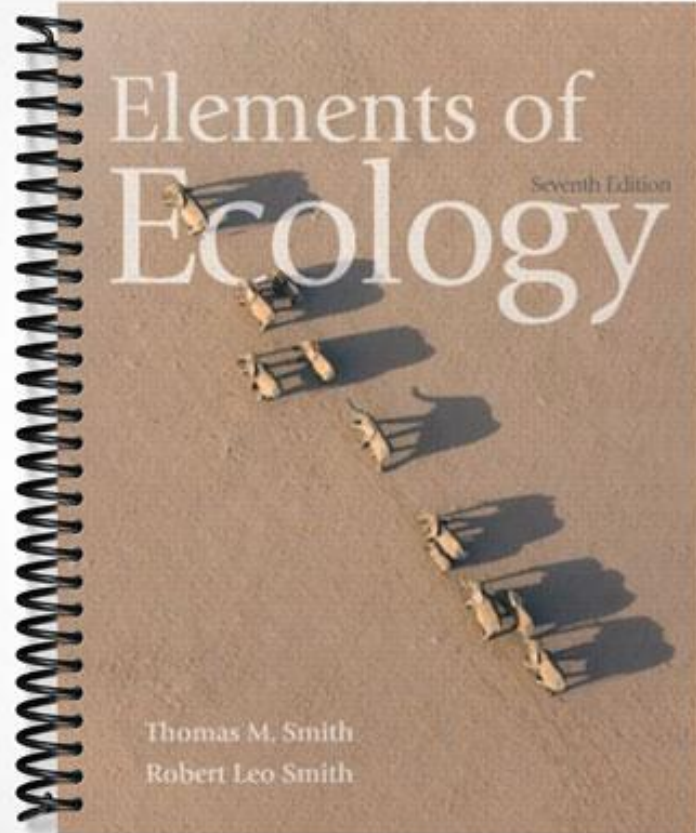


TEST BANK



Test Bank to Accompany

Elements of Ecology
Seventh Edition

by

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Chapter 1 The Nature of Ecology

Short Answer Questions

- 1) _____ is the scientific study of the relationship between organisms and their environment.
Answer: Ecology
Topic: Section 1.1
- 2) The biotic and abiotic components of the environment interacting together are referred to as a(n) _____.
Answer: ecosystem
Topic: Section 1.2
- 3) At the _____ level, communities and ecosystems are linked through processes such as dispersal of organisms.
Answer: landscape
Topic: Section 1.3
- 4) The highest level of organization of ecological systems is the _____.
Answer: biosphere
Topic: Section 1.3
- 5) All populations of different species living and interacting within an ecosystem are referred to as a(n) _____.
Answer: community
Topic: Section 1.3
- 6) At the _____ level, an ecologist might focus on the factors that affect the relative abundance of various populations in the area.
Answer: community
Topic: Section 1.4
- 7) An "educated guess" that a scientist poses to explain an observed phenomenon is referred to as a(n) _____.
Answer: hypothesis
Topic: Section 1.5
- 8) An ecologist who adds different amounts of nitrogen to specific plots of grasses uses a(n) _____ to answer her research question.
Answer: field experiment
Topic: Section 1.5
- 9) Bird wingspan would be considered _____ data.
Answer: numerical
Topic: Quantifying Ecology 1.1
- 10) An abstract, simplified representation of a real system is referred to as a(n) _____.
Answer: model
Topic: Section 1.6

- 11) If an ecologist wanted to illustrate whether a relationship exists between body length and body weight, he would probably produce a(n) _____.

Answer: scatterplot

Topic: *Quantifying Ecology 1.2*

- 12) The _____ forms the basic unit in ecology.

Answer: individual organism

Topic: *Section 1.9*

Multiple-Choice Questions

- 1) The term "ecology" is defined as the study of the
- A) environment.
 - B) relationships between organisms.
 - C) relationships between organisms and their environment.
 - D) impact of humans on the environment.

Answer: C

Topic: *Section 1.1*

- 2) Ambient temperature and concentration of carbon dioxide
- A) are parts of an organism's environment.
 - B) have no effect on the physiology of an organism.
 - C) are biological conditions that impact an organism's survival.
 - D) do not vary in the environment.

