Chapter 2 – Friedland Test Bank

Key Idea	Corresponding Questions (#)
Define *systems* within the context of environmental science.	1–5
Explain the components and states of matter.	6–43
Distinguish between various forms of energy and discuss the first and second laws of thermodynamics.	44–61
Describe the ways in which ecological systems depend on energy inputs.	62–63
Explain how scientists track of inputs, outputs, and changes to complex systems.	64–74
Describe how natural systems change over time and space.	75–80

Chapter 2: Environmental Systems

Multiple Choice

1. Mono Lake is a terminal lake, which means that
A. it has no inputs or outputs of water.
B. it has only inputs of water.
C. no new water enters the lake.
D. no water leaves the lake.
E. water enters the lake through streams and leaves the lake through evaporation.
ANS: E
DIF: E
MSC: Definitional
Key Idea: Define *systems* within the context of environmental science.

2. Mono Lake is one of the largest sources of _____ in the United States.
A. water
B. salt
C. shrimp
D. windblown dust
E. fish
ANS: D
DIF: E
MSC: Fact based
Key Idea: Define *systems* within the context of environmental science.

3. Problems developed at Mono Lake as a consequence of the
A. San Francisco earthquake of 1906.
B. redirection of water that fed the lake for use by Los Angeles.

C. rerouting of water that fed the lake to support the development of Las Vegas.
D. addition of pollution from detergents to the lake in the 1940s.
E. failure of Canadian geese to migrate from the area around the lake.
ANS: B
DIF: E
MSC: Fact based
Key Idea: Define *systems* within the context of environmental science.

4. The salinity problem at Mono Lake was corrected after
A. water was diverted and the lake filled back to historical levels.
B. legislation required that the lake should not be used for fishing.
C. the Audubon Society worked together with the Los Angeles Department of Water.
D. additional water was extracted for use by agriculture.
E. Both A and C
ANS: E
DIF: E
MSC: Fact based
Key Idea: Define *systems* within the context of environmental science.

5. The study of a system in the context of environmental science may involve
A. predator-prey relationships.
B. energy exchange.
C. only relationships of biological components to one another.
D. only relationships of biological and non-biological components.
E. Both A and B
ANS: E
DIF: M
MSC: Concept based
Key Idea: Define *systems* within the context of environmental science.

6. Matter is
A. anything that has volume and mass.
B. anything that has energy.
C. anything that doesn't have mass.
D. anything that doesn't have volume.
E. None of the above
ANS: A
DIF: E
MSC: Definitional
Key Idea: Explain the components and states of matter.

7. Mass is
A. exactly the same thing as weight.
B. a force.
C. different on the moon than it is on Earth.
D. a measure of the amount of matter something contains.

E. the result of gravity.
ANS: D
DIF: E
MSC: Definitional
Key Idea: Explain the components and states of matter.

8. An element is a substance that
A. can be broken down into simpler components.
B. is made of many types of atoms.
C. is made up of molecules.
D. consists of one type of atom.
E. makes up energy.
ANS: D
DIF: E
MSC: Definitional
Key Idea: Explain the components and states of matter.

9. The atomic number of an element is
A. the number of protons.
B. the number of electrons + protons.
C. the number of protons + neutrons.
D. the same as the atomic mass.
E. the number of electrons + neutrons.
ANS: A
DIF: E
MSC: Definitional
Key Idea: Explain the components and states of matter.

10. Compounds
A. are the same as molecules.
B. are made up of cells.
C. are found in orbitals.
D. contain more than one element.
E. are not found in nature.
ANS: D
DIF: E
MSC: Definitional
Key Idea: Explain the components and states of matter.

11. Electrons are
A. negatively charged.
B. positively charged.
C. neutral.
D. found in the nucleus of an atom.
E. equal to the number of neutrons.
ANS: A

DIF: E
MSC: Definitional
Key Idea: Explain the components and states of matter.

