Geosystems: An Introduction to Physical Geography, 8e **(Christopherson)**
Chapter 1 Essentials of Geography

Multiple Choice Questions

1) A physical geographer would study
A) the eruption of the Eyjafjallajokull volcano in Iceland.
B) the effects of the Deepwater Horizon oil spill disaster.
C) the 7.0 magnitude earthquake in Haiti in 2010.
D) All of the above.
Answer: D
Diff: 2
Chapter/section: 1.1 The Science of Geography
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

2) Geography is described as
A) an Earth science.
B) a human science.
C) a physical science.
D) a spatial science.
Answer: D
Diff: 2
Chapter/section: 1.1 The Science of Geography
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

3) The word spatial refers to
A) the nature and character of physical space.
B) items that relate specifically to society.
C) things that are unique and special.
D) eras of time.
Answer: A
Diff: 2
Chapter/section: 1.1 The Science of Geography
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

4) Which is not true of geographers?
A) They are Earth systems scientists.
B) They are not really scientists.
C) They are concerned with spatial and temporal relationships.
D) They use spatial analysis.
Answer: B
Diff: 2
Chapter/section: 1.1 The Science of Geography
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

5) Geography
A) is not a science.
B) does not use systems analysis.
C) does not consider process in explaining systems.
D) is derived from geo and graphein; literally, "to write Earth."
Answer: D
Diff: 2
Chapter/section: 1.1 The Science of Geography
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

6) "Geography" literally means
A) place memorization.
B) the study of rocks.
C) map making.
D) to write (about) Earth.
Answer: D
Diff: 1
Chapter/section: 1.1 The Science of Geography
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
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7) The main methodology governing geographic inquiry
A) is behavioral analysis.
B) involves spatial analysis.
C) uses chronological organization.
D) is field work.
Answer: B
Diff: 1
Chapter/section: 1.1 The Science of Geography
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

8) Which of the following best describes the field of physical geography?
A) Understanding soil development.
B) Mapping of rock types.
C) The study of weather.
D) Understanding how Earth's processes interact to produce the phenomena observed in nature.
Answer: D
Diff: 2
Chapter/section: 1.1 The Science of Geography
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

9) Relative to the five fundamental themes of geography, communication and diffusion refer to
A) location.
B) place.
C) human-Earth relationships.
D) movement.
E) regions.
Answer: D
Diff: 2
Chapter/section: 1.1 The Science of Geography
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

10) Which of the following most accurately characterizes the goal of geography?
A) The production of maps.
B) Memorization of the names of places on world and regional maps.
C) Memorization of the imports and exports of a country.
D) Understanding why a particular place has unique characteristics.
E) A, B and C.
Answer: D
Diff: 2
Chapter/section: 1.1 The Science of Geography
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11) The science of physical geography is based on the realization that
A) nature is homogenous and spatially undifferentiated.
B) knowledge of spatial distributions is of little value in understanding nature.
C) nature can best be described and understood as a set of interrelated components through which matter and energy flow.
D) humans have no significant impact on the physical phenomena that occur in nature.
Answer: C
Diff: 2
Chapter/section: 1.1 The Science of Geography
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
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12) Which of the following terms characterizes the discipline of geography?
A) eclectic
B) holistic
C) unscientific
D) both eclectic and holistic
Answer: D
Diff: 2
Chapter/section: 1.1 The Science of Geography
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

13) Geography is not
A) eclectic.
B) holistic.
C) unscientific.
Answer: C
Diff: 2
Chapter/section: 1.1 The Science of Geography
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
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14) Which of the following comprise the fundamental duality in the field of geography?
A) physical versus human/cultural
B) physical versus economic
C) economic versus political
D) political versus environmental
Answer: A
Diff: 1
Chapter/section: 1.1 The Science of Geography
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
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15) Relative to the five fundamental themes of geography, resource exploitation and hazard perception refer to
A) location.
B) place.
C) human-Earth relationships.
D) movement.
E) regions.
Answer: C
Diff: 2
Chapter/section: 1.1 The Science of Geography
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
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16) Relative to the five fundamental themes of geography, latitude and longitude refer to
A) location.
B) place.
C) human-Earth relationships.
D) movement.
E) regions.
Answer: A
Diff: 2
Chapter/section: 1.1 The Science of Geography
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
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17) Relative to the five fundamental themes of geography, areas that display uniform characteristics refer to
A) location.
B) place.
C) human-Earth relationships.
D) movement.
E) regions.
Answer: E
Diff: 2
Chapter/section: 1.1 The Science of Geography
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18) Relative to the five fundamental themes of geography, unique tangible and intangible aspects of a site refers to
A) location.
B) place.
C) human-Earth relationships.
D) movement.
E) regions.
Answer: B
Diff: 2
Chapter/section: 1.1 The Science of Geography
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19) Relative to the five fundamental themes of geography, the Taj Mahal in India and Ayers Rock in Australia are best described within which of the five themes?
A) location
B) place
C) human-Earth relationships
D) movement
E) regions
Answer: B
Diff: 2
Chapter/section: 1.1 The Science of Geography
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20) Relative to the five fundamental themes of geography, your home address is best described within which of the themes?
A) location
B) place
C) human-Earth relationships
D) movement
E) regions
Answer: A
Diff: 2
Chapter/section: 1.1 The Science of Geography
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21) The massive oil spill from the Deepwater Horizon falls within which of the five themes?
A) location
B) place
C) human-Earth relationships
D) movement
E) regions
Answer: C
Diff: 2
Chapter/section: 1.1 The Science of Geography
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22) System analysis, the analytical technique used by modern geographers, was developed by
A) historians who wanted to understand the forces that shaped history.
B) scientists who were studying energy and temperature; i.e., thermodynamics.
C) 2astronomers who were interested in developing models of the origin of the solar system.
D) botanists who were interested in studying plant growth and reproduction.
Answer: B
Diff: 2
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 3/4 Application/Analysis
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23) The inductive method of reasoning used by Earth scientists to discern patterns in nature involves reasoning from
A) the complex to the simple.
B) the simple to the complex.
C) the specific to the general.
D) the general to the specific.
Answer: C
Diff: 2
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
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24) Which of the following is the most strongly supported by experimental and observational evidence?
A) speculation
B) hypothesis
C) educated guess
D) theory
Answer: D
Diff: 2
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