Answer: A

Topic: *Section 1.1*

- 3) A biotic community and its abiotic environment is referred to as a(n)
- A) biosphere.
 - B) ecosystem.
 - C) population.
 - D) biome.

Answer: B

Topic: *Section 1.2*

- 4) Which of the following is considered a biotic component of the ecosystem?
- A) climate
 - B) microbes
 - C) soil
 - D) water

Answer: B

Topic: *Section 1.2*

- 5) The biosphere is
- A) the thin layer surrounding the Earth that supports all life.
 - B) all the populations of different species living and interacting within an ecosystem.
 - C) a broad-scale region dominated by similar types of ecosystems.
 - D) an area of land or water composed of a patchwork of communities and ecosystems.

Answer: A

Topic: *Section 1.3*

- 6) A group of individuals of the same species occupying a given area is referred to as a(n)
- A) community.
 - B) biome.
 - C) population.
 - D) ecosystem.

Answer: C

Topic: Section 1.3

- 7) Which of the following is the correct ecological hierarchy (from smallest unit to largest unit) of a daisy?
- A) landscape, community, population, individual organism
 - B) individual organism, community, population, landscape
 - C) individual organism, population, community, landscape
 - D) landscape, population, community, individual organism

Answer: C

Topic: Section 1.4

- 8) Which of the following questions is most appropriate to investigate at the population level?
- A) What is the effect of diminished resources on an individual's life span?
 - B) What is the relationship between resource availability and birth rate?
 - C) What factors influence the distribution of tropical forests?
 - D) How long does it take for carbon to be cycled from the atmosphere into living tissue?

Answer: B

Topic: Section 1.4

- 9) An ecologist who focuses on the individual would study all of the following, except:
- A) morphology.
 - B) physiology.
 - C) behavior.
 - D) death rate.

Answer: D

Topic: Section 1.4

- 10) A hypothesis refers to a(n)
- A) phenomenon that is observed but is not yet understood.
 - B) testable explanation for an observed phenomenon.
 - C) untestable explanation for an observed phenomenon.
 - D) falsified explanation for an observed phenomenon.

Answer: B

Topic: Section 1.5

- 11) A field study
- A) generally takes place within a greenhouse environment.
 - B) requires the ecologist to vary the level of an independent variable.
 - C) is the most controlled of research approaches.
 - D) utilizes sites in which the independent variable fluctuates naturally.

Answer: D

Topic: Section 1.5

- 12) An ecologist conducts a greenhouse experiment to study the effect of nitrogen concentration on the productivity of *Eucalyptus* seedlings. What is the dependent variable in this experiment?
- A) *Eucalyptus* productivity
 - B) nitrogen concentration
 - C) the number of *Eucalyptus* seedlings planted
 - D) the amount of water given to each seedling each day

Answer: A

Topic: Section 1.5

- 13) Which of the following is an example of categorical data that an ecologist might record for a bird?
- A) beak length
 - B) feather color
 - C) wingspan
 - D) feather number

Answer: B

Topic: *Quantifying Ecology 1.1*

- 14) A model is used by ecologists to
- A) prove how nature works by demonstrating cause and effect relationships.
 - B) analyze data that have been collected during an experiment.
 - C) make predictions about how nature works using a set of explicit assumptions.
 - D) observe how nature works in an experimental setting.

Answer: C

Topic: Section 1.6

- 15) The real goal of hypothesis testing is to
- A) eliminate incorrect ideas.
 - B) form a theory.
 - C) fully explain observations.
 - D) understand why science never changes.

Answer: A

Topic: Section 1.7

- 16) If x and y have a positive relationship as shown by a scatterplot, then the value of y will
- A) increase as the value of x decreases.
 - B) increase as the value of x increases.
 - C) decrease as the value of x increases.
 - D) stay the same as the value of x decreases.

Answer: B

Topic: *Quantifying Ecology 1.2*

- 17) Because ecology relies on many different branches of science (e.g., geology) it is considered
- A) hypothetical.
 - B) uncertain.
 - C) permanent.
 - D) interdisciplinary.

