Science PSSA 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. Don't worry about getting everything right, 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, and take breaks to retain information better.

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.

7. Use Other Tools

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. What is the primary driver of the water cycle?

A. The moon

B. The sun

C. The wind

D. The ocean

2. What phenomenon is caused by the movement of rocks beneath the Earth's surface?

A. Volcano

B. Tsunami

C. Earthquake

D. Landslide

3. Which instrument is used to measure atmospheric pressure?

A. Barometer

B. Thermometer

C. Hydrometer

D. Pedometer

4. What do we call the amount of water vapor present in the air?

A. Precipitation

B. Humidity

C. Dew Point

D. Condensation

5. Which of the following is NOT an agent of erosion?

A. Wind

B. Water

C. Irrigation

D. Gravity

6. What is the term used to describe a change in the state of matter from solid to liquid?

A. Condensation

B. Melting

C. Boiling

D. Freezing

7. What is an organism called on which a parasite lives?

A. Victim

B. Host

C. Prey

D. Commensal

8. What is the main source of pollutants entering waterways?

A. Agricultural runoff

B. Sewage discharge

C. Industrial waste

D. All of the above

9. Which planet in our solar system is known for its strong gravitational pull?

A. Mercury

B. Earth

C. Jupiter

D. Neptune

10. What is the occupation of a scientist who studies weather?

A. Geologist

B. Meteorologist

C. Climatologist

D. Atmospheric scientist

Answers

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

Explanations

1. What is the primary driver of the water cycle?

A. The moon

B. The sun

C. The wind

D. The ocean

The primary driver of the water cycle is the sun. It provides the necessary energy for the processes involved in the cycle, such as evaporation. When the sun's rays warm bodies of water, they cause water to evaporate and change from liquid to vapor. This vapor then rises into the atmosphere, cools, and condenses into clouds. Eventually, this condensed water returns to the surface as precipitation (rain, snow, etc.), which is an essential part of the water cycle. The sun's energy also influences temperature and weather patterns, which further affect how water moves through the cycle. Without the sun's heat, the processes of evaporation and condensation would not occur efficiently, and the water cycle would be significantly disrupted. Thus, the sun is the fundamental force that drives the entire cycle of water on Earth.

2. What phenomenon is caused by the movement of rocks beneath the Earth's surface?

A. Volcano

B. Tsunami

C. Earthquake

D. Landslide

The correct answer is an earthquake, which occurs due to the movement of rocks beneath the Earth's surface, primarily along faults. When stress builds up in the Earth's crust—caused by tectonic plates colliding, sliding past each other, or pulling apart—it can lead to a sudden release of energy. This release produces seismic waves, which we feel as shaking on the surface. Earthquakes can vary in magnitude and can be strong enough to cause significant destruction, depending on their depth, proximity to populated areas, and geological conditions. Understanding earthquakes is crucial for disaster preparedness and mitigation strategies in regions prone to seismic activity. The other options refer to different geological phenomena. For example, volcanos are formed by molten rock coming to the surface, tsunamis are large ocean waves typically triggered by underwater disturbances like earthquakes or volcanic eruptions, and landslides involve the movement of rock and soil down slopes, often due to gravity, but not directly related to the tectonic movements that cause earthquakes. These distinctions help clarify why earthquakes specifically result from the movement of rocks under the Earth's surface.

3. Which instrument is used to measure atmospheric pressure?

A. Barometer

B. Thermometer

C. Hydrometer

D. Pedometer

The instrument used to measure atmospheric pressure is a barometer. Barometers operate on the principle that changes in atmospheric pressure can be detected and quantified. A common type of barometer is the mercury barometer, which consists of a glass tube filled with mercury that rises and falls in response to atmospheric pressure changes. When the atmospheric pressure increases, it pushes down on the mercury, causing it to rise in the tube. Conversely, when the pressure decreases, the mercury level drops. This measurement can be used for various applications, including weather forecasting, since changes in atmospheric pressure often indicate changes in weather conditions. Other instruments listed have different specific uses: a thermometer measures temperature, a hydrometer assesses the density of liquids, and a pedometer tracks steps taken by an individual as a measure of distance traveled while walking or running.

4. What do we call the amount of water vapor present in the air?

A. Precipitation

B. Humidity

C. Dew Point

D. Condensation

The correct answer is humidity, which refers to the amount of water vapor present in the air at a given temperature and pressure. Humidity is a key concept in meteorology because it helps determine weather patterns, comfort levels, and the likelihood of precipitation. High humidity means there is a significant amount of water vapor in the air, which can lead to clouds, fog, and precipitation, while low humidity indicates drier conditions. Precipitation refers specifically to any form of water, such as rain, snow, sleet, or hail, that falls from clouds to the Earth's surface. Dew point is the temperature at which air becomes saturated with moisture and water vapor condenses into liquid, representing a specific measure of humidity. Condensation involves the process by which water vapor in the air cools to form liquid water, but it is not a measure of the vapor itself. Thus, humidity is the most accurate term that describes the amount of water vapor in the atmosphere.