25) Which of the following is true of scientific theories?
A) They are based on several hypotheses.
B) They are broad in scope because they unify several known facts about the world.
C) They are based on natural laws (such as those pertaining to gravity, relativity, atomic theory, etc.)
D) All of the above.
Answer: D
Diff: 2
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
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26) The key idea behind the scientific method is
A) the use of intuition in testing theories.
B) an appeal to supernatural explanations when natural explanations have not yet been found for a phenomenon.
C) the testing of ideas through controlled observations and experiments.
D) unbridled speculation about the world.
Answer: C
Diff: 2
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
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27) The scientific method is described by which of the following?
A) The application of common sense.
B) It is related to procedures developed by Sir Isaac Newton.
C) The development of hypotheses for testing and prediction.
D) All of these are correct.
E) None of these are correct.
Answer: D
Diff: 2
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

28) The capacity to change the motion of, or to do work on, matter is the definition of
A) energy.
B) plasma.
C) thermodynamics.
D) acceleration.
E) system.
Answer: A
Diff: 2
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

29) Which of the following is an example of a system?
A) a leaf
B) a river drainage basin
C) a midlatitude cyclonic storm
D) All of these are examples of systems.
E) None of these are examples of systems.
Answer: D
Diff: 2
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
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spatial thinking to understand and communicate information.

30) A non-rechargeable battery can best be described as a/an _____ energy system and a/an _____ material system.
A) closed; closed
B) closed; open
C) open; open
D) open; closed
Answer: A
Diff: 2
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

31) Which of the following is incorrect?
A) Earth represents a vast integrated system.
B) Earth represents an open system in terms of energy.
C) Earth represents a closed system in terms of matter.
D) New resources and matter are being added to Earth's systems all the time.
Answer: D
Diff: 2
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

32) Systems encountered in nature at Earth's surface, such as the soil in a floodplain, are
A) open systems in terms of energy.
B) closed systems in terms of energy.
C) open systems in terms of matter.
D) both open systems in terms of energy and open systems in terms of matter.
E) both closed systems in terms of energy and open systems in terms of matter.
Answer: D
Diff: 2
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

33) With respect to air, water, and material resources, which of the following is true?
A) A leaf is a closed system.
B) A leaf is an open system.
C) A leaf is an open system in terms of air, but closed in terms of material resources.
D) A leaf is an open system in terms of water, but closed in terms of energy resources.
Answer: B
Diff: 2
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

34) What type of feedback maintains stability in a system; i.e., what type of feedback keeps a system functioning properly?
A) positive
B) negative
C) neutral
Answer: B
Diff: 2
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

35) If a system responds to a change in input by moving further away from its equilibrium condition, what type of feedback has occurred?
A) positive
B) negative
C) neutral
D) Not enough information is given to indicate what type of feedback has occurred.
Answer: A
Diff: 2
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

36) Which of the following is correctly matched?
A) equilibrium □ balance of inputs and outputs
B) steady state equilibrium □ small fluctuations about an average condition
C) dynamic equilibrium □ small fluctuations about an average condition that changes gradually over time
D) All of the above are correctly matched.
Answer: D
Diff: 2
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

37) Which of the following best describes the condition of steady-state equilibrium?
A) System inputs always exactly balance outputs so the system never changes.
B) System inputs and outputs fluctuate around a stable average so the system does not move far from its average condition.
C) System inputs produce large, random fluctuations in output, forcing the system into a new state of equilibrium.
D) Systems slowly adjust to long-term changes in input and output.
Answer: B
Diff: 2
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

38) If we burn fossil fuels, which release carbon dioxide and warm the atmosphere, as the oceans warm they will release more carbon dioxide, which warms the atmosphere. This is an example of _____ feedback. If the increased atmospheric carbon dioxide causes increased plant growth which removes carbon dioxide and cools the atmosphere, this is an example of _____ feedback.
A) positive; positive
B) positive; negative
C) negative; negative
D) negative; positive
Answer: B
Diff: 3
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

39) The increase in meltponds in Arctic regions is an example of
A) positive feedback, because the melt ponds absorb more solar energy than the ice did.
B) positive feedback, as the melt ice freezes it increases the area of ice.
C) negative feedback, because the ponds reflect more sunlight than ice and therefore absorb less energy.
D) negative feedback, as the ice melts the water freezes, increasing the amount of ice.
Answer: A
Diff: 3
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

40) If increased levels of carbon dioxide lead to further increases in temperature by promoting the release of even more carbon dioxide from the oceans, this means that _____ feedback has occurred and that the planet is _____.
A) positive; in equilibrium
B) positive; out of equilibrium
C) negative; in equilibrium
D) negative; out of equilibrium
Answer: B
Diff: 3
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

41) The carbon dioxide that is being added to the atmosphere by the burning of fossil fuels is an example of an _____ to the atmosphere and an _____ from the lithosphere.
A) input; input
B) input; output
C) output; output
D) output; input
Answer: B
Diff: 2
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

42) If the human population keeps growing rapidly, there could be a rapid shift from there being enough food to large scale food shortages and starvation. The point at which this change occurs is a(n) _____.
A) type of dynamic equilibrium condition
B) type of metastable equilibrium
C) threshold
D) input
Answer: C
Diff: 2
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

43) As we burn fossil fuels and release carbon dioxide, the temperature of our planet and the oceans will increase. When the oceans warm they will release more carbon dioxide, further warming the planet and oceans. If this occurs rapidly and causes a sudden rise in temperature, a(n) _____ has been crossed and that the planet has moved into a state of _____.
A) input level; equilibrium
B) input level; disequilibrium
C) threshold; equilibrium
D) threshold; disequilibrium
Answer: D
Diff: 2
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

