Test Bank for Biology The Essentials 4th Edition by Hoefnagels

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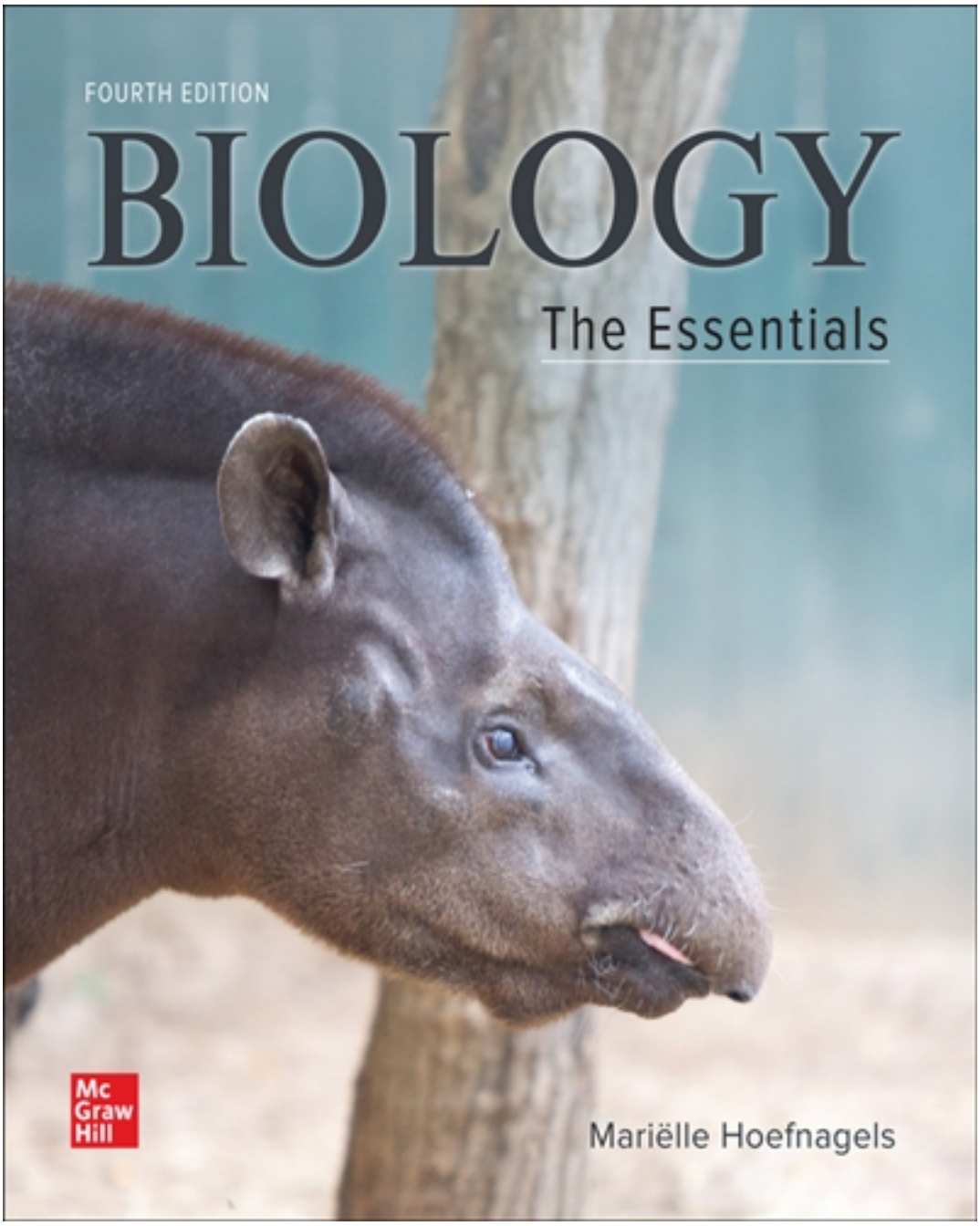

Test Bank

Biology The Essentials 4th Edition by Hoefnagels CH01

ANSWERS ARE LOCATED IN THE SECOND PART OF THIS DOCUMENT

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

1) If you found an organism that was single-celled and had a nucleus, you would classify it as a member of the Archaea.

