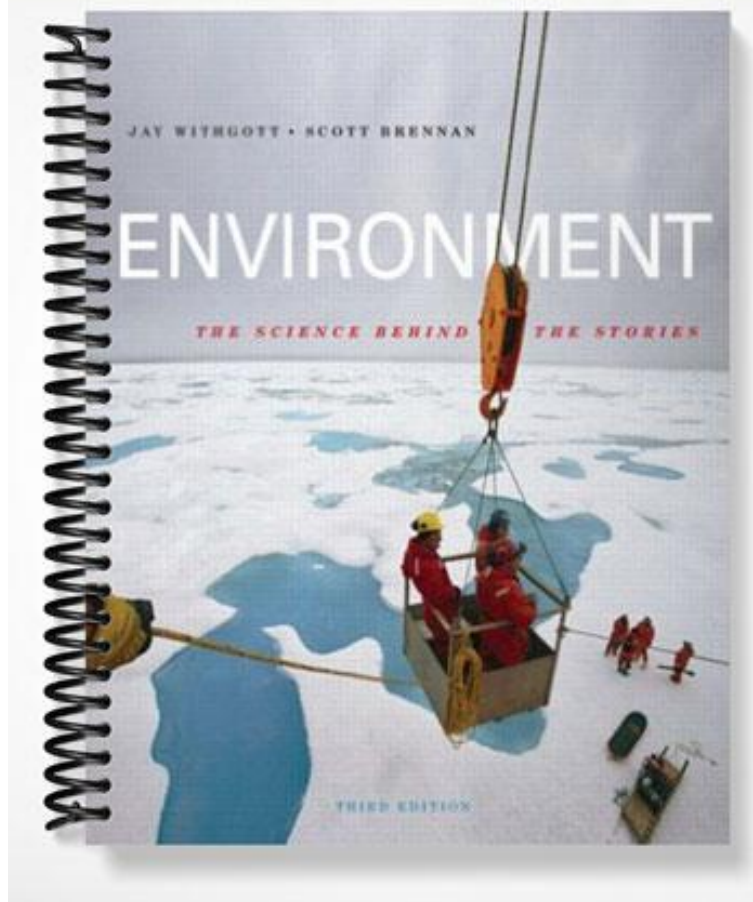


**TEST BANK**



## Chapter 2 Environmental Ethics and Economics: Values and Choices

### 2.1 Graph and Figure Interpretation Questions

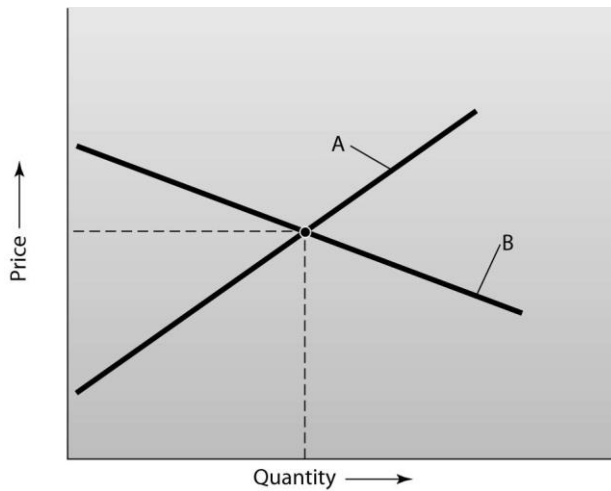


Figure 2.1

Use Figure 2.1 to answer the following questions.

