

ARIZONA STATE UNIVERSITY (ASU) GLG108 WATER PLANET MIDTERM 2 PRACTICE EXAM (SAMPLE) STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

**VISIT US ONLINE FOR
THE FULL VERSION STUDY GUIDE**

<https://asu-glg108midterm2.examzify.com>



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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. What is the primary purpose of managed surface water facilities?**
 - A. To provide drinking water directly to communities
 - B. To naturally purify water through soil filtration
 - C. To store rainwater for agricultural use
 - D. To control flooding during rainy seasons
- 2. How is non-point source pollution characterized?**
 - A. It originates from a single, identifiable source
 - B. It comes from multiple diffuse sources
 - C. It is easy to pinpoint and manage
 - D. It refers to pollution from industrial activities
- 3. Which of the following is a major factor contributing to storm surge severity?**
 - A. Ocean currents
 - B. Wind speed and direction
 - C. Atmospheric pressure
 - D. All of the above
- 4. What is one way climate can affect water availability?**
 - A. It can alter the chemical composition of water
 - B. It impacts the supply and demand of water resources
 - C. It determines the salinity of seawater
 - D. It has no significant impact
- 5. What are common water pollution or contamination concerns?**
 - A. Germs, industrial pollution, and gastrointestinal water-borne illnesses
 - B. Heavy metals, eutrophication, and sedimentation
 - C. Radioactive waste, heavy machinery runoff, and acid rain
 - D. Salinity, temperature changes, and wildlife interactions

- 6. What is expected to happen to Flagstaff's water demand in 40 years without conservation?**
- A. Remain the same
 - B. Increase
 - C. Decrease
 - D. Become unpredictable
- 7. What is a significant consequence of groundwater depletion?**
- A. Increased flood risks
 - B. Land subsidence
 - C. Increased evaporation
 - D. Decreased pollution
- 8. What is a characteristic of sustainable groundwater management practices?**
- A. Maximizing extraction rates
 - B. Unregulated water use
 - C. Intentional recharge efforts
 - D. No monitoring of groundwater levels
- 9. What is the primary concern associated with microplastics in water?**
- A. They enhance water flavor
 - B. They can harm aquatic life
 - C. They increase the efficiency of water filtration
 - D. They promote algal growth
- 10. What is a common use for greywater, excluding its typical disposal?**
- A. Irrigation
 - B. Drinking
 - C. Industrial processes
 - D. Filling swimming pools

Answers

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

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Explanations

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1. What is the primary purpose of managed surface water facilities?

- A. To provide drinking water directly to communities
- B. To naturally purify water through soil filtration**
- C. To store rainwater for agricultural use
- D. To control flooding during rainy seasons

The primary purpose of managed surface water facilities involves the strategic management of water resources to achieve specific outcomes, including the natural purification of water. In this context, when water passes through managed surface water systems, such as wetlands or constructed basins, the soil acts as a natural filter. This process allows various contaminants to be removed while providing habitat for wildlife and enhancing ecological conditions. Managed facilities prioritize this natural purification process to aid in improving water quality before it reenters natural waterways or underground aquifers. This aligns with sustainable practices that seek to utilize natural processes for effective water management. While other options detail important aspects of water management—such as drinking water distribution, agricultural storage, and flood control—these functions do not capture the specific focus of managed surface water facilities on the purification process through soil filtration. This distinction is crucial in understanding the role that these facilities play within broader water management practices.

2. How is non-point source pollution characterized?

- A. It originates from a single, identifiable source
- B. It comes from multiple diffuse sources**
- C. It is easy to pinpoint and manage
- D. It refers to pollution from industrial activities

Non-point source pollution is characterized by its origins from multiple diffuse sources rather than a single, identifiable point. This type of pollution does not come from one specific location, such as a pipe or drainage outlet, making it inherently more complex to manage and regulate. Examples of non-point source pollution include runoff from agricultural fields, urban areas, and mining sites, where various pollutants—like fertilizers, pesticides, oil, and sediment—can wash into water bodies through rainfall or snowmelt. The diffuse nature of this pollution means that it is often challenging to trace back to a specific source, which complicates mitigation efforts. Understanding this distinction is crucial, as it underscores the importance of implementing broad management strategies to address such pollution comprehensively, rather than focusing solely on individual sources as would be the case with point source pollution.

