Orange Standards of Learning (SOL) Practice Exam (Sample)

Study Guide

Everything you need from our exam experts!

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Introduction

Preparing for a certification exam can feel overwhelming, but with the right tools, it becomes an opportunity to build confidence, sharpen your skills, and move one step closer to your goals. At Examzify, we believe that effective exam preparation isn't just about memorization, it's about understanding the material, identifying knowledge gaps, and building the test-taking strategies that lead to success.

This guide was designed to help you do exactly that.

Whether you're preparing for a licensing exam, professional certification, or entry-level qualification, this book offers structured practice to reinforce key concepts. You'll find a wide range of multiple-choice questions, each followed by clear explanations to help you understand not just the right answer, but why it's correct.

The content in this guide is based on real-world exam objectives and aligned with the types of questions and topics commonly found on official tests. It's ideal for learners who want to:

- **Practice answering questions under realistic conditions,**
- **Improve accuracy and speed,**
- **Review explanations to strengthen weak areas, and**
- **Approach the exam with greater confidence.**

We recommend using this book not as a stand-alone study tool, but alongside other resources like flashcards, textbooks, or hands-on training. For best results, we recommend working through each question, reflecting on the explanation provided, and revisiting the topics that challenge you most.

Remember: successful test preparation isn't about getting every question right the first time, it's about learning from your mistakes and improving over time. Stay focused, trust the process, and know that every page you turn brings you closer to success.

Let's begin.

How to Use This Guide

This guide is designed to help you study more effectively and approach your exam with confidence. Whether you're reviewing for the first time or doing a final refresh, here’s how to get the most out of your Examzify study guide:

1. Start with a Diagnostic Review

Skim through the questions to get a sense of what you know and what you need to focus on. Your goal is to identify knowledge gaps early.

2. Study in Short, Focused Sessions

Break your study time into manageable blocks (e.g. 30 – 45 minutes). Review a handful of questions, reflect on the explanations.

3. Learn from the Explanations

After answering a question, always read the explanation, even if you got it right. It reinforces key points, corrects misunderstandings, and teaches subtle distinctions between similar answers.

4. Track Your Progress

Use bookmarks or notes (if reading digitally) to mark difficult questions. Revisit these regularly and track improvements over time.

5. Simulate the Real Exam

Once you're comfortable, try taking a full set of questions without pausing. Set a timer and simulate test-day conditions to build confidence and time management skills.

6. Repeat and Review

Don’t just study once, repetition builds retention. Re-attempt questions after a few days and revisit explanations to reinforce learning. Pair this guide with other Examzify tools like flashcards, and digital practice tests to strengthen your preparation across formats.

There’s no single right way to study, but consistent, thoughtful effort always wins. Use this guide flexibly, adapt the tips above to fit your pace and learning style. You've got this!

Questions

1. Which statement best defines parasitism?

A. Both organisms benefit

B. One organism benefits and the other one is harmed

C. The other one is harmed

D. Neither affected

2. Which of the following is a biome?

A. River

B. City Park

C. Farm Field

D. Taiga

3. Which term refers to a property that does not depend on amount and helps identify a substance?

A. Density

B. Characteristic Property

C. Range

D. Median

4. A combination of two or more different kinds of matter is called a

A. Solvent

B. Solution

C. Solute

D. Mixture

5. Are humans unicellular?

A. Yes

B. Sometimes

C. No, we are multicellular (more than one cell)

D. It varies by life stage

6. Which term means the capability of being shaped?

A. Odor

B. Ductile

C. Malleable

D. Volume

7. Which statement correctly distinguishes abiotic and biotic factors?

A. Abiotic factors are living components; biotic are non-living

B. Biotic factors are non-living; abiotic are living

C. Abiotic factors are non-living; biotic are living

D. Abiotic and biotic are both non-living

8. Which of the following is a basic life function that involves growth and repair?

A. Ingestion

B. Growth and repair

C. Respiration

D. Excretion

9. Which term describes the amount of space occupied by an object?

A. Color

B. Odor

C. Mass

D. Volume

10. Which statement about waste excretion is true according to the material?

A. No cells excrete

B. Some cells excrete

C. All cells excrete

D. Excretion occurs only in the excretory system

Answers

1. B
2. D
3. B
4. D
5. C
6. C
7. C
8. B
9. D
10. C

Explanations

1. Which statement best defines parasitism?

A. Both organisms benefit

B. One organism benefits and the other one is harmed

C. The other one is harmed

D. Neither affected

Parasitism is a relationship where one organism benefits by taking resources from another, while the other organism is harmed as a result. The parasite gains nutrients, habitat, or a means of transport, often living on or inside the host for an extended period. The host, in turn, bears a cost—reduced growth, reproduction, or survival—though the parasite typically does not kill it quickly. This differs from mutualism, where both partners benefit, and from commensalism, where the host is largely unaffected. Examples include tapeworms living in a human intestine or fleas feeding on a dog. Therefore, the statement that one organism benefits and the other is harmed best defines parasitism.

2. Which of the following is a biome?

A. River

B. City Park

C. Farm Field

D. Taiga

Biomes are large geographic regions defined by their climate and the typical communities of plants and animals that live there across wide areas. The taiga fits this idea because it's a vast, northern forest biome characterized by cold winters, relatively low precipitation, and dominance of coniferous trees with wildlife adapted to long, harsh seasons. The other options describe specific places or landscapes rather than broad, region-wide biological communities: a river is a body of water that can exist in many biomes; a city park and a farm field are human-managed spaces that can be found within various biomes but are not themselves large-scale biomes. So the taiga is the correct choice because it represents a distinct biome.