44) Around the Grand Canyon the predators of deer were largely exterminated by people. The deer population grew rapidly as a result of the lack of predators until the deer exhausted their food supply. This led to a massive die-off (known as a population crash) and hundreds of deer died of starvation. The point at which the food supply no longer supported the large deer population can best be considered a
A) model.
B) metastable equilibrium condition.
C) threshold.
D) dynamic equilibrium condition.
Answer: C
Diff: 3
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

45) The case of harlequin frogs is an example of
A) rapid changes that occur once a tipping point is reached.
B) linear response in a system.
C) powerful synergy between pathogen transmission and climate change.
D) negative feedback.
E) All of the above.
Answer: E
Diff: 2
Chapter/section: 1.2 Earth Systems Concepts
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46) If a storm causes more sediment (dirt) to flow into a river than the river can carry, the sediment will be deposited in the channel. This will make the channel narrower than it was originally. However, as the channel's width decreases, the river's velocity will increase, and this will eventually cause the newly deposited sediment to be eroded. As a result, the original width of the river, as well as normal flow velocities, will be reestablished. In this example, the width of the river channel and the processes controlling it can be considered an example of
A) steady-state equilibrium.
B) positive feedback.
C) negative feedback.
D) both positive feedback and negative feedback.
E) both steady-state equilibrium and negative feedback.
Answer: E
Diff: 2
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 03. Analyze spatial organization of people, places, & environments on Earth's surface.

47) If Earth warmed up, and more snow fell because of more water vapor in the atmosphere, and that snow then reduced Earth's temperature, which increased snow cover, then the initial increase in snow fall would be _____ feed back, while the continued increase in snow fall would be _____ feed back.
A) positive; positive
B) positive; negative
C) negative; positive
D) negative; negative
Answer: C
Diff: 2
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

48) Which of the following is true of models?
A) They are abstract representations of the world.
B) They are idealized representations of the world.
C) They are simplified representations of the world.
D) All of the above are true.
Answer: D
Diff: 2
Chapter/section: 1.1 The Science of Geography
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Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

49) According to the text, the three inorganic Earth realms are the
A) hydrosphere, lithosphere, and atmosphere.
B) thermosphere, lithosphere, heterosphere.
C) atmosphere, geoid, and homosphere.
D) stratosphere, magnetosphere, and troposphere.
Answer: A
Diff: 2
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

50) Which of the following statements regarding the development of models by scientists is not true?
A) Many models cannot incorporate all the relevant factors affecting a phenomenon because some factors are either unknown or cannot be accurately represented.
B) Complex systems involve so many variables that the interactions among them cannot be fully understood.
C) Most scientists believe that any system can eventually be modeled with 100 percent accuracy. Thus, models can be perfect representations of reality.
D) A model is only as good as the assumptions and accuracy of information upon which it is based.
Answer: C
Diff: 2
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

51) Living systems are considered
A) biotic.
B) inorganic.
C) part of the lithosphere.
D) abiotic.
Answer: A
Diff: 2
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
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52) Which of the following is true of the biosphere?
A) It is never referred to as the ecosphere.
B) It exists on other planets in the solar system.
C) It is not connected to the overlapping inorganic spheres.
D) It extends from the floor of the oceans to 8 km (5 mi.) into the atmosphere.
Answer: D
Diff: 2
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

53) Which of the following is true of the biosphere?
A) Life processes generally are not shaped by the abiotic spheres.
B) Life processes generally are shaped by the abiotic spheres.
C) It is not connected to the overlapping inorganic spheres.
D) It only occurs in the hydrosphere.
Answer: B
Diff: 2
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
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54) The realization that Earth was a sphere
A) did not occur in Europe until the first voyages of Columbus.
B) had to wait until the modern era (1800s).
C) was first made by Pythagoras, 580-500 B.C.
D) was made by Isaac Newton.
Answer: C
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

55) A value for Earth's circumference was first calculated by
A) Columbus.
B) Pythagoras.
C) modern satellite measurements.
D) a librarian at Alexandria named Eratosthenes.
Answer: D
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

56) Which of the following statements about Earth is correct?
A) It is elongated.
B) Earth is the second largest planet in the solar system.
C) The equatorial diameter is 42 km (26 mi.) greater than the polar diameter.
D) Earth is perfectly spherical.
Answer: C
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

57) The oblateness of Earth occurs at the
A) poles.
B) equator.
C) subtropics.
D) prime meridian.
Answer: A
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

58) The diameter of Earth is largest when measured around the
A) poles.
B) equator.
C) subtropics.
D) prime meridian.
Answer: B
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

59) Isaac Newton reasoned that Earth was not perfectly spherical because of
A) centrifugal force created by Earth's more rapid rotation at the equator.
B) centrifugal force created by Earth's more rapid rotation at the poles.
C) gravitational force created by Earth's more rapid rotation at the equator.
D) gravitational force created by Earth's more rapid rotation at the poles.
Answer: A
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

60) The science that specifically attempts to determine Earth's shape and size by surveys and mathematical means is called
A) geography.
B) geology.
C) cartography.
D) astronomy.
E) geodesy.
Answer: E
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

61) Who made a significant, early contribution to cartography by adding a grid and orienting the map with north at the top? He also divided the circumference of Earth into 360°, with each degree comprising 60 minutes, and each minute comprising 60 seconds.
A) Pythagoras in the sixth century B.C.
B) Sir Isaac Newton in the seventeenth century A.D.
C) Magellan in the sixteenth century A.D.
D) Ptolemy in the second century A.D.
Answer: D
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

62) The individual who first determined the circumference of Earth did so using which of the following?
A) geometry
B) a water well
C) the shadow of an obelisk
D) all of the above
Answer: D
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