- 1) The intersection of the 2 lines (the middle of the "X") on the graph represents \_\_\_\_\_.
- A) the maximum price buyers will pay for goods and services
  - B) the minimum price buyers will pay for goods and services
  - C) the maximum quantity of goods and services that a company can produce
  - D) the minimum quantity of goods and services that a company can produce
  - E) market equilibrium

Answer: E

Diff: 2

Objective: 2.3 Economic theory

- 2) The graph successfully illustrates \_\_\_\_\_.
- A) marginal benefit and cost curves
  - B) the costs of resource use and pollution reduction
  - C) internal and external costs associated with market economies
  - D) how price is determined by supply and demand
  - E) how price falls when demand is high

Answer: D

Diff: 1

Objective: 2.3 Economic theory

- 3) If a non-renewable resource such as oil suddenly became scarce while demand remained constant, the intersection of the lines on the graph would \_\_\_\_\_.
- A) move up on line B
  - B) move down on line B
  - C) move up on line A
  - D) move down on line A
  - E) remain unchanged

Answer: A

Diff: 3

Objective: 2.3 Economic theory

## 2.2 Matching Questions

*Match the following.*

- 1) Ecocentrist and anthropocentrist who argued that we should protect America's natural environment in its pristine, unaltered state

Diff: 2

Objective: 2.2 Evolution of environmental ethics

- 2) Conservationist who advocated protection of nature for its beauty and usefulness; founder of the U.S. Forest Service

Diff: 2

Objective: 2.2 Evolution of environmental ethics

- 3) American transcendentalist writer who viewed nature as a direct manifestation of the divine

Diff: 2

Objective: 2.2 Evolution of environmental ethics

- 4) Proposed the categorical imperative, which advocates treating others as you would wish to be treated

Diff: 2

Objective: 2.2 Evolution of environmental ethics

A) Roderick Nash

B) John Muir

C) John Ruskin

D) Gifford Pinchot

E) Robert Wilson

F) Henry David Thoreau

G) Immanuel Kant

H) Jeremy Bentham

I) Aldo Leopold

- 5) British utilitarian who promoted the idea that actions should maximize the overall benefit to most people

*Diff: 2*

*Objective: 2.2 Evolution of environmental ethics*

- 6) Forest ranger in Arizona and New Mexico in the early 1900s who advocated preservation of nature's integrity. He wrote, ". . . to keep every cog and wheel is the first precaution of intelligent tinkering. . ."

*Diff: 2*

*Objective: 2.2 Evolution of environmental ethics*

1) B

2) D

3) F

4) G

5) H

6) I

### 2.3 Short Answer Questions

- 1) Briefly explain the ways in which environmental sustainability and economic growth can coexist.

*Answer:* The birth of technologies that are environmentally sustainable can contribute to economic growth. For instance, the development of alternative energies such as wind can support windmill manufacturers. Recycling old products into "new" products can stimulate growth if there is demand for recycled goods in the marketplace. Selling recycled products can give businesspeople a unique market niche. Use of "waste" (e.g., methane from landfills, biodiesel from used cooking oil, and the like) can help create new jobs and industries and meet rising energy needs, which can facilitate economic growth. Entrepreneurs in "green industries," such as native landscapers, can sell "new" products. The invention of water-saving devices in homes can offer new business opportunities as well.

*Diff: 2*

*Objective: 2.5 Economic growth, health, and sustainability*

- 2) Briefly explain how Earth's ecological systems support world economies.

*Answer:* Ecosystems provide many goods and services. Nature is the source of our food, water, building materials, and energy. Plants purify the water draining through watersheds. Microorganisms help make soil. Nature cycles nutrients such as nitrogen, carbon, sulfur, and phosphorous needed for crop growth. Animals such as birds, bats, and insects pollinate plants. These are economically valuable goods and services.

*Diff: 2*

*Objective: 2.3 Economic theory*

- 3) Briefly explain why environmentalists see cost-benefit analysis as biased in favor of economic development and against environmental protection.

Answer: Not all costs and benefits can be easily quantified, identified, or defined. For instance, it is difficult to assess the cost of a valued landscape scarred by development or the cost of contamination of waterways due to pollution unless we estimate what it would cost to restore the damaged environment or replace the lost ecosystem services. Economic benefits are usually more easily quantified than environmental costs, and economic benefits tend to be overrepresented in traditional cost-benefit analysis. Assumptions of neoclassical economics (infinite resources, focus on the short term, ignorance of external costs, and growth) can conflict with environmental ethics that favor preservation of tangible and intangible resources for future generations.

*Diff: 3*

*Objective: 2.3 Economic theory*

- 4) Briefly explain how governments can intervene to counter market failure.

