Chapter 1: Environmental Problems and Society
Test Bank

NOTE: the correct answer to each Multiple Choice, True/False, Short Answer, and Essay Questions are italicized.

Multiple Choice: Choose the BEST answer from the four choices provided.

1. What environmental problem did the “Montreal Protocol” seek to address? (p. 21)
   a) A reduction of chlorofluorocarbons (CFC) production and use implicated in the thinning of the ozone layer
   b) A moratorium on the use of high sulfur coal implicated in acid rain
   c) The need for the United States to establish an Environmental Protection Agency (EPA)
   d) Due process procedures for litigants in environment justice lawsuits

2. The Basel Convention, signed by 105 nations, was an international agreement to control: (p. 32)
   a) the manufacture and export of chlorofluorocarbons (CFCs).
   b) manufacture and export of the banned pesticide DDT.
   c) the international shipment of toxic waste and hazardous material.
   d) the use of high sulfur coal implicated in acid rain.

3. The 1995 Nobel Prize in Chemistry was awarded to three scientists whose work led to discovery of the causes for the thinning of the earth’s atmosphere by chlorofluorocarbons. Which of the following was NOT one of these scientists? (p. 15)
   a) Mario Molina
   b) Paul Crutzen
   c) Sherwood Rowland
   d) Aldo Leopold

4. Which of the following is not a major cause of species extinction? (p. 42)
   a) Habitat loss
   b) Pollution
   c) Deforestation
   d) Poverty

5. The realist-constructionist debate in environmental sociology is characterized by differences in materialist versus idealist explanations of social life. Which of the following distinguishes a constructionist perspective on environment problems? (p. 4)
   a) Environmental problems need to be understood in terms of the threats posed by society’s current ecological relations.
b) There is no difference between the realist and constructionist approaches to environmental problems—they are in agreement.

c) The way we conceptualize and define environmental problems is a key focus.

d) Constructionists do not believe we have environmental problems, rather the concerns are all constructed by alarmists.

6. Ecological dialogue can best be summarized as: (p. 5)
   a) the interrelationship of what we see and feel with what we believe.
   b) discussing the environment.
   c) activism.
   d) powerful actors controlling dialogue.

7. Which of the following is a predicted outcome of continued global warming? (p. 14)
   a) A shift in climate zones
   b) Changes in rainfall patterns
   c) Rising sea levels
   d) All of the above

8. Which type of energy accounts for 31.4% of the world’s energy use, the most of any source? (p. 9)
   a) Nuclear energy
   b) Coal
   c) Oil
   d) Hydropower

9. Scientists from 120 countries signed onto a document issued by the UN Intergovernmental Panel on Climate Change. The conclusion of this Panel was: (p. 15)
   a) average sea level will rise up to two feet by the twenty-second century.
   b) average sea level will rise up to two inches by the twenty-second century.
   c) average sea level will remain steady in the twenty-second century.
   d) there is insufficient evidence to support a hypothesis on global climate change.

10. What function does the upper atmosphere ozone layer serve? (p. 20)
    a) It protects against the sun’s harmful ultraviolet radiation.
    b) Its gases trap heat in the earth’s atmosphere leading to the greenhouse effect.
    c) This atmospheric layer provides a rich source of CFC used as a refrigerant to fuel air conditioning units.
    d) The ozone layer is the source of oxygen needed to breathe.
11. Which renewable energy source has experienced the most consistent global growth?  
   (p. 13)  
   a) Solar  
   b) Hydropower  
   c) Bioenergy  
   d) Wind  

12. What is the major source of chlorofluorocarbons implicated in the thinning ozone layer? (p. 20)  
   a) Chemical chloroforms used in preservation  
   b) The burning of high sulfur coal  
   c) Refrigerants and aerosol can propellants  
   d) Fluoride treatment in municipal water systems  

13. The name “ozone hole” is a misnomer. In reality it is not a hole, but rather: (p. 20)  
   a) two holes, one over the north and one over the south pole.  
   b) seasonal changes in the size of the ozone.  
   c) an irregular shaped formation stretching to the tropics.  
   d) the thinning of the upper atmosphere ozone layer.  

