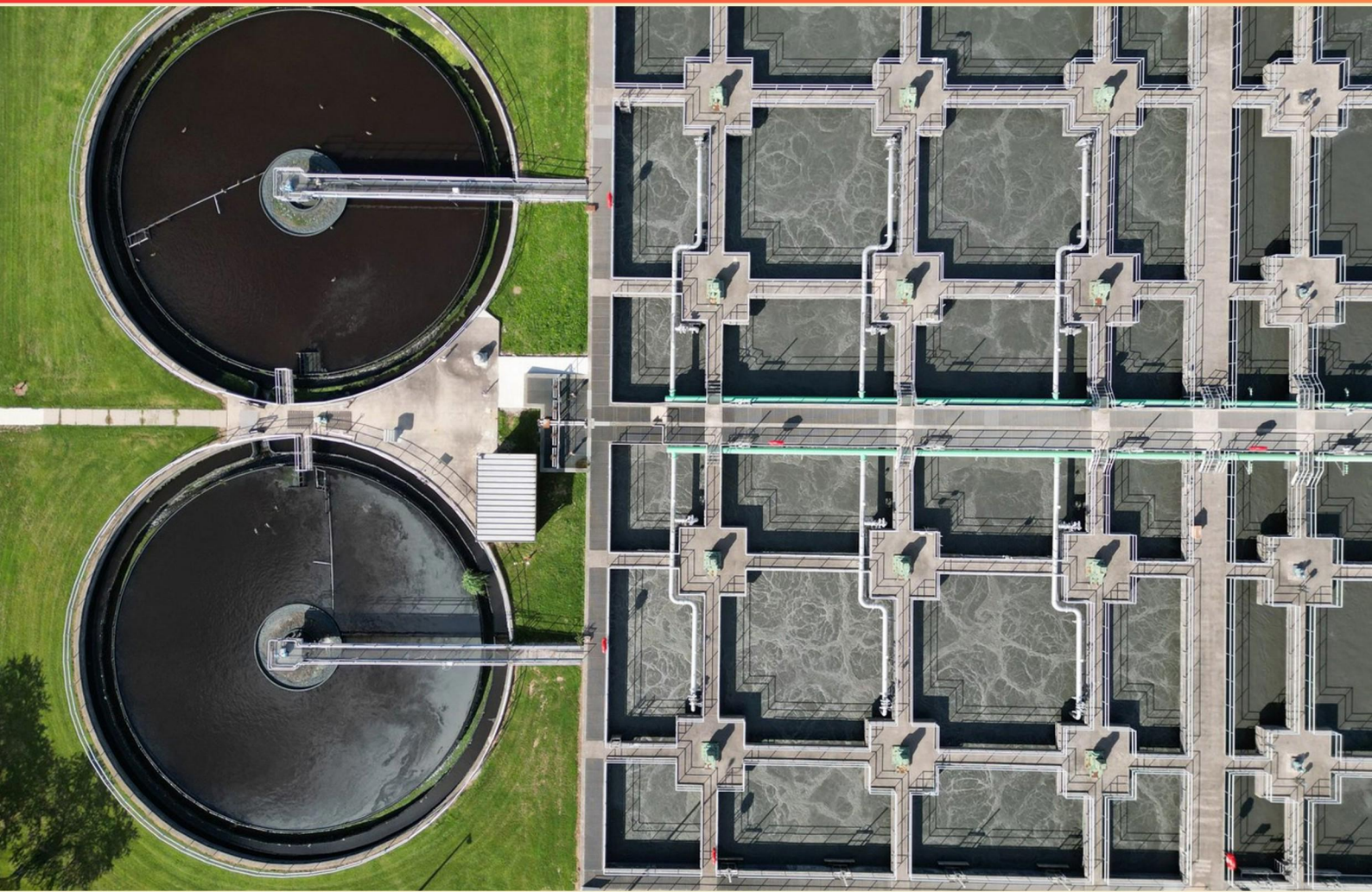


WATER DISTRIBUTION MANAGER (WDM) GREENBOOK 2 PRACTICE EXAM (SAMPLE) STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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

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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. In the hydrant color/flow coding scheme, which option represents a hydrant with 1500 gpm?**
 - A. Light blue hydrant with 1500 gpm
 - B. Green hydrant with 1000-1499 gpm
 - C. Orange hydrant with 500-999 gpm
 - D. Red hydrant with less than 500 gpm

- 2. Foot valve is placed at the bottom of which pipe of a pump?**
 - A. Suction
 - B. Discharge
 - C. Supply
 - D. Return

- 3. In a synchronous motor, the rotor speed is**
 - A. The rotor turns at the same speed as the rotating magnetic field produced by the stator.
 - B. Slightly slower due to slip.
 - C. The rotor turns faster than the rotating magnetic field.
 - D. The rotor remains stationary.