Answer: D

Topic: Section 1.8

- 18) The basic unit in ecology is the
- A) ecosystem.
 - B) gene.
 - C) individual organism.
 - D) Earth.

Answer: C

Topic: Section 1.9

True/False Questions

- 1) Ecology is the same as environmentalism.

Answer: FALSE

Topic: Section 1.1

- 2) An ecosystem includes both living and nonliving components.

Answer: TRUE

Topic: Section 1.2

- 3) Light intensity is considered a biotic factor.

Answer: FALSE

Topic: Section 1.2

- 4) A population refers to all the individuals of the same species that occupy a given area.

Answer: TRUE

Topic: Section 1.3

- 5) The community of a pine forest would include all living organisms and nonliving components.

Answer: FALSE

Topic: Section 1.3

- 6) The number of seeds produced by a single flower affects the birth rate of that population of flowers.

Answer: TRUE

Topic: Section 1.4

- 7) Ecology is an interdisciplinary science that relies heavily on many different branches of science.

Answer: TRUE

Topic: Section 1.4

- 8) To be valid a hypothesis must be testable.

Answer: TRUE

Topic: Section 1.5

- 9) A hypothesis is an integrated set of theories.

Answer: FALSE

Topic: Section 1.5

- 10) An experiment is a test under controlled conditions performed to examine the validity of a hypothesis.

Answer: TRUE

Topic: Section 1.5

- 11) When data are categorical, any value within an interval is possible.
Answer: FALSE
Topic: *Quantifying Ecology 1.1*
- 12) Ecological models can be mathematical or they can be verbally descriptive.
Answer: TRUE
Topic: *Section 1.6*
- 13) Science is a process of testing and correcting concepts in order to explain the world around us.
Answer: TRUE
Topic: *Section 1.7*
- 14) There is generally only one valid explanation for an observation.
Answer: FALSE
Topic: *Section 1.7*
- 15) The most common method for displaying a single data set is to construct a frequency distribution.
Answer: TRUE
Topic: *Quantifying Ecology 1.2*
- 16) In a histogram, the *x*-axis represents the number of individuals with a particular characteristic while the *y*-axis represents the category intervals.
Answer: FALSE
Topic: *Quantifying Ecology 1.2*
- 17) Ecology only examines the impact of natural processes and ignores the influence of human activity on the environment.
Answer: FALSE
Topic: *Ecological Issues: The Human Factor*

Essay Questions

- 1) Explain the distinction between ecology and environmentalism.
Topic: *Section 1.1*
- 2) Using a real example, illustrate how an organism can both respond to and modify the abiotic conditions of its ecosystem.
Topic: *Section 1.2*
- 3) Explain why animal and plant populations are dependent on one another at the ecosystem level.
Topic: *Section 1.3*
- 4) Explain why ecology is inherently an interdisciplinary science. Give two examples of the ties between ecology and other branches of science.
Topic: *Section 1.4*
- 5) Describe a field experiment that you might use to test the hypothesis that water availability affects plant growth. Suggest one set of possible results and the implications of those results for the hypothesis.
Topic: *Section 1.5*
- 6) Define five types of data that can be used for quantitative analyses and give an example of each.
Topic: *Quantifying Ecology 1.1*

7) Explain why it is difficult for ecologists to give definitive answers.

Topic: Section 1.7

8) Explain why human population growth, biological diversity, sustainability, and global climate change are considered crucial environmental problems facing humans.

Topic: Section 1.8

9) Explain why current and past human activity is now considered part of the "natural world" by many ecologists. How might this change the field of ecology?

Topic: Ecological Issues: The Human Factor

Chapter 2 Climate

Short Answer Questions

1) The ability of the physical environment to support life is known as its _____.

Answer: habitability

Topic: Introduction to Chapter 2

2) The temperature, humidity, precipitation, wind, cloudiness, and other atmospheric conditions that occur at a specific place and time is referred to as _____.

Answer: weather

Topic: Introduction to Chapter 2

3) The average pattern of local, regional, or global weather conditions over a long period of time is _____.