3. Which term refers to a property that does not depend on amount and helps identify a substance?

A. Density

B. Characteristic Property

C. Range

D. Median

A property that doesn't change with how much substance you have and can be used to identify the material is a characteristic property. These properties are intrinsic to the substance and remain the same regardless of sample size, making them reliable for identification. Examples include melting point, boiling point, density, and refractive index. Density is itself a property that doesn't depend on amount, illustrating the idea, but the general term for such identifying properties is characteristic property. By contrast, range and median are statistical measures tied to data sets rather than to the identity of a substance.

4. A combination of two or more different kinds of matter is called a

A. Solvent

B. Solution

C. Solute

D. Mixture

A mixture is a combination of two or more different kinds of matter. In a mixture, the substances keep their own properties and can usually be separated again by physical means. Mixtures can be uniform, like salt dissolved in water, or nonuniform, like a bowl of mixed nuts where you can still see the different parts. To connect the other terms: a solvent is the substance that does the dissolving, and the solute is what gets dissolved. When a solute dissolves in a solvent and the composition is uniform throughout, that's a solution—still a kind of mixture, but specifically a homogeneous one.

5. Are humans unicellular?

A. Yes

B. Sometimes

C. No, we are multicellular (more than one cell)

D. It varies by life stage

Humans are multicellular organisms, built from countless cells that perform specialized tasks and work together to form tissues, organs, and body systems. This coordinated cellular teamwork lets us move, digest food, think, and reproduce. Development starts with a single fertilized egg, but that cell rapidly divides to produce a growing multicellular organism, so there isn't a stable stage where a human is single-celled. Unicellular organisms, like bacteria, exist as one cell only, while humans require many cells to exist. So the best understanding is that humans are multicellular.

6. Which term means the capability of being shaped?

A. Odor

B. Ductile

C. Malleable

D. Volume

Malleability is about how easily a material can be shaped through forming processes like hammering or rolling. When a substance is malleable, it can undergo plastic deformation to take on new shapes without breaking. This makes it the best fit for describing the capability of being shaped. Odor relates to smell, and volume to the amount of space something occupies, which aren't about forming shapes. Ductile describes a material's ability to be drawn into wires under tensile stress, which is about stretching rather than forming into new shapes. Metals like gold are highly malleable, able to be pressed into sheets or other forms.

7. Which statement correctly distinguishes abiotic and biotic factors?

A. Abiotic factors are living components; biotic are non-living

B. Biotic factors are non-living; abiotic are living

C. Abiotic factors are non-living; biotic are living

D. Abiotic and biotic are both non-living

Distinguishing living from non-living parts of an environment. Abiotic factors are the non-living components—temperature, sunlight, rainfall, water, minerals in soil, pH, and other physical or chemical conditions. Biotic factors are the living components—plants, animals, bacteria, fungi—and the interactions among them. The statement that abiotic factors are non-living and biotic factors are living captures this distinction exactly, which is why it is the best choice. The other options mix up the roles or claim that both parts are non-living, which doesn't reflect how ecosystems are composed of both living organisms and the non-living environment that supports them.

8. Which of the following is a basic life function that involves growth and repair?

A. Ingestion

B. Growth and repair

C. Respiration

D. Excretion

Growth and repair represents the life process that includes making new cells, building tissues, and healing damaged areas. This is essential for development and maintaining the body's structure, so it best fits the idea of a basic life function that involves growth and repair. Ingestion is about taking in nutrients, respiration is about producing energy from nutrients, and excretion is about removing wastes.

9. Which term describes the amount of space occupied by an object?

A. Color

B. Odor

C. Mass

D. Volume

Volume is the amount of space an object takes up in three-dimensional space. It tells you how much space the object fills, whether it's a solid, liquid, or gas, and is measured in cubic units (like cubic centimeters or liters). For regular-shaped solids, you can find volume by multiplying length × width × height; for irregular objects, you can use water displacement to determine how much space the object occupies. This differs from mass, which describes how much matter is in the object, and from color or odor, which describe appearance or smell rather than how much space is taken up.

10. Which statement about waste excretion is true according to the material?

A. No cells excrete

B. Some cells excrete

C. All cells excrete

D. Excretion occurs only in the excretory system

Waste removal happens in every living cell because metabolism constantly produces wastes that must be expelled to keep the cell functioning. Some wastes exit directly through the cell membrane, while others are moved out by cellular processes to be disposed of later. Since all cells generate waste, excretion is a universal cellular activity, not something limited to just a few cells. The body's excretory system then handles collecting and eliminating these wastes from the organism as a whole, but recognizing that each cell contributes to excretion explains why the statement about all cells excreting is true. Other options miss this universal cellular role: no cells excrete ignores ongoing waste production, some cells excrete ignores the fact that all cells generate and need to remove waste, and excretion occurs only in the excretory system overlooks the cellular basis of waste removal.

Next Steps

Congratulations on reaching the final section of this guide. You've taken a meaningful step toward passing your certification exam and advancing your career.

As you continue preparing, remember that consistent practice, review, and self-reflection are key to success. Make time to revisit difficult topics, simulate exam conditions, and track your progress along the way.

If you need help, have suggestions, or want to share feedback, we'd love to hear from you. Reach out to our team at hello@examzify.com.

Or visit your dedicated course page for more study tools and resources:

https://orangesol.examzify.com

We wish you the very best on your exam journey. You've got this!