

Name _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) In a word, "evolution" means
A) selection. B) change. C) nature. D) improvement. 1) _____

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

- 2) Photosynthetic bacteria are examples of autotrophs. 2) _____

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

- 3) Photosynthetic plants are considered "self-feeders," or _____. 3) _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 4) Why do heterotrophs require "food" for survival? 4) _____
A) Food provides at least half of the water required by heterotrophs.
B) Food is an alternative source of energy for heterotrophs when sunlight is unavailable.
C) Heterotrophs cannot photosynthesize without the chemicals provided by food.
D) Food provides the organic chemicals needed by heterotrophs.

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

- 5) Errors or changes in the DNA of an organism are called _____. 5) _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 6) Imagine that 1 milliliter of an experimental drug diluted in a saline solution is injected into 20 pregnant mice to determine possible side effects. Which of the following is a suitable control for this experiment? 6) _____
A) 20 male mice injected with 1 milliliter of the drug
B) 20 male mice injected with 1 milliliter of saline
C) 20 pregnant mice injected with 2 milliliters of the drug
D) 20 pregnant mice injected with 1 milliliter of saline
E) 20 non-pregnant mice injected with 1 milliliter of the drug

- 7) A scientific explanation that is conditional and requires more investigation is called a(n) 7) _____
A) control.
B) theory.
C) fact.
D) observation.
E) hypothesis.

- 8) We use the scientific method every day. Imagine that your car doesn't start one morning before school. Which of these is a reasonable *hypothesis* regarding the problem? 8) _____
- A) I should check whether the lights were left on and drained the battery.
 - B) I should add a quart of oil.
 - C) I'm going to be late.
 - D) I should change the battery or the starter.
 - E) If I put gas in my car, it will start.

MATCHING. Choose the item in column 2 that best matches each item in column 1.

For the following question(s), choose the characteristic of a living organism that best corresponds to each statement. Selections may be used once, more than once, or not at all.

- 9) A sunflower follows the sun as it moves across the sky during the period of a single day. A) Response to stimuli 9) _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 10) In which kingdom does a multicellular, eukaryotic, photosynthetic organism belong? 10) _____
- A) Animalia B) Plantae C) Fungi D) Protists

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

- 11) Scientific theories are the same in any part of the world (meaning they do not vary by location). 11) _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 12) Which of the following is an example of deductive reasoning? 12) _____
- A) If an object exhibits all the characteristics of life, it must be living.
 - B) All objects on Earth will fall down when dropped, and none will "fall up."
 - C) Atoms make up molecules, which make up cells, which make up tissues.
 - D) Living objects are composed of cells.

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

- 13) List four characteristics of living things, and give an example to illustrate each. 13) _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 14) Of the following levels of organization, Archaea have 14) _____
- A) atoms only.
 - B) atoms, molecules, and organs.
 - C) organs only.
 - D) atoms and molecules.
 - E) molecules only.

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

- 15) Adaptations aid in the survival and reproduction of an organism in a particular environment. 15) _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 16) A mutation is a _____ 16) _____
- A) physical deformity, such as the loss of a limb.
 - B) defective egg or sperm cell.
 - C) dose of radiation.
 - D) change in the DNA sequence.

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

- 17) Consider the observation that people taking Drug X for headaches also seem to have low blood pressure. Design a simple experiment based on this observation, and include a hypothesis statement and your actual experimental design for the study. 17) _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 18) You observe a plant on your windowsill that is growing at an angle toward the outside. This is an example of a living thing _____ 18) _____
- A) reproducing.
 - B) maintaining precise internal conditions.
 - C) evolving.
 - D) responding to stimuli.
- 19) Which is NOT an example of evolution? _____ 19) _____
- A) Flightless birds living on islands without predators
 - B) A dog learning how to open the cabinet where its food is kept
 - C) The 2- to 3-year effectiveness of most commercial pesticides in killing insects
 - D) Annual changes in the flu virus due to mutations
 - E) The development of antibiotic-resistant bacteria