63) Which of the following is easily determined using the position of the Sun or stars?
A) longitude
B) latitude
C) altitude
Answer: B
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

64) A parallel of latitude
A) is used to measure distances east and west of the equator.
B) measures longitude.
C) is called a meridian.
D) is used to measure distances north or south of the equator.
E) is a line which passes through both poles.
Answer: D
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

65) An angular distance measured north or south of the equator from the center of Earth is termed
A) longitude.
B) latitude.
C) zenith.
D) Greenwich distance.
Answer: B
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

66) If an observer determines that the North Star (Polaris) is located 30° above the horizon, then the observer is located at _____.
A) 70° north latitude
B) 60° north latitude
C) 30° north latitude
D) 60° north longitude
E) 30° north longitude
Answer: C
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

67) An angular distance measured east or west of a prime meridian from the center of Earth is termed
A) longitude.
B) latitude.
C) zenith.
D) Greenwich distance.
Answer: A
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

68) How far north you live from the equator is measured as your _____, whereas an imaginary line marking all those places at that same distance north of the equator is called a _____.
A) longitude; meridian
B) meridian; longitude
C) latitude; parallel
D) parallel; latitude
E) location; place
Answer: C
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

69) Which of the following is true regarding the 0° prime meridian?
A) There was no way of determining this meridian at sea until as late as AD 1760.
B) The prime meridian passes through Paris, France.
C) International agreement regarding the location of the prime meridian was not resolved until the 1980s when a treaty was completed.
D) The key to measuring angular distances east and west of the prime meridian was the development of accurate compasses.
Answer: A
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

70) The basis for defining the length of a day is the fact that
A) Earth rotates east to west.
B) Earth moves through 365.25 days a year in its orbit about the Sun.
C) Earth rotates on its axis in 24 hours; i.e., it rotates 15° of longitude per hour.
D) Earth does not rotate; rather, it revolves.
Answer: C
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

71) The meridian opposite of Earth's prime meridian (0° longitude) is called
A) secondary meridian.
B) the anti-meridian.
C) the equator.
D) the International Date Line.
Answer: D
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

72) Latitude is
A) the angular distance measured north or south of the equator.
B) the angular distance measured east or west of a prime meridian.
C) the basis for establishing meridians.
D) portrayed on a globe as lines that cross the equator at right angles.
Answer: A
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

73) The most extreme northern and southern parallels to experience perpendicular rays of the Sun at local noon are located at
A) 90° north and south.
B) 23.5° north and south.
C) 45° north and south.
D) 66.5° north and south.
Answer: B
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

74) Areas located above _____ latitude experience 24 hours of daylight for six months of the year and 24 hours of night for six months of the year.
A) 10°
B) 23.5°
C) 66.5°
D) 80°
Answer: C
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

75) Longitude is
A) an angular distance measured north or south of the equator.
B) an angular distance measured east or west of a prime meridian.
C) the basis for establishing parallels.
D) determined by Sun altitude above the horizon.
Answer: B
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

76) If you were standing at 20° north latitude you would be within which latitudinal geographic zone?
A) tropical
B) midlatitude
C) equatorial
D) subarctic
E) subtropical
Answer: E
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

77) If you were standing at 60° north latitude you would be within which latitudinal geographic zone?
A) subantarctic
B) midlatitude
C) antarctic
D) subarctic
E) subtropical
Answer: D
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

78) A line connecting all points along the same longitudinal angle is called a
A) meridian.
B) parallel.
C) prime latitudinal angle.
D) great circle.
Answer: A
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

79) (Place your city here)'s absolute location is best described as
A) (Place your latitude and longitude here as presented in lecture).
B) 105° north latitude by 41° west longitude.
C) north and east of Greenwich, London, England.
D) south and east of Greenwich, London, England.
Answer: A
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

80) Longitude is conveniently determined at sea using
A) chronometers.
B) noon Sun angles.
C) magnetic compasses.
D) sextants.
Answer: A
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

81) Which of the following is not true of meridians?
A) They cross parallels at right angles.
B) They are lines that run in an east-west direction.
C) All meridians are the same length.
D) They are used to measure east-west angular distances.
Answer: B
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

82) Which of the following is true of the prime meridian?
A) It is used to determine latitude using lines that run east and west.
B) It was first used in the 1500s at the time of initial circumnavigation voyages.
C) It was not established until 1884 and is centered on an observatory near London.
D) It is that place on Earth where the days officially change.
Answer: C
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

83) GPS units are
A) accurate within 10 m.
B) a metric version of longitude and latitude.
C) 1/60th of a Greenwich Precision Second.
D) not available to the public; they are only available to the military.
Answer: A
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

84) Global Positioning System (GPS) units
A) recently found that the summit of Mt. Everest is 8850 m (29,035 feet) above sea level.
B) are accurate to 10 m.
C) are used by the military and surveyors.
D) are used in agriculture.
E) All of the above are true.
Answer: E
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

85) The letters A.M. stand for
A) after midnight.
B) after morning.
C) ante majolica.
D) ante meridiem.
E) after meridian.
Answer: D
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

86) The letters P.M. stand for
A) prior majolica.
B) previous morning.
C) post meridiem.
D) possible meridian.
Answer: C
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

87) The letters A.M. and P.M. refer to the time at which
A) the Sun's rays first appear above the eastern horizon at dawn.
B) the Sun's rays first disappear below the western horizon at dusk.
C) the Sun is directly overhead at noon.
D) the Sun crosses the equator moving north on the first day of spring.
Answer: C
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

88) Which of the following is true of the length (as measured in kilometers) of a degree of latitude?
A) It is constant at all latitudes.
B) It is longer near the equator than near the poles.
C) It is shorter near the equator than near the poles.
D) It is shorter near the prime meridian than near the international dateline.
Answer: A
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