12. Isotopes of an element must have the same
A. atomic mass.
B. number of neutrons.
C. number of electrons.
D. number of protons and neutrons combined.
E. number of protons.
ANS: E
DIF: E
MSC: Definitional
Key Idea: Explain the components and states of matter.

13. Mass number refers to the
A. number of protons.
B. number of protons + neutrons.
C. same thing as the atomic number.
D. number of electrons.
E. number of isotopes.
ANS: B
DIF: E
MSC: Definitional
Key Idea: Explain the components and states of matter.

14. The rate of radioactive decay
A. cannot change the type of element.
B. requires an input of a second element to become a third element.
C. is measured in half-lives.
D. is measured in number of electrons.
E. doesn't happen spontaneously.
ANS: C
DIF: E
MSC: Concept based
Key Idea: Explain the components and states of matter.

15. The proportion of carbon-14 in an organism is useful in figuring out the age of that organism after it dies because
A. carbon-14 decays to carbon-13.
B. the proportion of carbon-14 is stable forever.
C. carbon-14 becomes more plentiful over time.
D. the proportion of carbon-14 slowly decreases after the death of the organism.
E. It is not true that the proportion of carbon-14 is useful in dating the ages of organisms.
ANS: D
DIF: M

MSC: Fact based
Key Idea: Explain the components and states of matter.

16. Which is a true statement?
A. Radioactive carbon-14 decays to nitrogen-14.
B. Living organisms incorporate carbon into their tissues at a ratio of 2:1 carbon-13 to carbon-14.
C. Carbon-14 is found only in dead organisms.
D. Carbon-12 is found only in dead organisms.
E. Nitrogen-14 naturally decays to carbon-14.
ANS: A
DIF: E
MSC: Fact based
Key Idea: Explain the components and states of matter.

17. Elements that gain or lose electrons to form compounds create
A. ionic bonds.
B. protons.
C. covalent bonds.
D. molecular bonds.
E. isotopes.
ANS: A
DIF: E
MSC: Definitional
Key Idea: Explain the components and states of matter.

18. Compounds formed by elements that share electrons are held together by
A. ionic bonds.
B. protons.
C. covalent bonds.
D. isotopes.
E. nitrogen bonds.
ANS: C
DIF: E
MSC: Definitional
Key Idea: Explain the components and states of matter.

19. To produce sodium chloride, common table salt, a single electron in the outer shell of the sodium atom is transferred to the outer shell of the chlorine atom. This is an example of
A. the formation of an ionic bond.
B. the formation of a covalent bond.
C. radioactive decay.
D. the formation of a hydrogen bond.
E. None of the above
ANS: A

DIF: M
MSC: Fact based
Key Idea: Explain the components and states of matter.

20. The polarity of the water molecule is the result of
A. the slight negative charge of the hydrogen atoms.
B. shared electrons spending more time near the oxygen atom than near the hydrogen atoms.
C. shared electrons spending more time near the hydrogen atoms than near the oxygen atom.
D. boiling point.
E. two positive sides repelling each other.
ANS: B
DIF: M
MSC: Fact based
Key Idea: Explain the components and states of matter.

21. The surface tension of water results from the
A. adhesion of water molecules at the surface.
B. cohesion of water molecules below the surface.
C. cohesion of water molecules at the surface.
D. many water striders on the surface.
E. high boiling point.
ANS: C
DIF: E
MSC: Fact based
Key Idea: Explain the components and states of matter.

22. Capillary action of water results when
A. adhesion of water molecules at a surface is stronger than cohesion between molecules.
B. cohesion of water molecules at a surface is stronger than adhesion between molecules.
C. water is absorbed by a paper towel.
D. water is conducted through vessels in tree trunks.
E. A, C, and D
ANS: E
DIF: M
MSC: Fact based
Key Idea: Explain the components and states of matter.

23. At the atmospheric pressure found at sea level, water
A. is always a solid.
B. boils at 212°F.
C. cannot exist as a gas.
D. boils at a lower temperature than hydrogen sulfide.
E. is no longer an effective solvent.
ANS: B

DIF: E
MSC: Fact based
Key Idea: Explain the components and states of matter.

