WASHINGTON STATE WATER DISTRIBUTION MANAGER (WDM) 1 CERTIFICATION PRACTICE EXAM (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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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.

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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!

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Questions

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1. An advantage of _____ hydrants is that there is no flow of water from a broken hydrant.

A. Dry barrel hydrants

B. Wet barrel hydrants

C. Combination hydrants

D. Above-ground hydrants

2. A hydrant should be operable with a hydrant wrench of what length, and if a longer one is needed, what action should be taken?

A. 10 in, tighten the cap

B. 12 in, replace the hydrant

C. 18 in, call maintenance

D. 15 in, dismantled to remove and replace the operating nut and main stem

3. What is a drawdown?

A. A drop in the water table due to water being pumped out of a well

B. A rise in the water table due to rainfall

C. No change in water table

D. A temporary fluctuation in water level due to weather

4. When testing a new pipeline installation for leakage and pressure with a fire hydrant, what extra piece of equipment is needed?

A. air release valve

B. backflow preventer

C. double check valve

D. pressure relief valve

5. The operating valve for a dry barrel fire hydrant is located?

A. In the base

B. In the bonnet

C. In the street-side outlet

D. In the hydrant stem

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6. In trench backfill compaction practices, if native soil is used and it is relatively dense, compaction should be performed on the backfill that is located?

A. bottom backfill

B. middle backfill

C. upper backfill

D. sides backfill

7. Which of the following is considered an aesthetic quality of drinking water?

A. Taste, color, and odor

B. pH and alkalinity

C. Turbidity and chlorine residual

D. Dissolved minerals

8. On a 90 degree or 45 degree pipe bend, if shackle rods are used, they should be placed in _____ and be on the _____ of the bend.

A. Concrete blocks, inside

B. Wood blocks, outside

C. Concrete blocks, outside

D. Steel blocks, inside

9. Which organization will develop standards related to drinking water according to the material?

A. AWWA

B. USEPA

C. State Government

D. Utilities

10. Storage tanks should also have _____ to relieve excess pressure and vacuum if the screens become blocked.

A. Flap Valves

B. Check Valves

C. Air Vents

D. Pressure Relief Valves

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Answers

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

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Explanations

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1. An advantage of _____ hydrants is that there is no flow of water from a broken hydrant.

A. Dry barrel hydrants

B. Wet barrel hydrants

C. Combination hydrants

D. Above-ground hydrants

Dry barrel hydrants keep the water supply shut off in the underground main, with the above-ground part kept dry when not in use. The valve and most of the water are below ground, and the hydrant drains automatically when closed, so there isn't water in the exposed portion. If the hydrant is damaged or broken, there's no sustained flow from the hydrant because the water pressure is isolated underground. This minimizes water loss and reduces flood risk at the scene. Wet barrel hydrants, by contrast, contain water in the vertical barrel at all times, so a broken hydrant would leak or spray water. Combination or above-ground designs can still present water flow if compromised, since they don't isolate the underground supply in the same way.

2. A hydrant should be operable with a hydrant wrench of what length, and if a longer one is needed, what action should be taken?

A. 10 in, tighten the cap

B. 12 in, replace the hydrant

C. 18 in, call maintenance

D. 15 in, dismantled to remove and replace the operating nut and main stem

A hydrant should be operable with the standard hydrant wrench length because that length is chosen to apply the proper torque without stressing the valve components. If a longer lever is needed, it indicates wear or damage in the operating nut or main stem. The appropriate action is to dismantle and replace those parts. This restores correct fit and torque, prevents overstressing the stem, and keeps the hydrant reliable for operation. Simply tightening caps or using a longer lever won't fix the underlying wear, and replacing the hydrant itself isn't necessary unless other issues exist.

3. What is a drawdown?

A. A drop in the water table due to water being pumped out of a well

B. A rise in the water table due to rainfall

C. No change in water table

D. A temporary fluctuation in water level due to weather

Drawdown describes the drop in the groundwater level caused by pumping water from a well. When water is withdrawn, the hydraulic head near the well falls, creating a cone of depression around it and lowering the water table (or potentiometric surface) from its static level. The amount of drawdown is the difference between the static water level before pumping and the level during pumping (or after pumping when flow is occurring). Factors like pumping rate, aquifer transmissivity, and storativity influence how much the level declines and how quickly it occurs, and recovery happens after pumping stops as water recharges the area. The other scenarios aren't about pumping effects: a rise in the water table from rainfall is natural recharge, not drawdown; no change means no pumping or no net effect; and a short-term fluctuation due to weather describes transient variability, not the sustained lowering caused by extraction.

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4. When testing a new pipeline installation for leakage and pressure with a fire hydrant, what extra piece of equipment is needed?