1) _____

- ◎ true
- ◎ false

Question Details
Section : 01.02
Learning Outcome : 01.02.01 Compare and contrast the three branches of life.
Bloom's : 4. Analyze
Topic : Levels of Biological Organization
Accessibility : Keyboard Navigation
Gradable : automatic

2) The "kingdom" is the most all-inclusive taxonomic category.

2) _____

- ◎ true
- ◎ false

Question Details
Bloom's : 1. Remember
Section : 01.02
Learning Outcome : 01.02.01 Compare and contrast the three branches of life.
Topic : Levels of Biological Organization
Topic : Characteristics of Life
Accessibility : Keyboard Navigation
Gradable : automatic

3) The scientific method cannot be used to answer questions about immaterial and philosophical issues.

3) _____

- ◎ true
- ◎ false

Biology The Essentials 4th Edition by Hoefnagels CH01

Question Details
Bloom's : 1. Remember
Section : 01.03
Learning Outcome : 01.03.03 Explain the limitations of the scientific method.
Topic : Scientific Method
Accessibility : Keyboard Navigation
Gradable : automatic

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

4) Which is the correct sequence for levels of biological organization within a multicellular organism?

4) _____

A) atom - molecule - organelle - cell - tissue
B) molecule - atom - organelle - tissue - cell
C) cell - organelle - atom - tissue - molecule
D) organelle - molecule - atom - tissue - cell
E) atom - organelle - molecule - cell - tissue

Question Details
Section : 01.01
Bloom's : 1. Remember
Learning Outcome : 01.01.01 Describe the characteristics that all living organisms share.
Topic : Levels of Biological Organization
Topic : Characteristics of Life
Accessibility : Keyboard Navigation
Gradable : automatic

5) Which is the correct sequence for levels of biological organization occurring beyond an organism?

5) _____

A) population - ecosystem - community - biosphere
B) community - population - ecosystem - biosphere
C) community - population - biosphere - ecosystem
D) population - community - ecosystem - biosphere
E) ecosystem - population - biosphere - community

Question Details
Section : 01.01
Bloom's : 1. Remember
Learning Outcome : 01.01.01 Describe the characteristics that all living organisms share.
Topic : Levels of Biological Organization
Topic : Characteristics of Life
Accessibility : Keyboard Navigation
Gradable : automatic

6) All living organisms

6) _____

A) are prokaryotes.
B) are either unicellular or multicellular.
C) are eukaryotes.
D) are multicellular.
E) are unicellular.

Question Details
Section : 01.01
Bloom's : 1. Remember
Learning Outcome : 01.01.01 Describe the characteristics that all living organisms share.
Topic : Characteristics of Life
Accessibility : Keyboard Navigation
Gradable : automatic

7) Organisms that extract energy from nonliving environmental resources are called

7) _____

A) heterotrophs.
B) decomposers.
C) parasites.
D) consumers.
E) producers.

Question Details
Section : 01.01
Bloom's : 1. Remember
Learning Outcome : 01.01.01 Describe the characteristics that all living organisms share.
Topic : Characteristics of Life
Accessibility : Keyboard Navigation
Gradable : automatic

8) You are sorting cards with pictures of organisms and their descriptions into groups. You would place the card with an osprey and the description "organisms that obtain energy by consuming other organisms" with cards for other

8) _____

A) autotrophs.
B) plants.
C) heterotrophs.
D) producers.
E) photosynthesizers.

Question Details
Section : 01.01
Learning Outcome : 01.01.01 Describe the characteristics that all living organisms share.
Bloom's : 3. Apply
Topic : Characteristics of Life
Accessibility : Keyboard Navigation
Gradable : automatic

9) If you observed a newly discovered 'thing' and tried to decide if it might be alive, what would be the weakest distinction for life?

9) _____

A) homeostasis
B) movement
C) structural organization
D) evolution
E) energy use

Question Details
Section : 01.01
Learning Outcome : 01.01.01 Describe the characteristics that all living organisms share.
Bloom's : 2. Understand
Topic : Characteristics of Life
Accessibility : Keyboard Navigation
Gradable : automatic

10) The four kingdoms included in the domain Eukarya are

10) _____

A) Bacteria, Fungi, Plantae, and Animalia.
B) Bacteria, Protista, Plantae, and Animalia.
C) Protista, Fungi, Plantae, and Animalia.
D) Archaea, Bacteria, Plantae, and Animalia.
E) Archaea, Fungi, Plantae, and Animalia.