14. Why does the book say there are “two” ozone problems? (p. 20)  
   a) Because there are two sources of the gas implicated in thinning the ozone layer.  
   b) Because there are two kinds of gases implicated in thinning the ozone layer.  
   c) Because there is a thinning of the upper atmosphere ozone layer and increasing ozone at ground level that produces photo-chemical smog.  
   d) Because ozone holes occur in two places above the earth, over the north and south poles.  

15. Smog is responsible for which of the following? (p. 20)  
   a) An estimated 50,000–180,000 premature deaths in the U.S. annually.  
   b) A global reduction in agricultural productivity.  
   c) Extensive damage to forests.  
   d) All of the above.  

16. Environmental good and environmental bad are: (p. 31)  
   a) on the whole, evenly distributed among the peoples of the earth.  
   b) disproportionately distributed so that the middle-class must foot the bill.  
   c) unevenly distributed so that those with the least power get the most pollution.  
   d) distributed in a way that those who gain the most benefit also experience the most cost.  

17. What is the ecological footprint and what does it tell us? (p. 29)
a) The ecological footprint captures carbon emissions. It tells us about global warming.

b) The ecological footprint is an analysis that converts various demands into area. It tells us that we are currently using 1 Earth.

c) The ecological footprint is an analysis that converts various demands into area. It tells us that we are currently using 1.5 Earths.

d) The ecological footprint analyzes different types of energy production. It tells us what percentage of energy we consume from different sources.

18. What, according to your text, is the most erosive force on the planet? (p. 15)
   a) Wind and rain
   b) Toxic chemicals
   c) Animal grazing
   d) Human development

19. The rate of species loss has ____ dramatically since the onset of the industrial revolution. (p. 42)
   a) increased
   b) decreased
   c) oscillated
   d) plummeted

20. Which of the following are examples of habitat loss? (p. 42)
   a) Urban intensification
   b) Drained swamps lands
   c) Anti-pollution policies
   d) All of the above

**True or False:** Please indicate whether the following statements are true or false by circling the correct answer. Note to Instructors: If preparing an exam for electronic grading, these instructions should be modified to instruct students how to fill in their bubble sheets. For example, “Please indicate whether the following statements are true or false by blackening the correct oval, 1 or A for True, 2 or B for False.”

20. True  False  Although there is still some debate about the implications of human induced climate change, climatologists agree that there has been a discernable human influence on global climate. (p. 14)

21. True  False  The text defines the ideal as “how we can bring about a more ecological society through governance, mobilization, and the politics of our everyday lives” (p. 4)
22. True  False  The Material focuses on how consumption, the economy, science, technology, development, population, and the health of our bodies shape our environmental conditions. (p. 4)

23. True  False  According to the text, the ecological dialogue is characterized by how material and ideal dimensions of environment depend upon and interact with each other. (p. 4)

24. True  False  Concerning energy use, “getting more” is challenged by the difficulty of changing individual habits (p. 9)

25. True  False  Release of carbon dioxide from the burning of fossil fuels is the biggest and best known contributor of greenhouse gases. (p. 15)

26. True  False  Increase in “ozone hole” leads to increase in skin cancer rates. (p. 20)

27. True  False  A 2006 study found that over 160,000 Americans die prematurely each year due to fine particulates. (p. 23)

Short Answer: Provide a brief response, not to exceed one paragraph.

28. The author states that “the principle scholarly contribution of the book is the concept of ecological dialogue.” Briefly explain what is meant by ecological dialogue and give an example or illustration. (p. 4)

**ANSWER:** Ecological dialogue is the interrelationship between what we see and feel with what we believe. It is not a matter of what we see is what we know, or what we believe is what we know. Rather, it is a matter of both-together.

29. The author urges us to consider environmental injustices both domestically and internationally. What does he mean by this? Give two examples. (p. 31)

**ANSWER:** Environmental injustice is the uneven distribution of environmental goods and bads. Environmental bads are often distributed in places based on someone’s social heritage (environmental racism), in disenfranchised rural communities, and in poor places. An example of an environmental injustice globally is the Shell Oil Company in Nigeria. An example domestically is New Orleans.