24. The amount of energy needed to change the temperature of water
A. is great in relation to the energy required to change the temperature of most other substances.
B. is small in relation to the energy required to change the temperature of most other substances.
C. is not significant in understanding climate.
D. is responsible for more moderate seasonal temperature swings in areas close to large bodies of water.
E. Both A and D
ANS: E
DIF: M
MSC: Fact based
Key Idea: Explain the components and states of matter.

25. Water reaches its highest density at
A. 100°C.
B. 39°F.
C. 100°F.
D. 4°C.
E. 0°C.
ANS: D
DIF: E
MSC: Fact based
Key Idea: Explain the components and states of matter.

26. As a solid or a liquid, water reaches its lowest density at
A. 4°C.
B. 39°F.
C. 100°F.
D. 100°C.
E. 0°C.
ANS: E
DIF: D
MSC: Critical thinking
Key Idea: Explain the components and states of matter.

27. Water is a good solvent. This statement explains which of the following phenomena?
I. High concentrations of dissolved ions in seawater.
II. Capacity of living organisms to store many types of molecules in solution in their cells.
III. Easy transport of toxic substances through the environment.
A. I only

B. II only
C. I and II
D. I and III
E. I, II, and III
ANS: E
DIF: E
MSC: Fact based
Key Idea: Explain the components and states of matter.

28. When an acid dissolves in water, it dissociates into
A. positive hydroxide ions.
B. positive hydrogen ions.
C. both hydrogen and hydroxide ions.
D. neither hydrogen nor hydroxide ions.
E. nitrate ions.
ANS: B
DIF: E
MSC: Definitional
Key Idea: Explain the components and states of matter.

29. Bases contribute _____ to a solution.
A. negative hydroxide ions
B. positive hydrogen ions
C. nitrate ions
D. neither hydrogen nor hydroxide ions
E. Both A and B
ANS: A
DIF:E
MSC: Definitional
Key Idea: Explain the components and states of matter.

30. On the pH scale, _____ is neutral.
A. 3
B. 4
C. 5
D. 6
E. 7
ANS: E
DIF: E
MSC: Fact based
Key Idea: Explain the components and states of matter.

31. A substance with a pH of 4 has ____ times the hydrogen ion concentration of a substance with a pH of 6.
A. 2
B. 5

C. 10
D. 100
E. 1000
ANS: D
DIF: M
MSC: Analytical thinking
Key Idea: Explain the components and states of matter.

32. In a chemical reaction,
A. atoms are destroyed.
B. atoms are created.
C. atoms are neither created nor destroyed.
D. there are no changes in the bonds between atoms.
E. atoms are rarely recombined.
ANS: C
DIF: M
MSC: Concept based
Key Idea: Explain the components and states of matter.

33. According to the law of conservation of matter,
I. matter can be created.
II. matter cannot be destroyed.
III. after a chemical reaction, the original atoms remain.
A. I only
B. II only
C. III only
D. I and II
E. II and III
ANS: E
DIF: M
MSC: Concept based
Key Idea: Explain the components and states of matter.

34. An exception to the law of conservation of matter is seen in
A. nuclear reactions in which matter may change into energy.
B. single replacement reactions.
C. double replacement reactions.
D. Both B and C
E. the natural environment, where most waste can be buried forever.
ANS: A
DIF: E
MSC: Fact based
Key Idea: Explain the components and states of matter.

35. Inorganic compounds
I. never contain carbon.

II. may contain carbon bound to elements other than hydrogen.
III. always contain carbon bound to hydrogen
A. I only
B. II only
C. III only
D. I and II
E. I, II, and III
ANS: B
DIF: E
MSC: Definitional
Key Idea: Explain the components and states of matter.