Question Details
Bloom's : 1. Remember
Section : 01.02
Learning Outcome : 01.02.01 Compare and contrast the three branches of life.
Topic : Characteristics of Life
Accessibility : Keyboard Navigation
Gradable : automatic

11) A major difference between prokaryotes and eukaryotes is that prokaryotes

11) _____

A) have cell walls while eukaryotes do not.
B) do not have a nucleus in their cells while eukaryotes do.
C) have a nucleus in their cells while eukaryotes do not.
D) are autotrophs while eukaryotes are not.
E) are not living organisms, while eukaryotes are.

Question Details
Bloom's : 1. Remember
Section : 01.02
Learning Outcome : 01.02.01 Compare and contrast the three branches of life.
Topic : Characteristics of Life
Accessibility : Keyboard Navigation
Gradable : automatic

12) If you were grading a set of exams dealing with the scientific method, which statement would lead to a student losing points?

12) _____

A) It is a general way of answering questions with evidence.
B) It is a framework to consider ideas in a repeatable way.
C) It begins with observations.
D) It does not apply to problems encountered in everyday life.
E) It enables the testing of ideas.

Question Details
Bloom's : 1. Remember
Section : 01.03
Learning Outcome : 01.03.01 Identify the variables in an experiment.
Topic : Experimental Design
Accessibility : Keyboard Navigation
Gradable : automatic

13) Which statement about a hypothesis is incorrect?

13) _____

A) It can be proven true.
B) It can be proven false.
C) It is a tentative explanation.
D) It is based on previous knowledge.
E) It must be testable to be useful.

Question Details
Section : 01.03
Bloom's : 4. Analyze
Learning Outcome : 01.03.03 Explain the limitations of the scientific method.
Topic : Experimental Design
Accessibility : Keyboard Navigation
Gradable : automatic

14) In a scientific experiment, the investigator manipulates the _____ variable(s) to determine whether it causes another variable to change.

14) _____

A) standardized
B) control group
C) dependent
D) independent
E) control group and standardized

Question Details
Bloom's : 1. Remember
Section : 01.03
Learning Outcome : 01.03.01 Identify the variables in an experiment.
Topic : Experimental Design
Accessibility : Keyboard Navigation
Gradable : automatic

15) In a scientific experiment, the investigator measures the response of the _____ variable(s).

15) _____

A) independent
B) dependent
C) control group
D) standardized
E) dependent and independent

Question Details
Bloom's : 1. Remember
Section : 01.03
Learning Outcome : 01.03.01 Identify the variables in an experiment.
Topic : Experimental Design
Accessibility : Keyboard Navigation
Gradable : automatic

16) Which of the following is not a "control" in an experimental procedure?

16) _____

A) a placebo
B) a known standard of comparison
C) a normal group
D) an experimental group
E) a "zero"-value group

Question Details
Bloom's : 1. Remember
Section : 01.03
Learning Outcome : 01.03.01 Identify the variables in an experiment.
Topic : Experimental Design
Accessibility : Keyboard Navigation
Gradable : automatic

17) A theory differs from a hypothesis in that a theory

17) _____

A) has more supportive evidence than a hypothesis.
B) is broader in scope than a hypothesis.
C) has predictive power.
D) ties together many existing observations.
E) All answers are correct.

Question Details
Bloom's : 1. Remember
Section : 01.03
Learning Outcome : 01.03.02 Apply the scientific method to design experiments and analyze data.
Topic : Experimental Design
Accessibility : Keyboard Navigation
Gradable : automatic

18) A structure consisting of tissues organized to carry out a specific function defines a(n)

18) _____

A) organ.
B) cell.
C) population.
D) atom.
E) molecule.

Question Details
Section : 01.01
Bloom's : 1. Remember
Learning Outcome : 01.01.01 Describe the characteristics that all living organisms share.
Topic : Levels of Biological Organization
Accessibility : Keyboard Navigation
Gradable : automatic

19) In cleaning up after lab, you have to sort cards into boxes. You would put all of the below cards into a box marked "ecosystem" except

19) _____

A) community.
B) biosphere.
C) populations.
D) organisms.
E) nonliving environmental components.

