

Praxis II General Science (5435) Practice Test (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

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- 1. Which of the following is NOT a result of ozone layer depletion?**
 - A. Increased skin cancer rates**
 - B. Decreased crop yields of wheat, corn, and soybeans**
 - C. Higher UV radiation exposure**
 - D. Disruption of plant photosynthesis**

- 2. Which of the following is the best description of mineraloids?**
 - A. Mineraloids are minerals with a crystalline structure**
 - B. Mineraloids are organic compounds found in rocks**
 - C. Mineraloids are minerals that lack a crystalline structure**
 - D. Mineraloids are synthetic materials used in jewelry**

- 3. What is a negative impact of reservoirs or dams?**
 - A. Increased biodiversity**
 - B. Decreased dissolved oxygen**
 - C. Enhanced recreational activities**
 - D. Improved irrigation methods**

- 4. What describes how the human ear perceives the amplitude of a sound wave?**
 - A. Pitch**
 - B. Tone**
 - C. Loudness**
 - D. Frequency**

- 5. What is the term for the change in velocity over time in physics?**
 - A. Force**
 - B. Velocity**
 - C. Acceleration**
 - D. Momentum**

- 6. Which of the following is a benefit of wind energy?**
- A. Wind turbines can operate independently**
 - B. Wind turbines are space efficient**
 - C. Wind energy is consistently available**
 - D. Wind energy requires minimal maintenance**
- 7. Which planet is known as the "Red Planet"?**
- A. Venus**
 - B. Earth**
 - C. Mars**
 - D. Jupiter**
- 8. What is true of the enzyme telomerase?**
- A. It repairs damaged DNA strands**
 - B. It adds a repetitive DNA sequence to the end of chromosomes**
 - C. It synthesizes RNA from DNA**
 - D. It removes RNA primers from Okazaki fragments**
- 9. Which of the following is a type of physical weathering?**
- A. Exfoliation**
 - B. Chemical weathering**
 - C. Erosion**
 - D. Acid rain**
- 10. What does homeostasis refer to?**
- A. The capacity to adapt to external environments**
 - B. The ability to respond to stimuli**
 - C. The maintenance of a stable internal environment**
 - D. The process of reproduction**

Answers

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

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Explanations

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1. Which of the following is NOT a result of ozone layer depletion?

- A. Increased skin cancer rates
- B. Decreased crop yields of wheat, corn, and soybeans**
- C. Higher UV radiation exposure
- D. Disruption of plant photosynthesis

The depletion of the ozone layer primarily leads to an increased amount of ultraviolet (UV) radiation reaching the Earth's surface. This increase in UV radiation is linked to several environmental and health issues. One significant consequence is the rise in skin cancer rates among humans. The ozone layer serves as a protective shield, absorbing a substantial portion of the sun's harmful UV radiation. As the layer thins, more UV radiation can penetrate the atmosphere, leading to higher incidences of skin cancer due to increased exposure. Another major impact of ozone depletion is the disruption of natural processes, such as photosynthesis in plants, particularly in some sensitive species. Increased UV radiation can harm photosynthetic organisms, potentially affecting their growth and productivity. While higher UV radiation levels can potentially affect crop yields, the assertion that ozone layer depletion directly causes decreased crop yields of staple crops like wheat, corn, and soybeans is not as clearly established or direct as the other consequences mentioned. Factors influencing crop yields are multifaceted, including environmental conditions, agricultural practices, and pest control, making it less directly associated with ozone depletion than increased skin cancer and plant photosynthesis disruption. Therefore, this choice is not a result typically attributed to the effects of ozone layer depletion.

2. Which of the following is the best description of mineraloids?

- A. Mineraloids are minerals with a crystalline structure
- B. Mineraloids are organic compounds found in rocks
- C. Mineraloids are minerals that lack a crystalline structure**
- D. Mineraloids are synthetic materials used in jewelry

Mineraloids are best described as natural substances that have the physical properties of minerals but do not possess a crystalline structure. This distinction is important because the defining characteristic of a mineral is a crystalline arrangement of atoms. Mineraloids, such as opal or obsidian, may have similar attributes to minerals, such as being solid and occurring naturally, but their lack of a regular crystalline structure classifies them separately. In contrast to mineraloids, crystalline minerals have a well-defined geometric arrangement of atoms, which is crucial for their classification. Organic compounds, which are composed primarily of carbon, do not fit the geological definition of minerals, and while mineraloids can be found in natural environments, they are not considered organic. The mention of synthetic materials is also irrelevant, as mineraloids occur naturally and are not human-made, distinguishing them further from recognized minerals and synthetic alternatives.

