

Name: _____ Pledge (sign): _____

Env Studies 201 Test #2

Point Total: 100 pts possible

- 20 pts 1. Pick *four* of the following items, and define each in 1 sentence.
- (a) weak sustainability

 - (b) environmental Kuznets curve

 - (c) common pool resource

 - (d) POPs

 - (e) the Haber process
- 5 pts 2. What key assumption about human behavior is implicit in Hardin's 'tragedy of the commons' and in the Prisoner's Dilemma?
- 5 pts 3. What is Norman Borlaug's main claim to fame?

- 8 pts 4. The authors of *Limits to Growth* state that Earth's natural resources are 'erodable.' What do they mean? What are the consequences of this fact?
- 8 pts 5. Is the demographic transition most consistent with exponential growth, or logistic growth, or neither? Briefly defend your assertion.
- 5 pts 6. (a) What key assumption about human behavior is implicit in Garrett Hardin's 'tragedy of the commons' and in the Prisoner's Dilemma?
- 5 pts (b) What were Hardin's solutions to 'the tragedy of the commons?'
- 8 pts 7. In estimating reserves, petroleum engineers assign a probability to their estimates. Explain the difference between a P90 estimate and a P10 estimate. Which is the larger, more optimistic number?

8 pts 8. (a) List the main technological challenges in implementing the hydrogen economy; be complete.

8 pts (b) Donald Anthrop is skeptical about the hydrogen economy. What are his reasons? And what does he recommend?

8 pts 9. What are Rachel Carson's objections to the use of pesticides in agriculture? List as many as you can; briefly (1 sentence) explain each.

12 pts 10. Choose one of the following and answer in detail.

- (a) Compare and contrast the concepts of sustainability held by the Club of Rome (authors of *Limits to Growth*) and the Brundtland Commission, authors of *Our Common Future*.
- (b) Jesse Ausubel asks the question, 'can technology spare the earth?' What does he conclude? Explain how he justifies his position.