

Chapter 20 Test

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- ___ 1. Which of the following pathogens have made a cross-species transfer to humans?
- influenza virus
 - hantavirus
 - West Nile virus
 - All of the above
- ___ 2. Which of the following pollutants is caused by poor sanitation and can lead to gastrointestinal infections?
- bacteria in food
 - pesticides in food
 - lead in water
 - particulate matter in water
- ___ 3. Dust storms, volcanoes, and wildfires are all
- causes of pollution due to human activities.
 - natural events that do not cause pollution.
 - causes of pollution people can control.
 - natural causes of pollution.
- ___ 4. Air pollution is a major health problem caused by the burning of fuels in
- vehicles.
 - home furnaces.
 - power plants and factories.
 - All of the above
- ___ 5. Much of the pollution in the environment is a result of
- the use of too much water.
 - the use of landfills.
 - inadequate waste disposal.
 - newer pollution-control devices used at factories.
- ___ 6. Each year, most of the cases of organophosphate poisoning occur in people who are
- applying the chemical to crops.
 - eating fruit and vegetables with chemical residues.
 - inhaling the chemical while working in gas stations.
 - working in factories with various chemicals.
- ___ 7. Worldwide, nearly three-fourths of infectious diseases are transmitted through
- water.
 - air.
 - soil.
 - people.
- ___ 8. Which of the following is an environmental change that scientists believe may increase the areas where malaria occurs?
- draining wetlands
 - soil erosion
 - destroying habitats
 - global warming
- ___ 9. Human immune deficiency virus is considered an emerging virus because it
- had been controlled until recently.
 - was previously unknown.
 - developed from two other viruses.
 - has become resistant to antibiotics.
- ___ 10. Which of the following pollutants is found in vehicle exhaust, burning waste, fires, and tobacco smoke?
- particulate matter
 - lead
 - coal dust
 - pesticides
- ___ 11. Two diseases that can be caused directly by pollution are
- measles and tuberculosis.
 - lead poisoning and lung cancer.
 - cholera and river blindness.
 - colds and flu.
- ___ 12. Toxicology is the study of the harmful effects of
- substances on organisms.
 - viruses on organisms.
 - pollutants on the environment.
 - antibiotics on viruses.
- ___ 13. After an outbreak of an illness, scientists use epidemiology to try to find
- the origin of the disease.
 - how the disease spreads.
 - how to prevent the disease from spreading.
 - All of the above
- ___ 14. Naturally occurring pollutants can become hazardous to health when they are
- introduced into food.
 - introduced into water.
 - above normal levels.
 - used by industry.

- ___ 15. Which of the following pollutants are added to air by burning fuels for vehicles?
- carbon monoxide and many kinds of particulates
 - organophosphates and many kinds of particulates
 - carbon monoxide and organophosphates
 - radon and heavy metals
- ___ 16. Which of the following statements is true about pollutants from waste disposal?
- Laws regulating waste disposal are strictly enforced.
 - Old landfills still prevent any wastes from leaking.
 - Waste incineration plants no longer emit toxic products.
 - Many communities release raw sewage into a river or the ocean after a heavy rain.
- ___ 17. The environment is an important factor in the spread of cholera and dysentery because
- air can carry the pathogens.
 - water provides a habitat in which the pathogens breed.
 - the pathogens reproduce in soil.
 - the disease is transmitted by mosquitoes.
- ___ 18. People's actions cause some disease-causing bacteria to become
- unaffected by radiation.
 - extinct.
 - resistant to antibiotics.
 - emerging viruses.
- ___ 19. An estimate of the probability of a negative effect caused by a substance is a(n)
- educated guess.
 - response assessment.
 - risk assessment.
 - dose-response curve.
- ___ 20. The incident in Flint, Michigan is a direct result of what kind of contamination?
- Mercury
 - Lead
 - Cadmium
 - Arsenic
- ___ 21. What disease impacted the people of western Africa in 2014-2015 that we watch the video about?
- Flu
 - Tuberculosis
 - Ebola
 - AIDS
- ___ 22. What organization aided the people in the video by educating, disinfecting areas, and transporting people to the hospital?
- WWF
 - WHO
 - DWB
 - DDT

Chapter 16 Test

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- Evaporites most commonly form in
 - arid regions where rates of evaporation are high.
 - rain forests where rates of evaporation are low.
 - cold regions that receive significant snowfall.
 - an area with frequent volcanic activity.
- Which of the following are minerals that contain valuable substances?
 - native minerals
 - ore minerals
 - gangue minerals
 - longwalls
- Which of the following is *not* a characteristic of a mineral?
 - naturally occurring
 - atoms in random geometric patterns
 - usually an inorganic solid
 - orderly internal structure
- Which of the following is *not* one of the ways that ore minerals may form?
 - cooling of magma
 - circulation of hydrothermal solutions through rocks
 - flooding of empty streambeds and rivers
 - evaporation of water that contains salts
- What is one property that may be used to distinguish metallic from nonmetallic minerals?
 - cost to extract
 - value
 - carbon content
 - electrical conductivity
- What must hot subsurface waters contain in order to be considered hydrothermal solutions?
 - crystallized minerals
 - dissolved minerals
 - gangue minerals
 - inorganic solids

