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| **True/False** |

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| 1. There was a backlash against environmental laws and regulations in the 1980s that was led by some who argued that environmental laws were hindering economic growth.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.3 What Causes Environmental Problems? | | *LEARNING OBJECTIVES:* |  | |

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| 2. Ecology is an important component of environmental science. ​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 3. Sustainability is the capacity of the earth’s natural system and human cultural systems to survive, flourish, and adapt to changing environmental conditions in the long-term future. ​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | Core Case Study: Learning From the Earth | | *LEARNING OBJECTIVES:* |  | |

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| 4. Species interactions help prevent any one population from becoming too large. ​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.2 How Are We Affecting the Earth? | | *LEARNING OBJECTIVES:* |  | |

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| 5. Natural resources are considered natural capital, whereas ecosystem services are not.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *DIFFICULTY:* | Bloom’s: Understand | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 6. Exponential growth occurs when a quantity such as the human population increases at a fixed percentage per unit of time, such as 0.5% or 2% per year.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.3 What Causes Environmental Problems? What Causes Environmental Problems? | | *LEARNING OBJECTIVES:* |  | |

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| 7. Government subsidies can actually encourage companies to conduct business in ways that result in environmental degradation.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *DIFFICULTY:* | Bloom’s: Understand | | *REFERENCES:* | 1.3 What Causes Environmental Problems? | | *LEARNING OBJECTIVES:* |  | |

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| 8. In contrast to the life-centered worldview, the human-centered environmental worldview considers all species as having value as participating members of the biosphere regardless of their potential or actual use to humans. ​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.3 What Causes Environmental Problems? | | *LEARNING OBJECTIVES:* |  | |

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| 9. A shift to restore natural capital and reduce its degradation and depletion requires using technology, not lessons from nature.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.2 How Are We Affecting the Earth? | | *LEARNING OBJECTIVES:* |  | |

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| 10. ​Resource use per person is higher in the United States than it is in middle-income countries like China.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.2 How Are We Affecting the Earth? | | *LEARNING OBJECTIVES:* |  | |

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| 11. ​The book Silent Spring, by Rachel Carson, described progress in reducing pollution and showed that pesticides like DDT were no longer a concern due to effective environmental programs.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.4 What is an Environmentally Sustainable Society? | | *LEARNING OBJECTIVES:* |  | |

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| 12. Biodiversity is defined as the variety of genes, organisms, species, and ecosystems and plays an important role in the long-term sustainability of life on Earth.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 13. ​Inexhaustible resources exist in a fixed quantity, or stock, in the earth’s crust.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 14. ​One social science principle of sustainability is that we should leave the planet’s life-support systems in at least as good a condition as that which we now enjoy, if not better, for future generations.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *DIFFICULTY:* | Bloom’s: Understand | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 15. ​The “tragedy of the commons” is a phenomenon that occurs only when the number of users of a resource is small.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.2 How Are We Affecting the Earth? | | *LEARNING OBJECTIVES:* |  | |

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| 16. ​Natural capital degradation is a consequence of living unsustainably.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.2 How Are We Affecting the Earth? | | *LEARNING OBJECTIVES:* |  | |

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| 17. In nature, chemicals are recycled rather than becoming waste.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 18. The per capita ecological footprint is the total ecological footprint for a given country or area.​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.2 How Are We Affecting the Earth? | | *LEARNING OBJECTIVES:* |  | |

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| 19. ​Affluence always has negative environmental effects.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *DIFFICULTY:* | Bloom’s: Understand | | *REFERENCES:* | 1.3 What Causes Environmental Problems? | | *LEARNING OBJECTIVES:* |  | |

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| 20. The “tragedy of the commons” refers to a situation in which the cumulative effect of large numbers of people trying to exploit a widely available or shared resource can degrade it and eventually exhaust or ruin it. ​   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.2 How Are We Affecting the Earth? | | *LEARNING OBJECTIVES:* |  | |