Answer: climate

Topic: Introduction to Chapter 2

4) _____ and water vapor are the major gases in the atmosphere that absorb energy from the sun.

Answer: Carbon dioxide

Topic: Section 2.1

5) The absorption and reradiation of infrared radiation by gases in the atmosphere is called the _____.

Answer: greenhouse effect

Topic: Section 2.1

6) _____ is the portion of the electromagnetic spectrum that is used by plants to power photosynthesis.

Answer: Visible light or Photosynthetically active radiation (PAR)

Topic: Section 2.1

7) In the Northern Hemisphere, the summer _____ occurs when solar rays fall directly on the Tropic of Capricorn.

Answer: solstice

Topic: Section 2.2

8) Radiation at higher latitudes is spread out over a larger area because of the angle of incidence and the _____.

Answer: air depth or distance it must travel through the atmosphere

Topic: Section 2.2

9) The amount of force exerted over a given area of surface is called atmospheric _____.

Answer: pressure

Topic: Section 2.3

10) As altitude above sea level increases, both air pressure and density _____.

Answer: decrease

Topic: Section 2.3

- 11) The deflection of air masses to the right in the Northern Hemisphere and to the left in the Southern Hemisphere is called the _____.
Answer: Coriolis effect
Topic: Section 2.4
- 12) The _____ are formed by the air that reaches Earth's poles, slowly sinks to the surface, and flows southward is deflected by the Coriolis effect.
Answer: polar easterlies
Topic: Section 2.4
- 13) In the Northern Hemisphere, oceanic gyres circulate in a _____ direction.
Answer: clockwise
Topic: Section 2.5
- 14) _____ is the amount of water vapor in the air expressed as a percentage of the saturation vapor pressure.
Answer: Relative humidity
Topic: Section 2.6
- 15) The amount of energy lost or gained per gram during a change of state is known as _____.
Answer: latent heat
Topic: Section 2.6
- 16) The _____ is the temperature at which atmospheric water condenses.
Answer: dew point
Topic: Section 2.6
- 17) The narrow region near the Equator where trade winds meet is referred to as the _____.
Answer: intertropical convergence zone
Topic: Section 2.7
- 18) Air loses most of its water content as it moves up and over a mountain range and causes a _____ to form on the leeward side of the same range.
Answer: rain shadow
Topic: Section 2.8
- 19) An east-west oscillation in weather patterns across the Pacific Ocean is referred to as the _____-Southern Oscillation.
Answer: El Niño
Topic: Section 2.9
- 20) During an El Niño event, the waters of the eastern Pacific Ocean are unusually _____.
Answer: warm
Topic: Section 2.9
- 21) Most organisms live in habitats that provide specific conditions or a _____ that may be very different than regional weather patterns.
Answer: microclimate
Topic: Section 2.10

- 22) The _____ effect can raise temperatures from 6°C to 8°C above those in the surrounding countryside.

Answer: urban heat, or heat island

Topic: *Ecological Issues: Urban Microclimates*

Multiple-Choice Questions

- 1) Habitability

- A) is the ability of an organism to survive in a particular habitat.
- B) is the ability of the physical environment to support life.
- C) is the ability of the organism to take in resources.
- D) is the ability of the physical environment to change.

Answer: B

Topic: *Introduction to Chapter 2*

- 2) Water vapor and _____ are the two major atmospheric gases that absorb energy from the sun.

- A) oxygen
- B) nitrogen
- C) hydrogen
- D) carbon dioxide

Answer: D

Topic: *Section 2.1*

- 3) Without the greenhouse effect, the Earth would

- A) be much warmer than it currently is.
- B) be much colder than it currently is.
- C) have uniform temperatures and would lack seasons.
- D) have constant sunlight.

Answer: B

Topic: *Section 2.1*

- 4) What percentage of incoming solar radiation actually reaches Earth's surface?

- A) 100 percent
- B) 51 percent
- C) 15 percent
- D) 3 percent

Answer: B

Topic: *Section 2.1*

- 5) Of the 51 units of solar radiation that reach Earth's surface _____ units are lost to the evaporation of water.