3. What is a negative impact of reservoirs or dams?

- A. Increased biodiversity
- B. Decreased dissolved oxygen**
- C. Enhanced recreational activities
- D. Improved irrigation methods

The choice regarding decreased dissolved oxygen is correct as a negative impact of reservoirs or dams. When a dam is constructed, it often leads to the creation of a reservoir, which can disrupt the natural flow of a river. This alteration of water flow can result in water becoming stagnant in certain areas, which decreases the oxygen levels in the water. Stagnant water does not mix as effectively with the atmosphere, leading to lower oxygen saturation levels. Dissolved oxygen is crucial for aquatic life, and a decrease in these levels can harm fish and other organisms that rely on oxygen for survival. In contrast, the other options present benefits rather than negative impacts. Increased biodiversity is generally associated with healthy ecosystems; however, while a reservoir can create new habitats, it can also alter existing ecosystems negatively. Enhanced recreational activities are often seen as a positive outcome of dams and reservoirs, providing opportunities for boating, fishing, and other leisure activities. Improved irrigation methods can also be a benefit, as reservoirs can provide a stable water supply for agricultural needs. Thus, the negative impact of decreased dissolved oxygen stands out in this context.

4. What describes how the human ear perceives the amplitude of a sound wave?

- A. Pitch
- B. Tone
- C. Loudness**
- D. Frequency

The perception of the amplitude of a sound wave is defined as loudness. When the amplitude of a sound wave increases, the sound is perceived as being louder. This is because louder sounds create larger fluctuations in air pressure, which our ears interpret as increased intensity of sound. Loudness is measured in decibels (dB), and it is important to note that while amplitude refers to the strength or height of the sound wave, loudness is the human perception of that intensity. Pitch, on the other hand, relates to the frequency of the sound wave and determines how 'high' or 'low' a sound is perceived. Tone usually refers to the quality or character of sound, which encompasses factors like timbre. Frequency indicates how many cycles of the sound wave occur in one second, which corresponds to pitch, not loudness. Understanding this distinction helps clarify why loudness accurately describes the perception of amplitude in sound waves.

5. What is the term for the change in velocity over time in physics?

- A. Force**
- B. Velocity**
- C. Acceleration**
- D. Momentum**

The term for the change in velocity over time in physics is acceleration. Acceleration is defined as the rate at which an object's velocity changes. This means that if an object is speeding up, slowing down, or changing direction, it is experiencing acceleration. Mathematically, acceleration can be represented as the change in velocity divided by the time interval during which the change occurred. In the context of motion, understanding acceleration is crucial for analyzing how objects move under various forces. For example, when a car accelerates from a stop to a certain speed, the acceleration describes how quickly the vehicle's velocity increases. Force, while closely related to acceleration through Newton's second law ($F=ma$), simply refers to an external influence that can cause an object to change its velocity. Velocity itself refers to the speed of an object in a specific direction and does not encompass time or changes over time. Momentum refers to the quantity of motion an object has, dependent on its mass and velocity; it describes the motion of an object but does not indicate how that motion changes over time. Thus, the concept of acceleration is critical for understanding not just what speed an object is moving but how that speed evolves during its motion.

6. Which of the following is a benefit of wind energy?

- A. Wind turbines can operate independently**
- B. Wind turbines are space efficient**
- C. Wind energy is consistently available**
- D. Wind energy requires minimal maintenance**

The benefit of wind energy that stands out is that wind turbines are space efficient. This is because wind turbines can be installed in various environments, including agricultural regions, where they can coexist with farming. The land used for wind energy generation can still be utilized for other purposes, such as grazing or crop production, making it an efficient use of space. Additionally, while wind turbines take up physical space, the overall land footprint for each turbine is relatively small compared to other forms of energy generation, allowing for large areas to still be utilized effectively. This compact nature of wind farms allows for the harnessing of wind energy without extensive disruption to the landscape or existing land uses. In contrast, wind energy is not consistently available due to variations in wind strength and direction, which can affect the reliability of energy production. Wind turbines can operate independently but generally generate more energy when interconnected in a larger grid system. While maintenance needs do exist, they are typically considered manageable when compared to other energy sources such as fossil fuels, but that is not the primary benefit that defines the efficiency of wind energy in terms of space use.