- 4. If no head exists on the suction side and no foot valve is provided, priming is accomplished by a**
 - A. Vacuum pump or ejector
 - B. Hand pump
 - C. Electric motor
 - D. Gas pressure

- 5. What is the purpose of a valve exercising program and how often should critical valves be exercised?**
 - A. To survey customers about valve conditions.
 - B. To ensure operational readiness and prevent seizing; critical valves annually, non-critical valves every 2–3 years, per policy.
 - C. To replace all valves every year.
 - D. To exercise only when a valve fails.

- 6. How do you determine the criticality ranking of assets for replacement planning under asset management?**
- A. Rank by alphabetical order of asset ID.
 - B. Rank by color coding only.
 - C. Use risk scoring considering likelihood of failure and consequence, asset age, failure history, redundancy, and replacement cost.
 - D. Randomly select assets.
- 7. What is the maximum PSI for single-suction pumps?**
- A. 200
 - B. 300
 - C. 100
 - D. 400
- 8. Before shutting down the centrifugal pump, you should**
- A. Close the discharge valve slowly
 - B. Open the discharge valve
 - C. Stop the motor immediately
 - D. Flush the pump
- 9. Which term refers to a system where a central receiver requests data from instruments over a single channel?**
- A. Duplexing
 - B. Polling
 - C. Scanning
 - D. Tone-frequency multiplexing
- 10. What flow range corresponds to green hydrants?**
- A. 500-999 gpm
 - B. Less than 500 gpm
 - C. 1000-1499 gpm
 - D. 1500 gpm

Answers

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

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Explanations

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1. In the hydrant color/flow coding scheme, which option represents a hydrant with 1500 gpm?

- A. Light blue hydrant with 1500 gpm**
- B. Green hydrant with 1000-1499 gpm
- C. Orange hydrant with 500-999 gpm
- D. Red hydrant with less than 500 gpm

In hydrant color/flow coding, colors quickly indicate how much water a hydrant can provide. The common scheme maps: red for under 500 gpm, orange for 500–999 gpm, green for 1000–1499 gpm, and light blue for 1500 gpm or more. Therefore, a light blue hydrant with 1500 gpm sits in the highest flow category, making it the correct choice. The other colors correspond to lower flow ranges (green, orange, red), not 1500 gpm.

2. Foot valve is placed at the bottom of which pipe of a pump?

- A. Suction**
- B. Discharge
- C. Supply
- D. Return

A foot valve is fitted on the suction line, placed at the bottom so it can hold a full column of water in the suction pipe. This keeps the line primed and prevents water from draining back into the source when the pump stops, so the next start is easier and quicker. It's on the suction side because its purpose is to maintain prime and prevent backflow; putting a valve on the discharge line would obstruct pumping, and terms like supply or return aren't where a foot valve is used.

3. In a synchronous motor, the rotor speed is

- A. The rotor turns at the same speed as the rotating magnetic field produced by the stator.**
- B. Slightly slower due to slip.
- C. The rotor turns faster than the rotating magnetic field.
- D. The rotor remains stationary.

In a synchronous motor the rotor speed is synchronized with the stator's rotating magnetic field. The stator creates a magnetic field that rotates at the synchronous speed, which is determined by the supply frequency and the number of poles ($N_s = 120 f / P$). The rotor—fed with DC excitation or equipped with permanent magnets—locks to that rotating field and follows it in steady operation, so there is essentially no slip between rotor and field. This means the rotor turns at the same speed as the rotating magnetic field, not slower, faster, or stationary. For example, at 60 Hz with four poles, the synchronous speed is 1800 rpm, so the rotor runs at about 1800 rpm.

4. If no head exists on the suction side and no foot valve is provided, priming is accomplished by a

- A. Vacuum pump or ejector
- B. Hand pump
- C. Electric motor
- D. Gas pressure

Priming a pump means removing air from the suction side so the pump can be filled with water and develop flow. When there's no head on the suction side and no foot valve to hold a water column, gravity alone won't keep the line primed. You need a source of suction to lift water from the source into the pump. A vacuum pump or ejector creates that suction by lowering the pressure at the pump entrance, drawing water up from the source and filling the suction line and pump casing, which achieves priming. An electric motor is just a drive, not a priming method. Gas pressure wouldn't reliably create the necessary suction to lift water, and while a hand pump could be used for priming in some setups, the standard device for this scenario is a vacuum pump or ejector.

5. What is the purpose of a valve exercising program and how often should critical valves be exercised?

- A. To survey customers about valve conditions.
- B. To ensure operational readiness and prevent seizing; critical valves annually, non-critical valves every 2–3 years, per policy.
- C. To replace all valves every year.
- D. To exercise only when a valve fails.