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| **Multiple Choice** |

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| 21. Which term best describes the overall processes provided by healthy ecosystems that support life and human economies at no monetary cost to us? ​   |  |  |  | | --- | --- | --- | |  | a. | ​Biodiversity | |  | b. | ​Chemical nutrient cycling | |  | c. | ​Sustainable principles | |  | d. | ​Natural resources | |  | e. | ​Ecosystem services |  |  |  | | --- | --- | | *ANSWER:* | e | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 22. The field of environmental science is considered interdisciplinary because it \_\_\_\_.​   |  |  |  | | --- | --- | --- | |  | a. | ​involves rigorous study of the environment | |  | b. | ​includes topics that are not explored in other disciplines | |  | c. | ​often assigns responsibility to those who cause environmental degradation | |  | d. | ​is rapidly evolving over time into a different form of science | |  | e. | incorporates work from the fields of biology, chemistry, geology, social sciences, and the humanities​ |  |  |  | | --- | --- | | *ANSWER:* | e | | *DIFFICULTY:* | Bloom’s: Understand | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 23. What is one of the three goals of environmental science, as proposed by your text? ​   |  |  |  | | --- | --- | --- | |  | a. | Reduce affluence | |  | b. | ​Understand how we interact with the environment | |  | c. | ​Acquire a life-centered environmental worldview | |  | d. | ​Enhance environmental degradation | |  | e. | ​Reduce the use of technology |  |  |  | | --- | --- | | *ANSWER:* | b | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 24. Which of the following is the term for the social movement dedicated to sustaining the earth’s life-support system for all forms of life? ​   |  |  |  | | --- | --- | --- | |  | a. | ​Ecology | |  | b. | ​Environmental science | |  | c. | ​Environmentalism | |  | d. | ​Biodiversity management | |  | e. | ​Sustainability |  |  |  | | --- | --- | | *ANSWER:* | c | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 25. Which of the following terms encompasses all of the others listed? ​   |  |  |  | | --- | --- | --- | |  | a. | ​Natural capital | |  | b. | Natural resources | |  | c. | ​Ecosystem services | |  | d. | ​Renewable resources | |  | e. | Nonrenewable resources​ |  |  |  | | --- | --- | | *ANSWER:* | a | | *DIFFICULTY:* | Bloom’s: Understand | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 26. Which of the following is a resource that is both nonrenewable and nonmetallic? ​   |  |  |  | | --- | --- | --- | |  | a. | ​Copper | |  | b. | ​Solar energy | |  | c. | ​Sand | |  | d. | ​Trees | |  | e. | Clean air​ |  |  |  | | --- | --- | | *ANSWER:* | c | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 27. You are installing solar collectors on the roof of your home to reduce your use of propane gas, which you use to heat both your hot water tank and the living spaces in your home. In doing so, you are using a(n) \_\_\_\_ resource rather than a(n) \_\_\_\_ resource. ​   |  |  |  | | --- | --- | --- | |  | a. | renewable; nonrenewable​ | |  | b. | ​inexhaustible; renewable | |  | c. | ​renewable; inexhaustible | |  | d. | ​nonrenewable; renewable | |  | e. | inexhaustible; nonrenewable​ |  |  |  | | --- | --- | | *ANSWER:* | e | | *DIFFICULTY:* | Bloom’s: Apply | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 28. ​One reason biodiversity is such an important aspect of sustainability is that it \_\_\_\_.   |  |  |  | | --- | --- | --- | |  | a. | ​maintains a ready supply of new materials for water, soil, and food | |  | b. | ​is the ultimate source of energy for plants | |  | c. | ​provides vital ecosystem services through the interactions among species and keeps any population from growing too large | |  | d. | makes life less susceptible to constant adaptation and changing environmental conditions​ | |  | e. | increases ecotourism in less developed countries​ |  |  |  | | --- | --- | | *ANSWER:* | c | | *DIFFICULTY:* | Bloom’s: Analyze | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 29. Which process best illustrates an ecosystem service? ​   |  |  |  | | --- | --- | --- | |  | a. | Natural gas fracking | |  | b. | ​Pollution cleanup | |  | c. | ​Water purification | |  | d. | ​Oil mining | |  | e. | Soil erosion​ |  |  |  | | --- | --- | | *ANSWER:* | c | | *DIFFICULTY:* | Bloom’s: Apply | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 30. Which term describes the capacity of the earth’s natural systems to sustain life and the ability of human economic systems to survive or adapt indefinitely as environmental conditions change? ​   |  |  |  | | --- | --- | --- | |  | a. | ​Appropriate use of resources | |  | b. | ​Ecological management | |  | c. | ​Sustainability | |  | d. | ​Preservationism | |  | e. | ​Environmentalism |  |  |  | | --- | --- | | *ANSWER:* | c | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 31. Which of the following is a branch of biology that focuses on interactions between living organisms and both the living and nonliving components of their environments? ​   |  |  |  | | --- | --- | --- | |  | a. | ​Ecology | |  | b. | ​Sustainability research | |  | c. | ​Environmentalism | |  | d. | ​Engineering | |  | e. | Geography |  |  |  | | --- | --- | | *ANSWER:* | a | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 32. Why is there such little waste in nature? ​   |  |  |  | | --- | --- | --- | |  | a. | ​The sun is an inexhaustible resource. | |  | b. | ​Organisms naturally avoid activities that create unnecessary waste. | |  | c. | ​The wastes and decayed bodies of any organism become nutrients or raw materials for other organisms. | |  | d. | The earth is so vast that natural waste is not easily identified. ​ | |  | e. | ​Waste is chemically unstable. |  |  |  | | --- | --- | | *ANSWER:* | c | | *DIFFICULTY:* | Bloom’s: Analyze | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 33. Your text refers to the dependence on solar energy, biodiversity, and chemical cycling as three major \_\_\_\_.​   |  |  |  | | --- | --- | --- | |  | a. | ​resource guidelines | |  | b. | ​ecological footprints | |  | c. | ​environmental tenets | |  | d. | ​scientific principles of sustainability | |  | e. | preservationist goals​ |  |  |  | | --- | --- | | *ANSWER:* | d | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 34. ​Which of the following is a natural resource, not an ecosystem service?   |  |  |  | | --- | --- | --- | |  | a. | ​Water purification | |  | b. | ​Food production | |  | c. | ​Land | |  | d. | ​Waste treatment | |  | e. | ​Soil renewal |  |  |  | | --- | --- | | *ANSWER:* | c | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 35. Which resource is nonrenewable? ​   |  |  |  | | --- | --- | --- | |  | a. | ​Geothermal energy | |  | b. | ​Solar energy | |  | c. | ​Freshwater | |  | d. | ​Copper | |  | e. | trees​ |  |  |  | | --- | --- | | *ANSWER:* | d | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 36. According to the \_\_\_\_, all species have value as participating members of the biosphere, regardless of their potential or actual use to humans. ​   |  |  |  | | --- | --- | --- | |  | a. | ​human-centered environmental worldview | |  | b. | ​earth-centered environmental worldview | |  | c. | ​life-centered environmental worldview | |  | d. | ​sun-centered environmental worldview | |  | e. | geo-centered environmental worldview​ |  |  |  | | --- | --- | | *ANSWER:* | c | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.3 What Causes Environmental Problems? | | *LEARNING OBJECTIVES:* |  | |

