

6 pts 9. What is the importance of an 'umbrella' or 'indicator' species to preservationists?

6 pts 10. (a) What exactly is optimized when a *Pareto optimum* is achieved?

8 pts (b) Explain how cost-benefit analysis (CBA), coupled with the *potential compensation criterion*, leads to a Pareto optimum.

6 pts (c) List three major criticisms of depending too heavily on CBA to guide environmental policy, and briefly describe each item.