AIR FORCE CRANE COURSE PRACTICE TEST (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.

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. When and how should you use a sling leg to balance a load?

A. Use a single leg to balance weight.

B. Use multiple legs to distribute weight evenly and correct CG; adjust leg lengths so tension is balanced, ensuring no leg bears excessive load and equalizing the load path.

C. Tension should always be higher on the leg closest to operator.

D. Leg lengths should be equal to avoid any balancing.

2. The SWL or safe working load of a wire can be downgraded due to being old, worn, or in poor condition.

A. False

B. True

C. Not applicable

D. Unknown

3. Who can give the emergency stop signal?

A. Operator

B. Anyone

C. Supervisor

D. Designated signaler

4. If a crane is off level by 1 degree, what percent loss occurs in charted capacity?

A. 10%

B. 30%

C. 5%

D. 50%

5. LAY refers to what when considering wire ropes?

A. The direction of the twist of the wires in a strand

B. The overall length of the rope

C. The number of strands in the rope

D. The material the rope is made from

6. Which of the following is a main type of wire rope used in cranes?

A. 6x19

B. 7x19

C. 8x19

D. 7x37

7. Hooks must not have throat openings more than what percent greater than normal?

A. 15%

B. 10%

C. 5%

D. 20%

8. During setup on uneven ground, what practice helps maintain level and stability?

A. Skip mats

B. Rely on luck

C. Use mats or cribbing and ensure level setup

D. Use only one outrigger

9. After completing the crane function check, what must you accomplish?

A. Shut down the engine

B. Recheck the levels

C. Proceed with lift

D. Inspect the tires

10. What maintenance tasks should be performed after a lift on the crane?

A. Lubricate moving parts

B. Inspect wire rope and sheaves

C. Test safety devices

D. All of the above

Answers

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

Explanations

1. When and how should you use a sling leg to balance a load?

A. Use a single leg to balance weight.

B. Use multiple legs to distribute weight evenly and correct CG; adjust leg lengths so tension is balanced, ensuring no leg bears excessive load and equalizing the load path.

C. Tension should always be higher on the leg closest to operator.

D. Leg lengths should be equal to avoid any balancing.

Balancing a load with sling legs comes down to spreading the weight so the crane hook works with the load as a single, stable unit. By using multiple legs and tuning their lengths, you distribute the load evenly and bring the tensions in all legs into alignment. When each leg shares the load roughly equally, the sling angles are balanced, the load path stays close to a straight line through the hook, and there's less tendency for tipping, sway, or side loading during lift. This is why the approach of using several legs and adjusting their lengths to balance tension is best. It accounts for the load's center of gravity and the geometry of how attachment points sit relative to the hook. In contrast, relying on a single leg creates an unstable lift and higher risk of tipping or swinging. Simply making all legs the same length doesn't guarantee equal tension once the load's CG and attachment points come into play, and any leg nearer the operator or with a different angle can end up taking more load. The aim is to achieve a level, controlled lift with no leg bearing excessive load, which is accomplished by distributing the weight across multiple legs and equalizing their tensions.

2. The SWL or safe working load of a wire can be downgraded due to being old, worn, or in poor condition.

A. False

B. True

C. Not applicable

D. Unknown

Safe working load isn't a fixed number that stays the same regardless of condition. A wire rope's strength can be reduced by age, wear, corrosion, broken wires, crushing, kinks, and other damage. When deterioration is present, the remaining strength is lower, so the SWL must be downgraded to reflect that reduced capacity and maintain a safe margin under load. Regular inspection and manufacturer guidelines provide the factors or charts used to determine the new, lower SWL. In short, aging or damaged wire can require reducing its safe working load.

3. Who can give the emergency stop signal?

A. Operator

B. Anyone

C. Supervisor

D. Designated signaler

In crane operations, the emergency stop is a safety control designed for immediate action by anyone who perceives a hazard. It should be accessible and usable by every worker, because danger can be recognized by any person, not just the operator. When any worker can activate the stop, there's no delay waiting for a specific role to respond, which reduces the risk of injury or damage. While roles like supervisor or designated signaler exist for coordination and communication, the most reliable safety practice is that stopping the crane must be possible by anyone who sees a danger, ensuring rapid and decisive intervention.

4. If a crane is off level by 1 degree, what percent loss occurs in charted capacity?

A. 10%

B. 30%

C. 5%

D. 50%

Even a small tilt changes how the load acts relative to the crane's base. The charted capacities assume the crane is perfectly level and the load's weight is carried straight down through the structure with the outriggers and counterweights in their intended balance. When the crane is off level, that balance is disturbed and the same load creates a larger tipping moment, so the safe lifting limit must be reduced to keep stability margins. For a 1-degree lean, that derating is about thirty percent, meaning you can lift roughly seventy percent of the level-capacity. This effect is influenced by boom height and reach, so the exact deration can vary with configuration, but a 30% loss is the standard derate for a 1-degree tilt.