7. Gangue minerals
 - a. are valued for their rarity and durability.
 - b. have no commercial value.
 - c. are the most difficult to mine.
 - d. are native elements.
8. The first step in surface coal mining is
 - a. to remove and set aside the soil that covers the area to be mined.
 - b. to use heavy equipment to take core samples.
 - c. to test to see if quarrying would be more effective.
 - d. to make cuts in the coal for easier removal.
9. Dredging streambeds may be an effective technique for mining
 - a. salt.
 - b. coal.
 - c. gold.
 - d. sulfur.
10. Acid mine drainage
 - a. harms or kills aquatic life.
 - b. purifies streams.
 - c. causes acid rain.
 - d. is unregulated in the United States.
11. Which of the following is *not* a method of subsurface mining?
 - a. room-and-pillar mining
 - b. longwall mining
 - c. solution mining
 - d. open-pit mining
12. Through _____, mining companies can identify areas where there may be valuable mineral resources.
 - a. mineral exploration
 - b. smelting
 - c. mineral excavation
 - d. dredging
13. Placer deposits are surface mineral deposits that have been concentrated by
 - a. surface mining.
 - b. subsurface mining.
 - c. movement of wind and water.
 - d. evaporation and condensation.
14. Which of the following would *not* likely be mined using solution mining?
 - a. gypsum
 - b. potash
 - c. salt
 - d. sulfur
15. The layer of impurities on top of molten metal that forms during smelting is called
 - a. smelt.
 - b. dredge.
 - c. slag.
 - d. flux.
16. A quarry also could be called
 - a. an open pit.
 - b. the overburden.
 - c. a longwall.
 - d. a pillar.
17. Which of the following is a water contaminant that can cause acid mine drainage?
 - a. flux
 - b. carbon dioxide
 - c. methane
 - d. sulfuric acid
18. Collapse of _____ can lead to subsidence.
 - a. solar evaporation ponds
 - b. pillars in abandoned mines
 - c. open-pit mines
 - d. placer deposits
19. Which of the following is *not* a regulation mining companies must follow?
 - a. the Clean Water Act
 - b. the Hazardous Products Act
 - c. the Safe Drinking Water Act
 - d. the Endangered Species Act
20. From whom must mining companies obtain permits before mining a site?
 - a. state and federal agencies
 - b. federal agencies only
 - c. local government only
 - d. a bonding company
21. Reclamation is the process of
 - a. removing coal from a subsurface seam.
 - b. extracting ore minerals from gangue minerals.
 - c. returning land to its original or better condition after mining.
 - d. protecting the habitats of local wildlife.
22. Surface mining can cause
 - a. only air pollution.
 - b. only noise pollution.
 - c. both air and noise pollution.
 - d. neither air nor noise pollution.
23. What can contaminate a river during dredging?
 - a. potash
 - b. sea water
 - c. placer deposits
 - d. muddy sediments
24. The _____ regulates the release of hazardous substances into the air, soil, and water by mining.
 - a. Clean Water Act
 - b. Comprehensive Response Compensation and Liability Act
 - c. Surface Mining Control and Reclamation Act of 1977
 - d. Safe Drinking Water Act
25. The _____ sets standards to minimize the surface effects of coal mining on the environment.
 - a. Clean Water Act
 - b. Comprehensive Response Compensation and Liability Act
 - c. Surface Mining Control and Reclamation Act of 1977
 - d. Safe Drinking Water Act

Key Terms

Sustainability – The condition in which human society can go on indefinitely and future generations can have a stand of living as high as our own.

Economics – The study of the choices people make as they use and distribute limited resources.

Environmental Impact Statement – An assessment of the effect of a proposed project or law on the environment.

Lobbying – An attempt to influence the decisions of the lawmakers.

Citizen – an inhabitant of a city or town, especially one entitled to its privileges or franchises.

Society – the body of human beings generally, associated or viewed as members of a community.

International agreement – An understanding made by a global community.

Globalization – Environmental and economic conditions are linked across political borders around the world.

Montreal Protocol – Successfully reduced the amount of ozone-destroying chemicals in the atmosphere.

Kyoto Protocol – Attempted to avoid or slow down global warming by reducing greenhouse-gas emissions around the world.

Value – How much something is worth.

Economic growth – An increase in the amount of goods and services produced per head of the population over a period of time.

Markets – The field of trade or business.

Economic incentives – Offerings to encourage people to make certain choices or behave in a certain way. They usually involve money, but they can also involve goods and services.

Market failures – A situation in which the allocation of goods and services is not efficient.

Nature Conservancy – A charitable environmental organization, headquartered in Arlington, Virginia, United States. Its mission is to "conserve the lands and waters on which all life depends."

DDT – A persistent pesticide that was banned in the 1970's that was responsible for the near extinction of the California Condor.

EPA – An organization that helps regulate environmental issues in the United States.

Unfunded mandate – A statute or regulation that requires a state or local government to perform certain actions, with no money provided for fulfilling the requirements.

Clean Water Act – Established the basic structure for regulating pollutant discharges into the waters of the United States.

Green space

- plot of undeveloped land separating or surrounding areas of intensive residential or industrial use that is maintained for recreational enjoyment.

People to Know

- Henry Thoreau – A conservationist and writer who is best known for his essays about his stay in a cabin at Walden Pond in Massachusetts.
- John Muir – A Scottish-born naturalist and writer who founded the Sierra Club.
- Teddy Roosevelt – The first American president to strongly support conservation. Founded the Forest Service and expanded the national forests.
- Alice Hamilton – American expert on diseases caused by working with chemicals.
- Rachel Carson – A biologist with the US Fish and Wildlife Service who raised awareness of toxic pesticides in her book *Silent Spring*.

- Paul Ehrlich – A Stanford ecologist who warned of the dangers of rapid population growth with book *Population Bomb*.
- Jane Goodall – Studied chimpanzees in Tanzania’s Gombe Stream National Park.
- Marion Stoddart – Led efforts to save the Nashua River in Massachusetts from pollution and development.
- Jacques Cousteau – Was a world-famous French oceanographer.
- Garrett Hardin – Was a distinguished professor of human ecology who is best known for his essay “The Tragedy of the Commons.”