5. Which of the following is NOT an agent of erosion?

A. Wind

B. Water

C. Irrigation

D. Gravity

Irrigation is not considered an agent of erosion because it primarily refers to the artificial application of water to soil for agricultural purposes, rather than a natural force that causes erosion. Agents of erosion, such as wind, water, and gravity, actively transport and wear away materials from one location to another. Wind can lift and carry small particles, particularly in dry environments, causing erosion by removing topsoil. Water, through processes like rainfall and river flow, can erode soil and rock more powerfully over time, shaping landscapes. Gravity contributes to erosion by facilitating the movement of rocks and sediment down slopes, resulting in processes like landslides. In contrast, irrigation's goal is to support plant growth and agriculture, which can sometimes prevent erosion rather than causing it. Therefore, it does not fit the definition of an agent of erosion.

6. What is the term used to describe a change in the state of matter from solid to liquid?

A. Condensation

B. Melting

C. Boiling

D. Freezing

The term used to describe the change in the state of matter from solid to liquid is known as melting. This process occurs when a solid absorbs heat, causing its particles to gain energy and move more freely. As a result, the rigid structure of the solid breaks down, allowing the material to transition into a liquid form. This transformation is commonly observed in substances like ice becoming water as it warms up. Understanding this phase change is fundamental in the study of thermodynamics and the behavior of materials under varying temperatures.

7. What is an organism called on which a parasite lives?

A. Victim

B. Host

C. Prey

D. Commensal

An organism on which a parasite lives is called a host. In the relationship between a parasite and its host, the parasite benefits by obtaining nutrients and shelter, while the host may be harmed in the process. This definition is central to understanding the dynamics of parasitic relationships, where the host typically suffers some degree of detriment due to the parasite's presence and activities. The term "victim" could imply a more general sense of being harmed, but it doesn't specifically denote the biological relationship characterized by parasitism. Similarly, "prey" refers to an organism that is hunted and consumed by another organism (the predator), which is not the case in parasitism. "Commensal" describes a relationship where one organism benefits without affecting the other, which again does not apply to a host-parasite interaction. Each of these terms has distinct meanings in ecological contexts, making "host" the most accurate and appropriate choice.

8. What is the main source of pollutants entering waterways?

A. Agricultural runoff

B. Sewage discharge

C. Industrial waste

D. All of the above

The correct answer highlights that pollutants entering waterways can originate from multiple sources, including agricultural runoff, sewage discharge, and industrial waste. Each of these sources contributes significantly to water pollution in different ways. Agricultural runoff, which includes fertilizers, pesticides, and other chemicals used in farming, can wash into rivers and lakes during rainfall. This runoff can lead to eutrophication, harming aquatic life. Sewage discharge introduces pathogens, nutrients, and organic matter into water systems. This can degrade water quality and pose health risks to humans and wildlife. Industrial waste can include heavy metals, toxins, and other hazardous materials, which can have severe impacts on aquatic ecosystems and human health when they contaminate waterways. The presence of multiple sources reinforces the complexity of water pollution and the importance of addressing all of them to achieve cleaner water environments. Thus, the most comprehensive choice recognizes that all listed options are significant contributors to pollutant levels in waterways.

9. Which planet in our solar system is known for its strong gravitational pull?

A. Mercury

B. Earth

C. Jupiter

D. Neptune

Jupiter is known for its exceptionally strong gravitational pull, which is due to its massive size. As the largest planet in our solar system, it has a diameter about 11 times that of Earth and is composed mainly of gas, leading to a greater mass. This immense mass produces a gravitational force that is more than 24 times stronger than Earth's. Jupiter's strong gravity not only keeps its many moons in orbit but also plays a significant role in shaping the dynamics of the solar system, influencing the orbits of nearby objects and even acting as a shield by attracting and capturing comets and asteroids that might otherwise threaten the inner planets, including Earth. This characteristic makes Jupiter a significant object of study in understanding planetary systems and gravitational interactions.

10. What is the occupation of a scientist who studies weather?

A. Geologist

B. Meteorologist

C. Climatologist

D. Atmospheric scientist

The correct answer is the scientist known as a meteorologist, who specializes in studying weather patterns and atmospheric conditions. Meteorologists analyze data collected from various sources, including satellites, weather stations, and radar, to understand and predict short-term weather events and phenomena. Their expertise allows them to provide forecasts that can inform the public about upcoming weather changes and extreme conditions. While climatologists study longer-term climate patterns and changes, their focus is different from that of meteorologists, who are concerned with day-to-day weather. Atmospheric scientists can cover a broader range of topics, including both weather and climate, but when specifically referring to the study of weather, the term meteorologist is most commonly used. A geologist, on the other hand, concentrates on the Earth's physical structure and substance, which does not directly relate to the study of weather.

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://sciencepssa.examzify.com

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