Question Details
Section : 01.01
Learning Outcome : 01.01.01 Describe the characteristics that all living organisms share.
Bloom's : 3. Apply
Topic : Levels of Biological Organization
Accessibility : Keyboard Navigation
Gradable : automatic

20) Asexual reproduction differs from sexual reproduction in that

20) _____

A) asexual reproduction produces genetically diverse offspring.
B) asexual reproduction utilizes DNA from two parents to code for traits in offspring.
C) asexual reproduction occurs only in plants.
D) asexual reproduction produces offspring containing DNA from only one parent.
E) asexual reproduction only occurs in animals.

Question Details
Section : 01.01
Learning Outcome : 01.01.01 Describe the characteristics that all living organisms share.
Bloom's : 2. Understand
Topic : Characteristics of Life
Accessibility : Keyboard Navigation
Gradable : automatic

21) If you wanted to demonstrate homeostasis to a friend, you could use as an example

21) _____

A) a population changing over time.
B) environmental conditions holding constant through time.
C) cells having enough water to survive.
D) plants and animals needing energy sources.
E) an organism maintaining nearly constant internal conditions.

Question Details
Section : 01.01
Learning Outcome : 01.01.01 Describe the characteristics that all living organisms share.
Bloom's : 2. Understand
Topic : Characteristics of Life
Accessibility : Keyboard Navigation
Gradable : automatic

22) What statement deals with an aspect of experimentation but with the incorrect explanation?

22) _____

A) The larger the sample size, the more meaningful the results.
B) The smaller the sample size, the more meaningful the results.
C) A control group is an untreated group and provides a basis for comparison.
D) It is important to standardize aspects of an experiment that might affect the outcome, other than the independent variable.
E) All answers are correct.

Question Details
Bloom's : 1. Remember
Section : 01.03
Learning Outcome : 01.03.01 Identify the variables in an experiment.
Learning Outcome : 01.03.02 Apply the scientific method to design experiments and analyze data.
Topic : Experimental Design
Accessibility : Keyboard Navigation
Gradable : automatic

23) The bacterium*Staphylococcus aureus* belongs to which domain?

23) _____

A) Eukarya
B) Archaea
C) Prokarya
D) Protista
E) Bacteria

Question Details
Section : 01.02
Learning Outcome : 01.02.01 Compare and contrast the three branches of life.
Bloom's : 2. Understand
Topic : Characteristics of Life
Accessibility : Keyboard Navigation
Gradable : automatic

24) The bacterium *Staphylococcus aureus* has which of the following?

24) _____

A) nucleus and ribosomes
B) DNA and nucleus
C) DNA and cell membrane
D) cell membrane and nucleus
E) None of the answer choices are correct.

Question Details
Section : 01.02
Learning Outcome : 01.02.01 Compare and contrast the three branches of life.
Bloom's : 2. Understand
Topic : Characteristics of Life
Accessibility : Keyboard Navigation
Gradable : automatic

25) *Homo sapiens* is in which domain?

25) _____

A) Archaea
B) Bacteria
C) Eukarya
D) Animalia
E) Protista

Question Details
Bloom's : 1. Remember
Section : 01.02
Learning Outcome : 01.02.01 Compare and contrast the three branches of life.
Topic : Characteristics of Life
Accessibility : Keyboard Navigation
Gradable : automatic

26) What did Charles Darwin predict after observing the 11-inch long nectaries of the *Angraecum sesquipedale* orchid in Madagascar?

26) _____

A) the existence of a moth with a 10–11 inch long tongue
B) the existence of a competitor that also possessed especially long nectaries
C) the presence of very small bees that could fit into long nectaries
D) that the orchid must reproduce asexually
E) that the orchid was an evolutionary dead end and could no longer reproduce

Question Details
Section : 01.03
Bloom's : 2. Understand
Learning Outcome : 01.03.02 Apply the scientific method to design experiments and analyze data.
Topic : Scientific Method
Accessibility : Keyboard Navigation
Gradable : automatic

27) In an experiment, Charles Darwin's prediction about long nectaries and long-tongued moths would be a(n)

27) _____

A) standardized variable.
B) theory.
C) independent variable.
D) dependent variable.
E) hypothesis.