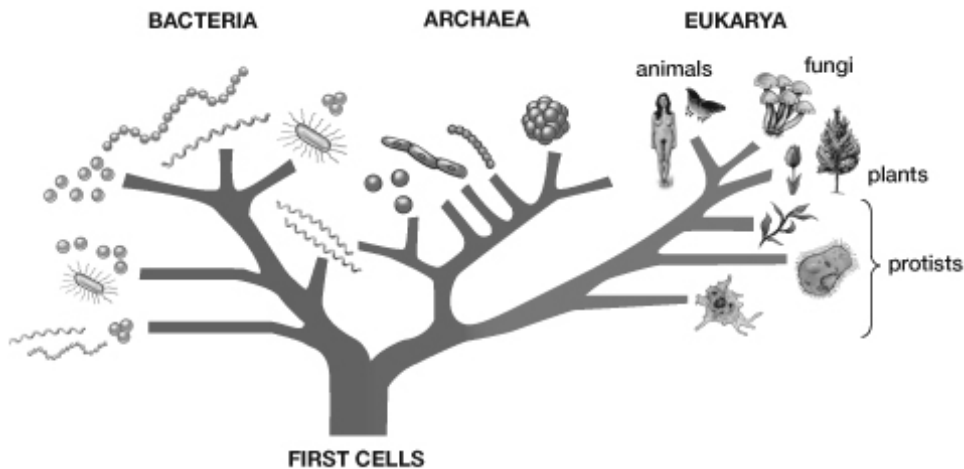
SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

- 20) A group of similar, interbreeding individuals that live in the same area is a(n) _____. 20) _____
- 21) A group of individuals who are able to interbreed, regardless of their geographical location, is defined as a(n) _____. 21) _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

22) The "first cells" shown at the bottom of this illustration were most likely

22) _____



- A) fungi.
- B) prokaryotes.
- C) animals.
- D) protists.
- E) plants.

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

23) Variation among organisms is due to mutations.

23) _____

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

24) The instructions for producing and maintaining life are contained in what molecule?

24) _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

25) Which of the following is FALSE about scientific theories?

25) _____

- A) They are used to support observations using deductive reasoning.
- B) They can be either supported or modified by new observations.
- C) They are firmly established and cannot be refuted.
- D) They have been thoroughly tested.
- E) They are developed by inductive reasoning.

26) The smallest units that still retain the characteristics of an element are called

26) _____

- A) atoms.
- B) cells.
- C) tissues.
- D) molecules.
- E) organic molecules.

27) A change in the genetic makeup of a species over time is called

27) _____

- A) mutation.
- B) natural causality.
- C) evolution.
- D) adaptation.

28) Which is the correct sequence of increasing organization?

28) _____

- A) Cell, tissue, organ, organ system
- B) Atom, molecule, tissue, cell
- C) Molecule, cell, organelle, organ
- D) Organelle, tissue, cell, organ
- E) Organ, tissue, cell, molecule

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

29) The energy that sustains life ultimately comes from sunlight.

29) _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

30) An organism in the domain Eukarya is characterized by all of the following EXCEPT

30) _____

- A) the ability to maintain precise internal conditions.
- B) being composed of prokaryotic cells.
- C) the potential to grow and reproduce.
- D) ingestion of organic matter to acquire nutrients.

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

31) The three natural processes that underlie evolution are genetic variation, inheritance, and _____.

31) _____

32) Describe at least two cellular-level differences between a photosynthetic prokaryote and a plant.

32) _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

33) Why do humans born without sweat glands usually not survive?

33) _____

- A) Sweating is important for eliminating impurities from the body.
- B) Sweating is the only way the body eliminates excess water.
- C) Sweat glands create openings in the skin where gas exchange occurs.
- D) Sweating is an important mechanism for maintaining the correct body temperature.

34) Suppose you are testing a treatment for AIDS patients and find that 75% respond well, whereas 25% show no improvement or a decline in health. You should

34) _____

- A) review the results, modify the drug or the dosage, and repeat the experiment.
- B) discontinue experimentation with this treatment because 25% of patients did not improve.
- C) conclude that you have proven the effectiveness of the drug.
- D) conclude that only 75% of AIDS patients should be treated.
- E) begin work on developing a new drug.

35) The experiments of Francesco Redi

35) _____

- A) disproved the scientific method.
- B) used the scientific method to prove the idea of spontaneous generation.
- C) disproved that maggots and flies were related.
- D) determined that fly larvae were present in raw meat, and when left on the counter they turned into flies.
- E) disproved the idea of spontaneous generation.