- A) 51
- B) 30
- C) 23
- D) 7

Answer: D

Topic: *Section 2.1*

- 6) Photosynthetically active radiation (PAR)
- A) is the longwave radiation emitted from the Earth's surface.
 - B) includes wavelengths that are shorter than ultraviolet (UV) light.
 - C) includes only the solar energy with wavelengths of 400-700 nm.
 - D) is the energy that is absorbed by Earth's atmosphere.

Answer: C

Topic: Section 2.1

- 7) In which of the following areas is the solar radiation the greatest in June?
- A) at the equator
 - B) at the Tropic of Cancer
 - C) at 90° in the southern hemisphere
 - D) at 90° in the northern hemisphere

Answer: D

Topic: Section 2.2

- 8) Seasonal variation in temperature and daylength is due to the
- A) tilt of the Earth's axis.
 - B) greenhouse effect.
 - C) spinning of the Earth on its axis.
 - D) latitudinal variation in solar radiation striking the Earth's surface.

Answer: A

Topic: Section 2.2

- 9) All the following could be used to describe or define "environmental lapse rate," except:
- A) This rate ignores the affect of moving air.
 - B) This is the rate at which air temperature decreases with increasing altitude.
 - C) This rate takes into account the influence of moisture on air temperature.
 - D) This rate is influenced by air pressure.

Answer: C

Topic: Section 2.3

- 10) The rate of adiabatic cooling depends on the
- A) amount of moisture in the air.
 - B) temperature of the air.
 - C) latitude.
 - D) season.

Answer: A

Topic: Section 2.3

- 11) The atmospheric region that is furthest from the Earth's surface is called the
- A) mesosphere.
 - B) stratosphere.
 - C) thermosphere.
 - D) troposphere.

Answer: C

Topic: Section 2.3

- 12) Of the following areas on Earth's surface, which area moves fastest and has the greatest linear velocity?
- A) the North Pole (90° north)
 - B) Barcelona, Spain (41° north)
 - C) the Tropic of Capricorn (23.5° south)
 - D) the Equator (0°)

Answer: D

Topic: Section 2.4

- 13) Between 30-60° north latitude, wind currents typically
- A) blow from west to east and are deflected toward the left.
 - B) blow from east to west and are deflected toward the left.
 - C) blow from west to east and are deflected toward the right.
 - D) blow from east to west and are deflected toward the right.

Answer: C

Topic: Section 2.4

- 14) Which of the following is an incorrect match?
- A) equatorial low: rising air heated in the equatorial zone
 - B) subtropical high: semipermanent high-pressure belt of air at 30° north and south of the equator
 - C) Coriolis effect: deflection in the pattern of wind flow
 - D) subpolar low: right-deflected, southward-flowing stream of air

Answer: D

Topic: Section 2.4

- 15) Surface currents in the ocean typically
- A) flow most strongly from west to east in equatorial regions.
 - B) are colder on the western side of continents.
 - C) flow counterclockwise in gyres in the Northern Hemisphere.
 - D) flow unimpeded from east to west just north of Antarctica.

Answer: B

Topic: Section 2.5

- 16) The systematic patterns of water movement are known as
- A) circulations.
 - B) currents.
 - C) gyres.
 - D) trade winds.

Answer: B

Topic: Section 2.5

- 17) Relative humidity is the
- A) amount of pressure at a given temperature at which water transforms from a liquid to a gaseous state.
 - B) amount of pressure that water vapor exerts independent of the pressure of dry air.
 - C) temperature at which saturation vapor pressure is achieved.
 - D) amount of water vapor in the air relative to the saturation vapor pressure.

Answer: D

Topic: Section 2.6

- 18) The transformation of water vapor to a liquid state is known as
- A) condensation.
 - B) evaporation.
 - C) saturation.
 - D) solidification.

Answer: A

Topic: Section 2.6

- 19) In the vicinity of the Equator, air typically
- A) rises, cools, and precipitates.
 - B) descends, warms, and precipitates.
 - C) rises, cools, and is dry.
 - D) descends, warms, and is dry.