Question Details
Section : 01.03
Learning Outcome : 01.03.01 Identify the variables in an experiment.
Bloom's : 2. Understand
Topic : Scientific Method
Topic : Experimental Design
Accessibility : Keyboard Navigation
Gradable : automatic

28) You want to test Charles Darwin's prediction that an orchid with long pollen tubes has a pollinator with long, thin mouthparts that can reach the bottom of the elongated nectar tube. You place nets over some orchids, which allows pollinators with small, short mouthparts to enter but prevents the entry of pollinators with long, thin mouthparts. Next, you compare the number of seeds produced by plants with and without the nets. In this experiment, seed production is a(n)

28) _____

A) dependent variable.
B) hypothesis.
C) theory.
D) independent variable.
E) standardized variable.

Question Details
Section : 01.03
Learning Outcome : 01.03.01 Identify the variables in an experiment.
Bloom's : 4. Analyze
Topic : Scientific Method
Topic : Experimental Design
Accessibility : Keyboard Navigation
Learning Outcome : 01.00.01 Describe how science is used to study life.
Gradable : automatic

29) What is the advantage to the Madagascan orchid of having an 11-inch long nectar tube?

29) _____

A) It can produce nectar over a larger area and attract more pollinators.
B) It can collect more rainwater.
C) It can be pollinated easily only by the moths with long tongues.
D) It can collect more sunlight for photosynthesis.
E) It can trap insects as a source of nutrients.

Question Details
Section : 01.03
Bloom's : 2. Understand
Learning Outcome : 01.03.02 Apply the scientific method to design experiments and analyze data.
Topic : Scientific Method
Accessibility : Keyboard Navigation
Gradable : automatic

30) What is the advantage of a moth having a very long tongue if an orchid has a very long nectar spur?

30) _____

A) It is used to attract mates through sexual selection.
B) It can pollinate only one type of flower.
C) It makes flying more efficient.
D) It can be used to capture other flying insects for food.
E) It can reach nectar that no other pollinator can reach.

Question Details
Section : 01.03
Learning Outcome : 01.03.01 Identify the variables in an experiment.
Bloom's : 4. Analyze
Topic : Scientific Method
Accessibility : Keyboard Navigation
Gradable : automatic

Biology The Essentials 4th Edition by Hoefnagels CH01

31) Pollination is a step of _____ in a plant.

31) _____

A) sexual reproduction
B) asexual reproduction
C) development
D) metabolism
E) homeostasis

Question Details
Bloom's : 1. Remember
Section : 01.03
Learning Outcome : 01.03.01 Identify the variables in an experiment.
Topic : Scientific Method
Topic : Experimental Design
Accessibility : Keyboard Navigation
Gradable : automatic

32) Why isn't scientific inquiry foolproof?

32) _____

A) Multiple interpretations of the data are possible.
B) Definitive answers may not exist.
C) Observations can be misinterpreted.
D) Unexpected conclusions are not always readily accepted.
E) All answers are correct.

Question Details
Section : 01.03
Bloom's : 3. Apply
Learning Outcome : 01.03.03 Explain the limitations of the scientific method.
Topic : Scientific Method
Topic : Experimental Design
Accessibility : Keyboard Navigation
Gradable : automatic

Biology The Essentials 4th Edition by Hoefnagels CH01

33) Which of the following questions cannot be answered by science?

33) _____

A) What is the meaning of life?
B) Why is the sky the color blue?
C) What causes species' extinctions?
D) How did I start from only an egg and sperm?
E) Why is too much fatty food bad for me?

Question Details
Section : 01.03
Bloom's : 2. Understand
Learning Outcome : 01.03.03 Explain the limitations of the scientific method.
Topic : Scientific Method
Accessibility : Keyboard Navigation
Gradable : automatic

34) How do you know the computer you are working on is not alive?

34) _____

A) It is not made of cells.
B) It does not maintain an internal consistency of water, solutes, and other components.
C) It cannot reproduce, asexually or sexually.
D) It cannot evolve.
E) All answers are correct.

Question Details
Section : 01.01
Learning Outcome : 01.01.01 Describe the characteristics that all living organisms share.
Bloom's : 3. Apply
Topic : Characteristics of Life
Accessibility : Keyboard Navigation
Gradable : automatic

Biology The Essentials 4th Edition by Hoefnagels CH01

35) Gravity is a theory because it is

35) _____

A) a tentative explanation of an observation.
B) an untestable prediction.
C) a changeable element of experiments.
D) an opinion or hunch.
E) an encompassing explanation of a natural phenomenon that is well accepted.