- 36) Suppose that a meteorite crashes into Earth and a sample of it is taken to a local research lab for analysis. Embedded several inches within the rocky structure, a microscopic cluster of dormant, spore-like structures is found. The scientists culture some of this material in a standard microbiological nutrient broth, and they are surprised to find many single-celled "organisms" moving around, growing, and reproducing in the broth. The "organisms" behave the same in both daylight and dark conditions, do not require oxygen, and thrive under a wide range of temperatures and pH levels. They stop moving, growing, and reproducing, however, when fewer nutrients are available in the medium. In this scenario, the "organisms" most closely resemble a(n)
- A) nonliving virus.
 - B) heterotrophic species of Eukarya.
 - C) photosynthetic species of Bacteria.
 - D) autotrophic species of Eukarya.
 - E) heterotrophic species of Archaea.
- 37) A carefully formulated scientific explanation that is based on extensive observations and is in accord with scientific principles is called a
- A) control.
 - B) fact.
 - C) hypothesis.
 - D) theory.
 - E) postulate.
- 38) All of the following are features of the scientific method EXCEPT
- A) deductive reasoning.
 - B) hypothesis formulation.
 - C) observation and experimentation.
 - D) repeatable by other scientists.
 - E) supernatural causes.
- 39) A mutation can be the cause for
- A) sexual reproduction.
 - B) natural selection.
 - C) sperm and egg formation.
 - D) environmental change.
 - E) growth and development.
- 40) All of the following are true of all living organisms EXCEPT that they
- A) can reproduce themselves.
 - B) can grow.
 - C) possess either DNA or RNA.
 - D) respond to stimuli.
 - E) are made of cells.

MATCHING. Choose the item in column 2 that best matches each item in column 1.

For the following question(s), choose the characteristic of a living organism that best corresponds to each statement. Selections may be used once, more than once, or not at all.

- | | | |
|---|-----------|-----------|
| 41) A puppy is born weighing 5 pounds and eventually becomes a 75-pound golden retriever. | A) Growth | 41) _____ |
|---|-----------|-----------|

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

- | | |
|--|-----------|
| 42) The basic unit of life is the _____. | 42) _____ |
|--|-----------|

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- | | | | |
|--|-----------------|------------|-----------------|
| 43) Francesco Redi designed an experiment to test the notion of spontaneous generation. He left the first jar of meat open to the air and covered the second jar. The first jar would be called the _____ jar. | 43) _____ | | |
| A) conclusive | B) experimental | C) control | D) hypothetical |

MATCHING. Choose the item in column 2 that best matches each item in column 1.




For the following question(s), choose the characteristic of a living organism that best corresponds to each statement. Selections may be used once, more than once, or not at all.

- | | | |
|---|--------------|-----------|
| 44) Over time, the average neck length of giraffes has increased. Only those giraffes with longer necks survived by eating the leaves high up on the trees, and they were able to reproduce and pass those long-neck genes on to the next generation. | A) Evolution | 44) _____ |
|---|--------------|-----------|

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

45) Which of the following is NOT a part of the community shown in this figure?

45) _____

Ecosystem	A community together with its nonliving surroundings	 snake, antelope, hawk, bushes, grass, rocks, stream
Community	Populations of different species that live in the same area and interact with one another	 snake, antelope, hawk, bushes, grass
Species	All organisms that are similar enough to interbreed	
Population	All the members of a species living in the same area	 herd of pronghorn antelope

- A) Stream
- B) Snake
- C) Pronghorn antelope
- D) Grass
- E) Hawk

46) Which kingdom possesses unicellular animal-like species and unicellular plantlike species?

46) _____

- A) Fungi
- B) Animalia
- C) Plantae
- D) Protista

47) To test the effect of vitamin D on growth, two groups of rats were raised under identical conditions and fed the same diet. One of the groups received daily injections of vitamin D. The other group received injections of saline, which did not contain vitamin D. All the rats were weighed weekly for 2 months. In this experiment, the control was the

47) _____

- A) 2-month period of time.
- B) group receiving vitamin D.
- C) average weight gain of the rats.
- D) group receiving saline.

48) Which of the following levels of organization is the most inclusive (i.e., includes the most life-forms)?

48) _____

- A) Biosphere
- B) Ecosystem
- C) Species
- D) Community
- E) Population

49) Which of the following is a characteristic of living organisms?