Answer: Governments can promote fairness, resource conservation, and economic sustainability through legislation, regulation, and market incentives. They can impose green taxes to penalize environmentally harmful practices. They can subsidize green industries to offset economic losses in the marketplace. They can allow ecolabeling to educate consumers on environmentally beneficial products. They can allow companies to trade pollution permits.

*Diff: 2*

*Objective: 2.5 Economic growth, health, and sustainability*

- 5) Briefly explain *deep ecology*.

Answer: Deep ecology is a philosophical perspective established in the 1970s. It says that we should protect all living things as we would protect ourselves. Proponents of deep ecology describe the movement as resting on the principles of "self-realization" and biocentric equality. They define self-realization as the awareness that humans are inseparable from nature and that the air we breathe, the water we drink, and the foods we consume are all products of the environment and integral parts of us. They believe all living things have equal value because each is a participant in global ecosystems in which all parts function integrally.

*Diff: 2*

*Objective: 2.2 Evolution of environmental ethics*

- 6) What do the world views of indigenous people, like the Mirrar, American Transcendentalists, and Deep Ecologists have in common?

Answer: All believe that the divine is expressing itself through nature, both the living and non-living aspects. They believe that a deeper, spiritual truth is being revealed in and through every aspect of the ecological landscape, including ourselves, that form is a manifestation of an inner presence. Thus, all feel that all of nature is "alive" and worthy of moral considerability.

*Diff: 2*

*Objective: 2.1 Culture and worldview*

- 7) \_\_\_\_\_ can occur when markets do not take into account the environment's positive effects on economies or when they do not reflect the bad effects of economic activity on the environment and people.

Answer: Market failure

*Diff: 3*

*Objective: 2.5 Economic growth, health, and sustainability*

8) \_\_\_\_\_ is a method used by manufacturers that tells consumers which brands use manufacturing processes that are environmentally beneficial.

Answer: Ecolabeling

Diff: 1

Objective: 2.5 Economic growth, health, and sustainability

## 2.4 Multiple-Choice Questions

1) "If domestic fuel prices rise to \$5 per gallon, conservation will increase, alternative fuels will be developed, and energy efficiency and our quality of life will improve." This philosophy is consistent with \_\_\_\_\_ economics.

- A) environmental
- B) neoclassical
- C) subsistence
- D) social
- E) cooperative

Answer: A

Diff: 1

Objective: 2.4 Environmental and ecological economics

2) "If domestic fuel prices rise to \$5 per gallon, growth will slow significantly and our quality of life will decline." This philosophy is consistent with \_\_\_\_\_ economics.

- A) environmental
- B) neoclassical
- C) subsistence
- D) social
- E) cooperative

Answer: B

Diff: 1

Objective: 2.4 Environmental and ecological economics

3) The philosophy of classical economics developed by Adam Smith \_\_\_\_\_.

- A) assures equality between rich and poor
- B) proposes maintenance of economies through government restraint and regulation
- C) argues that individuals acting in their own self-interest harm society
- D) was adopted by the Aborigines in the Kakadu region of Australia
- E) advocates laissez-faire policies that many credit for the tremendous gains in material prosperity of industrial nations

Answer: E

Diff: 1

Objective: 2.3 Economic theory

4) Contingent valuation \_\_\_\_\_.

- A) measures how much time, effort, and money people spend to travel for natural recreation
- B) measures how much people would pay to restore a resource after it is damaged
- C) says all individuals deserve just and equal treatment
- D) says we should treat others as we wish to be treated
- E) involves buying and selling "rights to pollute"

Answer: B

Diff: 3

Objective: 2.4 Environmental and ecological economics

5) Which of the following is an assumption of neoclassical economics?

- A) Growth is good.
- B) Resources are finite.
- C) Long-term effects are important.
- D) External costs and benefits are valuable.
- E) All citizens deserve just and equal treatment.

Answer: A

Diff: 3

Objective: 2.3 Economic theory

6) In general, environmentalists believe that governments should \_\_\_\_\_.