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| 37. Oil is a(n) \_\_\_\_.​   |  |  |  | | --- | --- | --- | |  | a. | ​nonrenewable resource because it cannot be formed on human time scales | |  | b. | ​renewable resource because it can be renewed through human processes | |  | c. | ​inexhaustible resource because it is a form of stored solar energy | |  | d. | ​ecosystem service because oil is a valuable commodity | |  | e. | ​renewable resource because it can be used to make fertilizers that restore soil fertility |  |  |  | | --- | --- | | *ANSWER:* | a | | *DIFFICULTY:* | Bloom’s: Understand | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 38. Middle-income countries such as India and China may have low \_\_\_\_, but they have a high \_\_\_\_.​   |  |  |  | | --- | --- | --- | |  | a. | ​population size; population growth rate | |  | b. | ​overall environmental impact; population growth rate | |  | c. | ​population size; resource use per person | |  | d. | ​overall environmental impact; resource use per person | |  | e. | resource use per person; overall environmental impact​ |  |  |  | | --- | --- | | *ANSWER:* | e | | *DIFFICULTY:* | Bloom’s: Apply | | *REFERENCES:* | 1.3 What Causes Environmental Problems? | | *LEARNING OBJECTIVES:* |  | |

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| 39. One of the three additional principles of sustainability mentioned in the textbook describes the use of \_\_\_\_\_ to give consumers more information about the harmful environmental impact of products.   |  |  |  | | --- | --- | --- | |  | a. | ​biodiversifying | |  | b. | ​hidden appraisals | |  | c. | ​subsidizing | |  | d. | ​full-cost pricing | |  | e. | external valuations​ |  |  |  | | --- | --- | | *ANSWER:* | d | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 40. About 83% of the world’s human population lives in \_\_\_\_.​   |  |  |  | | --- | --- | --- | |  | a. | ​nations with high average income per person | |  | b. | the United States, Japan, Australia, and Germany | |  | c. | ​more-developed countries | |  | d. | ​less-developed countries | |  | e. | environmentally-sustainable societies |  |  |  | | --- | --- | | *ANSWER:* | d | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 41. Which of the following resources is nonrenewable?​   |  |  |  | | --- | --- | --- | |  | a. | ​Groundwater | |  | b. | ​Trees in a forest | |  | c. | ​Solar energy | |  | d. | ​Oil | |  | e. | ​Fish populations |  |  |  | | --- | --- | | *ANSWER:* | d | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 42. Which of the following affects about 83% of the earth’s surface, excluding Antarctica?   |  |  |  | | --- | --- | --- | |  | a. | ​The presence of cities | |  | b. | Human activities in general | |  | c. | ​Agricultural use | |  | d. | ​Landfills and waste disposal | |  | e. | Occupation by power plants |  |  |  | | --- | --- | | *ANSWER:* | b | | *DIFFICULTY:* | Bloom’s: Apply | | *REFERENCES:* | 1.2 How Are We Affecting the Earth? | | *LEARNING OBJECTIVES:* |  | |

