Fire Pump Run 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. 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

1. Which action is part of post-run checks after shutting down the pump?

A. Increase RPM.

B. Immediately refill tank.

C. Drain hoses.

D. Observe gauges for stability and verify systems secured.

2. What is the recommended action after priming is complete?

A. Open discharge lines immediately

B. Keep priming valve open and monitor

C. Close priming valve, then open discharge lines gradually

D. Stop the engine and drain the priming system

3. What is the primary reason to balance flows when using multiple discharge lines simultaneously?

A. To save water

B. To prevent one line from starving others

C. To simplify valve operation

D. To reduce pump speed

4. There are two requirements listed under pump house conditions. Which statement is correct?

A. Ventilating louvers are free to operate

B. Heat is adequate, at least 40°F for diesel pump rooms

C. Both ventilating louvers are free to operate and heat is adequate, at least 40°F for diesel pump rooms

D. Neither of the above.

5. For centrifugal fire pumps, which pairing describes the two stage configurations and shaft orientations?

A. Single stage; Horizontal

B. Dual stage; Diagonal

C. Single and multistage; Horizontal and Vertical

D. Multistage; Vertical

6. During the test, which pressure gauge readings are required to be recorded?

A. Suction and discharge

B. Discharge and relief valve

C. Suction and relief valve

D. Gauge at inlet and outlet piping

7. Which step is not part of addressing air in discharge lines?

A. Stop

B. Verify priming

C. Check for leaks

D. Increase throttle

8. What is the purpose of a pump intake screen (strainer) when drafting?

A. To measure intake velocity

B. To keep debris out of the pump and prevent clogs and damage.

C. To reduce noise

D. To increase nozzle pressure

9. Which position should the controller selector switch be in?

A. Auto

B. Manual

C. Off

D. Run

10. What steps should the operator take if the pump gauge indicates air in the discharge lines?

A. Stop, verify priming, check for leaks, bleed air, and restart with prime if necessary

B. Increase throttle

C. Open discharge valve more

D. Ignore it if PDP is met

Answers

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

Explanations

1. Which action is part of post-run checks after shutting down the pump?

A. Increase RPM.

B. Immediately refill tank.

C. Drain hoses.

D. Observe gauges for stability and verify systems secured.

After you've shut the pump down, you want to confirm the system is in a safe, stable state. Observing the gauges for stability is essential because it shows whether pressure holds steady or if there's a slow bleed, a potential leak, or an improperly seated valve after shutdown. Verifying that the systems are secured means making sure all valves, connections, and equipment are secured and no components are left loose or under unexpected stress. This combination confirms the pump isn't harboring hidden issues and is safely secured for the next use. The other actions don't fit post-run checks. Increasing RPM is something you do while the pump is running, not after shutdown. Refill the tank immediately isn't a standard post-run check and depends on fuel management procedures. Draining hoses isn't a routine post-run check and could unnecessarily depressurize or delay securing the scene.

2. What is the recommended action after priming is complete?

A. Open discharge lines immediately

B. Keep priming valve open and monitor

C. Close priming valve, then open discharge lines gradually

D. Stop the engine and drain the priming system

After priming is complete, the goal is to seal the priming circuit and transition to normal pumping without letting air back in and without causing a surge. Closing the priming valve isolates the primed water from the prime line, preserving the prime in the pump and suction. Then gradually opening the discharge lines allows pressure to rise smoothly, preventing water hammer and minimizing the chance of losing prime as the system comes up to flow. Opening discharge lines immediately can disturb the prime and cause a drop in suction pressure. Keeping the priming valve open keeps the system ready but doesn't provide the controlled transition needed after a successful prime, and stopping the engine and draining the priming system wastes the prime and requires re-priming.

3. What is the primary reason to balance flows when using multiple discharge lines simultaneously?

A. To save water

B. To prevent one line from starving others

C. To simplify valve operation

D. To reduce pump speed

When multiple discharge lines are opened, the main goal is to distribute the pump's output evenly to each line. Each discharge path has its own friction losses and backpressure, so water will tend to flow more through the path with less resistance. If one line hogs the flow, the others don't get enough, and their nozzle pressures can drop below what's needed to be effective. Balancing the flows—adjusting valves or throttling lines so the head losses are similar—keeps all lines receiving adequate flow and pressure, making the overall attack more reliable. This isn't mainly about saving water, and it doesn't inherently change the pump speed; it's about preventing one line from starving the others and ensuring consistent performance across all discharges.

4. There are two requirements listed under pump house conditions. Which statement is correct?

A. Ventilating louvers are free to operate

B. Heat is adequate, at least 40°F for diesel pump rooms

C. Both ventilating louvers are free to operate and heat is adequate, at least 40°F for diesel pump rooms

D. Neither of the above.

The tested idea is keeping the pump house environment suitable for reliable diesel engine operation by ensuring both air exchange and a minimum temperature. If the ventilating louvers can operate, fresh air can flow and any heat or fumes from the equipment won't build up, which supports safe starting, cooling, and overall air quality. At the same time, keeping the space heated to at least 40°F prevents diesel fuel from gelling in cold weather, helps maintain proper lubricant viscosity, supports battery performance, and reduces the risk of freezing components. Together, these conditions address both air quality and temperature control, which is why the statement that both are required is the best answer. If only one aspect were met, the other could still lead to starting or operating problems in cold or poorly ventilated conditions.