7. Which planet is known as the "Red Planet"?

- A. Venus
- B. Earth
- C. Mars**
- D. Jupiter

Mars is known as the "Red Planet" due to its reddish appearance, which is a result of iron oxide, commonly known as rust, on its surface. This distinctive color makes Mars stand out in the night sky and has led to its nickname. The reddish hue has fascinated observers for centuries, prompting various cultures to associate it with war and aggression in mythology. Unlike Venus, which appears bright white due to its thick cloud cover, or Earth, known for its blue oceans and green landmasses, Mars' surface features, such as its dust and rocks, contribute to its unmistakable red color. Jupiter, being a gas giant, does not have a solid surface and is characterized by its bands of color, but it does not reflect the same distinct red hue that Mars does. Thus, Mars' composition and atmospheric conditions are key factors in its identification as the "Red Planet."

8. What is true of the enzyme telomerase?

- A. It repairs damaged DNA strands
- B. It adds a repetitive DNA sequence to the end of chromosomes**
- C. It synthesizes RNA from DNA
- D. It removes RNA primers from Okazaki fragments

Telomerase is an enzyme that plays a crucial role in maintaining the integrity and stability of chromosomes by adding repetitive DNA sequences known as telomeres to the ends of chromosomes. Telomeres consist of short, repeating units that protect chromosome ends from degradation and prevent them from being recognized as damaged DNA that needs to be repaired. This addition of telomere sequences helps to counteract the natural shortening that occurs with each round of DNA replication, allowing cells to divide without losing essential genetic information. Understanding the function of telomerase is essential, particularly in the context of cellular aging and cancer biology, as its activity is significantly elevated in many cancer cells, allowing them to proliferate indefinitely. This makes the role of telomerase vital in both normal cellular function and disease processes.

9. Which of the following is a type of physical weathering?

- A. Exfoliation**
- B. Chemical weathering**
- C. Erosion**
- D. Acid rain**

Exfoliation is correctly identified as a type of physical weathering because it involves the mechanical breakdown of rocks without changing their chemical composition. This process occurs when outer layers of rock expand and contract due to temperature changes, often leading to the peeling or flaking off of these outer layers. Physical weathering encompasses various processes that result in the fragmentation of rocks, and exfoliation is a prime example as it emphasizes physical changes rather than chemical alterations. Chemical weathering, while an important process in the breakdown of rocks, involves chemical reactions that change the mineral composition of the rocks, which is why it doesn't fit into the category of physical weathering. Erosion refers to the movement of weathered material rather than the breakdown of the rocks themselves, and acid rain involves a chemical reaction with rainwater that can lead to chemical weathering processes, further distinguishing it from physical weathering. Thus, exfoliation stands out clearly as a physical weathering process.

10. What does homeostasis refer to?

- A. The capacity to adapt to external environments**
- B. The ability to respond to stimuli**
- C. The maintenance of a stable internal environment**
- D. The process of reproduction**

Homeostasis refers to the maintenance of a stable internal environment within an organism, despite changes in external conditions. This process is critical for survival as it enables organisms to function effectively. Various physiological mechanisms work together to regulate factors like temperature, pH, hydration, and electrolyte balance, ensuring that internal conditions remain constant and optimal for cellular processes. For example, in humans, the body maintains a core temperature around 37 degrees Celsius. If the external temperature decreases, mechanisms such as shivering and increased metabolic activity are triggered to generate heat and preserve internal temperature. Conversely, if the environment is too hot, the body may initiate sweating to cool down. The other options address different aspects of biological functions: adapting to environments relates to evolutionary changes over time, responding to stimuli involves immediate reactions to environmental changes, and reproduction pertains to the processes by which organisms create offspring. While these are essential functions, they do not specifically define homeostasis.

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://praxis25435.examzify.com>

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

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