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| 43. On human time scales, nonrenewable resources \_\_\_\_.​   |  |  |  | | --- | --- | --- | |  | a. | ​may be considered inexhaustible | |  | b. | ​can never be recycled | |  | c. | ​are replenished by natural processes within hours | |  | d. | are used without ever becoming depleted​ | |  | e. | ​can be depleted much faster than nature can form them |  |  |  | | --- | --- | | *ANSWER:* | e | | *DIFFICULTY:* | Bloom’s: Understand | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 44. ​Sustainable yield is the highest rate at which we can use a(n) \_\_\_\_ indefinitely without reducing its available supply.   |  |  |  | | --- | --- | --- | |  | a. | ​renewable resource | |  | b. | ​fossil fuel | |  | c. | solar ​energy | |  | d. | mineral resource​ | |  | e. | ​nonrenewable resource |  |  |  | | --- | --- | | *ANSWER:* | a | | *DIFFICULTY:* | Bloom’s: Understand | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 45. The “tragedy of the commons” refers to the \_\_\_\_.​   |  |  |  | | --- | --- | --- | |  | a. | ​overuse of privately held resources | |  | b. | ​degradation of shared common resources | |  | c. | ​human deaths resulting polluted shared resources such as air or water | |  | d. | ​government over-regulation of fresh water use | |  | e. | ​use of nonrenewable resources |  |  |  | | --- | --- | | *ANSWER:* | b | | *DIFFICULTY:* | Bloom’s: Understand | | *REFERENCES:* | 1.2 How Are We Affecting the Earth? | | *LEARNING OBJECTIVES:* |  | |

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| 46. In many parts of the world, renewable forests are shrinking and topsoil is eroding. This fact is evidence that \_\_\_\_.​   |  |  |  | | --- | --- | --- | |  | a. | ​all forms of technology increase environmental impacts | |  | b. | ​affluence has no impact on the health of the environment | |  | c. | ​point sources of pollution are easy to identify | |  | d. | ​the market prices of goods include the harmful environmental costs of producing them | |  | e. | ​we are living unsustainably |  |  |  | | --- | --- | | *ANSWER:* | e | | *DIFFICULTY:* | Bloom’s: Analyze | | *REFERENCES:* | 1.2 How Are We Affecting the Earth? | | *LEARNING OBJECTIVES:* |  | |

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| 47. The term “ecological footprint” can best be described as the \_\_\_\_.​   |  |  |  | | --- | --- | --- | |  | a. | ​average size of the lot on which a family home is built | |  | b. | ​number of acres necessary to grow enough food to support a family | |  | c. | ​geographic area in which a person travels during the course of their average daily activities | |  | d. | ​amount of land and water needed to supply a population or an area with renewable resources and to absorb and recycle the wastes and pollution produced by such resource use | |  | e. | ​amount of tillable agricultural land necessary to supply the food requirements of a nation |  |  |  | | --- | --- | | *ANSWER:* | d | | *DIFFICULTY:* | Bloom’s: Understand | | *REFERENCES:* | 1.2 How Are We Affecting the Earth? | | *LEARNING OBJECTIVES:* |  | |

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| 48. A country’s ecological footprint is larger than its biological capacity to replenish its renewable resources and absorb the resulting waste and pollution. What can be said about this country? ​   |  |  |  | | --- | --- | --- | |  | a. | ​It has an ecological deficit. | |  | b. | ​It must not have any natural capital. | |  | c. | ​It is a sustainable society. | |  | d. | ​It is most likely a developing country. | |  | e. | It can be described as preservationist. ​ |  |  |  | | --- | --- | | *ANSWER:* | a | | *DIFFICULTY:* | Bloom’s: Apply | | *REFERENCES:* | 1.2 How Are We Affecting the Earth? | | *LEARNING OBJECTIVES:* |  | |

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| 49. Which activity is an example of environmental degradation?​   |  |  |  | | --- | --- | --- | |  | a. | ​Using solar power at a rapid rate | |  | b. | ​Growing crops for food | |  | c. | ​Cutting trees for wood products faster than the trees can regrow | |  | d. | ​Harvesting fish at a sustainable rate | |  | e. | Using groundwater at the same rate it is replenished​ |  |  |  | | --- | --- | | *ANSWER:* | c | | *DIFFICULTY:* | Bloom’s: Apply | | *REFERENCES:* | 1.2 How Are We Affecting the Earth? | | *LEARNING OBJECTIVES:* |  | |