36. Organic compounds may contain
I. carbon-carbon bonds.
II. carbon-hydrogen bonds.
III. hydrogen-oxygen bonds.
A. I only
B. II only
C. III only
D. I, II and III
E. I and III
ANS: D
DIF: E
MSC: Definitional
Key Idea: Explain the components and states of matter.

37. Types of macromolecules, the basis of biological molecules, include
A. carbohydrates, methane, nucleic acids, and lipids.
B. carbohydrates, proteins, lipids, and nucleic acids.
C. organelles, proteins, nucleic acids, and lipids.
D. carbohydrates, proteins, nucleic acids, and organophosphates.
E. carbohydrates, methane, nucleic acids, and lipids.
ANS: B
DIF: E
MSC: Definitional
Key Idea: Explain the components and states of matter.

38. Which of the following is a true statement about carbohydrates?
A. An example of a carbohydrate is glucose.
B. Carbohydrates of composed of carbon, nitrogen, and oxygen atoms.
C. Cellulose, a carbohydrate, is a raw material for ethanol.
D. Carbohydrates are used by plants and animals for storage of energy.
E. Both A and C
ANS: E
DIF: E
MSC: Fact based

Key Idea: Explain the components and states of matter.

39. Proteins are
A. made up of long chains of sugars.
B. made up of chains of amino acids.
C. made of glucose.
D. important in structural support, energy storage, and protection from infection.
E. Both B and D
ANS: E
DIF: E
MSC: Definitional
Key Idea: Explain the components and states of matter.

40. DNA is
A. formed by sugars that are responsible for protecting organisms from foreign substances.
B. formed by proteins that is important for structural support.
C. formed by long chains of nucleic acids.
D. the genetic material organisms pass to their offspring.
E. Both C and D
ANS: E
DIF: E
MSC: Definitional
Key Idea: Explain the components and states of matter.

41. RNA is
A. a long chain of nitrogen-containing organic molecules called amino acids.
B. responsible for translating code stored in DNA.
C. a sugar responsible for protecting organisms from infection.
D. an acid responsible for quick energy.
E. a highly organized entity composed of four macromolecules.
ANS: B
DIF: E
MSC: Definitional
Key Idea: Explain the components and states of matter.

42. Lipids
A. are proteins.
B. are composed of long chain of nitrogen-containing organic molecules called amino acids.
C. are acids responsible for quick energy.
D. do not mix with water.
E. provide the raw material for ethanol.
ANS: D
DIF: E

MSC: Definitional
Key Idea: Explain the components and states of matter.

43. Unicellular organisms
A. can reproduce.
B. contain organelles.
C. contain all four types of macromolecules.
D. comprise the smallest structural and functional component of a living thing.
E. All of the above
ANS: E
DIF: M
MSC: Definitional
Key Idea: Explain the components and states of matter.

44. The “ability to do work” is called
A. power.
B. joules.
C. energy.
D. heat.
E. radiation.
ANS: C
DIF: E
MSC: Definitional
Key Idea: Distinguish between various forms of energy and discuss the first and second laws of thermodynamics.

45. Most energy on Earth comes from
A. the Sun.
B. volcanoes.
C. trees.
D. water.
E. fire.
ANS: A
DIF: E
MSC: Fact based
Key Idea: Distinguish between various forms of energy and discuss the first and second laws of thermodynamics.

46. Energy conversion by living things is
A. evident in animals producing food.
B. not necessary because animals eat food.
C. a fundamental component of all environmental systems.
D. the way electromagnetic radiation is produced.
E. None of the above
ANS: C
DIF: M

MSC: Concept based
Key Idea: Distinguish between various forms of energy and discuss the first and second laws of thermodynamics.

47. Energy is measured in
A. hertz.
B. joules or calories.
C. kilowatts.
D. wavelengths.
E. watts.
ANS: B
DIF: E
MSC: Fact based
Key Idea: Distinguish between various forms of energy and discuss the first and second laws of thermodynamics.