49) _____

- A) Eat other organisms
- B) Have membrane-bound organelles
- C) Ability to produce energy
- D) Have a nucleus
- E) Maintenance and regulation of internal conditions

50) Dinosaurs are not alive today because they 50) _____
A) did not possess the genetic material that beneficial mutations act on.
B) evolved adaptations that were beneficial in their constant, unchanging environment.
C) did not evolve fast enough to keep up with rapid environmental change.
D) evolved too quickly in response to a changing environment.

51) Which group has prokaryotic individuals? 51) _____
A) Domain Archaea
B) Protist kingdoms
C) Kingdom Animalia
D) Kingdom Fungi
E) Kingdom Plantae

52) Which of these would be an example of a NON-scientific study? 52) _____
A) Consumers are asked which tomato variety produces the best-tasting spaghetti sauce.
B) People are immunized with different vaccines to determine their relative effectiveness against the flu virus.
C) NASA sends tadpoles up in the space shuttle to see how gravity affects their development.
D) A study determines differences in the species composition in two parks.
E) A company uses different advertising methods for a product to determine which one produces the most sales.

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

53) A hypothesis is typically stated as an "If . . . then" statement. 53) _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

54) Which of the following statements about the Bacteria and Eukarya domains is TRUE? 54) _____
A) All members of Bacteria acquire nutrients via ingestion and all members of Eukarya acquire nutrients by photosynthesis.
B) All members of Bacteria are prokaryotic cells and all members of Eukarya are eukaryotic cells.
C) Only members of Eukarya have the ability to grow and reproduce.
D) All members of Bacteria are single-celled and all members of Eukarya are multicellular.

55) Suppose an organism has an enzyme that repairs changes in its DNA. The result is a decrease in mutations. This trait would definitely influence the organism's ability to 55) _____
A) evolve. B) maintain homeostasis.
C) obtain energy. D) move.

56) A scientific theory 56) _____
A) is a general explanation for natural phenomena.
B) will never be changed.
C) is an educated guess.
D) is less reliable than a hypothesis.

57) The variation among individuals, on which natural selection acts, describes 57) _____
A) nutritional differences.
B) random occurrences in the lifetimes of individuals.
C) physical training and exercise.
D) genetic differences.

58) Evolution is sometimes described as the change from preexisting life-forms to modern-day organisms. What actually changes, in every case of evolution, is the 58) _____
A) genetic makeup of the species, due to mutations.
B) energy and nutritional demands of the organism.
C) species' physical appearance.
D) rate of reproduction.
E) ability of organisms to respond to external stimuli.

59) The scientific method includes all of the following EXCEPT 59) _____
A) a hypothesis.
B) conclusions.
C) experimentation.
D) a testable theory.
E) an observation.

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

60) A good experiment should include as many variables as possible at the same time. 60) _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

61) A basic difference between a prokaryotic cell and a eukaryotic cell is that the prokaryotic cell 61) _____
A) possesses membrane-bound organelles.
B) is considerably larger.
C) is structurally more complex.
D) lacks a nucleus.
E) lacks DNA.

62) All of the following are important to the theory of evolution EXCEPT 62) _____
A) variation in traits within an entire population.
B) environmental change.
C) inheritance of traits.
D) changes in individuals within their lifetimes.
E) mutations.

63) Adaptations include all of the following EXCEPT 63) _____
A) larger body size in male gorillas, which fight over females.
B) inborn migratory behavior of young birds born in the Arctic.
C) teaching a pet parrot to talk.
D) reduced heart rate and oxygen consumption in seals that dive deep for long periods of time.

- 64) Using its antennae, the male moth finds female moths by following a trail of airborne chemicals, called *pheromones*, upwind from the female producing them. This is an example of how living things _____ 64) _____
- A) acquire nutrients.
 - B) reproduce.
 - C) grow.
 - D) detect and respond to stimuli.
 - E) maintain precise internal conditions.