89) If City A is located west of City B, the time at City A is _____ than that at City B because Earth rotates from _____ when viewed from above the North Pole.
A) earlier; west to east(i.e., counterclockwise)
B) earlier; east to west (i.e., clockwise)
C) later; west to east (i.e., counterclockwise)
D) later; east to west (i.e., clockwise)
Answer: A
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

90) The difference in Sun time between two places located 30° in longitude apart from one another is
A) 30 seconds.
B) 30 minutes.
C) one hour.
D) two hours.
E) three hours.
Answer: D
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

91) If a clock on a ship indicates that it is 2:00 P.M. in its home port, while another clock on the ship indicates that it is 12:00 noon at the ship's present location, what is the difference in longitude between the ship's position and its home port?
A) The ship is 2° east of its home port.
B) The ship is 2° west of its home port.
C) The ship is 30° east of its home port.
D) The ship is 30° west of its home port.
E) The ship is 45° west of its home port.
Answer: D
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

92) If you began a trip at 60° west, 20° north and traveled 120° farther west and 50° south, your new position would be
A) the International Dateline at 70° north latitude.
B) the International Dateline at 30° south latitude.
C) the Greenwich meridian at 70° north latitude.
D) the Greenwich meridian at 30° south latitude.
E) 30° north, 120° west.
Answer: B
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

93) If it is 10:00 PM on July 3rd at 30° west, what date and time is it at 15° east?
A) July 3rd; 11 P.M.
B) July 3rd; 9 P.M.
C) July 3rd; 6 P.M.
D) July 4th; 1 A.M.
E) July 4th; 2 A.M.
Answer: D
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

94) Travelers flying west from Los Angeles (118° W) to Tokyo (139° E) will cross the _____ and, as a result, they will _____ when crossing this meridian.
A) International Dateline; gain a day (Example: Sunday becomes Saturday.)
B) International Dateline; lose a day (Example: Saturday becomes Sunday.)
C) prime meridian; gain a day (Example: Sunday becomes Saturday.)
D) prime meridian; lose a day (Example: Saturday becomes Sunday.)
Answer: B
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

95) Standard time zones
A) have yet to be generally established.
B) are 15° wide because Earth rotates through that distance in one hour.
C) are only used in the developed countries.
D) are spaced at 5° intervals of longitude in North America.
Answer: B
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

96) If it is 10:00 A.M. in Miami, Florida (Eastern time zone), what time is it in Los Angeles, California, located 3 time zones to the west in the Pacific Time zone?
A) 7 A.M.
B) 8 A.M.
C) 1 P.M.
D) 2 P.M.
Answer: A
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

97) Which of the following is true of the prime meridian just prior to the year 1884?
A) All countries were already using the Greenwich meridian for their land maps.
B) Most countries were already using the Greenwich meridian for their marine maps.
C) The United States used the Washington meridian for land maps and marine maps.
D) There was no such thing as a prime meridian before 1884.
Answer: B
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

98) UTC refers to
A) the International Date Line.
B) Universal Time Conference.
C) Coordinated Universal Time.
D) Universal Time Circles.
Answer: C
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

99) Time is now precisely measured with primary standard clocks that are based on
A) very precise pendulum motion.
B) the location of Greenwich, U.K.
C) the vibration of cesium atoms.
D) the pulse rate of pulsar stars.
Answer: C
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

100) The practice of setting time ahead or behind during the year, out of coordination with the Sun, is termed
A) Coordinated Universal Time.
B) Daylight Saving Time.
C) Standard time.
D) Greenwich Mean Time.
Answer: B
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

101) Which of the following statements is true regarding Daylight Saving Time (DST)?
A) The length of the day is one hour longer than it was before the adoption of DST.
B) The length of the day is one hour shorter than it was before the adoption of DST.
C) Crops can grow faster because the day is longer.
D) The length of the day is not changed.
Answer: D
Diff: 2
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

102) The earliest known maps date to _____ and were made by _____.
A) 45,000 B.C.; Neanderthals
B) 2,300 B.C.; the Babylonians
C) 500 B.C.; the Greeks
D) 700 AD; the Catholic Church
E) 1100 AD; Mongol warriors
Answer: B
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

103) The part of geography that embodies map making is known as
A) theodesy.
B) geodesy.
C) cartography.
D) calligraphy.
Answer: C
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

104) A great circle is
A) any parallel of latitude.
B) the longest distance between two places on the surface of Earth.
C) a circle of circumference whose center coincides with the center of Earth.
D) a correct magnetic compass direction on a flat map.
Answer: C
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

105) Earth's equator is an example of
A) a small circle.
B) a great circle.
C) a prime meridian.
D) a line of equal longitude.
Answer: B
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

106) The scale of a map can be expressed by which of the following?
A) representative fraction
B) graphic scale
C) written scale
D) All of these are correct.
E) None of these are correct.
Answer: D
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

107) A scale of 1:24,000 is regarded as
A) a large scale.
B) a small scale compared to a scale of 1:20,900,000.
C) an intermediate scale.
D) a scale appropriate for a world globe.
Answer: A
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

108) A scale of 1:20,900,000 is regarded as
A) a large scale.
B) a large scale compared to a scale of 1:24,000.
C) an intermediate scale.
D) a scale appropriate for a world globe.
Answer: D
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

109) If you wanted a map with a lot of detail of a small area you would want a
A) a large scale map.
B) a small scale map.
C) an intermediate scale.
D) a world globe.
Answer: A
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

110) A map scale of 1:24,000 means that
A) one inch on the map equals 24,000 inches on the ground.
B) one centimeter on the map equals 24,000 centimeters on the ground.
C) one foot on the map equals 24,000 feet on Earth.
D) all of the above
E) none of the above
Answer: D
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

111) Any orderly system of parallels and meridians drawn on a flat surface is called a
A) diagram.
B) cone.
C) map projection.
D) globe.
Answer: C
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

112) A scale given as "one centimeter to one kilometer" is an example of a
A) representative fraction.
B) graphic scale.
C) written scale.
D) All of these are correct.
Answer: C
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