48. The difference between potential and kinetic energy is that
A. potential energy has not yet been released.
B. kinetic energy has not yet been released.
C. potential energy is measured in calories, whereas kinetic energy is measured in joules.
D. potential energy is measured in watts, whereas kinetic energy is measured in joules.
E. kinetic energy cannot be captured at a dam.
ANS: A
DIF: M
MSC: Concept based
Key Idea: Distinguish between various forms of energy and discuss the first and second laws of thermodynamics.

49. Chemical energy
A. is a form of potential energy.
B. is a form of kinetic energy.
C. is created by ingesting food.
D. can be released by ingesting food.
E. Both A and D
ANS: E
DIF: E
MSC: Definitional
Key Idea: Distinguish between various forms of energy and discuss the first and second laws of thermodynamics.

50. Fifty-six calories = approximately _____ joules.
A. 234
B. 275
C. 13
D. 350
E. 468

ANS: A
DIF: E
MSC: Analytical thinking
Key Idea: Distinguish between various forms of energy and discuss the first and second laws of thermodynamics.

51. Twenty-five Btu = _____ joules.
A. 45
B. 56,375
C. 4416
D. 26,375
E. 42
ANS: D
DIF: E
MSC: Analytical thinking
Key Idea: Distinguish between various forms of energy and discuss the first and second laws of thermodynamics.

52. 290,800 J = _____ kilowatt-hours (kWh)
A. 10,400
B. 0.005
C. 10,400,000,000
D. 4567.9
E. 0.08
ANS: E
DIF: E
MSC: Analytical thinking
Key Idea: Distinguish between various forms of energy and discuss the first and second laws of thermodynamics.

53. Twenty-five Btu = _____ MJ
A. 26,375,000
B. 0.026
C. 26
D. 263,375
E. 2,630,750
ANS: B
DIF: E
MSC: Analytical thinking
Key Idea: Distinguish between various forms of energy and discuss the first and second laws of thermodynamics.

54. 14,500 kilocalories = _____ kWh.
A. 36,250
B. 16,850
C. 16.85

D. 16,852.2
E. 60,668
ANS: C
DIF: E
MSC: Analytical thinking
Key Idea: Distinguish between various forms of energy and discuss the first and second laws of thermodynamics.

55. A dishwasher uses 700 watts each time it is run. The cycle takes one hour. It is run 150 times per year. How much energy does it use in one year?
A. 105 kWh
B. 1050 kWh
C. 1050 J
D. 700 kWh
E. 0.10 MJ
ANS: A
DIF: M
MSC: Analytical thinking
Key Idea: Distinguish between various forms of energy and discuss the first and second laws of thermodynamics.

56. A dishwasher uses 700 watts each time it is run. The cycle takes one hour. It is run 150 times per year. How much energy can be saved in one year if the dishwasher is replaced by a more efficient model that uses only 500 watts each time it is run? Assume the frequency of use is the same.
A. 30 MJ
B. 30,000 kWh
C. 30,000 J
D. 30 kWh
E. 45 kWh
ANS: D
DIF: M
MSC: Analytical thinking
Key Idea: Distinguish between various forms of energy and discuss the first and second laws of thermodynamics.

57. If an energy source is 35 percent efficient, what happens to the other 65 percent of the energy?
A. It is converted to another form of useable energy.
B. It is converted to solar energy.
C. It is converted to electromagnetic radiation.
D. It is lost as waste heat.
E. Both B and D
ANS: D
DIF: M
MSC: Concept based

Key Idea: Distinguish between various forms of energy and discuss the first and second laws of thermodynamics.

58. In the electrical lines that transmit electricity between a power plant and a home, _____ percent of the energy is lost as heat and sound.
A. 10
B. 30
C. 50
D. 70
E. 90
ANS: A
DIF: E
MSC: Fact based
Key Idea: Distinguish between various forms of energy and discuss the first and second laws of thermodynamics.