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

- 65) Single-celled organisms that lack a nucleus belong to the domains Bacteria and _____. 65) _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 66) Alexander Fleming observed a colony of mold that inhibited the growth of nearby bacteria. What was the hypothesis proposed by Fleming to explain this result? 66) _____
- A) The mold used all of the nutrients so that the bacteria couldn't grow.
 - B) The mold was dead.
 - C) The mold produced a substance that killed nearby bacteria.
 - D) The bacteria changed their DNA when growing near the mold.
- 67) The main difference between an autotroph and a heterotroph is _____ 67) _____
- A) how they respond to stimuli.
 - B) their ability to move.
 - C) how they obtain energy.
 - D) how they reproduce.
- 68) In evolutionary terms, which of the following cells is considered to be the most primitive? 68) _____
- A) Heterotroph
 - B) Eukaryote
 - C) Autotroph
 - D) Prokaryote
- 69) Scientific inquiry is based on _____ 69) _____
- A) stories that are passed down through generations.
 - B) information found in a gossip magazine.
 - C) cultural biases or traditions.
 - D) natural causes.
- 70) The concept of evolution is based on _____ 70) _____
- A) survival and successful reproduction in organisms with favorable variations.
 - B) any type of genetic variation within a population.
 - C) parents with variations that pass these variations on to their offspring.
 - D) all genetic variation in a population being equally successful in the same environment.
- 71) Chromosomes are made of _____ 71) _____
- A) cells.
 - B) carbohydrates.
 - C) proteins.
 - D) DNA and proteins.
 - E) DNA.

MATCHING. Choose the item in column 2 that best matches each item in column 1.

For the following question(s), choose the characteristic of a living organism that best corresponds to each statement. Selections may be used once, more than once, or not at all.

- | | | |
|---|------------------------|-----------|
| 72) At the beginning of the week, a plant is 3 inches tall and at the end of the week, it is 4 inches tall. | A) Growth | 72) _____ |
| | B) Response to stimuli | |
| 73) A paramecium moves from direct light toward the dark. | | 73) _____ |

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 74) Which of the following is TRUE regarding faith-based beliefs and scientific theories? 74) _____
- A) Scientific theories are not modifiable, but faith-based beliefs are.
 - B) Both faith-based beliefs and scientific theories can be proven.
 - C) Any and all scientific theories can be disproven, but faith-based beliefs cannot.
 - D) Faith-based beliefs can become scientific theories.
 - E) Any and all faith-based beliefs can be disproven, but scientific theories cannot.

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

- 75) All scientific study begins with _____ and the formation of testable hypotheses. 75) _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 76) Which of the following statements is a hypothesis rather than a theory? 76) _____
- A) Female birds prefer to mate with male birds that have longer tails.
 - B) Matter is composed of atoms.
 - C) Modern organisms descended from preexisting life-forms.
 - D) Living things are made of cells.

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

- 77) Cells that contain a nucleus are eukaryotic, and cells without a nucleus are _____. 77) _____

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

- 78) Prokaryotic cells have a true nucleus and eukaryotic cells do not. 78) _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

79) A 57-year-old woman was admitted to a hospital with an infected toe, and the infection was spreading rapidly. The damage was being caused by an unknown microorganism that could not be cultured in the lab. Doctors observed that antibiotics, which kill only prokaryotes, were ineffective. They suspected that the microbe was a fungus, so they tried the drug Amphotericin, which targets the ergosterols in fungal cells. Because animal cells contain cholesterol, not ergosterols, they are unaffected by the drug. Shortly after receiving Amphotericin, the patient improved, her infection ceased, and she was released from the hospital.

79) _____

In this scenario, what was the hypothesis?

- A) The infection will spread rapidly.
- B) Why didn't the antibiotics kill the microbe that caused the infection?
- C) A microbe that has cholesterol is causing the infection.
- D) If the infection is caused by an animal, then Amphotericin will cure the patient.
- E) Antibiotics will not kill the microbe because it is a fungal species.

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

80) Imagine that in 2020 you are the top biologist at a research station studying biodiversity in Costa Rica. A young scientist brings you a sample from a previously unexplored site. She asks you to look at the sample and determine whether it indeed contains microscopic, living organisms. As you begin your investigations, you must first decide what characteristics distinguish life from nonlife. How would you differentiate a living organism from nonliving matter (including viruses and prions)?

80) _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

81) An organism's ability to detect stimuli from either the internal or external environment is called

- A) mutation.
- B) natural selection.
- C) DNA.
- D) evolution.
- E) responsiveness.