3. Which of the following is a major factor contributing to storm surge severity?

- A. Ocean currents
- B. Wind speed and direction
- C. Atmospheric pressure
- D. All of the above**

Storm surge severity is significantly influenced by a combination of factors, notably wind speed and direction, ocean currents, and atmospheric pressure. Each of these elements plays a crucial role in determining how high the water level rises during a storm. Wind speed and direction are primary contributors because strong winds, particularly those associated with tropical storms and hurricanes, push water towards the shore. The direction of these winds can also affect how concentrated the surge is in specific areas, leading to higher water levels in certain locations. Ocean currents can amplify or mitigate the effects of a storm surge. For instance, if a storm surge coincides with an outgoing current, the combined effects can lead to exceptionally high water levels. Conversely, an incoming current can help to reduce the overall surge effect. Understanding ocean currents is essential to predicting the surge's impact accurately. Atmospheric pressure also plays a pivotal role in storm surge formation. As a storm approaches, the atmospheric pressure over the ocean decreases. This reduction in pressure allows water levels to rise, contributing to the overall storm surge. Lower pressure systems can lead to a significant increase in water level, resulting in a more severe surge. Thus, the interplay of these three factors—wind speed and direction, ocean currents, and atmospheric pressure—collectively contributes to

4. What is one way climate can affect water availability?

- A. It can alter the chemical composition of water
- B. It impacts the supply and demand of water resources**
- C. It determines the salinity of seawater
- D. It has no significant impact

Climate significantly influences water availability primarily through its effect on the supply and demand of water resources. As climate patterns change, they can lead to variations in precipitation—either increasing or decreasing rainfall in certain regions. For instance, areas that experience more frequent and intense droughts may see a decreased supply of freshwater, which affects how much water is available for agriculture, drinking, and industrial use. Conversely, regions that receive excessive rainfall can face flooding, which can also complicate the availability of usable fresh water. Moreover, climate can impact the demand for water: hotter temperatures often lead to increased water consumption for irrigation and personal use, heightening the pressure on local water supplies. Understanding these dynamics helps in water resource management and in preparing for future changes in climate-related water availability. In contrast, altering the chemical composition of water, determining seawater salinity, or claiming that climate has no significant impact are not mechanisms directly related to how climate influences overall water resources and their availability to communities and ecosystems.

5. What are common water pollution or contamination concerns?

- A. Germs, industrial pollution, and gastrointestinal water-borne illnesses
- B. Heavy metals, eutrophication, and sedimentation
- C. Radioactive waste, heavy machinery runoff, and acid rain
- D. Salinity, temperature changes, and wildlife interactions

The correct answer highlights significant issues related to water pollution and contamination that are critical in both environmental science and public health. Germs, as a category, refer to pathogens like bacteria and viruses that can contaminate water sources and lead to various diseases, especially gastrointestinal illnesses. These water-borne pathogens are a major concern in many communities, particularly those without adequate sanitation and safe drinking water. Industrial pollution indicates the harmful substances released into water bodies from industrial processes, which can include toxic chemicals, heavy metals, and other pollutants that can adversely affect aquatic ecosystems and human health. It encompasses a range of possible contaminants that can disrupt the natural balance of aquatic environments. Gastrointestinal water-borne illnesses are specifically caused by consuming contaminated water, which can result from either the presence of germs or industrial pollutants. These illnesses highlight the direct impact that water quality has on human populations, making this a particularly pressing concern. In contrast, other options present issues that, while legitimate environmental concerns, do not encapsulate the broad spectrum of immediate public health risks. Heavy metals and eutrophication are significant, but they are more focused on ecological impacts rather than the direct transmission of diseases via contaminated water sources. Similarly, radioactive waste and heavy machinery runoff, although potent pollution sources, are less

6. What is expected to happen to Flagstaff's water demand in 40 years without conservation?

- A. Remain the same
- B. Increase
- C. Decrease
- D. Become unpredictable

In the scenario where conservation measures are not implemented, it is anticipated that Flagstaff's water demand will increase over the next 40 years. This expectation is based on factors such as population growth, urban development, and changes in lifestyle that typically accompany increased demand for water resources. As communities expand and more people move into the area, the overall consumption of water for residential, commercial, and recreational uses tends to rise. Moreover, without active conservation efforts, current consumption patterns may continue, leading to greater strain on available water supplies. Other influences such as climate change may exacerbate this demand, as shifting weather patterns could potentially lead to reduced water availability in the region. Thus, the natural progression of increased demand aligned with these factors reinforces the expectation that Flagstaff's water demand will rise significantly if no conservation strategies are put into place.