- A) lower corporate taxes
- B) nationalize all Earth's natural resources
- C) discourage ecolabeling
- D) deregulate corporations
- E) promote social justice

Answer: E

Diff: 1

Objective: 2.4 Environmental and ecological economics

7) Which of the following values includes volunteer work and pollution in a country's goods and services?

- A) GDP
- B) GNP
- C) GAP
- D) GPI
- E) GPD

Answer: D

Diff: 3

Objective: 2.3 Economic theory

8) Cassandras are \_\_\_\_\_.

- A) an invasive species
- B) people who believe technology will find new resources
- C) people who predict disaster
- D) followers of Plato
- E) a tribe of Australian Aborigines

Answer: C

Diff: 2

Objective: 2.3 Economic theory

9) A(n) \_\_\_\_\_ is best defined as one who evaluates an action based on its impact on human health, economic costs and benefits, and aesthetic concerns.

- A) biocentrist
- B) ecocentrist
- C) anthropocentrist
- D) ethnocentrist
- E) market economist

Answer: C

Diff: 3

Objective: 2.1 Culture and worldview

- 10) A(n) \_\_\_\_\_ is best defined as one who considers abiotic environmental impacts when considering an action.
- A) biocentrist
  - B) ecocentrist
  - C) anthropocentrist
  - D) ethnocentrist
  - E) market economist

Answer: B

Diff: 3

Objective: 2.1 Culture and worldview

- 11) \_\_\_\_\_ believe that Earth's natural systems generally operate in self-renewing cycles that are good models for sustainable economies.
- A) Ecological economists
  - B) Cornucopians
  - C) Capitalists
  - D) Socialists
  - E) Malthusians

Answer: A

Diff: 2

Objective: 2.5 Economic growth, health, and sustainability

- 12) \_\_\_\_\_ is best defined as the study of how we decide to use scarce resources in the face of demand.
- A) Ecology
  - B) Environmental science
  - C) Economics
  - D) Ethics
  - E) Ethnobiology

Answer: C

Diff: 1

Objective: 2.3 Economic theory

- 13) Modern market economies generally do not address \_\_\_\_\_.
- A) cost-benefit analysis
  - B) market value of goods
  - C) GDP
  - D) aesthetic and cultural value
  - E) cost of production

Answer: D

Diff: 1

Objective: 2.3 Economic theory

- 14) External costs include \_\_\_\_\_.
- A) raw materials
  - B) utilities
  - C) wages
  - D) worker's compensation and insurance
  - E) environmental damage

Answer: E

Diff: 1

Objective: 2.3 Economic theory



- 15) \_\_\_\_\_ believe that within a market economy, economic sustainability is achieved through reduction of growth and by more efficient resource use.
- A) Ecological economists
  - B) Environmental economists
  - C) Capitalists
  - D) Socialists
  - E) Malthusians
- Answer: A  
Diff: 2  
Objective: 2.4 Environmental and ecological economics
- 16) In sustainable economies, \_\_\_\_\_.
- A) slowing economic growth compromises quality of life
  - B) ecolabeling is standard practice
  - C) green taxes are abolished
  - D) permit trading is discouraged
  - E) the government provides all goods and services to citizens
- Answer: B  
Diff: 1  
Objective: 2.5 Economic growth, health, and sustainability
- 17) Aldo Leopold's "Land Ethic" essay describes \_\_\_\_\_.
- A) how American Navajos suffered from the adverse effects of uranium mining
  - B) how most toxic landfills are located in poorer communities
  - C) pesticide misuse
  - D) the history of the EPA
  - E) individuals as members of a community of interdependent parts
- Answer: E  
Diff: 2  
Objective: 2.2 Evolution of environmental ethics
- 18) \_\_\_\_\_ is best defined as the knowledge, beliefs, values, and learned ways of life shared by a group of people.
- A) Niche
  - B) Economics
  - C) Worldview
  - D) Habitat
  - E) Culture
- Answer: E  
Diff: 1  
Objective: 2.1 Culture and worldview
- 19) Who is best known as the founder of the Sierra Club?
- A) Ralph Waldo Emerson
  - B) Aldo Leopold
  - C) John Ruskin
  - D) Walter Sierra
  - E) John Muir
- Answer: E  
Diff: 2  
Objective: 2.2 Evolution of environmental ethics

20) As the industrial revolution spread in the \_\_\_\_\_ century from \_\_\_\_\_ throughout Europe and to North America and elsewhere, it amplified human impacts on the environment.