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| 50. The IPAT model calculates the environmental impact of human activities based on \_\_\_\_.​   |  |  |  | | --- | --- | --- | |  | a. | ​policy, adaptation, and cultural traditions | |  | b. | ​pollution, adaptation, and trade practices | |  | c. | ​pollution, agriculture, and technology | |  | d. | ​population size, agriculture, and trade practices | |  | e. | ​population size, affluence, and technology |  |  |  | | --- | --- | | *ANSWER:* | e | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.2 How Are We Affecting the Earth? | | *LEARNING OBJECTIVES:* |  | |

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| 51. ​The term for the ability of an area’s ecosystems to regenerate renewable resources of a given region within a given time and to absorb related pollution and wastes is \_\_\_\_.   |  |  |  | | --- | --- | --- | |  | a. | sustainability​ | |  | b. | ​ecosystem management | |  | c. | ​biocapacity | |  | d. | ​natural capital | |  | e. | Responsibility of the commons​ |  |  |  | | --- | --- | | *ANSWER:* | c | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.2 How Are We Affecting the Earth? | | *LEARNING OBJECTIVES:* |  | |

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| 52. Which of the following is the best definition of an ecological deficit?​   |  |  |  | | --- | --- | --- | |  | a. | ​The number of open-access resources is lower than needed for a specific area | |  | b. | ​The total ecological footprint of an area is greater than its biocapacity | |  | c. | ​The per capita ecological footprint is greater than the ecosystem services | |  | d. | ​The population of an area is growing without improving sustainability | |  | e. | ​The ecological services in an area are lower than the natural capital available |  |  |  | | --- | --- | | *ANSWER:* | b | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.2 How Are We Affecting the Earth? | | *LEARNING OBJECTIVES:* |  | |

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| 53. Which of the following describes worrying changes occurring in the environment worldwide? ​   |  |  |  | | --- | --- | --- | |  | a. | ​Lowering sea levels and increased rainfall | |  | b. | ​Increases in ice cover | |  | c. | ​Increasing ocean alkalinity | |  | d. | ​Increases in permafrost cover | |  | e. | ​More intense droughts, and rivers that are running dry |  |  |  | | --- | --- | | *ANSWER:* | e | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.3 What Causes Environmental Problems? | | *LEARNING OBJECTIVES:* |  | |

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| 54. Of the choices below, which is the best example of an open-access resource?​   |  |  |  | | --- | --- | --- | |  | a. | An individual home​ | |  | b. | ​Resources with shared ownership, such as aquifers | |  | c. | National parks | |  | d. | ​Fish in the open ocean | |  | e. | farmland​ |  |  |  | | --- | --- | | *ANSWER:* | d | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.2 How Are We Affecting the Earth? | | *LEARNING OBJECTIVES:* |  | |

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| 55. ​What term refers to the average ecological footprint of an individual in a given country or area?   |  |  |  | | --- | --- | --- | |  | a. | ​Ecosystem service | |  | b. | ​Natural capital | |  | c. | ​Unsustainable yield | |  | d. | ​Mean of the commons | |  | e. | ​Per capita ecological footprint |  |  |  | | --- | --- | | *ANSWER:* | e | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.2 How Are We Affecting the Earth? | | *LEARNING OBJECTIVES:* |  | |

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| 56. Which of the following contributes most to sustainability?​   |  |  |  | | --- | --- | --- | |  | a. | ​Abundant use of resources | |  | b. | ​Distribution of poverty | |  | c. | ​Rapid population growth | |  | d. | ​Inclusion of environmental and health costs in market prices | |  | e. | ​Natural capital degradation |  |  |  | | --- | --- | | *ANSWER:* | d | | *DIFFICULTY:* | Bloom’s: Understand | | *REFERENCES:* | 1.3 What Causes Environmental Problems? | | *LEARNING OBJECTIVES:* |  | |

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| 57. What is one environmental benefit of affluence?​   |  |  |  | | --- | --- | --- | |  | a. | ​Increasing wealth allows for an increased capacity for resource consumption. | |  | b. | ​Increased wealth provides resources to apply toward the creation of environmentally beneficial technologies. | |  | c. | Increasing affluence often leads to a desire to travel widely and frequently in order to see the world.​ | |  | d. | ​Increasing affluence in developed nations leads to increased affluence in less-developed countries. | |  | e. | Increasing affluence results in less consumption in all countries.​ |  |  |  | | --- | --- | | *ANSWER:* | b | | *DIFFICULTY:* | Bloom’s: Understand | | *REFERENCES:* | 1.3 What Causes Environmental Problems? | | *LEARNING OBJECTIVES:* |  | |