Question Details
Section : 01.03
Bloom's : 2. Understand
Learning Outcome : 01.03.03 Explain the limitations of the scientific method.
Topic : Scientific Method
Accessibility : Keyboard Navigation
Gradable : automatic

SECTION BREAK. Answer all the part questions.

36) You perform an experiment in which you take 16 pots of strawberry plants and give half of them 1 gram of ammonium nitrate per liter of water and the other half receive only water. Each group is then split in half again, and exposed to either 8 or 16 hours of light each day. You monitor the height of the plants for 4 weeks. You observe that plants grown in ammonium nitrate and 16 hours of light grow taller than no ammonium nitrate and 8 hours of light.

Question Details

36.1) Which of the following is/are independent variable(s) in this experiment?

36.1) _____

A) amount of ammonium nitrate and light
B) amount of water
C) amount of carbon dioxide
D) height of the plants and amount of light
E) height of the plants

Question Details
Section : 01.03
Bloom's : 2. Understand
Learning Outcome : 01.03.02 Apply the scientific method to design experiments and analyze data.
Topic : Experimental Design
Accessibility : Keyboard Navigation
Gradable : automatic

36.2) Which of the following is/are dependent variable(s) in this experiment?

36.2) _____

A) amount of ammonium nitrate and light
B) amount of carbon dioxide
C) amount of water
D) height of the plants
E) height of the plants and amount of light

Question Details
Section : 01.03
Learning Outcome : 01.03.01 Identify the variables in an experiment.
Bloom's : 3. Apply
Learning Outcome : 01.03.02 Apply the scientific method to design experiments and analyze data.
Topic : Experimental Design
Accessibility : Keyboard Navigation
Gradable : automatic

36.3) In this experiment, the size of the pot is

36.3) _____

A) an independent variable.
B) a dependent variable.
C) a standardized variable.
D) a placebo.
E) a control.

Question Details
Bloom's : 1. Remember
Section : 01.03
Learning Outcome : 01.03.01 Identify the variables in an experiment.
Learning Outcome : 01.03.02 Apply the scientific method to design experiments and analyze data.
Topic : Experimental Design
Accessibility : Keyboard Navigation
Gradable : automatic

36.4) Ammonium nitrate is

36.4) _____

A) an atom.
B) a molecule.
C) a cell.
D) a tissue.
E) a biosphere.

Question Details
Bloom's : 1. Remember
Section : 01.03
Learning Outcome : 01.03.02 Apply the scientific method to design experiments and analyze data.
Topic : Experimental Design
Accessibility : Keyboard Navigation
Gradable : automatic

36.5) The proximate reason for the uptake by plants of nutrients like ammonium nitrate is

36.5) _____

A) asexual reproduction.
B) sexual reproduction.
C) natural selection.
D) evolution.
E) homeostasis.

Question Details
Section : 01.03
Bloom's : 3. Apply
Learning Outcome : 01.03.02 Apply the scientific method to design experiments and analyze data.
Topic : Experimental Design
Accessibility : Keyboard Navigation
Gradable : automatic

36.6) The leaf of a strawberry plant is

36.6) _____

A) an organ.
B) a molecule.
C) an organelle.
D) a cell.
E) an organism.

Question Details
Section : 01.03
Bloom's : 2. Understand
Learning Outcome : 01.03.02 Apply the scientific method to design experiments and analyze data.
Topic : Experimental Design
Accessibility : Keyboard Navigation
Gradable : automatic

Biology The Essentials 4th Edition by Hoefnagels CH01

Answer Key

Test name: CH01

1) FALSE
The nucleus in this organism would indicate that it was a eukaryote, and it would be classified as a member of Eukarya, not Archaea. Please see section 1.2 for more information.

2) FALSE
Kingdoms are large taxonomic groupings, but domains are even larger. Please see section 1.2 for more information.

3) TRUE
The scientific method can only deal with questions about the immediate physical world around us. Please see section 1.3 for more information.

4) A
All living things, no matter how different, are made of cells, with multicellular organisms made up of many cells. Please see section 1.1 for more information.

5) D
Organisms interact with one another and with nonliving things at a variety of levels, from populations to the entire worldwide biosphere. Please see section 1.1 for more information.