113) Which of the following is an example of an intermediate map scale?
A) 1:3,168,000
B) 1:63,360
C) 1 cm = 0.25 km (1 in. = 2000 ft)
D) 1:125,000
Answer: D
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

114) Which type of map scale would be appropriate to use if the map were to be enlarged by photocopying?
A) written
B) graphic
C) representative fraction
D) none of the above
Answer: B
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

115) The larger the scale of a map, the _____ the area covered by the map and the _____ detail it provides.
A) larger; more
B) larger; less
C) smaller; more
D) smaller; less
Answer: C
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

116) The larger the denominator in a representative fraction, the _____ the scale of the map.
A) larger
B) smaller
Answer: B
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

117) The amount of detail on large scale maps is _____ on than on small scale maps.
A) larger
B) smaller
C) It is impossible to compare the relative detail of the same features on maps of different scales.
Answer: A
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

118) Which of the following describes the property of equal area on a map?
A) equivalence
B) conformality
C) proximity
D) equidistance
Answer: A
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

119) Which of the following describes the property of true shape on a map?
A) equivalence
B) conformality
C) proximity
D) equidistance
Answer: B
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

120) Which of the following possesses all of Earth's properties of area, shape, direction, proximity, and distance, correctly?
A) Mercator projection
B) Alber's equal-area conic projection
C) Robinson projection
D) a world globe
Answer: D
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

121) In order to preserve area at high latitudes on a map, _____ must be used, and this requires that meridians and parallels _____.
A) shearing; cross at right angles
B) shearing; not cross at right angles
C) tangent lines; cross at right angles
D) tangent lines; do not cross at right angles
Answer: B
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

122) A line of tangency (also called a standard line) is a line
A) that always corresponds to a great circle.
B) along which shearing occurs.
C) along which no distortion occurs.
D) divides Earth into two equal halves.
Answer: C
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

123) Of the principal map projection classes, which cannot be generated using a physical-perspective approach, i.e., an approach based on the projection of the shadow of a wire-skeleton globe onto a geometric surface?
A) cylindrical
B) oval
C) conic
D) planar
Answer: B
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

124) On which one of the following projections do great circle routes appear as straight lines?
A) Mercator projection
B) Goode's homolosine projection
C) any conic projection
D) a gnomonic projection
Answer: D
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

125) On the Mercator projection, areas at high latitudes appear _____.
A) larger than areas of the same size located nearer to the equator
B) smaller than areas of the same size located nearer to the equator
C) the same size as areas of the same size located nearer to the equator
Answer: A
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

126) In plotting true magnetic compass readings (i.e., rhumb lines) between two points, which map projection is generally used?
A) Robinson projection
B) Mercator projection
C) Goode's homolosine projection
D) any conic projection
Answer: B
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

127) The change in the proportional size of features at high latitudes on a Mercator map occurs because
A) meridians are stretched apart at high latitudes.
B) there are no tangent lines anywhere on the map.
C) shearing is used to create the map.
D) a conic projection is used to create the map.
Answer: A
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

128) Because of the type of distortion that occurs on a Mercator map, which of the following must be true?
A) The map scale changes from one part of the map to another.
B) One inch near the equator does not cover the same amount of distance as one inch near the poles.
C) One square inch near the equator does not cover the same amount of area as one square inch near the poles.
D) All of the above are true.
E) None of the above are true□there is no distortion in a Mercator projection.
Answer: D
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

129) If you were preparing a map showing the distribution of world climates, which type of map projection would you want to use to allow accurate comparison of areas and regions?
A) equal area
B) a gnomonic projection
C) true shape
D) a Mercator projection
Answer: A
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

130) Which of the following is a cylindrical map projection?
A) Robinson projection
B) Mercator projection
C) Goode's homolosine projection
D) sinusoidal equal-area projection
Answer: B
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

131) Which of the following is not a class of map projection?
A) cylindrical
B) planar
C) conical
D) geometrical
Answer: D
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

132) An isoline denoting all points at the same elevation is called
A) an isobar.
B) an isotherm.
C) an isohyet.
D) a contour line.
Answer: D
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

133) A planimetric map
A) shows great circles as straight lines.
B) shows horizontal positions of various features such as boundaries and land uses.
C) is an outmoded form of mapping that is no longer of value.
D) shows vertical dimensions.
Answer: B
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

134) Which of the following is the most popular and widely used map prepared by the U.S. Geological Survey?
A) a topographic map
B) a Robinson projection
C) a resources map
D) portolan chart
Answer: A
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

135) Remote sensing is
A) a subjective determination of temperature.
B) the monitoring of a distant object without physical contact.
C) an earthbound technique not used in modern satellites.
D) based on the principle that surfaces must be physically handled and directly measured for study.
Answer: B
Diff: 2
Chapter/section: 1.5 Remote Sensing and GIS
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

136) The use of aerial photographs to improve the accuracy of surface maps is called
A) the electromagnetic spectrum.
B) photogrammetry.
C) GIS.
D) calligraphy.
Answer: B
Diff: 2
Chapter/section: 1.5 Remote Sensing and GIS
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

137) Satellite images are based on
A) standard photographic film which is recovered after the satellite is returned to Earth.
B) digital data that is stored electronically and then transmitted to Earth by radio waves.
C) holographic images created using laser-generated interference patterns.
D) all of the above.
Answer: B
Diff: 2
Chapter/section: 1.5 Remote Sensing and GIS
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

138) A satellite imaging system that beams electromagnetic energy at the surface and then records the energy that is reflected is classified as a(n) _____ system.
A) active
B) passive
C) photographic
D) holographic
Answer: A
Diff: 2
Chapter/section: 1.5 Remote Sensing and GIS
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

139) Which of the following is an example of an active remote sensing device?
A) film
B) infrared sensor
C) video camera
D) radar
Answer: D
Diff: 2
Chapter/section: 1.5 Remote Sensing and GIS
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

