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**Campbell Biology: Concepts and Connections, 10e (Taylor)**  
**Chapter 1 Biology: Exploring Life**

1.1 Multiple Choice Questions

1) Which statement about the properties of life is *false*?

- A) Organisms have the ability to take in energy and use it.
- B) Organisms have the ability to respond to stimuli from the environment.
- C) Organisms have the ability to reproduce.
- D) Organisms have an unchanging, constant internal environment. **Answer:** D

Topic: 1.1

Skill:

Remembering/Understanding

Learning Outcome: 1.1

2) Life is organized in a hierarchical fashion. Which sequence correctly lists that hierarchy from least inclusive to most inclusive?

- A) ecosystem, population, organ system, cell, community, molecule, organ, organism, organelle, tissue
- B) cell, molecule, organ system, organ, organelle, population, tissue, organism, ecosystem, community
- C) molecule, cell, organism, organ system, tissue, population, organ, organelle, community, ecosystem
- D) molecule, organelle, cell, tissue, organ, organ system, organism, population, community, ecosystem

**Answer:** D

Topic: 1.3

Skill: Applying/Analyzing

Learning Outcome: 1.2

Global LO: 2

3) Which statement best describes the relationship between a tissue and an organ system?

- A) The tissue level of organization is more inclusive than the organ system level.
- B) Tissues are not composed of cells; organ systems are composed of cells.
- C) A tissue cannot exist unless it is a component of an organ system, whereas an organ system can exist independently of tissues.
- D) An organ system includes tissues. **Answer:** D

Topic: 1.3

Skill:

Remembering/Understanding

Learning Outcome: 1.2

4) The tree in your backyard is home to two crows, a colony of ants, a wasp's nest, two squirrels, and millions of bacteria. Together, all of these organisms represent a(n)

- A) species.
- B) community.
- C) population.
- D) ecosyste

m. **Answer:**

B Topic: 1.3

Skill: Applying/Analyzing

Learning Outcome: 1.2

Global LO: 2

5) A person who is eating a hamburger is mainly eating ground-up beef muscle. What levels of organization are represented in this ground-up muscle?

- A) organism, population, and community
- B) organ, organ system, and organism
- C) organelle, cell, and tissue
- D) tissue, organ, and organ

system **Answer:** C

Topic: 1.2

Skill: Applying/Analyzing

Learning Outcome: 1.2

Global LO: 2

6) Which statement about ecosystems is *false*?

- A) Bacteria and fungi recycle energy within an ecosystem.
- B) Plants and other photosynthetic organisms are producers in ecosystems.
- C) Chemical nutrients cycle within an ecosystem.
- D) In the process of energy conversions within an ecosystem, some energy is converted to heat. **Answer:** A

Topic: 1.13

Skill: Remembering/Understanding

Learning Outcome: 1.4

7) In an ecosystem, energy

- A) cycles along with chemical nutrients.
- B) is passed to producers by consumers.
- C) typically flows from producers to a series of consumers.
- D) comes ultimately from

bacteria. **Answer:** C

Topic: 1.3

Skill: Remembering/Understanding

Learning Outcome: 1.4

8) Which statement about genetics is *true*?

- A) Genes are proteins that produce DNA.
- B) DNA is made up of six different kinds of nucleotides.
- C) Differences among organisms reflect different nucleotide sequences in their DNA.
- D) Each DNA molecule is a single strand of nucleotides. **Answer: C**

Topic: 1.11

Skill: Remembering/Understanding

Learning Outcome: 1.4

9) Which statement about bacteria is *true*?

- A) Archaea belong to the same domain.
- B) Bacteria do not use the same genetic code as organisms in other domains.
- C) All bacteria are multicellular organisms.
- D) Bacteria are in a domain of their own. **Answer: D**

Topic: 1.2, 1.11

Skill: Remembering/Understanding

Learning Outcome: 1.2

10) Members of the kingdom Animalia

- A) can obtain their food either by absorption or by photosynthesis.
- B) can obtain their food by eating other organisms.
- C) make their own food through photosynthesis. **Answer: B**

Topic: 1.2

Skill: Remembering/Understanding

Learning Outcome: 1.2

11) The kingdom Fungi includes species

- A) such as mushrooms and plants.
- B) that obtain food by ingesting whole organisms.
- C) that use photosynthesis to obtain food.
- D) that obtain food by decomposing dead organisms and absorbing the nutrients.

**Answer: D**

Topic: 1.6

Skill: Remembering/Understanding

Learning Outcome: 1.5

12) Which group is within the domain Eukarya?

- A) Fungi
- B) Archaea
- C) Bacteria

**Answer: A**

Topic:

1.2

Skill: Remembering/Understanding  
Learning Outcome: 1.2