- A) 19th; Russia
- B) 17th; Rome
- C) 17th; Greece
- D) 19th; Great Britain
- E) 18th; Australia

Answer: D

Diff: 1

Objective: 2.2 Evolution of environmental ethics

21) "Ecosystem services" include \_\_\_\_\_.

- A) erosion
- B) global warming
- C) genetically modifying food
- D) pollination of crop plants
- E) creating pollution

Answer: D

Diff: 1

Objective: 2.3 Economic theory

22) The EPA defines \_\_\_\_\_ as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

- A) environmental justice
- B) deep ecology
- C) land ethics
- D) socialism
- E) virtue

Answer: A

Diff: 2

Objective: 2.2 Evolution of environmental ethics

23) Which American president is famous for instituting protection of the California wilderness in the early 1900s?

- A) John Quincy Adams
- B) Woodrow Wilson
- C) Thomas Jefferson
- D) William McKinley
- E) Theodore Roosevelt

Answer: E

Diff: 2

Objective: 2.2 Evolution of environmental ethics

- 24) The GPI for the United States \_\_\_\_\_.
- A) has increased dramatically since 1950
  - B) includes a positive adjustment for parenting
  - C) includes a negative adjustment for parenting
  - D) increases when fossil fuel use increases
  - E) far exceeds that of the rest of the world

Answer: B

*Diff: 2*

*Objective: 2.5 Economic growth, health, and sustainability*

- 25) GPI is an acronym for \_\_\_\_\_.
- A) Gas Price Index
  - B) Good Parent Index
  - C) Genuine Progress Indicator
  - D) Good Price Indicator
  - E) Global Pollution Index

Answer: C

*Diff: 2*

*Objective: 2.5 Economic growth, health, and sustainability*

- 26) American school of philosophy exemplified by Emerson and Whitman which saw nature as a symbol of deeper spiritual truth \_\_\_\_\_.
- A) environmental justice movement
  - B) ecofeminism
  - C) deep ecology
  - D) preservationism
  - E) transcendentalism

Answer: E

*Diff: 2*

*Objective: 2.1 Culture and worldview*

## 2.5 True/False Questions

- 1) The Aborigines in the Kakadu region of Australia unanimously oppose development of the Jabiluka mine.

Answer: FALSE

*Diff: 1*

*Objective: 2.1 Culture and worldview*

- 2) Environmental ethics and the belief that humans are part of nature had their roots in the ecology movement of the mid-1900s.

Answer: FALSE

*Diff: 1*

*Objective: 2.2 Evolution of environmental ethics*

- 3) Ethics and economics both deal with questions about what we value.

Answer: TRUE

*Diff: 1*

*Objective: 2.1 Culture and worldview*

4) Economists study the household of human society and ecologists study the household of life.

Answer: TRUE

*Diff: 1*

*Objective: 2.3 Economic theory*

5) In recent decades, the rate of economic growth is the highest it has ever been in human history due to technology.

Answer: TRUE

*Diff: 1*

*Objective: 2.3 Economic theory*

## 2.6 Essay Questions

1) In 2004, the chief executive officer of the corporation holding rights to the Jabiluka ore body cancelled the company's mining plans at Jabiluka and gave the Mirrar people veto power over future development. What factors might contribute to the future development of mining despite the officer's 2004 pledge?

Answer: If uranium prices rise due to political pressures or instability in the world's oil supply, it will be more cost-effective to mine uranium. Alternatives to oil may become more attractive in this case. Political opposition to oil drilling in certain parts of the world may also be an incentive for uranium mining. Some Aboriginal groups may come to support the mine if the mining company promises jobs, income, development, and an increased standard of living. Because there was no written agreement or law preventing future mining development, it may be easier for future development to gain political support. New government officials may come to support development of nuclear power and uranium mining in the future.