59. If petroleum used by a power generator is 50 percent efficient and the lines that carry the electricity to a light are 25 percent efficient, what is the energy efficiency of converting this oil into this light?
A. 0.50%
B. 12.5%
C. 1.25%
D. 125%
E. 75%
ANS: B
DIF: M
MSC: Analytical thinking
Key Idea: Distinguish between various forms of energy and discuss the first and second laws of thermodynamics.

60. Energy quality
A. from wood is high.
B. from gasoline is high.
C. is measured by the ease with which it can be used for work.
D. is high when it is found in a concentrated form.
E. B, C, and D
ANS: E
DIF: M
MSC: Fact based
Key Idea: Distinguish between various forms of energy and discuss the first and second laws of thermodynamics.

61. The second law of thermodynamics states that
A. in an energy conversion, no energy is lost.
B. all systems move toward increased entropy.
C. new energy is available in all systems.

D. matter can be neither created nor destroyed.
E. velocity increases as a dropped object nears the Earth's surface.
ANS: B
DIF: E
MSC: Definitional
Key Idea: Distinguish between various forms of energy and discuss the first and second laws of thermodynamics.

62. An example of applying new energy in order to decrease entropy can be seen in
A. eating lunch to have the energy to clean up your lab station.
B. the teacher's desk that is littered with papers by the end of class.
C. lawnmower clippings all over the lawn.
D. hot water as it cools off.
E. nails scraping on the blackboard.
ANS: A
DIF: D
MSC: Critical thinking
Key Idea: Distinguish between various forms of energy and discuss the first and second laws of thermodynamics.

63. The types of organisms that can live in an environment may be
A. determined by the amount of solar energy available.
B. determined by the amount of dead organisms available.
C. determined by chemical energy emitted from a deep sea vent.
D. evident in the size of the plants.
E. All of the above
ANS: E
DIF: M
MSC: Concept based
Key Idea: Describe the ways in which ecological systems depend on energy inputs.

64. The systems approach to studying the flow of matter and energy in the environment
A. enables scientists to recognize complex relationships.
B. is not as effective as studying individual organisms.
C. prevents scientists from recognizing complex relationships.
D. is not important in environmental science.
E. is only necessary in open systems.
ANS: A
DIF: M
MSC: Concept based
Key Idea: Explain how scientists track of inputs, outputs, and changes to complex systems.

65. An example of an open system is
A. not found on Earth.
B. found only in the oceans.

C. found in all deep caves.
D. found in the Pacific Ocean.
E. Both C and D
ANS: D
DIF: M
MSC: Concept based
Key Idea: Explain how scientists track of inputs, outputs, and changes to complex systems.

66. In a closed system
A. there are no matter and energy exchanges across boundaries of the system.
B. matter and energy exchanges occur across boundaries of the system.
C. new energy input must be constant.
D. new matter is constantly added.
E. energy is released.
ANS: A
DIF: E
MSC: Definitional
Key Idea: Explain how scientists track of inputs, outputs, and changes to complex systems.

67. A systems analysis of an ecosystem could involve
I. inputs of nutrients.
II. outputs of energy.
III. evaporation.
A. I only
B. II only
C. III only
D. I and II
E. I, II, and III
ANS: E
DIF: M
MSC: Critical thinking
Key Idea: Explain how scientists track of inputs, outputs, and changes to complex systems.

68. In a steady state,
A. input is greater than output.
B. input equals output.
C. the system changes over time.
D. the amount of energy is not increasing.
E. Both B and D
ANS: E
DIF: E
MSC: Definitional

Key Idea: Explain how scientists track of inputs, outputs, and changes to complex systems.

69. Greenhouse gases in the Earth's atmosphere
A. are in steady state.
B. are decreasing.
C. are increasing.
D. cannot be measured.
E. prove that inputs are equal to outputs.
ANS: C
DIF: E
MSC: Fact based
Key Idea: Explain how scientists track of inputs, outputs, and changes to complex systems.

