

## Chapter 2: Humans and the Resources of the Earth: Sources and Sinks

### Multiple Choice Questions

1. Soil contains which of the following?
  - a. Microbes.
  - b. Organic materials.
  - c. Inorganic materials.
  - d. a, b, and cANS: d  
PG: 45
2. Javier has increased productivity on his land by using modern, intensive agricultural techniques. Javier is most likely to be doing which of the following?
  - a. Rotating crops.
  - b. Contour plowing.
  - c. Terracing.
  - d. Producing monoculture crops without rotation.ANS: d  
PG: 46
3. The rise in global \_\_\_\_\_ production is creating competition between cattle and people for quality soil and food.
  - a. water
  - b. meat
  - c. vegetable
  - d. grainsANS: b  
PG: 46
4. According to Harper and Snowden, which of the following is a way to protect the fertility of cropland soils?
  - a. Use organic fertilizer.
  - b. Use chemical fertilizers.
  - c. Plant only one crop per field.
  - d. Deep plowing.ANS: a  
PG: 47
5. According to Harper and Snowden, which of the following uses the most water?
  - a. Industry.
  - b. Agriculture.
  - c. Cities.
  - d. Private suburban residences.ANS: b  
PG: 50

6. This practice involves the buying or leasing of land by foreign investment firms for large-scale agriculture, biofuel production, and government use.
- a. Stakeholder concentration.
  - b. Corporate monopoly.
  - c. Share cropping.
  - d. Land grabbing.
- ANS: d  
PG: 47
7. This type of body of water is shared by two or more nations and can create unity between them and can be a source of conflict.
- a. Interplanetary.
  - b. Cross-aquifer.
  - c. Transboundary.
  - d. Common source.
- ANS: c  
PG: 52
8. Which of the following forests are the largest?
- a. Boreal forests.
  - b. Temperate zone forests.
  - c. Tropical zone forests.
  - d. Primeval forests.
- ANS: a  
PG: 63
9. Forests provide which of the following services?
- a. Soil conservation.
  - b. Salmon habitats.
  - c. Flood prevention.
  - d. all of the above
- ANS: d  
PG: 64
10. There have been at least \_\_\_\_\_ waves of species extinction in the history of the planet.
- a. two
  - b. three
  - c. four
  - d. five
- ANS: c  
PG: 62
11. According to conservation biologists, the acronym HIPPCO stands for:
- a. Habitat building, Investments, Propagation, Population, Climate change, and Optimism.
  - b. Harmful practices, Investments, Propagation, Population, Climate change, and Optimism.
  - c. Habitat destruction, Invasive species, Pollution, Population, Climate change, and Overharvesting.

- d. Harmful practices, Inventions, Propagation, Population, Climate change, and Overexpansion.

ANS: c

PG: 66

12. \_\_\_\_\_ is the greatest threat to all kinds of wild species.

- a. The greenhouse effect
- b. Modern agriculture
- c. Habitat destruction
- d. none of the above

ANS: c

PG: 66

13. Taxol, a compound from the Yew tree, is used:

- a. to treat breast and ovarian cancer.
- b. as an ingredient in petroleum.
- c. to relieve pain.
- d. to reduce hypertension.

ANS: a

PG: 68

14. Which of the following countries has the highest per capita paper consumption?

- a. Canada.
- b. China.
- c. The US.
- d. India.

ANS: c

PG: 71

15. Which of the following produces the largest percentage of solid waste?

- a. Industry.
- b. Mining, oil, and gas production.
- c. Municipal garbage.
- d. Sewage.

ANS: b

PG: 73

16. \_\_\_\_\_ is the fastest-growing solid waste problem in the US.

- a. Paper
- b. E-waste
- c. Plastic bottles
- d. none of the above

ANS: b

PG: 73

17. This process stems from the excessive use of chemical fertilizers in intensive agriculture, which leads to chemical pollution in land and water.