*Diff: 3*

*Objective: 2.3 Economic theory*

2) Briefly explain why Aborigines opposed Jabiluka.

Answer: Jabiluka is a proposed mining development in a remote region of Australia. Mining at Jabiluka will destroy land where Aborigines presently live and have lived for generations. Mining will damage Aboriginal hunting and gathering sites and pollute the land and water. Aborigines believe the landscape is sacred. "Dream-tracking" and "walkabouts" in nature are part of their religion and culture. Harming Earth by mining would disrupt Aboriginal traditions by destroying the land's integrity. This would have negative social consequences because the Aboriginal people would perceive the development of the land as unjust. The Aborigines also fear the mine for health reasons. They fear that earthquakes in the region could cause leakage of mine waste. They do not want to be exposed to radiation. They fear radioactive spills and radon gas leaks, which have occurred at the nearby Ranger Mine. They also fear that mining will bring increased crime to the region.

*Diff: 2*

*Objective: 2.1 Culture and worldview*

3) Compare and contrast the philosophies of John Muir and Gifford Pinchot.

Answer: Both men were active in the early 1900s, and both aimed to protect North American wilderness by opposing rapid deforestation and unregulated economic land development. Muir was a preservationist who believed that nature should be protected for its own sake and that we should protect it for its beauty. He believed nature provided spiritual renewal and met human recreational needs. As such, Muir recognized that nature met human needs (an anthropocentric view), but he also believed that nature deserved protection for its own inherent value (an ecocentric view). Pinchot was a conservationist who favored sustainable use of resources for the benefit of present and future generations. He was a utilitarian, which means that he believed humans should use resources in a way that provides the greatest good to the greatest number of people for the longest time. He was more anthropocentric than Muir.

*Diff: 3*

*Objective: 2.2 Evolution of environmental ethics*

4) Describe the ways in which a nation's attitude toward environmental issues might be shaped by economics, culture and religion, and political ideology, and laws.

Answer: A nation's economic situation will affect attitudes toward environmental issues. Providing food, shelter, and jobs to citizens might involve exploitation of resources. A limited supply of resources may drive prices up. A country may have to look for alternatives if demand exceeds supply and prices get too high. Economics may also dictate whether alternative environmentally friendly practices (such as recycling, solar energy, organic produce, and the like) are feasible. If a country has abundant resources, consumption may increase and waste may occur. In many places, clean water may be abundant, which could encourage misuse. A renewable resource such as water could become scarce if demand exceeds Earth's capacity to renew it. Culture and religion can also affect attitudes toward environmental issues. If a culture has certain food or shelter preferences, for instance, this may deplete particular resources (such as land for vegetation or cattle grazing, and/or forests for wood shelters and cooking). In many places, Earth may be an integral part of religion. For instance, it is important in Aboriginal culture to take long walks in natural areas for spiritual renewal. Political ideology and laws can affect attitudes toward environmental issues as well. Taxing polluting industries and subsidizing environmentally friendly industries can aid in the protection of natural resources. Subsidies for research on alternative fuels and water conservation can discourage waste of fossil fuels and water. Laws can protect natural places from development. Politicians have different views on environmental issues based on political party, who lives in their districts, and what industries and resources are in their districts. Different politicians can set different policies based on these factors, which can either harm or protect the environment.

*Diff: 3*

*Objective: 2.4 Environmental and ecological economics*

5) Explain the research of Robert Costanza.

Answer: Constanza is an environmental economist from Maryland who attempted to measure the value of Earth's ecosystems. He worked with other scientists to try to quantify the costs associated with duplicating all the goods and services that nature provides. These goods and services include tangible resources such as food, clean water, and shelter, as well as intangible services such as recreational opportunities and spiritual renewal. The results of Costanza's study, published in *Nature* in the 1990s, indicated that, annually, trillions of dollars would be needed to supply the goods and services that nature provides to us. The question of how to quantify these things is debatable. However, a follow-up study published in *Science* in 2002 similarly concluded that our natural environment is worth trillions of dollars. In conclusion, these studies show that conservation is a bargain, and nothing is worth nature's destruction.

