

Arizona State University (ASU) GLG108 Water Planet Midterm 2 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

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- 1. Which of the following is a consequence of reaching a 'dead pool' status in a reservoir?**
 - A. Increased water supply**
 - B. Loss of water supply capability**
 - C. Enhanced ecological conditions**
 - D. Regulated water quality**

- 2. What is greywater?**
 - A. Water derived from rainfall**
 - B. Wastewater from toilets**
 - C. Wastewater from domestic activities excluding toilets**
 - D. Water used in industrial processes**

- 3. What is the most common primary purpose of dams in the United States?**
 - A. Hydropower generation**
 - B. Flood control**
 - C. Recreation**
 - D. Irrigation**

- 4. What does the visible light from Earth at night primarily indicate?**
 - A. Areas with high agricultural activity**
 - B. Urban populations with access to electricity**
 - C. Regions of significant wildlife**
 - D. Global water bodies**

- 5. What does an increase in hydraulic head lead to in terms of water movement?**
 - A. Decreased flow rate**
 - B. Increased flow rate**
 - C. Stagnation of water**
 - D. No effect on flow rate**

- 6. What is one of the main concerns with aquifer depletion?**
- A. Increased agricultural output**
 - B. Loss of surface water bodies**
 - C. Rejuvenation of local ecosystems**
 - D. Expansion of urban areas**
- 7. How are climate patterns associated with ocean currents impacting water availability?**
- A. They have no effect on weather**
 - B. They can influence weather patterns and resources**
 - C. They increase evaporation rates only**
 - D. They dictate freshwater sources**
- 8. Why is it important to treat sewage effectively?**
- A. To reduce environmental pollution and disease risks**
 - B. To improve water aesthetics for consumers**
 - C. To increase property values near treatment plants**
 - D. To enhance aquatic biodiversity**
- 9. Which river systems are known to supply Maricopa County?**
- A. Salt, Colorado, Snake**
 - B. Rio Grande, Apache, Verde**
 - C. Columbia, Mojave, Gila**
 - D. Missouri, Mississippi, Colorado**
- 10. What is one method to conserve water?**
- A. Planting native species**
 - B. Installing low-flow fixtures and appliances**
 - C. Collecting rainwater in barrels**
 - D. Using pesticides sparingly**

Answers

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

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Explanations

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1. Which of the following is a consequence of reaching a 'dead pool' status in a reservoir?

- A. Increased water supply**
- B. Loss of water supply capability**
- C. Enhanced ecological conditions**
- D. Regulated water quality**

Reaching a 'dead pool' status in a reservoir signifies that the water level has dropped to a point where it can no longer flow out of the reservoir through the outlet works or dam. Consequently, this results in a loss of water supply capability. In this situation, the reservoir is effectively unable to release water downstream for various uses, including agricultural irrigation, municipal supply, or hydroelectric power generation. This condition can lead to severe water shortages for communities and ecosystems that rely on this water, highlighting the critical implications of reaching dead pool levels in water resource management.

2. What is greywater?

- A. Water derived from rainfall**
- B. Wastewater from toilets**
- C. Wastewater from domestic activities excluding toilets**
- D. Water used in industrial processes**

Greywater refers specifically to wastewater generated from various domestic activities, such as bathing, washing dishes, laundry, and similar household functions, excluding any waste that comes from toilets. This type of water can be reused for non-potable purposes, like irrigation or toilet flushing, because it typically contains fewer pathogens compared to blackwater, which is wastewater that originates from toilets. Understanding the role of greywater is essential in water conservation efforts, as it represents a significant portion of the total wastewater produced in homes. By recognizing the potential for treatment and reuse of greywater, sustainable water management strategies can be implemented to reduce overall water consumption and alleviate pressure on freshwater resources.

3. What is the most common primary purpose of dams in the United States?

- A. Hydropower generation**
- B. Flood control**
- C. Recreation**
- D. Irrigation**

The dominant purpose of dams in the United States is often flood control. Dams are engineered to hold back water and regulate river flows, which helps to prevent flooding in downstream areas. This mitigation of flood risk is crucial for protecting infrastructure, homes, and agricultural land from the potential devastation caused by high water levels during heavy rains or rapid snowmelt. Historically, this has been a significant priority for dam construction, particularly in areas prone to seasonal flooding. Despite the importance of hydropower generation, recreation, and irrigation, the primary focus often lies in managing and controlling the risks associated with flooding. Many dams serve multiple functions, but flood control typically takes precedence as the primary purpose for many facilities across the country.

4. What does the visible light from Earth at night primarily indicate?

- A. Areas with high agricultural activity**
- B. Urban populations with access to electricity**
- C. Regions of significant wildlife**
- D. Global water bodies**

The visible light from Earth at night primarily indicates urban populations with access to electricity. This phenomenon is a reflection of human activity and development, as areas that are brightly lit at night are typically cities, towns, and other inhabited regions where electricity is used for lighting homes, businesses, and streets. The presence of light signifies not only population density but also the level of infrastructure and socio-economic development in a given area. Urban centers tend to have higher concentrations of people and resources, leading to more extensive use of artificial lighting. This nighttime view can be captured by satellites and is often used in research to assess human settlements and track changes in urbanization over time. In contrast, areas with high agricultural activity may not always be associated with visible light at night, especially in rural regions where farming activities occur during the day and lighting may be minimal. Regions of significant wildlife would typically exhibit little to no artificial lighting, as these areas are often remote and undisturbed by human presence. Finally, while global water bodies can be illuminated by moonlight, they do not indicate population centers or electricity access. Thus, the correct answer highlights the connection between urban lighting and human habitation.

