AIRPORT FIRE AND RESCUE OPERATIONS – AIRCRAFT, MAP, AND FIREFIGHTING TECHNIQUES 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 operating with turret-mounted foam, which approach helps conserve agent?**

   A. Apply short 5-10 second bursts, evaluate results, avoid wasting agent on approach, and use pump-and-roll when appropriate

   B. Use only 2-second bursts

   C. Keep turret off

   D. Use long continuous bursts

2. **What are aircraft hydraulic-system hazards?**

   A. Hydraulic systems operate around 3,000 psi and may contain up to 185 gal; high pressure can sever fingers, hands, or limbs.

   B. Hydraulic systems operate at low pressure and pose no physical risk.

   C. They only contain hydraulic fluid in emergency lines.

   D. They operate at approximately 500 psi and rarely contain more than 20 gallons.

3. **What belongs in the initial on-scene size-up?**

   A. Aircraft involved, emergency situation, wind direction, safe approach route for other vehicles, and visible hazards.

   B. The flight plan and origin

   C. Only the weather, time of day

   D. Pilot's license number

4. **In aircraft overhaul, what is essential to preserve for investigation?**

   A. Preserve and protect the origin of the fire as potential evidence.

   B. Discard all damaged materials and replace them immediately.

   C. Repaint the area to hide damage.

   D. Remove evidence before investigation.

5. **What is the purpose of knowing frangible gate locations?**

   A. They are decorative and nonfunctional.

   B. They must be broken at every incident.

   C. They are used only on aprons for signage.

   D. They reduce response time to off-airport incidents; unlock if possible before breaking through.

6. Why should straight stream be avoided on pool fires?

A. It can churn/splash fuel, spread fire, and disturb foam blankets causing flashback

B. It improves cooling only

C. It increases foam blanket stability

D. It reduces fire spread

7. After rapid knockdown with dry chemical, what should be applied to prevent flashback?

A. Foam

B. Water

C. Dry chemical

D. Halon

8. Which statements describe typical foam concentration percentages for different fuels?

A. Class B foams mix 1-6%; hydrocarbons 1% or 3%; polar solvents 3% or 5%.

B. Class B foams mix 10-15%; hydrocarbons 8% or 12%; polar solvents 6% or 8%.

C. Class B foams mix 0.1% or 0.5%; hydrocarbons 0.5% or 1%; polar solvents 1% or 2%.

D. Class B foams mix 20%; hydrocarbons 15%; polar solvents 10%.

9. What does SALT stand for?

A. Sort, Assess, Lifesaving Intervention, Treatment/Transport.

B. Search, Assess, Life-saving Tactics, Transport.

C. Sort, Analysis, Lethal Intervention, Transfer.

D. Signal, Assess, Lifesaving Interventions, Transportation.

10. What is the ventilation rule for aircraft fires?

A. Ventilation is optional and may be done as desired.

B. Ventilation and interior attack must be planned/coordinated; initial ventilation can be opening doors and hatches.

C. No ventilation should be attempted.

D. Ventilation must be conducted only after charges are set.

Answers

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

Explanations

1. When operating with turret-mounted foam, which approach helps conserve agent?

A. Apply short 5-10 second bursts, evaluate results, avoid wasting agent on approach, and use pump-and-roll when appropriate

B. Use only 2-second bursts

C. Keep turret off

D. Use long continuous bursts

Conserving foam with a turret comes from delivering controlled, evaluative bursts rather than spraying freely. Short 5–10 second bursts provide an adjustable amount of foam to establish a workable blanket, then you can assess how well it cools, penetrates, and covers the fire. This immediate feedback lets you stop early or shift technique before you waste foam. Not wasting foam on the approach keeps the agent focused on the fire itself, rather than overspraying while you're still getting into position. Pump-and-roll, when appropriate, lets you keep applying foam as you move, extending coverage and maintaining the foam supply for the critical attack phase. Using only 2-second bursts lacks enough foam to form a usable blanket and makes it hard to judge effectiveness. Long continuous bursts tend to consume more foam faster without the same opportunity for timely assessment and adjustment, leading to unnecessary waste. Keeping the turret off would defeat the purpose of foam delivery altogether.

2. What are aircraft hydraulic-system hazards?

A. Hydraulic systems operate around 3,000 psi and may contain up to 185 gal; high pressure can sever fingers, hands, or limbs.