140) Which of the following is false?
A) GIS stands for geographic information system.
B) Satellite weather images are an example of remote sensing.
C) GIS represents an important planning tool.
D) A GIS model does not require the use of a map.
Answer: D
Diff: 2
Chapter/section: 1.5 Remote Sensing and GIS
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

141) Which of the following is a capability of a geographic information system (GIS)?
A) data storage
B) data manipulation and analysis
C) map production with overlays of different information layers
D) all of the above
Answer: D
Diff: 2
Chapter/section: 1.5 Remote Sensing and GIS
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

142) GIS is being used to
A) monitor flood hazard areas.
B) plan urban development.
C) analyze crime trends.
D) help fight wildfires.
E) All of these are uses of GIS.
Answer: E
Diff: 2
Chapter/section: 1.5 Remote Sensing and GIS
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

143) Which of the following is an advantage of a geographic information system?
A) production of specialized maps suited to the needs of specific users
B) rapid production of maps based on continuously updated information
C) analysis of spatial information
D) creation of data overlays showing the spatial relationships between two or more variables
E) All of these choices are correct.
Answer: E
Diff: 2
Chapter/section: 1.5 Remote Sensing and GIS
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

True/False Questions

1) Geography is a discipline defined by a specific body of content and subject matter rather than by an approach.
Answer: FALSE
Diff: 1
Chapter/section: 1.1 The Science of Geography
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

2) The essential approach in geographic studies is spatial analysis.
Answer: TRUE
Diff: 1
Chapter/section: 1.1 The Science of Geography
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

3) The geographic theme of place refers to absolute and relative position on Earth.
Answer: FALSE
Diff: 2
Chapter/section: 1.1 The Science of Geography
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

4) Areas that display a degree of uniformity are called regions.
Answer: TRUE
Diff: 1
Chapter/section: 1.1 The Science of Geography
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

5) Society's relationship to the environment is described by the geographic theme of location.
Answer: FALSE
Diff: 1
Chapter/section: 1.1 The Science of Geography
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

6) The spread of ash fallout worldwide from the Mount Pinatubo eruptions in 1991 in the Philippines is described under the principal geographic theme of movement.
Answer: TRUE
Diff: 1
Chapter/section: 1.1 The Science of Geography
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

7) The factors that comprise a system are known as variables.
Answer: TRUE
Diff: 1
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

8) Systems methodologies are not applicable to geographic analysis.
Answer: FALSE
Diff: 1
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

9) Photosynthesis in a plant leaf is an example of an open-system operation.
Answer: TRUE
Diff: 2
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

10) Positive feedback tends to amplify or encourage response in system operations.
Answer: TRUE
Diff: 1
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

11) Negative feedback tends to stabilize a system.
Answer: TRUE
Diff: 1
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

12) The "balance of nature" that characterizes well-functioning ecosystems occurs because of predominantly positive feedback mechanisms.
Answer: FALSE
Diff: 1
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

13) A model is essentially a simplification of natural systems.
Answer: TRUE
Diff: 1
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

14) Pure science frequently involves the making of value judgments about the moral or political correctness of a fact, idea, or theory.
Answer: FALSE
Diff: 1
Chapter/section: 1.1 The Science of Geography
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

15) Scientific theories are capable of generating testing predictions.
Answer: TRUE
Diff: 1
Chapter/section: 1.1 The Science of Geography
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

16) Because scientific ideas are tested, they can be corrected when they are wrong.
Answer: TRUE
Diff: 1
Chapter/section: 1.1 The Science of Geography
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

17) Longitude measures distances east or west of a prime meridian on Earth's surface.
Answer: TRUE
Diff: 1
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

18) Latitude is the angular distance measured north or south of the equator from the center of Earth and it describes a parallel line on the surface.
Answer: TRUE
Diff: 1
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

19) "Longitude" is the name of an angle, and "meridian" is the name of an imaginary line that connects all points along the same longitude.
Answer: TRUE
Diff: 1
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

20) Latitude is easily determined using celestial objects whereas longitude is not easily calculated in such a manner and requires time-keeping devices.
Answer: TRUE
Diff: 1
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

21) Modern cartographers of this century were the first to lay out a map using grid coordinates, place north at the top of the map, and locate several thousand places on their maps.
Answer: FALSE
Diff: 1
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

22) Observers in the southern hemisphere use the North Star (Polaris) to determine their latitude.
Answer: FALSE
Diff: 1
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

23) Clocks that operated without a pendulum had to be invented before longitude at sea could be calculated.
Answer: TRUE
Diff: 1
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

24) Coordinated Universal Time is the present name for world standard time.
Answer: TRUE
Diff: 1
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

25) The prime meridian and the 180th meridian are opposite halves of the same great circle.
Answer: TRUE
Diff: 1
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

26) A meridian is 360° in length.
Answer: FALSE
Diff: 1
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

27) All parallels are 360° in length.
Answer: TRUE
Diff: 1
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

28) The day officially changes on Earth at the prime meridian.
Answer: FALSE
Diff: 1
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

29) If it is July 3rd in Tokyo (139° E), it is July 4th in Los Angeles (118° W)
Answer: FALSE
Diff: 1
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

30) When Daylight Saving Time is in effect, clocks "spring forward" one hour in the Spring (Example: 1:00 A.M. becomes 2:00 A.M.) and "fall back" one hour in the Fall (Example: 2:00 A.M. becomes 1:00 A.M.).
Answer: TRUE
Diff: 1
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

31) A great circle route is the shortest distance between any two points on Earth's surface.
Answer: TRUE
Diff: 1
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

32) If two cities are located at the same latitude of 20° north, the shortest path between them is along the 20° parallel.
Answer: FALSE
Diff: 1
Chapter/section: 1.3 Location and Time on Earth
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

33) Geographers consider maps to be "tools."
Answer: TRUE
Diff: 1
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

34) A map scale of 1:24,000 is considered a small scale as compared to a scale of 1:20,900,000, which is considered a large scale.
Answer: FALSE
Diff: 1
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

