

Name: _____ Pledge (sign): _____

Env Studies 201 Test #2

Point Total: 100 pts possible

8 pts 1. What is the 'IPAT' equation? Briefly: what is its significance in the debate about natural resources?

6 pts 2. (a) Define *sustainable agriculture*.

6 pts (b) What is organic farming?

6 pts 3. (a) What are biofuels?

8 pts (b) What are the potential disadvantages of biofuels? List as many as you can.

10 pts 4. Donald Roberts believes pesticide resistance does not prevent DDT from being an effective control for malaria. What is his reasoning? In your answer, be sure to describe the phenomenon of pesticide resistance.

8 pts 5. (a) What are the defining characteristics of *common pool resources* (CPRs)?

12 pts (b) Economists (and environmentalists) point to CPRs as a situation where the free market does not produce an economically efficient outcome; explain what happens and why the free market fails.

12 pts 6. (a) Vaclav Smil does not believe that organic farming is viable as the sole means of food production, maintaining that about one-third of our food production depends on the Haber process. Elaborate: what is the Haber process, what role does it have in food production, and how does it depend on fossil fuels?

9 pts (b) What negative environmental impacts are associated with the Haber process? *List them*, as many as you can.

- 15 pts 7. Two rebuttals commonly used against neo-Malthusians are the existence of *demographic transitions* and *environmental Kuznets curves*. Explain in detail the nature of these two rebuttals; use figures in your explanation. Also describe how a neo-Malthusian would respond to those rebuttals. Use the back of this sheet if necessary.