81) _____

82) After you drink a glass of acidic lemonade, your body's pH does not change. This is an example of how humans and other organisms

82) _____

- A) are immune to weak acids.
- B) maintain precise internal conditions through homeostasis.
- C) maintain cellular organization.
- D) evolve in response to the environment.

83) Which of the following is an example of a natural cause?

83) _____

- A) Mice arise from discarded garbage.
- B) Epilepsy is a disease caused by uncontrolled firing of nerve cells in the brain.
- C) If you sneeze, you will die.
- D) Maggots appear spontaneously on rotting meat.

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

84) Evolution is based on adaptations that aid in the survival and reproduction of a species. List three different adaptations.

84) _____

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

85) Biodiversity is the total number of organisms in an ecosystem. 85) _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

86) All of the following are examples of adaptations EXCEPT 86) _____
A) mice learning a maze to get food.
B) flower coloration that attracts pollinators.
C) larger teeth in beavers for gnawing wood.
D) different beak shapes for birds that eat seeds or insects.
E) insects that resemble twigs.

87) A cell that lacks organelles is a(n) 87) _____
A) member of the Kingdom Plantae. B) prokaryotic cell.
C) animal cell. D) eukaryotic cell.

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

88) Define *biodiversity*. 88) _____

MATCHING. Choose the item in column 2 that best matches each item in column 1.

For the following question(s), choose the characteristic of a living organism that best corresponds to each statement. Selections may be used once, more than once, or not at all.

89) A bacterium divides into two bacteria that are identical to, but smaller than, the original bacterium. A) Reproduction 89) _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

90) Science cannot answer certain faith-based questions because 90) _____
A) there aren't enough variables.
B) faith requires deductive reasoning.
C) faith-based beliefs are impossible to either prove or disprove.
D) scientists are not able to study human behavior.

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

91) Scientific experimentation generally leads to more questions. 91) _____

Answer Key
Testname: CH1

- 1) B
- 2) TRUE
- 3) autotrophs
- 4) D
- 5) mutations
- 6) D
- 7) E
- 8) E
- 9) A
- 10) B
- 11) FALSE
- 12) A
- 13) There are many correct answers. Some acceptable answers are: Living things are both complex and organized (cells have organelles with specific organization); living things respond to stimuli (plants grow toward light); living things maintain homeostasis (the human body maintains its body temperature); living things acquire and use energy (plants use photosynthesis); living things grow (animals grow during their lifetime); living things reproduce (organisms produce offspring); living things have the capacity to evolve (bacteria have evolved antibiotic resistance).
- 14) D
- 15) TRUE
- 16) D
- 17) Answers should include a controlled variable, repetition, and a hypothesis statement.
- 18) D
- 19) B
- 20) population
- 21) species
- 22) B
- 23) TRUE
- 24) DNA
- 25) C
- 26) A
- 27) C
- 28) A
- 29) TRUE
- 30) B
- 31) natural selection
- 32) The prokaryote does not have any membrane-bound organelles (including a nucleus), but the plant (being a eukaryote) does. The prokaryote is unicellular, whereas the plant is multicellular.
- 33) D
- 34) A
- 35) E
- 36) E
- 37) D
- 38) E
- 39) B
- 40) C
- 41) A
- 42) cell
- 43) C
- 44) A
- 45) A

Answer Key

Testname: CH1

- 46) D
- 47) D
- 48) A
- 49) E
- 50) C
- 51) A
- 52) A
- 53) FALSE
- 54) B
- 55) A
- 56) A
- 57) D
- 58) A
- 59) D
- 60) FALSE
- 61) D
- 62) D
- 63) C
- 64) D
- 65) Archaea
- 66) C
- 67) C
- 68) D
- 69) D
- 70) A
- 71) D
- 72) A
- 73) B
- 74) C
- 75) observations
- 76) A
- 77) prokaryotic
- 78) FALSE
- 79) E
- 80) Answers should describe several characteristics of a living organism.
- 81) E
- 82) B
- 83) B
- 84) There are many correct answers. Some acceptable answers are roots of plants that help land plants gain water, fleshy fish fins that allow for movement across a surface, and wings of eagles that aid in hunting.
- 85) FALSE
- 86) A
- 87) B
- 88) Biodiversity is the number of species in a given geographic region.
- 89) A
- 90) C
- 91) TRUE