5. What does an increase in hydraulic head lead to in terms of water movement?

- A. Decreased flow rate**
- B. Increased flow rate**
- C. Stagnation of water**
- D. No effect on flow rate**

An increase in hydraulic head signifies a rise in the potential energy of water within a given area, which plays a critical role in driving water movement. Hydraulic head is essentially a measure of the energy available to push water through an aquifer or other water-bearing materials. When hydraulic head increases, it creates a greater pressure difference between two points in the water system. This pressure gradient facilitates the movement of water from areas of higher head to areas of lower head, thereby enhancing the flow rate. In hydrogeology, the foundational principle is that water naturally seeks to equalize pressure differences, and an increase in hydraulic head results in more energetic flow, efficiently transporting water across the system. In practical terms, this means that as the hydraulic head rises, it directly correlates with an increase in the flow rate, allowing for quicker movement of groundwater or surface water depending on the context. This understanding is crucial in fields such as water resource management, environmental science, and engineering, where manipulating hydraulic head can influence water availability and movement patterns significantly.

6. What is one of the main concerns with aquifer depletion?

- A. Increased agricultural output**
- B. Loss of surface water bodies**
- C. Rejuvenation of local ecosystems**
- D. Expansion of urban areas**

One of the main concerns with aquifer depletion is the loss of surface water bodies. When aquifers are over-extracted, the water levels within these underground reservoirs drop significantly. This reduction can lead to decreased flow to interconnected surface water bodies, such as rivers, lakes, and wetlands. As groundwater levels decline, these bodies of water can shrink or even dry up, which can have detrimental effects on local ecosystems that depend on that water for habitat and sustenance. The loss of surface water also impacts recreational activities, agricultural irrigation, and the overall health of the environment. This interconnected nature of groundwater and surface water underscores the importance of maintaining aquifer levels to support both human and ecological needs.

7. How are climate patterns associated with ocean currents impacting water availability?

- A. They have no effect on weather**
- B. They can influence weather patterns and resources**
- C. They increase evaporation rates only**
- D. They dictate freshwater sources**

Climate patterns associated with ocean currents have a significant influence on global weather systems, which can directly affect water availability. Ocean currents play a critical role in the distribution of heat across the planet, leading to variations in temperature and precipitation. For example, warm ocean currents can contribute to the formation of moisture-rich air, which leads to increased precipitation in some regions, thus enhancing water availability. Conversely, cold currents can result in drier conditions, impacting areas that rely on regular rainfall for freshwater resources. This interconnectedness means that shifts in ocean currents and climate patterns can lead to changes in drought frequency, flood occurrences, and overall water resources. In terms of water availability, all of these interactions underscore how ocean currents can influence different aspects of the hydrological cycle, affecting not just rainfall but also the distribution and timing of water supply across various regions. Thus, the assertion that climate patterns and ocean currents can influence weather patterns and resources is well-supported by scientific understanding of the Earth's climate system.

8. Why is it important to treat sewage effectively?

- A. To reduce environmental pollution and disease risks**
- B. To improve water aesthetics for consumers**
- C. To increase property values near treatment plants**
- D. To enhance aquatic biodiversity**

Treating sewage effectively is crucial primarily to reduce environmental pollution and mitigate disease risks. When sewage is not treated, harmful pathogens, chemicals, and nutrients can enter natural water bodies, leading to the contamination of drinking water sources and harming aquatic ecosystems. This untreated waste can cause serious health issues for humans and wildlife alike, resulting in the spread of waterborne diseases. Effective sewage treatment removes harmful components before they can cause these negative impacts, thus protecting public health and supporting sustainable environmental practices. By ensuring that waste is adequately processed, communities can maintain clean water sources, reduce outbreaks of diseases, and preserve the overall health of the environment. This focus on health and environmental safety is the foundation of wastewater management strategies around the world.

9. Which river systems are known to supply Maricopa County?

- A. Salt, Colorado, Snake**
- B. Rio Grande, Apache, Verde**
- C. Columbia, Mojave, Gila**
- D. Missouri, Mississippi, Colorado**

The Salt River and the Gila River are the primary river systems that supply water to Maricopa County. The Salt River provides a significant amount of water for agriculture and urban use in the area. It is part of the larger Colorado River system, which is crucial for the water supply across the southwestern United States. The inclusion of the Colorado River in the correct choice underscores its importance as a vital water resource that also supports the Salt and Gila rivers. In contrast, the other options include rivers that are either geographically distant from Maricopa County or are not significant sources of water for the region. The Rio Grande and the Verde River, although they may have relevance in other contexts, do not serve the water supply needs of Maricopa County in the same way that the Salt and Gila rivers do. The Columbia and Missouri rivers, while major waterways in the United States, are not connected to the water supply of Maricopa County at all. Thus, option A accurately reflects the local river systems essential to the area.

10. What is one method to conserve water?

- A. Planting native species**
- B. Installing low-flow fixtures and appliances**
- C. Collecting rainwater in barrels**
- D. Using pesticides sparingly**

Installing low-flow fixtures and appliances is a highly effective method of water conservation. These fixtures and appliances are designed to use significantly less water than standard models while still delivering the necessary performance for everyday tasks. For example, low-flow showerheads can reduce water usage by up to 50%, while low-flow toilets use considerably less water per flush compared to traditional toilets. By replacing standard fixtures with low-flow versions, households and businesses can dramatically decrease their overall water consumption. This not only helps to conserve a vital resource but also leads to lower water bills, making it both an environmentally and economically sound practice. Other methods like planting native species and collecting rainwater also contribute to water conservation but focus on different aspects of water management. Using pesticides sparingly relates more to environmental health than direct water conservation, thus making low-flow fixtures and appliances a more immediate and practical solution.

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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://asu-glg108midterm2.examzify.com>

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

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