70. The state of global systems on Earth, such as the atmosphere and oceans,
A. are in steady state today.
B. have never been in steady state.
C. are changing.
D. were in steady state until 2010.
E. are clearly showing a net loss of water.
ANS: C
DIF: M
MSC: Critical thinking
Key Idea: Explain how scientists track of inputs, outputs, and changes to complex systems.

71. A positive feedback loop
A. is when feedback into a system increases a rate of response.
B. is when feedback into a system decreases a rate of response.
C. may be seen in some examples of population growth.
D. is when a system responds to a change by returning it to its original state.
E. Both A and C
ANS: E
DIF: E
MSC: Definitional
Key Idea: Explain how scientists track of inputs, outputs, and changes to complex systems.

72. A negative feedback loop is
A. when feed back into the system increases the rate of progress.
B. seen in the example of increased greenhouse gases leading to global warming.
C. seen in the example of world population growth.
D. when a system responds to a change by returning it to its original state.
E. Both B and D
ANS: D

DIF: E
MSC: Definitional
Key Idea: Explain how scientists track of inputs, outputs, and changes to complex systems.

73. Feedback loops that regulate Earth's climate are
A. negative.
B. positive.
C. both negative and positive.
D. impossible to study.
E. becoming less intense.
ANS: C
DIF: M
MSC: Critical thinking
Key Idea: Explain how scientists track of inputs, outputs, and changes to complex systems.

74. An example of a positive feedback loop is
I. warmer temperatures of Earth's surface decreasing the evaporation of water.
II. water evaporation creating low-altitude clouds reflecting sunlight back into clouds.
III. water evaporation creating high-altitude clouds absorbing terrestrial energy that would have escaped the atmosphere.
A. I only
B. II only
C. III only
D. I and II
E. I, II, and III
ANS: C
DIF: M
MSC: Critical thinking
Key Idea: Explain how scientists track of inputs, outputs, and changes to complex systems.

75. Extinctions of species can be the result of
A. natural systems changing.
B. introduction of invasive species.
C. systems that are not in steady state.
D. human inputs.
E. All of the above
ANS: E
DIF: M
MSC: Concept based
Key Idea: Describe how natural systems change over time and space.

76. The Comprehensive Everglades Restoration Plan of 2000 was designed to repair damage caused by
A. diversion of freshwater inputs to provide drinking water for the people of southern Florida.
B. human development in southern Florida.
C. overgrowth of species that enjoy the changed conditions of the Everglades.
D. damage to the Everglades caused by farm waste.
E. All of the above
ANS: E
DIF: M
MSC: Fact based
Key Idea: Describe how natural systems change over time and space.

77. Steps taken to restore the Everglades include
A. decreasing water flow through the water tolerant grasses.
B. reduction of pollutants entering the ecosystem.
C. addition of new species that will tolerate water more effectively.
D. removal of all invasive species.
E. removing all housing and farms with 50 miles of the Everglades.
ANS: B
DIF: E
MSC: Fact based
Key Idea: Describe how natural systems change over time and space.

78. Re-establishing the water flow patterns in the Everglades requires
A. attention to water conservation.
B. demolition of water storage facilities.
C. consideration of hydro-periods.
D. destruction of encroaching wetlands.
E. Both A and C
ANS: E
DIF: M
MSC: Fact based
Key Idea: Describe how natural systems change over time and space.

79. To prepare for future environmental problems in the Everglades, a management plan requires
A. adaptability to change in response to climate change.
B. rigid methods that follow a certain time line.
C. flexibility to evaluate success of restoration methods.
D. introduction of additional phosphorus to the wetlands.
E. Both A and C
ANS: E
DIF: M
MSC: Fact based
Key Idea: Describe how natural systems change over time and space.

80. One very effective method to reduce water pollution in the Everglades National Park is
A. filtration plants every 50 miles.
B. artificial wetlands upstream of the park.
C. additional dams to divert water.
D. removal of all polluted sediment from the park.
E. additional use of water from Lake Okeechobee for irrigation.
ANS: B
DIF: E
MSC: Fact based
Key Idea: Describe how natural systems change over time and space.