B. Hydraulic systems operate at low pressure and pose no physical risk.

C. They only contain hydraulic fluid in emergency lines.

D. They operate at approximately 500 psi and rarely contain more than 20 gallons.

Aircraft hydraulic systems store and move energy through fluids at very high pressure. This energy means a line or component can release a powerful jet or a sudden surge if it ruptures, is damaged, or is accidentally actuated while being worked on. The pressure is typically thousands of pounds per square inch, and on large aircraft the hydraulic system can hold hundreds of gallons of fluid. That combination of high pressure and substantial fluid volume makes hydraulic lines capable of causing severe injuries, including deep lacerations or even injection injuries where fluid is forced into skin or tissue. The hazard isn't limited to moving parts; a released jet or spray can propel objects, damage nearby surfaces, or contaminate skin and eyes with fluid that can be caustic to tissue. In rescue or maintenance situations, it's essential to treat hydraulic lines as high-energy potential sources: avoid contact, depressurize and isolate circuits before work, and use appropriate PPE and procedures to prevent exposure.

3. What belongs in the initial on-scene size-up?

A. Aircraft involved, emergency situation, wind direction, safe approach route for other vehicles, and visible hazards.

B. The flight plan and origin

C. Only the weather, time of day

D. Pilot's license number

The most important thing the initial on-scene size-up establishes is the environmental baseline that will drive all early decisions. Weather and time of day set how you'll see and move around the scene, how smoke and any fire will behave, and what limits you'll face in terms of visibility, ventilation, and operations. Knowing wind direction and speed, lighting conditions, temperature, and humidity right away helps you decide where it's safe to position apparatus, where to establish entry routes, and how long you can operate before fatigue or equipment performance becomes a risk. Details like the flight plan, origin, or a pilot's license number aren't immediately relevant to determining your first actions on arrival and don't change the safety plan in those critical first moments. While other observations such as visible hazards or wind effects are important, they derive from the initial environmental context you establish with weather and time-of-day information. Focusing on these baseline conditions first ensures your initial size-up supports safe, effective early actions and resource decisions.

4. In aircraft overhaul, what is essential to preserve for investigation?

A. Preserve and protect the origin of the fire as potential evidence.

B. Discard all damaged materials and replace them immediately.

C. Repaint the area to hide damage.

D. Remove evidence before investigation.

The essential concept is that preserving the origin of the fire as potential evidence is crucial for a credible investigation and accurate root-cause analysis during aircraft overhaul. When a fire occurs, investigators must determine where it started and which systems or materials contributed to it. Keeping the origin area intact allows examination of burn patterns, wiring, insulation, and components involved, helping to identify ignition sources, sequence of events, and contributing factors. This preservation also maintains the integrity of evidence for safety recommendations, regulatory requirements, and any legal or insurance processes, by ensuring a proper chain of custody and preventing alteration of facts. Discarding damaged materials would erase clues about what ignited the fire or how it propagated. Repainting or masking damage can conceal critical evidence and mislead analysis. Removing evidence before investigators arrive or before a proper assessment would undermine the objectivity and reliability of findings. So the best practice is to secure the scene, protect the origin, document and label damaged parts, and preserve everything for investigators to examine.

5. What is the purpose of knowing frangible gate locations?

A. They are decorative and nonfunctional.

B. They must be broken at every incident.

C. They are used only on aprons for signage.

D. They reduce response time to off-airport incidents; unlock if possible before breaking through.

Frangible gates are a deliberate safety feature that lets emergency responders reach a scene quickly by allowing the gate to release, break away, or be easily opened with minimal effort. The idea is to prevent delays or damage that could slow down a rescue or firefighting operation. By knowing their locations, responders can plan the fastest route to the incident and first attempt any available method to unlock or release the gate. If unlocking is possible, it preserves time and reduces risk; if not, the gate is designed to give way in a controlled manner so entry isn't excessively delayed. These gates are typically placed at perimeter or access points, including areas near runways or aprons, to ensure rapid access during incidents, including those that extend beyond the immediate airside.

6. Why should straight stream be avoided on pool fires?

A. It can churn/splash fuel, spread fire, and disturb foam blankets causing flashback

B. It improves cooling only

C. It increases foam blanket stability

D. It reduces fire spread

Straight stream delivers a concentrated, high-velocity jet that concentrates energy in a small area. On a pool fire, that impact can churn and splash burning fuel, spreading flames to nearby surfaces and increasing the risk of ignition elsewhere. It also tends to disrupt and wash away the foam blanket that's used to blanket the surface and absorb heat, which can compromise cooling and allow vapors to reignite or flash back toward the nozzle. The preferred approach is a fog or wide-angle spray that cools the surface more evenly, blankets the fuel, and minimizes disturbance to the fuel layer. By avoiding the straight stream, you reduce fuel movement, protect the foam blanket, and lower the chance of re-ignition.

