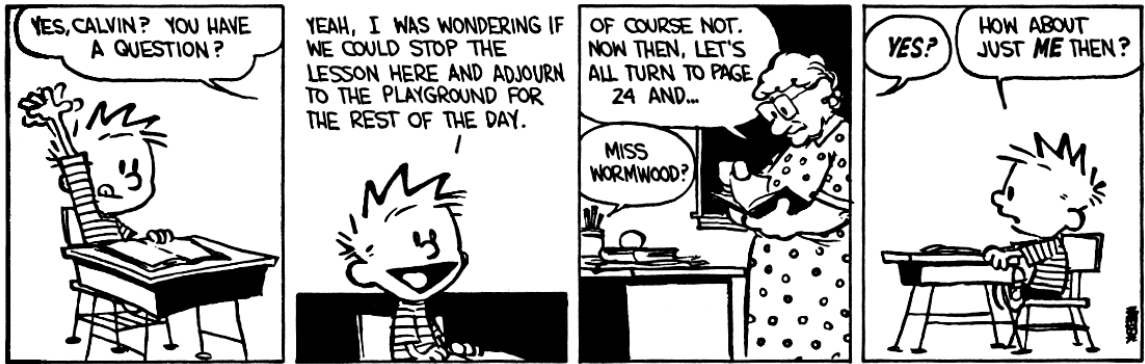


Name _____

BIOL 103 – Fall 2008 – Exam 5

Please do not start until everyone is ready.



1. (8 pts) Using an example (hypothetical, if you wish), explain the concept of “shifting baselines” OR the “tragedy of the commons.”

2. (8 pts) What lesson can we draw from each the history of the Atlantic cod fishery? One sentence is sufficient. Then, in 1-3 sentences describe why the history of that Atlantic cod supports your statement. Do not derive lessons that tell people what they should or shouldn't to.

3. (9 pts) What are chlorofluorocarbons? How do they affect the atmosphere? How might this affect human health?

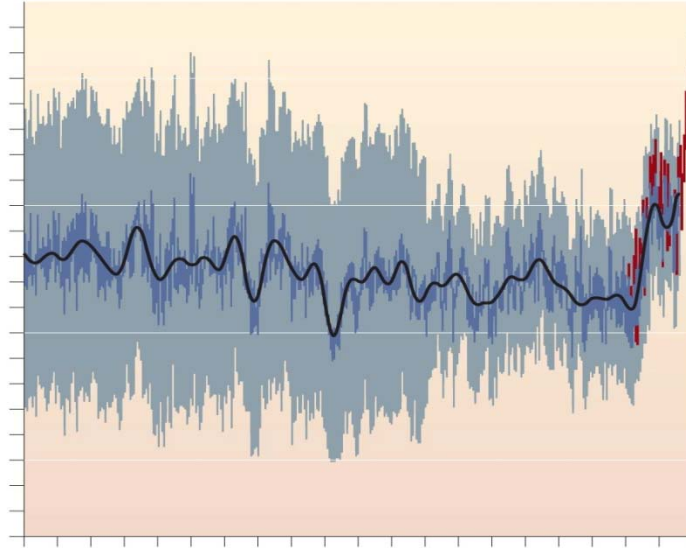
4. (8 pts) The United States EPA is considering a “cap and trade” plan for regulating mercury emissions. How would this work? What disadvantage might this approach have?

5. (8 pts) How are oil fields formed?

6. (8 pts) What is OPEC and why is it influential?

7. (8 pts) What is ANWR? Where is it? And what is the controversy with oil and caribou all about?

8. (8 pts) What is the difference between the amount of oil that is technically recoverable from an oilfield and the amount that is economically recoverable? Which amount is more relevant to an oil company deciding whether to drill for oil in the Arctic?



9. (8 pts) Label the axes of the graph above.

10. (2 pts) How much did the earth warm in the 20th century? _____

11. (12 pts) How do climatologists predict how human actions will affect climate in the future? How do they test the accuracy of these predictions?

12. (10 pts) Describe one method climatologists use to study the climate and/or earth's atmosphere thousands of years ago.

13. (12 pts) What would the consequences be if the arctic sea ice melted?

14. (10 pts) One possible danger associated with global warming is a dramatic cooling of Europe. How could this happen?

15. (10 pts) What is the Kyoto Protocol? Which countries have ratified it? Why is it controversial?