Regularly exercising valves keeps them operable and ready to isolate parts of the water system when needed. It prevents seizing from corrosion, deposits, or infrequent use, and it also verifies that the valve's actuation devices, wiring, and position indication are working so operators can trust the control system during emergencies or maintenance. Critical valves—those whose operation affects large service areas or essential facilities—should be exercised on a yearly basis to maintain a reliable isolation capability. Non-critical valves can be scheduled less frequently, typically every two to three years, in line with policy, to balance reliability with available resources. This approach is proactive, not reactive, and it's about ensuring readiness rather than surveying customers, replacing valves annually, or exercising only after a failure.

6. How do you determine the criticality ranking of assets for replacement planning under asset management?

- A. Rank by alphabetical order of asset ID.
- B. Rank by color coding only.
- C. Use risk scoring considering likelihood of failure and consequence, asset age, failure history, redundancy, and replacement cost.**
- D. Randomly select assets.

Use a risk-based, data-driven scoring approach to rank assets for replacement. This means assigning a risk score to each asset that combines the likelihood of failure with the consequences if failure occurs, and then ordering assets from highest to lowest risk to guide replacement planning. The score should be informed by practical factors such as how old the asset is, its failure history, whether there is redundancy or backup capacity in place, and the cost to replace or rehabilitate it. Assets that are old and prone to failure, whose failure would severely disrupt service and for which replacement is expensive, will rank higher and be prioritized. Relying on alphabetical order, color coding alone, or random selection doesn't reflect actual risk or service impact, so those methods don't support effective, defensible decisions about where to invest limited resources. A data-driven risk ranking aligns with asset management goals of maintaining reliable service while optimizing lifecycle costs.

7. What is the maximum PSI for single-suction pumps?

- A. 200**
- B. 300
- C. 100
- D. 400

The main idea is that single-suction centrifugal pumps have a practical pressure limit set by their mechanical design. They're built to handle a certain amount of axial thrust, bearing loads, and seal stresses, all of which increase with higher discharge pressures. For common distribution-service units, that limit is around 200 psi. Pushing beyond this can shorten seal life, raise wear on bearings, and exceed the pump's casing and impeller stresses. When higher pressures are needed, you'd use a double-suction pump or stage pumps in series, rather than forcing a single-suction unit to operate above its rating. That's why 200 psi is the correct maximum. Higher values would require a different pump configuration, and a value like 100 psi would underutilize typical single-suction capabilities.

8. Before shutting down the centrifugal pump, you should

- A. Close the discharge valve slowly**
- B. Open the discharge valve
- C. Stop the motor immediately
- D. Flush the pump

Closing the discharge valve gradually is the safest way to shut down a centrifugal pump. Slowing the valve closure gradually lets the moving fluid lose energy smoothly, which reduces the risk of a sudden pressure surge inside the piping and equipment—known as water hammer—that can damage valves, joints, and the pump itself. This controlled deceleration also helps prevent unwanted backflow and cavitation downstream and gives the system time to adjust before the motor is turned off. Opening the discharge valve would create a rapid change in flow and pressure, increasing the chance of damage, and stopping the motor immediately can leave the fluid column with inertia that still causes pressure spikes. Flushing the pump isn't part of the normal shutdown sequence to protect the system.

9. Which term refers to a system where a central receiver requests data from instruments over a single channel?

- A. Duplexing
- B. Polling**
- C. Scanning
- D. Tone-frequency multiplexing

Polling is the method where a central receiver asks data from each instrument on a single shared channel, controlling who talks and when. The master probes each device in turn, waits for its response, then moves to the next device, so all data shares one line without collisions. This master-slave arrangement is ideal for orderly data collection from multiple sensors over one channel. Duplex-style duplexing implies simultaneous two-way communication, which isn't about one device being asked at a time. Scanning refers to repeatedly checking devices, often in a loop, but the explicit master-initiated request-and-response pattern that isolates access to one device at a time is characteristic of polling. Tone-frequency multiplexing uses distinct tones to carry multiple signals on a single channel rather than a control-and-response polling scheme.

10. What flow range corresponds to green hydrants?

- A. 500-999 gpm
- B. Less than 500 gpm
- C. 1000-1499 gpm**
- D. 1500 gpm

Hydrant color coding gives a quick visual cue of the approximate fire flow a hydrant can deliver. In this scheme, green hydrants indicate a flow range of 1000 to 1499 gallons per minute. This makes them a reliable source for moderate-to-high fire flows, useful for planning water supply and evaluating how well a system can support typical fire demands. Lower ranges (less than 1000 gpm) and the highest range (1500 gpm and above) correspond to the other color codes, not green. So the flow range that corresponds to green hydrants is 1000–1499 gpm.

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://wdmgreenbook2.examzify.com>

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

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