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| 58. Which factor is a major contributor to the degradation of natural capital associated with the pricing of consumable goods?​   |  |  |  | | --- | --- | --- | |  | a. | Consumable goods are priced in such a way that they do not reflect the environmental damage caused by their production.​ | |  | b. | ​Consumable goods are priced in such a way as to allow even those in poverty in developing nations to acquire them. | |  | c. | ​Consumable goods are priced in such a way as to offset harmful environmental and health costs. | |  | d. | ​Consumers are typically aware of the kinds of environmental damage resulting from the production of the item. | |  | e. | ​Consumers in some local cultures purchase items that are expensive because of the social status it brings. |  |  |  | | --- | --- | | *ANSWER:* | a | | *DIFFICULTY:* | Bloom’s: Analyze | | *REFERENCES:* | 1.3 What Causes Environmental Problems? | | *LEARNING OBJECTIVES:* |  | |

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| 59. About 900 million people live in extreme poverty, struggling to live on the equivalent of less than \_\_\_\_ a day.​   |  |  |  | | --- | --- | --- | |  | a. | ​$1.90 | |  | b. | ​$5.00 | |  | c. | ​$7.50 | |  | d. | ​$10.00 | |  | e. | $25.00 |  |  |  | | --- | --- | | *ANSWER:* | a | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.3 What Causes Environmental Problems? | | *LEARNING OBJECTIVES:* |  | |

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| 60. ​Which worldview proposes that we can and should manage the earth for our own benefit, but that we have an ethical responsibility to be caring and responsible managers of the earth?   |  |  |  | | --- | --- | --- | |  | a. | ​Planetary management worldview | |  | b. | ​Stewardship worldview | |  | c. | ​Environmental wisdom worldview | |  | d. | ​Earth-centered worldview | |  | e. | ​Life-centered worldview |  |  |  | | --- | --- | | *ANSWER:* | b | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.3 What Causes Environmental Problems? | | *LEARNING OBJECTIVES:* |  | |

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| 61. As of 2014, the world population is about \_\_\_\_.​   |  |  |  | | --- | --- | --- | |  | a. | ​3.0 billion people | |  | b. | ​5.0 billion people | |  | c. | ​7.0 billion people | |  | d. | ​9.0 million people | |  | e. | ​10.0 billion people |  |  |  | | --- | --- | | *ANSWER:* | c | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.3 What Causes Environmental Problems? | | *LEARNING OBJECTIVES:* |  | |

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| 62. Between 1930 and 2011, the global human population has increased from \_\_\_\_ to \_\_\_\_.​   |  |  |  | | --- | --- | --- | |  | a. | ​100 million; 250 million | |  | b. | ​500 million; 1 billion | |  | c. | ​1.5 billion; 3 billion | |  | d. | ​2 billion; 7 billion | |  | e. | ​7 billion; 16 billion |  |  |  | | --- | --- | | *ANSWER:* | d | | *DIFFICULTY:* | Bloom’s: Understand | | *REFERENCES:* | 1.3 What Causes Environmental Problems? | | *LEARNING OBJECTIVES:* |  | |

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| 63. Which school of thought argued that public lands should be managed wisely and scientifically, primarily to provide resources for people?​   |  |  |  | | --- | --- | --- | |  | a. | ​Preservationist school | |  | b. | ​Earth-centered school | |  | c. | ​Traditional school | |  | d. | ​Conservationist school | |  | e. | ​Commons school |  |  |  | | --- | --- | | *ANSWER:* | d | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.3 What Causes Environmental Problems? | | *LEARNING OBJECTIVES:* |  | |

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| 64. ​Which of the following describes an example of living sustainably?   |  |  |  | | --- | --- | --- | |  | a. | ​A city lives at its biocapacity and consumes natural capital without replenishment. | |  | b. | ​A city lives off of its natural income and preserves and replenishes natural capital. | |  | c. | ​A city relies heavily on fossil fuels. | |  | d. | ​A city has a substantial recycling program even though it generates far more waste than it recycles. | |  | e. | A city uses natural capital and renewable resources with a rapidly growing ecological footprint​. |  |  |  | | --- | --- | | *ANSWER:* | b | | *DIFFICULTY:* | Bloom’s: Understand | | *REFERENCES:* | 1.4 What is an Environmentally Sustainable Society? | | *LEARNING OBJECTIVES:* |  | |

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| 65. Ecological footprint models have been used since the \_\_\_\_ .​   |  |  |  | | --- | --- | --- | |  | a. | 2000s | |  | b. | ​1990s | |  | c. | ​1970s | |  | d. | 1800s | |  | e. | 1500s |  |  |  | | --- | --- | | *ANSWER:* | b | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.4 What is an Environmentally Sustainable Society? | | *LEARNING OBJECTIVES:* |  | |