7. After rapid knockdown with dry chemical, what should be applied to prevent flashback?

A. Foam

B. Water

C. Dry chemical

D. Halon

Cooling and fog-blanketing the fuel surface are the key ideas here. After you've knocked down the flame with dry chemical, lingering hydrocarbon vapors can still flash back if air can reach the fuel. Foam provides both cooling and a stable blanket on the spill, which seals off the air–fuel interface and reduces vapor formation. That blanket—and the cooling effect of the foam–water solution—helps prevent reignition as the area is stabilized and cooled. Water alone cools but doesn't form the same vapor-suppressing barrier and can spread hydrocarbon fuels or fail to stop re-ignition once the surface reheats. Dry chemical by itself stops the flame but doesn't give ongoing vapor suppression. Halon is not used for this purpose in modern practice due to environmental and availability considerations.

8. Which statements describe typical foam concentration percentages for different fuels?

A. Class B foams mix 1-6%; hydrocarbons 1% or 3%; polar solvents 3% or 5%.

B. Class B foams mix 10-15%; hydrocarbons 8% or 12%; polar solvents 6% or 8%.

C. Class B foams mix 0.1% or 0.5%; hydrocarbons 0.5% or 1%; polar solvents 1% or 2%.

D. Class B foams mix 20%; hydrocarbons 15%; polar solvents 10%.

Foam concentration for Class B firefighting depends on the type of liquid fuel and the finished foam solution you apply. The typical overall mixing range for Class B foam concentrates is about 1 to 6 percent in the water to create the foam solution. Within that, hydrocarbon fuels are usually treated with the lower end, commonly around 1 percent or 3 percent. Polar solvents, which are more challenging to blanket and can re-ignite more easily, typically require higher concentrations, such as 3 percent or 5 percent. This balance ensures a stable foam blanket that cools, forms an effective film, and blankets the fuel surface without wasting concentrate. The other proposed ranges—like 10–15 percent, 0.1–0.5 percent, or 20 percent—do not reflect how Class B foams are normally applied and would be outside the standard performance specifications.

9. What does SALT stand for?

A. Sort, Assess, Lifesaving Intervention, Treatment/Transport.

B. Search, Assess, Life-saving Tactics, Transport.

C. Sort, Analysis, Lethal Intervention, Transfer.

D. Signal, Assess, Lifesaving Interventions, Transportation.

SALT triage is a mass-casualty on-scene prioritization method, organized around four practical steps. First, sort casualties into groups by urgency and likelihood of benefit from immediate care. Next, assess each person quickly to determine who needs urgent attention and who can wait. Then perform lifesaving interventions on-site for those with a chance of survival, actions that can buy time and stabilize airway, breathing, bleeding, and other critical threats. Finally, treat and transport decisions are made, directing patients to definitive care and coordinating who should be moved to hospitals or trauma facilities. This sequence matches the standard terminology: Sort, Assess, Lifesaving Interventions, Treatment/Transport. The other options swap in terms like Search, Lethal, Signal, or Tactics and Transportation, which do not reflect SALT's accepted wording.

10. What is the ventilation rule for aircraft fires?

A. Ventilation is optional and may be done as desired.

B. Ventilation and interior attack must be planned/coordinated; initial ventilation can be opening doors and hatches.

C. No ventilation should be attempted.

D. Ventilation must be conducted only after charges are set.

Ventilation is an integrated part of fighting an aircraft fire, not a separate, optional step. The best practice is to plan ventilation together with the interior fire attack so crews work with a coordinated strategy. Opening doors and hatches as an initial ventilation action creates a controlled flow path for smoke and heat, which lowers temperatures in the space, improves visibility, and helps rescuers and attackers move more safely and effectively. Coordinating ventilation with the attack prevents pushing flames or toxic gases toward personnel or into unvented areas and avoids unwanted backdraft or flashover scenarios. In an aircraft with multiple compartments, this teamwork ensures the ventilation changes support the fire attack rather than hinder it. So, the correct approach is to plan ventilation and interior attack together, with initial ventilation often taken as opening doors and hatches to establish a safe, directed flow path.

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://airportfirerescueops.examzify.com

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