30. What are the two primary ways the author reviews as broad categories to address energy challenges? Give examples. (p. 9)
**ANSWER:** Two primary ways are to produce more energy sustainably versus using less energy (conserving). Examples of producing more energy sustainability would be a discussion of wind or solar. Examples of using less energy would be changing personal habits and coming up with business plans that include conservation (such as insulating buildings).

**Essay:** Provide a comprehensive response, not to exceed two pages. Several questions have more than one part to them; be sure to respond to each part of the question.

31. During the course of this exam, six more species will go extinct. Why? Identify at least three factors that contribute to this loss. Be sure to discuss how these factors are both “material” and “ideal” and draw explicitly upon the concepts from readings and lecture. (p. 40)

**ANSWER:** (1) Habitat loss, example of suburban Sprawl: material—driven by increased populations and economic development; ideal—American ideology suggests that the house and the green lawn are a necessary part of the social experience (2) Pollution: material—demand for more goods, lax regulations; ideal—consumption of unnecessary goods (3) Leaking of global gene pool: material—global travel, GMOs mix genes and species; ideal—global travel as a result of leisure and business, cultural demand of social experience (4) Deforestation: material—trees consumed for technological and material ends (paper, furniture; ideal—moral values make this acceptable by constantly demanding new stylish/practical goods.

32. As an expert in environmental sociology, you have been asked to give a brief speech at a major international conference on the future of the world’s environment. What will you say? Be sure in your speech to say whether we should be optimistic or pessimistic. Justify your answer sociologically, drawing on material from this course.

**ANSWER:** Student should reflect on major issues discussed in the chapter, including but not limited to: energy; global warming; the ozone hole; smog; fine particulates in the air; acid rain; water pollution; groundwater and surface water depletion; soil erosion; soil salinization; farmland loss; and declining agricultural productivity per capita.

**Identification:** Please identify the following key terms, thinkers, and texts. The best identification answers will: 1) provide a succinct definition, explanation, or discussion of the term, thinker, or text; 2) give an example or elaboration; 3) where relevant, note the thinker with whom the term or text is associated, or the terms or texts with which the thinker is associated; and 4) note any closely related concepts or critiques.
Key Sociological Terms
environmental sociology
ecological dialogue
materialist explanations
idealist explanations
realists
constructionists
ecological dialogue
sustainability

environmental justice
beauty of ecology
environmental goods
environmental bads
environmental justice movement
world wealth distribution
social constitution of daily life

Key Environmental Terms
global warming
ozone hole
chlorofluorocarbons (CFCs)
Montreal Protocol
hydrochlorofluorocarbons (HCFCs)
photochemical smog
fine particulates
brown smog
acid rain
soil erosion
salinization
groundwater depletion

waterlogging
water shortages
loss of productive farmland
resistance to pesticides
loss of genetic diversity
desertification
pesticide residues
Basel Convention
toxic waste
social class
loss of species
deforestation

Key Thinkers
Ken Saro-Wiwa
Aldo Leopold
**Matching**: Please match the term, thinker, and/or text in column A with its complement or correspondent in column B, by placing the appropriate identification letter/number in the space provided. (You may use answers more than once.) *Note to Instructors:* Scramble the items in column B before administering an exam. ALSO, if preparing an exam for electronic grading, the above instructions should be modified to instruct students how to fill in their bubble sheets.

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
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<tbody>
<tr>
<td>A Depletion of the ozone layer</td>
<td>UV radiation</td>
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<tr>
<td>B Conservation Reserve Program</td>
<td>Soil conservation</td>
</tr>
<tr>
<td>C Greenhouse effect</td>
<td>Global warming</td>
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<td>D Excess carbon dioxide</td>
<td>The greenhouse effect</td>
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<td>E Second ozone problem</td>
<td>Photochemical smog</td>
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<td>F Erosion</td>
<td>River sedimentation</td>
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<td>G Irrigation</td>
<td>Aquifer depletion</td>
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<td>H Ken Saro-Wiwa</td>
<td>Environmental justice</td>
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