7. What is a significant consequence of groundwater depletion?

- A. Increased flood risks
- B. Land subsidence**
- C. Increased evaporation
- D. Decreased pollution

Groundwater depletion leads to a notable consequence known as land subsidence. This phenomenon occurs when the underground water that supports soil and rock is drawn out faster than it can be replenished. As groundwater is extracted, the pressure that was previously held by the water diminishes, causing the ground above to sink or collapse. This sinking can create various challenges, including damage to buildings, roads, and infrastructure, as well as alterations in surface water flow and increased vulnerability to flooding in certain areas. Understanding the implications of land subsidence highlights the importance of sustainable groundwater management practices to preserve these crucial water resources and prevent detrimental impacts on the environment and human activity.

8. What is a characteristic of sustainable groundwater management practices?

- A. Maximizing extraction rates
- B. Unregulated water use
- C. Intentional recharge efforts**
- D. No monitoring of groundwater levels

Sustainable groundwater management practices focus on maintaining the long-term viability and health of aquifers and water resources. Intentional recharge efforts are a critical component of this approach. These efforts involve actively facilitating the replenishment of groundwater supplies, either through methods such as infiltration basins, recharge wells, or managed aquifer recharge. By promoting the natural processes that allow groundwater to be replenished, these practices help to ensure that extraction does not exceed the natural recharge rate. In contrast, maximizing extraction rates, unregulated water use, and a lack of monitoring of groundwater levels can lead to over-extraction and depletion of groundwater resources. These practices can result in severe ecological impacts, reducing water availability for future generations, and harming the ecosystems that rely on groundwater. Therefore, intentional recharge is fundamental to sustainable management, aiming to balance use with conservation and replenishment.

9. What is the primary concern associated with microplastics in water?

- A. They enhance water flavor
- B. They can harm aquatic life**
- C. They increase the efficiency of water filtration
- D. They promote algal growth

Microplastics are tiny plastic particles that result from the breakdown of larger plastic items and pose significant environmental challenges, particularly in aquatic environments. The primary concern associated with microplastics in water is their potential to harm aquatic life. Aquatic organisms, from the smallest plankton to larger fish, can ingest microplastics either directly or indirectly. When ingested, microplastics can cause physical harm, such as digestive blockages or damage to internal organs. Additionally, microplastics can be carriers for harmful pollutants and toxins that can accumulate in the food web, potentially affecting not just individual species but entire ecosystems. Moreover, as microplastics proliferate in our water bodies, they may disrupt the natural behavior and physiology of marine wildlife. This disruption can lead to harmful consequences for biodiversity and the health of aquatic ecosystems. Since the impacts of microplastics can magnify up the food chain, the concern extends beyond just the organisms that encounter them directly, affecting other species and ultimately human health as well, since many people rely on fish and other aquatic organisms for food. In contrast, the other options presented do not accurately reflect the widespread scientific understanding of microplastics. For example, microplastics do not enhance water flavor or improve water filtration;

10. What is a common use for greywater, excluding its typical disposal?

- A. Irrigation**
- B. Drinking
- C. Industrial processes
- D. Filling swimming pools

Greywater refers to the relatively clean wastewater generated from activities such as washing dishes, laundry, and bathing. One of the most common uses for greywater is irrigation. This is because greywater often contains nutrients that can benefit plants, making it a resourceful option for watering gardens and landscaping. Utilizing greywater for irrigation helps conserve fresh water, reduces the demand on water supply systems, and promotes environmental sustainability. Many regions that experience water scarcity implement greywater recycling systems specifically for this purpose, highlighting its practicality and benefits in managing water resources effectively. Other options, while they may have specific contexts in which they might apply, do not align as closely with common or practical uses for greywater.

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:

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

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