*Diff: 2*

*Objective: 2.4 Environmental and ecological economics*

6) Briefly discuss the connection between deep ecology and environmental economic principles.

Answer: Deep ecologists, as well as others who value nature for cultural, educational, aesthetic and spiritual reasons, would certainly support valuation of these qualities, all of which are non-market, intangible ecosystem services. They would want to minimize environmental impact from human development and would support a steady-state economy, where growth and productivity were in equilibrium with available energy and resources and with climate. They would favor an economic index that included environmental assessment, a GPI rather than the market economy's GDP.

*Diff: 3*

*Objective: 2.4 Environmental and ecological economics*

## 2.7 Scenario-Based Questions

*Read the following scenario and answer the questions below.*

Burning fossil fuels and their derivatives produces, among other things, harmful pollutants such as particulates, acid rain-producing sulfur and nitrogen oxides, and carbon oxides. These air pollutants threaten ecosystems all over the world, and high carbon dioxide levels contribute to global warming. Furthermore, fossil fuels have a limited supply. The market price of fossil fuels, especially crude oil, has continued to rise in recent years. Despite this, Americans continue to consume fossil fuels at alarming rates. We rely upon fossil fuels for most of our energy needs and continue to drive bigger and less fuel-efficient vehicles. At various times, the federal government has considered mandating higher fuel efficiency standards for American vehicles as a possible solution to this environmental energy crisis. Most auto manufacturers, however, are opposed to the imposition of standards.

1) Which of the following have contributed to the rapid increase in crude oil prices over the past decade?

- A) decrease in demand for oil
- B) increase in demand for oil
- C) increase in supply of oil
- D) increased availability of alternative fuels
- E) higher gas taxes

Answer: B

*Diff: 2*

*Objective: 2.3 Economic theory*

2) Why is the consumption of fossil fuels high, despite high prices?

- A) no available alternatives
- B) nonrenewability of fossil fuels
- C) cultural preferences and resistance to change
- D) political unrest in the Middle East
- E) bad weather

Answer: C

*Diff: 2*

*Objective: 2.1 Culture and worldview*

3) Which of the following represents one possible explanation for why the federal government has not been successful at mandating higher fuel efficiency standards for American vehicles?

- A) the cost-effectiveness of producing smaller vehicles
- B) the cost-effectiveness of operating smaller vehicles
- C) America's dependence on oil from the Middle East
- D) the high demand from American consumers for larger vehicles
- E) exemption of auto manufacturers from federal laws

Answer: D

*Diff: 2*

*Objective: 2.3 Economic theory*

4) What factors might lead to more political support for higher fuel-efficiency standards?

- A) higher oil prices
- B) lower oil prices
- C) an end to political instability in the Middle East
- D) release of oil from the national petroleum reserves
- E) decreased demand for oil

Answer: A

*Diff: 2*

*Objective: 2.3 Economic theory*

5) What alternative measures might the government take to aid in the fossil fuel crisis?

- A) abolish green taxes
- B) reopen closed coal mines
- C) drill for oil off the Florida coast
- D) build more oil refineries
- E) enact laws at the state and local level

Answer: E

*Diff: 2*

*Objective: 2.5 Economic growth, health, and sustainability*

6) What measures might consumers take to aid in the fossil fuel crisis?

- A) lobby the government to stop industry permit trading
- B) protest high taxes on fossil fuels
- C) purchase only domestic fuel
- D) purchase only imported fuel
- E) use public transportation

Answer: E

*Diff: 1*

*Objective: 2.5 Economic growth, health, and sustainability*

- 7) \_\_\_\_\_ would oppose fuel efficiency standards because they believe "we will find more oil" to solve the fossil fuel crisis.
- A) Cassandras
  - B) Conservationists
  - C) Preservationists
  - D) Cornucopians
  - E) Transcendentalists

Answer: D

Diff: 1

Objective: 2.2 Evolution of environmental ethics