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| 66. ​A resource that cannot be diminished by overuse and does not need to be replenished, such as solar energy, is called a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.   |  |  | | --- | --- | | *ANSWER:* | ​inexhaustible resource | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 67. The three scientific principles of sustainability are chemical cycling, use of solar energy, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.​   |  |  | | --- | --- | | *ANSWER:* | biodiversity  biologic diversity | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 68. A(n ) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a set of organisms within a defined area of land or volume of water that interact with one another and with their environment of nonliving matter and energy.​   |  |  | | --- | --- | | *ANSWER:* | ecosystem​ | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 69. ​\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the biological science that studies how living things interact with one another and with their environment.   |  |  | | --- | --- | | *ANSWER:* | ​Ecology | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 70. Renewal of topsoil is an example of a key \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.   |  |  | | --- | --- | | *ANSWER:* | ecosystem service | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 71. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are processes provided by healthy ecosystems that support life and human economies at no monetary cost to us.​   |  |  | | --- | --- | | *ANSWER:* | ​Ecosystem services | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 72. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy is provided by the sun.​   |  |  | | --- | --- | | *ANSWER:* | ​Solar | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 73. ​ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ refers to the circulation of chemicals through organisms and back to the environment.   |  |  | | --- | --- | | *ANSWER:* | ​Chemical cycling  Nutrient cycling | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 74. ​\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ includes the natural resources and ecosystem services that keep us and other species alive and support human economies.   |  |  | | --- | --- | | *ANSWER:* | Natural capital​ | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 75. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy is heat from the earth.   |  |  | | --- | --- | | *ANSWER:* | Geothermal​ | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.2 How Are We Affecting the Earth? | | *LEARNING OBJECTIVES:* |  | |

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| 76. ​Win-\_\_\_\_ solutions are based on compromise in light of our interdependence, and they benefit both people and the environment.   |  |  | | --- | --- | | *ANSWER:* | win​ | | *DIFFICULTY:* | Bloom’s: Understand | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 77. Freshwater is an example ofa(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ resource.​   |  |  | | --- | --- | | *ANSWER:* | renewable​ | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 78. ​\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ resources exist in a fixed quantity, or stock, in the earth’s crust.   |  |  | | --- | --- | | *ANSWER:* | Nonrenewable  Exhaustible | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 79. The average ecological footprint of an individual in a given country or area is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ecological footprint.​   |  |  | | --- | --- | | *ANSWER:* | per capita​ | | *DIFFICULTY:* | Bloom’s: Understand | | *REFERENCES:* | 1.2 How Are We Affecting the Earth? | | *LEARNING OBJECTIVES:* |  | |

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| 80. ​Major causes of the environmental problems we face are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, wasteful and unsustainable resource use, poverty, failure to include the harmful environmental and health costs of goods and services in their market prices, and increasing isolation from nature.   |  |  | | --- | --- | | *ANSWER:* | population growth  population​  increased population | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.3 What Causes Environmental Problems? | | *LEARNING OBJECTIVES:* |  | |

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| 81. ​Natural capital is comprised of natural resources and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.   |  |  | | --- | --- | | *ANSWER:* | ​ecosystem services | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* | . | |

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| 82. Your \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is your set of assumptions and values reflecting how you think the world works and what you think your role in the world should be.​   |  |  | | --- | --- | | *ANSWER:* | ​environmental worldview | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.3 What Causes Environmental Problems? | | *LEARNING OBJECTIVES:* |  | |

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| 83. ​Soil erosion is an example of natural capital \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.   |  |  | | --- | --- | | *ANSWER:* | degradation | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.2 How Are We Affecting the Earth? | | *LEARNING OBJECTIVES:* |  | |

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| 84. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ school, led by naturalist John Muir, wanted wilderness areas on some public lands to be left untouched.​   |  |  | | --- | --- | | *ANSWER:* | preservationist​ | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.3 What Causes Environmental Problems? | | *LEARNING OBJECTIVES:* |  | |

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| 85. ​\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the study of varying beliefs about what is right and wrong with how we treat the environment.   |  |  | | --- | --- | | *ANSWER:* | ​Environmental ethics | | *DIFFICULTY:* | Bloom’s: Remember | | *REFERENCES:* | 1.3 What Causes Environmental Problems? | | *LEARNING OBJECTIVES:* |  | |

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| **Subjective Short Answer** |

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| 86. Why is chemical cycling necessary for life on the earth?​   |  |  | | --- | --- | | *ANSWER:* | The earth receives a continuous supply of energy from the sun, but it receives no new supplies of life-supporting chemicals. Organisms must continually recycle the chemicals they need in order to survive. | | *DIFFICULTY:* | Bloom’s: Analyze | | *REFERENCES:* | 1.1 What Are Some Key Principles of Sustainability? | | *LEARNING OBJECTIVES:* |  | |