- a. Salinization.
- b. Hydrological cycle.
- c. Herbicide and pesticide treadmill.
- d. none of the above.

ANS: c  
PG: 81

18. \_\_\_\_\_ refers to the accumulation of synthetic agrochemicals in living tissues through various levels of food chains.
- Cultural entrophication
  - Bioaccumulation
  - Salinization
  - Leachate
- ANS: b  
PG: 81

19. Long-term irrigation of soil leads to \_\_\_\_\_ of soil.
- salinization
  - hypoxia
  - eutrophia
  - none of the above
- ANS: a  
PG: 81

20. \_\_\_\_\_ is the most publicized solution to reduce the solid waste stream.
- Incineration
  - Reuse
  - Recycling
  - Salinization
- ANS: c  
PG: 76

#### True/False Questions

- Human wastes and effluents go into sinks.
  - True
  - False

ANS: True  
PG: 45
- Land/soil can become useless for human cultivation.
  - True
  - False

ANS: True  
PG: 46
- Food, especially grain production, has rapidly increased in the past few years.
  - True
  - False

ANS: False  
PG: 46
- The US is one of a few nations to make soil conservation a national priority.

- a. True
  - b. False
  - ANS: True
  - PG: 48
5. The recharge rate for groundwater, lakes, and rivers is the primary determinant of the volume of water available for human use.
- a. True
  - b. False
  - ANS: True
  - PG: 49
6. Human beings need about 50 liters of water per day for drinking, cooking, and washing.
- a. True
  - b. False
  - ANS: False
  - PG: 49
7. When water tables sink in coastal regions, salt water may seep in and make groundwater unsuitable for human consumption.
- a. True
  - b. False
  - ANS: True
  - PG: 51
8. Drip irrigation is highly efficient, where 90–95 percent of the water used reaches the intended crop.
- a. True
  - b. False
  - ANS: True
  - PG: 52
9. Since 1975, the US per capita use of water has continued to increase at a dramatic rate.
- a. True
  - b. False
  - ANS: False
  - PG: 51
10. Water scarcity primarily affects African regions where large proportions of people live in poverty.
- a. True
  - b. False
  - ANS: True
  - PG: 50
11. Urbanization is one reason why reforestation has taken place in Europe and the United States.
- a. True
  - b. False
  - ANS: True
  - PG: 63

12. The conversion of forests to agricultural land is the biggest driver of tropical deforestation.

a. True

b. False

ANS: True

PG: 64

13. Forests shape the sunlight reflectivity of the earth.

a. True

b. False

ANS: True

PG: 64

14. Coral reefs, unlike other ecosystems, are not considered to be threatened with extinction.

a. True

b. False

ANS: False

PG: 64

15. Habitat destruction is the greatest threat to biodiversity.

a. True

b. False

ANS: True

PG: 66

16. The greenhouse effect shapes weather patterns but has little effect on biodiversity.

a. True

b. False

ANS: False

PG: 66

17. Traditional ecological knowledge fails to recognize the internal value of biodiversity.

a. True

b. False

ANS: False

PG: 67

18. The United States successfully recycles at least 90 percent of its packaging waste.

a. True

b. False

ANS: False

PG: 76

19. Synthetic agrochemicals are also known as persistent organic pollutants (POPs).

a. True

b. False

ANS: True

PG: 81

20. Salt represents a serious form of chemical pollution.

a. True

b. False

ANS: True  
PG: 81

#### Essay Questions

1. Compare and contrast common solutions to solid waste problems.
2. Identify and discuss two problems associated with growing water use.
3. Discuss trends in tropical deforestation and their consequences.
4. List and discuss three human causes of declining biodiversity.
5. Discuss three reasons why we should care about declining biodiversity. Provide concrete examples to illustrate your points.
6. Identify and discuss three specific initiatives to preserve forests and biodiversity. Provide concrete examples to illustrate your points.