5. For centrifugal fire pumps, which pairing describes the two stage configurations and shaft orientations?

A. Single stage; Horizontal

B. Dual stage; Diagonal

C. Single and multistage; Horizontal and Vertical

D. Multistage; Vertical

In centrifugal fire pumps, you describe configurations along two dimensions: how many stages (impellers in series) and how the shaft is oriented. A stage configuration can be single-stage (one impeller) or multistage (two or more impellers in series). The shaft orientation can be horizontal or vertical. The pairing that accounts for both dimensions—covering single and multistage as the stage options, and horizontal and vertical as the shaft orientations—is the best fit. This shows that pumps exist in either single-stage or multistage forms and can be mounted horizontally or vertically, depending on design and application. The other options either specify only one stage type or only one orientation, or use nonstandard terms, so they don't capture both aspects.

6. During the test, which pressure gauge readings are required to be recorded?

A. Suction and discharge

B. Discharge and relief valve

C. Suction and relief valve

D. Gauge at inlet and outlet piping

During a fire pump run test, you need to know what the pump is delivering to the system, which requires looking at the pressures on both sides of the pump. The suction gauge (inlet) and the discharge gauge (outlet) provide this information. By recording these two pressures, you can calculate the head the pump develops (discharge minus suction) at the tested flow, verify the pump has adequate suction head to avoid cavitation, and confirm the discharge pressure meets the system demand. A reading from a relief valve isn't part of the standard run test, and while gauges at inlet and outlet piping would capture the same pressures, the standard practice is to record suction and discharge pressures directly across the pump.

7. Which step is not part of addressing air in discharge lines?

A. Stop

B. Verify priming

C. Check for leaks

D. Increase throttle

The main idea here is removing trapped air from the discharge lines by ensuring the pump is properly primed and the system is free of air leaks. When air is present, you want to stop the pump to safely assess and correct the situation, verify that the pump is actually primed, and check for leaks that could be drawing air into the lines. Verifying priming means confirming there's a continuous water column filling the pump and discharge piping so water can flow smoothly rather than pushing air ahead of the water. Checking for leaks helps you locate any weak connections or seals where air could be entering the system and preventing proper discharge. Increasing throttle does not address the root issue of air in the lines. Simply speeding up the pump won't purge trapped air and can even worsen conditions by causing cavitation or noisy operation. It's not a corrective step for air removal, whereas stopping, verifying priming, and checking for leaks directly target the presence of air and how to eliminate it.

8. What is the purpose of a pump intake screen (strainer) when drafting?

A. To measure intake velocity

B. To keep debris out of the pump and prevent clogs and damage.

C. To reduce noise

D. To increase nozzle pressure

When drafting, the pump encounters air and whatever is in the water source. The intake screen serves as a barrier that blocks debris such as leaves, sticks, and sediment from entering the pump while still allowing water to flow in. This protection helps prevent clogs, wear, and potential damage to the pump's impeller and internal components, and it reduces the chance of problems like loss of prime. The screen must be kept clean and properly sized so it doesn't overly restrict flow, which could hurt performance. It isn't meant to measure velocity, reduce noise, or increase nozzle pressure.

9. Which position should the controller selector switch be in?

A. Auto

B. Manual

C. Off

D. Run

Placing the controller selector switch in Manual gives you full, independent control of starting and stopping the pump. For a run test, you want to observe how the pump behaves when you initiate a start action yourself and then watch it run under direct operator control. If it were in Auto, the pump could start automatically from the protection signals, which can complicate the test or mask how the pump responds to a manual start. Off would disable operation, and Run is used when the pump is already running, not when you're testing the start/stop sequence. So Manual is the best setting for a controlled run test.

10. What steps should the operator take if the pump gauge indicates air in the discharge lines?

A. Stop, verify priming, check for leaks, bleed air, and restart with prime if necessary

B. Increase throttle

C. Open discharge valve more

D. Ignore it if PDP is met

Air in the discharge lines means the pump hasn't established a continuous column of water and can't deliver water at the designed pressure. The remedy is to remove the trapped air and re-prime the pump before returning to service. Stop the pump and verify the priming system and water source are functioning. Check all suction and discharge connections for leaks or openings that could admit air, and make sure the suction line is fully filled with water. Bleed the air from the pump and discharge lines by opening the intended bleed points until a steady stream of water (without air bubbles) comes out. Once the lines are full of water and the air is purged, re-prime the pump if needed and restart at the proper operating speed, monitoring gauges to confirm the discharge pressure and flow stabilize. Why the other options aren't appropriate: simply increasing throttle won't remove trapped air and could cause cavitation or damage. Opening the discharge valve more may vent air but won't eliminate the root cause and can hide the problem without priming. Ignoring the condition if the PDP is met is unsafe because air pockets can prevent delivering water even when pressure appears adequate.

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://firepumprun.examzify.com

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