

## UNIT 1 ASSIGNMENTS

### **UNIT 1 EXAM: A-DAY 9/3 B-DAY 9/4**

After reading the following chapters, answer the questions in complete sentences on your own sheet of paper **IN YOUR OWN WORDS**. Do not copy statements directly from the book.

### **Chapter 1: DUE: A-DAY: 8/16 B-DAY: 8/19**

1. What do renewable resource and nonrenewable resources have in common?
2. How are renewable and nonrenewable resources different?
3. Identify two renewable and two nonrenewable resources.
4. What is the “tragedy of commons?”
5. Explain how the concept of the tragedy might apply to unregulated industry that is a source of water pollution.
6. Explain the lesson of Easter Island.
7. What is environmental science?
8. Name several disciplines involved in environmental science.
9. Describe the scientific method. Include the typical sequence of steps.
10. Explain the difference between a manipulative experiment and a natural experiment.
11. What needs to occur before a researcher’s results are published?
12. Why is this process important?
13. Give examples of three major environmental problems in the world today, along with their causes.
14. What is the cornucopian viewpoint?
15. What is the Cassandras viewpoint?
16. What is meant by the “triple bottom line?”

Using what you read in Chapters 1, 2, and 3 and the appropriate format for answering FRQ questions, complete the following on your own sheet of paper **IN YOUR OWN WORDS**. You may need to use other chapters in your book as reference too!

### **Unit 1 Free Response 1: DUE: A-DAY 8/20 B-DAY: 8/21**

For hundreds of year, clams have been dug up along Fremont Beach for food, first by Native Americans, and these days, by tourists. Today, the clam population is at an all-time low, and many scientists agree that clams will inevitably become extinct in Fremont. Dr. Hwang, a marine biologist, believes that in addition to overharvesting, DDT that was dumped into the ocean during the 1950s and 1960s near Fremont Beach could be another factor in the dramatic decrease in the clam population.

- a) Write an argument to explain why the decline in the clam population due to overharvesting could be considered an example of a tragedy of the commons. (\*\*Hint: An argument is at least 4 sentences.)
- b) Discuss two actions that the government could take to prevent further decline of the clam population due to the tragedy of the commons. (\*\*hint: this must be something the government actually has control over, you must identify and describe to earn points)
- c) Design a controlled experiment to support or refute the claim by Dr. Hwang that DDT played a role in the clam’s demise. Include a detailed description of the experiment including:
  - i. A hypothesis (\*\*hint: an if/then statement)
  - ii. The identity of the dependent and independent variables (\*\*hint: iv: what the experimenter is changing, dv: what is being measured)
  - iii. A description of the data to be collected and a description of how controls are to be used in the analysis. (\*\*Hint: what are you going to measure and how, what purpose will your control serve?)

## **Chapter 2: DUE A-DAY: 8/22      B-DAY 8/26**

1. What does the study of ethics encompass?
2. Describe three classical ethical standards.
3. What is environmental ethics?
4. Describe the philosophical perspectives of anthropocentrism.
5. Describe the philosophical perspectives of biocentrism.
6. Describe the philosophical perspectives of ecocentrism.
7. Explain how you would characterize the perspective of the Mirrar Clan? (*look at the case study at the beginning of the chapter*)
8. Differentiate between the preservation ethic and the conservation ethic.
9. Explain the contributions of John Muir and Gifford Pinchot in the history of environmental ethics.
10. Describe Aldo Leopold's "land ethic."
11. How did Leopold define the "community" to which ethical standards should be applied?
12. Define the concept of environmental justice.
13. Name four key contributions the environment makes to the economy.
14. Describe the cost-benefit analysis method.
15. What is an external cost? Give 3 examples.
16. What is Affluenza?
17. Contrast Gross Domestic Product (GDP) with Genuine Progress Indicator (GPI).
18. Give an example of how a specific corporation is responding to sustainability concerns.

## **Chapter 3: DUE A-DAY: 8/27      B-DAY 8/28**

1. What happened/is happening in the San Diego/Tijuana area?
2. Describe two common justifications for environmental policy.
3. Discuss three problems that environmental policy commonly seeks to address.
4. Outline the primary responsibilities of the legislative, executive, and judicial branches of the U.S. government.
5. Name 4 federal administrative agencies that influence environmental policy.
6. What is meant by a *regulatory taking*?
7. Summarize the differences between the first (early), second, and third (today) waves of environmental policy in U.S. history.
8. What approach appears to be the fourth wave?
9. What did the National Environmental Policy Act accomplish?
10. Briefly describe the origin and mission of the U.S. Environmental Protection Agency.
11. What special difficulties do trans-boundary environmental problems present?
12. Why are environmental regulations sometimes considered to be unfair barriers to trade?
13. Compare the roles of the United Nations, the European Union, the World Bank, the World Trade Organization, and nongovernmental organizations. If you could gain the support of just one of these institutions for a policy you favored which would you choose AND why?
14. Describe the environmental policy process, from identification of a problem through enactment of a federal law.
15. What kinds of things can an individual citizen do to become influential in the policymaking process?
16. What are subsidies? Give an example.
17. What are green taxes? Give an example.
18. What is permit-trading? Give an example.
19. What is cap and trade? Give an example.