Answer: A

Topic: Section 2.7

- 20) During winter in the Southern Hemisphere, the intertropical convergence zone (ITCZ)
- A) sits directly over the equator.
 - B) is shifted into the northern latitudes.
 - C) is shifted into the southern latitudes.
 - D) does not exist.

Answer: B

Topic: Section 2.7

- 21) Precipitation is generally greater
- A) in the Northern Hemisphere than in the Southern Hemisphere.
 - B) in coastal areas than in interior areas.
 - C) at horse latitudes (approximately 30° of latitude) than at equatorial latitudes.
 - D) on the leeward side of mountains than on the windward side.

Answer: B

Topic: Sections 2.7 and 2.8

- 22) Air loses moisture as it rises over a mountain for all the following reasons, except:
- A) As air cools it loses its ability to hold moisture.
 - B) Air has a lower saturation water vapor at higher altitudes.
 - C) Air that encounters a mountain is too heavy to rise up and over unless it loses excess water vapor.
 - D) Water converts from a gaseous to liquid state.

Answer: C

Topic: Sections 2.3, 2.6, 2.8

- 23) Some variation in the solar radiation striking the Earth's surface is linked to _____ activity.
- A) sunspot
 - B) El Niño
 - C) La Niña
 - D) glacial

Answer: A

Topic: Section 2.9

- 24) During El Niño conditions
- A) surface water temperatures are warmer in the eastern Pacific Ocean.
 - B) less rainfall occurs in the eastern Pacific Ocean.
 - C) trade winds across the Pacific Ocean are strong.
 - D) increased upwelling of nutrient-rich water occurs in the eastern Pacific Ocean.

Answer: D

Topic: Section 2.9

- 25) _____ is considered a primary influence on local climate.
- A) Aspect
 - B) Soil temperature
 - C) Rainfall
 - D) Vegetation

Answer: A

Topic: Section 2.10

- 26) Habitats in the Northern Hemisphere that are positioned on north-facing slopes generally _____ than those habitats situated on south-facing slopes.
- A) have a higher rate of evaporation
 - B) have a greater soil moisture
 - C) experience higher air temperatures
 - D) experience greater fluxes in weather conditions

Answer: B

Topic: Section 2.10

- 27) Densely populated urban areas tend to have
- A) higher relative humidity than rural areas.
 - B) higher temperatures than rural areas.
 - C) higher wind speeds than rural areas.
 - D) less fog than rural areas.

Answer: B

Topic: *Ecological Issues: Urban Microclimates*

True/False Questions

- 1) The physical environment influences organisms on a generational timescale.
Answer: TRUE
Topic: *Introduction to Chapter 2*
- 2) Weather is the long-term average of local, regional, or global conditions.
Answer: FALSE
Topic: *Introduction to Chapter 2*
- 3) Most of the energy from the sun that strikes Earth is used to power living systems.
Answer: FALSE
Topic: Section 2.1
- 4) A hotter object emits higher energy wavelengths than a cooler object.
Answer: TRUE
Topic: Section 2.1

5) Solar radiation is more direct in tropical latitudes than in temperate latitudes.

Answer: TRUE

Topic: Section 2.2

6) Mean global temperatures change with latitude and season.

Answer: TRUE

Topic: Section 2.2

7) Atmospheric temperature increases with an increase in altitude.

Answer: FALSE

Topic: Section 2.3

8) Cooler air is more dense than warmer air.

Answer: TRUE

Topic: Section 2.3

9) Masses of air and water are deflected to the left in the Northern Hemisphere and to the right in the Southern Hemisphere.

Answer: FALSE

Topic: Section 2.4

10) The complicated circulation of air in Earth's atmosphere is due to both the Earth's rotation and irregular land masses on Earth's surface.

Answer: TRUE

Topic: Section 2.4

11) Trade winds are instrumental in forming the oceanic currents that originate at the Equator.

Answer: TRUE

Topic: Section 2.5

12) The water vapor capacity of air cannot be exceeded.

Answer: TRUE

Topic: Section 2.6

13) Cold air can hold more water than warm air.