35) A written scale appears on maps as a bar graph.
Answer: FALSE
Diff: 1
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

36) A 12 inch-diameter globe has a smaller scale than a 33 inch globe.
Answer: TRUE
Diff: 1
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

37) The globe is the only map that accurately portrays all spatial relationships characteristic of Earth's surface.
Answer: TRUE
Diff: 1
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

38) Shearing allows for the preservation of area, but results in the distortion of shape.
Answer: TRUE
Diff: 1
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

39) As the distance from a line of tangency increases, the amount of distortion on a map also increases.
Answer: TRUE
Diff: 1
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

40) Cylindrical map projections, such as the Mercator, have a rectangular grid; i.e., parallels and meridians cross at right angles.
Answer: TRUE
Diff: 1
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

41) In order for shape to be preserved on a map, the parallels and meridians must intersect at right angles.
Answer: TRUE
Diff: 1
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

42) If a map has a standard parallel at 40° north, this means that the line of tangency for the map was at 40° north.
Answer: TRUE
Diff: 1
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

43) A gnomonic light source is located at the center of a globe.
Answer: TRUE
Diff: 1
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

44) A standard parallel is a line of tangency.
Answer: TRUE
Diff: 1
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

45) Maps that are intended to show spatial distributions should be based on projections that minimize area distortion, rather than shape distortion.
Answer: TRUE
Diff: 1
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

46) A circular surface area, when drawn on a map designed to preserve area, might appear as an oval.
Answer: TRUE
Diff: 1
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

47) A picture taken with film in a camera is an example of passive remote sensing.
Answer: TRUE
Diff: 1
Chapter/section: 1.5 Remote Sensing and GIS
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

48) A Landsat or weather satellite image is an example of passive remote sensing.
Answer: TRUE
Diff: 1
Chapter/section: 1.5 Remote Sensing and GIS
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

49) GIS systems use satellites to find locations precisely.
Answer: FALSE
Diff: 1
Chapter/section: 1.5 Remote Sensing and GIS
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

50) GIS systems can create dynamic maps.
Answer: TRUE
Diff: 1
Chapter/section: 1.5 Remote Sensing and GIS
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Short Answer Questions

1) List the five principal themes of modern geographic education.
Answer: location; place; region; human-Earth relationship; movement
Diff: 2
Chapter/section: 1.1 The Science of Geography
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

2) A _____ is any ordered, interrelated set of objects and attributes as distinct from their surrounding environment. A _____ represents an idealized part of the real world greatly simplified.
Answer: system; model
Diff: 2
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 07. The physical processes that shape the patterns of Earth's surface.

3) Earth's nonliving systems are called _____ and include the _____, _____, and _____. Earth's living system is called the _____, and is also sometimes referred to as the _____.
Answer: abiotic; atmosphere; hydrosphere; lithosphere; biosphere; ecosphere
Diff: 2
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 07. The physical processes that shape the patterns of Earth's surface.

4) _____ is assumes a physical shape and occupies space, whereas _____ is a capacity to do work.
Answer: matter; energy
Diff: 2
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 07. The physical processes that shape the patterns of Earth's surface.

5) The science that attempts to determine Earth's shape and size by surveys and mathematical means is _____.
Answer: geodesy
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

6) A _____ is any circle of Earth's circumference whose center coincides with the center of Earth. All other circles on Earth constitute _____.
Answer: great circle; small circles
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 3/4 Application/Analysis
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

7) The four classes of map projections are called _____, _____, _____, and _____.
Answer: planar; cylindrical; conic; oval
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

8) At least three methods of expressing scale on maps are _____, _____, and _____.
Answer: written; representative fraction; bar
Diff: 2
Chapter/section: 1.4 Maps, Scales, and Projections
Bloom's Taxonomy: 1/2 Knowledge/Comprehension
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Essay Questions

1) Why is the term "spatial" so important in geography?
Diff: 3
Chapter/section: 1.1 The Science of Geography
Bloom's Taxonomy: 5/6 Synthesis/Evaluation
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

2) Describe what distinguishes physical geography from human and cultural geography.
Diff: 3
Chapter/section: 1.1 The Science of Geography
Bloom's Taxonomy: 5/6 Synthesis/Evaluation
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

3) Follow the scientific method from the initial perception of phenomena to a general theory about the phenomena.
Diff: 3
Chapter/section: 1.1 The Science of Geography
Bloom's Taxonomy: 5/6 Synthesis/Evaluation
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

4) Why is inductive reasoning so important in science?
Diff: 3
Chapter/section: 1.1 The Science of Geography
Bloom's Taxonomy: 5/6 Synthesis/Evaluation
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

5) What is a hypothesis? How does it differ from a theory?
Diff: 3
Chapter/section: 1.1 The Science of Geography
Bloom's Taxonomy: 5/6 Synthesis/Evaluation
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

6) Use examples to distinguish an open system from a closed system.
Diff: 3
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 5/6 Synthesis/Evaluation
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

7) Use examples to distinguish positive and negative feedback loops.
Diff: 3
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 5/6 Synthesis/Evaluation
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

8) How can feedback affect a system? Give examples of positive and negative feedback.
Diff: 3
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 5/6 Synthesis/Evaluation
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

9) List and briefly describe Earth's's four spheres.
Diff: 3
Chapter/section: 1.2 Earth Systems Concepts
Bloom's Taxonomy: 5/6 Synthesis/Evaluation
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

10) Distinguish between active and passive remote sensing, and describe the applications of each.
Diff: 3
Chapter/section: 1.5 Remote Sensing and GIS
Bloom's Taxonomy: 5/6 Synthesis/Evaluation
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

11) What is a geographic information system? How is it typically created? What are some potential GIS applications?
Diff: 3
Chapter/section: 1.5 Remote Sensing and GIS
Bloom's Taxonomy: 5/6 Synthesis/Evaluation
Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.