A. air release valve

B. backflow preventer

C. double check valve

D. pressure relief valve

When testing a new pipeline with a fire hydrant, you must prevent water from flowing back into the drinking water system during the test. Install a backflow protection device in the test connection, and the common choice for temporary hydrant testing is a double check valve assembly. This setup provides two independent checks and shutoff points, reliably preventing back-siphonage while you fill and pressurize the new line. An air release valve handles trapped air, not backflow protection; a pressure relief valve protects against overpressure but doesn't stop backflow; and while any backflow device works, the double check valve is the standard, practical option for this testing scenario.

5. The operating valve for a dry barrel fire hydrant is located?

A. In the base

B. In the bonnet

C. In the street-side outlet

D. In the hydrant stem

In a dry barrel hydrant, the shutoff valve is placed at the very bottom of the hydrant, inside the base. This design keeps the portion of the hydrant above ground dry when not in use and allows drainage through a base drain after the valve is closed, which helps prevent freezing. When you operate the hydrant, turning the top mechanism moves the stem and opens the valve at the base, letting water flow up the barrel to the street outlets. The bonnet houses the packing and the stem, but the actual valve isn't there. The street-side outlet is simply where water exits, and the hydrant stem is the actuator linkage, not the valve itself.

6. In trench backfill compaction practices, if native soil is used and it is relatively dense, compaction should be performed on the backfill that is located?

A. bottom backfill

B. middle backfill

C. upper backfill

D. sides backfill

When the trench bottom native soil is already relatively dense, the firm base reduces the risk of settlement from that layer, so the main concern becomes the material that sits above it. Compaction is concentrated in the upper backfill because that is the portion directly supporting surface loads and most susceptible to settlement over time. The dense bottom native soil already provides a stable foundation, and over-compacting it could disturb the bedding or pipe. Therefore, you focus compaction on the backfill located on top of the dense native layer—the upper backfill.

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7. Which of the following is considered an aesthetic quality of drinking water?

A. Taste, color, and odor

B. pH and alkalinity

C. Turbidity and chlorine residual

D. Dissolved minerals

Aesthetic quality refers to the sensory characteristics of drinking water—what it looks like and how it tastes and smells. Water that tastes, colors, or odors unpleasantly is less acceptable to consumers, so taste, color, and odor are the classic components of aesthetics. The other options describe chemical properties (pH and alkalinity), treatment/control indicators (turbidity and chlorine residual), or mineral content, which affect safety, stability, or composition rather than the immediate sensory experience.

8. On a 90 degree or 45 degree pipe bend, if shackle rods are used, they should be placed in _____ and be on the _____ of the bend.

A. Concrete blocks, inside

B. Wood blocks, outside

C. Concrete blocks, outside

D. Steel blocks, inside

The key idea is to provide a solid, fixed anchor for the bend so it won't shift during installation, backfilling, or under pressure. When shackle rods are used on a 90-degree or 45-degree bend, placing the anchor in concrete blocks on the inside radius gives a rigid, immovable support right at the part of the bend that needs to stay aligned. Concrete blocks are durable and can be poured to fit the bend, giving a stable backing that won't deform, unlike wood, which can rot or compress, or nonstandard steel blocks. Placing an anchor on the outside of the bend could create leverage that promotes movement or misalignment, so the preferred practice is concrete blocks inside the bend.

9. Which organization will develop standards related to drinking water according to the material?

A. AWWA

B. USEPA

C. State Government

D. Utilities

Standards for drinking water are developed by professional standards organizations, such as the American Water Works Association. AWWA creates and publishes standards and recommended practices that utilities use to guide treatment, distribution system design, materials, and operational practices. While the EPA sets and enforces federal drinking water requirements under the Safe Drinking Water Act and state governments may adopt or regulate these standards, the origin of the standards themselves, in the material you're studying, comes from AWWA. Utilities implement and follow these standards, using them as the basis for compliant and reliable water service.

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10. Storage tanks should also have _____ to relieve excess pressure and vacuum if the screens become blocked.

A. Flap Valves

B. Check Valves

C. Air Vents

D. Pressure Relief Valves

Relieving both excess pressure and vacuum in a storage tank when airflow paths are blocked requires a device that can move air in and out while keeping liquids out. A flap valve fits this role because it sits in the vent line and stays closed to keep contaminants out, but opens when interior pressure becomes higher than atmospheric to vent air, and also allows air to enter if a vacuum develops. This bidirectional relief protects the tank from damage when screens block normal airflow. Other options don't provide this same dual function. A check valve mainly prevents backflow of liquid and doesn't reliably vent for pressure changes. A pressure relief valve focuses on releasing excess pressure but doesn't address vacuum conditions. An air vent helps release trapped air but isn't designed to permit controlled bidirectional relief in a blocked-screen scenario.

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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://washingtonwdm1.examzify.com

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

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