Answer: FALSE

Topic: Section 2.6

14) Rainfall in the Southern Hemisphere is greater than rainfall in the Northern Hemisphere because the oceans cover a greater proportion of the Southern Hemisphere.

Answer: TRUE

Topic: Section 2.7

15) Precipitation is highest in polar regions.

Answer: FALSE

Topic: Section 2.7

16) The intertropical convergence zone (ITCZ) tends to migrate toward regions of the globe with the warmest surface temperature.

Answer: TRUE

Topic: Section 2.7

17) Vegetation is usually more dense and vigorous on the leeward side of mountains than on the windward side.

Answer: FALSE

Topic: Section 2.8

18) Surface temperatures in the eastern Pacific Ocean are cooler during El Niño conditions than during La Niña conditions.

Answer: FALSE

Topic: Section 2.9

19) In temperate regions of the Northern Hemisphere, north-facing slopes are more humid than south-facing slopes.

Answer: TRUE

Topic: Section 2.10

20) The average temperature in a city is greater than in the surrounding open countryside.

Answer: TRUE

Topic: *Ecological Issues: Urban Microclimates*

Essay Questions

1) Explain the differences between weather, climate, and microclimate. Which is most important for individual organisms? Give an example.

Topic: *Introduction to Chapter 2 and Section 2.10*

2) Explain how or why the Earth's surface emits more energy than it receives from the sun.

Topic: Section 2.1

3) Explain why seasonality occurs and why it is more pronounced at temperate and polar latitudes.

Topic: Section 2.2

4) Explain why air temperature decreases as one moves further from Earth's surface into higher altitudes.

Topic: Section 2.3

5) Explain how the trade winds develop and why these were so important to 17th century merchant sailors.

Topic: Section 2.4

6) Explain why the saturation vapor pressure increases with air temperature. How does relative humidity change in response to air warming or cooling?

Topic: Section 2.6

7) Why is it that, in general, more rain falls in the Southern Hemisphere than in the Northern Hemisphere?

Topic: Section 2.7

8) Why do the amount of rainfall and the composition of vegetation differ greatly on the opposite sides of a mountain range?

Topic: Section 2.8

9) Compare the causes and effects of the El Niño and La Niña events.

Topic: Section 2.9

- 10) You study two neighboring plant populations growing at 200 meters above sea level (asl). One population is situated on a north-facing slope while the other population grows on a south-facing slope. Compare the environmental conditions and microclimates that each population experiences.

Topic: Section 2.10

- 11) Why does the climate of urban areas differ from that of the surrounding countryside?

Topic: Ecological Issues: Urban Microclimates

Chapter 3 The Aquatic Environment

Short Answer Questions

- 1) Aquatic ecosystems are divided into two major categories: freshwater and _____.
Answer: salt water, or marine
Topic: *Introduction to Chapter 3*
- 2) Precipitation that reaches the soil moves into the ground by _____.
Answer: infiltration
Topic: *Section 3.1*
- 3) The total amount of evaporating water from the surfaces of the ground and vegetation is called _____.
Answer: evapotranspiration
Topic: *Section 3.1*
- 4) An underground layer of permeable, water-bearing substrate is known as a/an _____.
Answer: aquifer
Topic: *Ecological Issues: Groundwater Resources*
- 5) Individual water molecules are joined together by _____ bonds.
Answer: hydrogen
Topic: *Section 3.2*
- 6) The _____ of water is the amount of heat that is required to raise the temperature of water one degree Celsius.
Answer: specific heat
Topic: *Section 3.2*
- 7) _____ is the source of frictional resistance to objects moving through water.
Answer: Viscosity
Topic: *Section 3.2*
- 8) As sunlight passes through water, only _____ wavelengths are able to penetrate into deeper water.
Answer: blue
Topic: *Section 3.3*
- 9) The upper layer of warm, low-density water of an open body of water is called the _____.
Answer: epilimnion
Topic: *Section 3.4*
- 10) Water is a(n) _____ molecule.
Answer: polar
Topic: *Section 3.2, 3.5*
- 11) Compounds that consist of electrically charged atoms or groups of atoms are called _____.
Answer: ions
Topic: *Section 3.5*