6) B
Living things must include at least one cell, as in bacteria, and can be multicellular, as in the case of a human being. Please see section 1.1 for more information.

7) E

Producers are the first, and usually most populous level in an ecosystem's passing of energy and resources from organism to organism. Please see section 1.1 for more information.

8) C
Consumers eat other consumers or producers to obtain energy and reduced carbon compounds. Please see section 1.1 for more information.

9) B
Nonliving things can sometimes move, and living things, like barnacles past the larval stage, sometimes do not move, at least not in some sense. Please see section 1.1 for more information.

10) C
The eukaryotes include plants, fungi, animals, and the very diverse group of organisms known as the protists. Please see section 1.2 for more information.

11) B
The name "eukaryote" means "true nucleus." Please see section 1.2 for more information.

12) D
The scientific method can be applied to a wide range of problems, including those of daily life. Please see section 1.3 for more information.

13) A
Hypotheses can be shown to be false by experimentation, a normal part of the scientific method. Please see section 1.3 for more information.

14) D
The independent variable is altered, and then the experimental result is seen in the changes in the dependent variable. Please see section 1.3 for more information.

15) B
While the experimenter alters the independent variable, the dependent variable is what results and is measured. Please see section 1.3 for more information.

16) D
Controls are parts of the experiment which are used as a kind of baseline. Please see section 1.3 for more information.

17) E
Theories are of greater certainty, backed by many different experiments, than mere hypotheses. Please see section 1.3 for more information.

18) A
Organs are one level of organization higher than tissues. Please see section 1.1 for more information.

19) B
Ecosystems include many parts but are much smaller than the worldwide biosphere. Please see section 1.1 for more information.

20) D
Asexual reproduction produces genetic clones of the parent organism since only the one parent's DNA is present in the offspring. Please see section 1.1 for more information.

21) E
Please see section 1.1 for more information.

22) B
Smaller sample sizes make for weaker, less certain experimental results. Please see section 1.3 for more information.

23) E

Bacteria belong in their own domain, separate from the other prokaryotes which fall into the Archaea. Please see section 1.2 for more information.

24) C
Bacteria lack a nucleus. Please see section 1.2 for more information.

25) C
Human beings, *Homo sapiens*, are eukaryotes, with a nucleus in each cell. Please see section 1.2 for more information.

26) A
An orchid with a long nectar spur would require a pollinator with a correspondingly long tongue to drink that nectar. Please see sections 1.3 and "Investigating Life" for more information.

27) E
Hypotheses, such as Darwin's about moth tongue length, are really predictions. Please see sections 1.3 and "Investigating Life" for more information.

28) A
Whatever is actually measured at the end of an experiment is the dependent variable. Please see sections 1.3 and "Investigating Life" for more information.

29) C
The orchid's long nectar tube evolved to allow a very specific relationship with its pollinator. Please see sections 1.3 and "Investigating Life" for more information.

30) E

Having such a long tongue, the moth gains exclusive access to food with no competitors able to reach that food. Please see sections 1.3 and "Investigating Life" for more information.

31) A
Pollination involves the transfer of pollen from the male part of a flower to the female part of the same or another flower. Please see sections 1.3 and "Investigating Life" for more information.

32) E
Scientific inquiry has its limitations. Please see section 1.3 for more information.

33) A
Deep philosophical questions cannot be tested by the scientific method, while more immediate and material ones can. Please see section 1.3 for more information.

34) E
Living things grow and reproduce and manage their internal state for themselves, none of which computers can do. Please see section 1.1 for more information.

35) E
So much experimental evidence is behind our ideas about gravity that it rises to the level of a theory. Please see section 1.3 for more information.

36) Section Break

36.1) A
The independent variable is the variable which the experimenter varies to look for responses in the system, rather than what is measured. Please see section 1.3 for more information.

36.2) D

Dependent variables are what are measured in response to changing independent variable values. Please see section 1.3 for more information.

36.3) C
Since pot size is uniform, this is a standardized variable. Please see section 1.3 for more information.

36.4) B
Ammonium nitrate is a chemical salt used as a fertilizer. Please see section 1.3 for more information.

36.5) E
Plants take up nutrients to maintain internal concentrations of these important chemicals. Please see section 1.3 for more information.

36.6) A
Organs are groups of tissues working for a common purpose, which is photosynthesis in the case of a leaf. Please see section 1.3 for more information.