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| 87. What does it means to live off the earth’s natural income?​   |  |  | | --- | --- | | *ANSWER:* | ​Living off the earth’s natural income requires sustainable reliance on renewable resources, such that the earth’s natural capital is not depleted. | | *DIFFICULTY:* | Bloom’s: Understand | | *REFERENCES:* | 1.4 What is an Environmentally Sustainable Society? | | *LEARNING OBJECTIVES:* |  | |

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| ​   Figure 1.12  **Use the accompanying figure to answer the following questions.** |

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| 88. ​According to the figure, what effect did the Industrial Revolution have on population growth?   |  |  | | --- | --- | | *ANSWER:* | ​The population began to increase more rapidly during the Industrial Revolution. | | *DIFFICULTY:* | Bloom’s: Apply | | *REFERENCES:* | 1.3What Causes Environmental Problems? | | *PREFACE NAME:* | Figure 1.12 | | *LEARNING OBJECTIVES:* |  | |

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| 89. What changes first led to more rapid increases in population growth?   |  |  | | --- | --- | | *ANSWER:* | ​The population first began to increase more rapidly during the agricultural revolution, then began to increase even more rapidly during the Industrial Revolution. | | *DIFFICULTY:* | Bloom’s: Apply | | *REFERENCES:* | 1.3What Causes Environmental Problems? | | *PREFACE NAME:* | Figure 1.12 | | *LEARNING OBJECTIVES:* |  | |

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| 90. Why are there multiple dotted lines from about 2000 to 2100, rather than a single line?   |  |  | | --- | --- | | *ANSWER:* | ​These dotted lines represent multiple projections from different models that predict stabilization at different population sizes. | | *DIFFICULTY:* | Bloom’s: Apply | | *REFERENCES:* | 1.3What Causes Environmental Problems? | | *PREFACE NAME:* | Figure 1.12 | | *LEARNING OBJECTIVES:* |  | |

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| 91. ​From knowing that countries have relatively similar population sizes, such as the United States and Indonesia on the figure, can you predict whether they will have similar environmental impacts? Why or why not?   |  |  | | --- | --- | | *ANSWER:* | ​No, because some countries have higher per capita resource use than others. | | *DIFFICULTY:* | Bloom’s: Apply | | *REFERENCES:* | 1.3 What Causes Environmental Problems? How Are We Affecting the Earth? | | *PREFACE NAME:* | Figure 1.12 | | *LEARNING OBJECTIVES:* |  | |

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| 92. Clearly describe how affluence can have both harmful and beneficial environmental effects.​   |  |  | | --- | --- | | *ANSWER:* | The typical lifestyles of the citizens of developed nations are built on high levels of consumption and unsustainable use of natural resources. This type of affluence has an enormously harmful environmental impact.  ​  On the other hand, affluence can lead people to become more educated, environmentally aware, and concerned. It also provides money for the development of improved technologies that can help to reduce pollution, resource waste, and environmental degradation. | | *DIFFICULTY:* | Bloom’s: Analyze | | *REFERENCES:* | 1.3 What Causes Environmental Problems? | | *LEARNING OBJECTIVES:* |  | |

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| 93. ​Explain how poverty drives population growth.   |  |  | | --- | --- | | *ANSWER:* | ​To many poor people, having more children is a matter of survival. Children are effectively the labor force for a poor family, helping with crop tending, gathering wood or fuel, hauling water and livestock tending. Children also help to care for their aging parents, most of whom do not have social security, health care, and retirement funds. This daily struggle for survival is largely why populations in some of the poorest countries continue to grow at high rates. | | *DIFFICULTY:* | Bloom’s: Analyze | | *REFERENCES:* | 1.3 What Causes Environmental Problems? | | *LEARNING OBJECTIVES:* |  | |

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| 94. How did using biomimicry help in developing a new tape based on gecko feet?   |  |  | | --- | --- | | *ANSWER:* | Biomimicry means understanding, mimicking, and cataloging ways that living organisms solve problems in order to develop solutions to human problems. For example, understanding the structure and function of gecko feet helped in the development of a toxin-free “gecko tape.” | | *DIFFICULTY:* | Bloom’s: Understand | | *REFERENCES:* | Core Case Study: Learning From the Earth | | *LEARNING OBJECTIVES:* |  | |

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| 95. ​Explain how the “T” in the IPAT model can be either beneficial or harmful.   |  |  | | --- | --- | | *ANSWER:* | The “T” in the IPAT model stands for “technology.” Technology can create pollution and cause damage, as when power plants cause pollution, or can help provide solutions to reduce environmental impacts.​ | | *DIFFICULTY:* | Bloom’s: Analyze | | *REFERENCES:* | 1.2 How Are We Affecting the Earth? | | *LEARNING OBJECTIVES:* |  | |