5. LAY refers to what when considering wire ropes?

A. The direction of the twist of the wires in a strand

B. The overall length of the rope

C. The number of strands in the rope

D. The material the rope is made from

Lay is the direction in which the wires are twisted to form a strand. In a wire rope, strands are made by twisting multiple wires together, and the way those wires wrap within each strand sets the strand's lay. This direction (often described as left-hand or right-hand) influences how the rope flexes, wears, and behaves under load, and it's a key factor when selecting rope for a given application. The other aspects listed—how long the rope is, how many strands it has, or what material it's made from—describe other rope characteristics, not the lay.

6. Which of the following is a main type of wire rope used in cranes?

A. 6x19

B. 7x19

C. 8x19

D. 7x37

Wire rope performance hinges on its construction: how many strands and how many wires are in each strand determine strength, wear resistance, and how well the rope holds up under bending over pulleys and drums. In cranes, the lifting rope that is most commonly used is built with six strands, each containing nineteen wires. That six-by-nineteen arrangement provides a strong, durable rope that resists crushing and fatigue from repeated bending, while still offering enough stiffness to wind properly on a drum and hold up under heavy loads. The other constructions—more strands or significantly more flexible configurations—are typically chosen for different needs like greater flexibility for lighter tasks or control lines, but they don't balance strength and wear in the same way for main hoisting ropes. Hence, the six-by-nineteen rope is the standard main type for crane lifting.

7. Hooks must not have throat openings more than what percent greater than normal?

A. 15%

B. 10%

C. 5%

D. 20%

In crane hook safety, the throat opening shows how much the hook has worn or deformed. The load must sit securely in the hook and the hook must retain its intended geometry to carry the load safely. The maximum allowable increase over normal throat size is 15 percent. Keeping within this limit helps ensure the load remains seated properly and the hook maintains its strength under load; exceeding it means the hook could fail to hold the load or become overstressed. So 15 percent is the correct limit. A larger increase, like 20 percent, would be unsafe, while smaller percentages are within the allowable range but do not represent the maximum limit.

8. During setup on uneven ground, what practice helps maintain level and stability?

A. Skip mats

B. Rely on luck

C. Use mats or cribbing and ensure level setup

D. Use only one outrigger

Maintaining a level and stable setup on uneven ground comes from creating a solid base with mats or cribbing. These materials distribute the crane's weight across a larger, stable contact area and fill gaps or soft spots, allowing you to level the base so the outriggers can grip evenly. When the setup is level, the load path stays vertical and the crane remains balanced, reducing the risk of tipping or shifting during lifts. Skipping mats removes the necessary support, relying on luck is unsafe, and using only one outrigger creates an unstable, tipping-prone configuration regardless of ground conditions. By using mats or cribbing and ensuring the setup is level, you establish a safe, stable foundation for lifting operations.

9. After completing the crane function check, what must you accomplish?

A. Shut down the engine

B. Recheck the levels

C. Proceed with lift

D. Inspect the tires

Rechecking the levels after a crane function check is essential because it confirms that all fluids and pressures are still within safe, expected ranges before you actually lift. The function check tests how components respond, and it can reveal leaks or changes in fluid levels that weren't obvious at idle. By verifying hydraulic fluid, engine oil, coolant, and fuel are at the correct levels, you ensure there's enough capacity and that readings on gauges reflect reality. This step helps prevent a lift from starting with insufficient fluid or unnoticed leaks, which could lead to loss of control, reduced performance, or overheating once you begin operation. After confirming levels, you're ready to proceed to lifting, rather than taking action that could be unsafe. Shutting down the engine or inspecting tires are important safety steps in other parts of the overall pre-operation process, but they aren't the immediate requirement tied to the function check itself.

10. What maintenance tasks should be performed after a lift on the crane?

A. Lubricate moving parts

B. Inspect wire rope and sheaves

C. Test safety devices

D. All of the above

After a lift, it's important to run through a quick but complete check of the crane's condition to keep it safe and reliable for the next operation. Lubricating moving parts reduces friction and wear, helping components operate smoothly and last longer. Inspecting the wire rope and sheaves catches wear, fraying, corrosion, or misalignment that could lead to rope failure or uneven loading. Testing safety devices verifies that protective systems like brakes, limit switches, emergency stop, and load indicators respond correctly, preventing uncontrolled movement or overload. Since each of these checks addresses a different potential risk, performing all of them after a lift is the proper practice.

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://airforcecrane.examzify.com

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