HVAC D-2 LICENSE PRACTICE TEST (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

VISIT US ONLINE FOR THE FULL VERSION STUDY GUIDE

https://hvacd2license.examzify.com

Copyright © 2026 by Examzify - A Kaluba Technologies Inc. product.

ALL RIGHTS RESERVED.

No part of this book may be reproduced or transferred in any form or by any means, graphic, electronic, or mechanical, including photocopying, recording, web distribution, taping, or by any information storage retrieval system, without the written permission of the author.

Notice: Examzify makes every reasonable effort to obtain accurate, complete, and timely information about this product from reliable sources.

SAMPLE

Table of Contents

Copyright 1

Table of Contents 2

Introduction 3

How to Use This Guide 4

Questions 5

Answers 8

Explanations 10

Next Steps 15

SAMPLE

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.

SAMPLE

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!

SAMPLE

Questions

SAMPLE

1. Which statement about the crankcase heater is true?

A. It boils off liquid refrigerant trapped in the oil

B. It cools the compressor oil

C. It increases refrigerant charge

D. It filters refrigerant

2. Joints between different metallic piping materials shall be made with approved dielectric fittings or brass converter fittings.

A. True

B. False

C. Not specified

D. Only in some cases

3. What is the minimum fire-resistance rating for the barrier that separates oxygen cylinders from other materials?

A. 1 hour

B. 2 hours

C. 1/4 hour

D. 1/2 hour

4. In oil-burning appliance combustion products, the dew point is the temperature below which components condense on exposed surfaces.

A. Condense

B. Evaporate

C. Oxidize

D. Sublimate

5. A competent person is someone who is able to identify existing and predictable hazards in the surrounding area or working conditions that are unsanitary, dangerous, or hazardous to employees.

A. Competent

B. Supervisor

C. Trainee

D. Apprentice

SAMPLE

6. Hydronic radiant floor heating systems should not be installed under the _____.

A. Ceiling joists

B. Floor joists

C. Rafters

D. Studs

7. On industrial steam boilers the safety valves are required to be mounted in the vertical up position.

A. Horizontal

B. Angled

C. Vertical down

D. Vertical up position

8. The over-fire draft test reading on an oil burner is negative and approximately -0.02 inches of water column.

A. True

B. False

C. Cannot be negative

D. Always positive

9. The vacuum threshold at which fuel oil may break apart is measured in inches of mercury and is which value?

A. 8 inches

B. 12 inches

C. 10 inches

D. 6 inches

10. When fuel oil is subjected to a vacuum in excess of how many inches of mercury does it start to come apart?

A. 5

B. 15

C. 20

D. 10

SAMPLE

Answers

SAMPLE

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

SAMPLE

Explanations

SAMPLE

1. Which statement about the crankcase heater is true?

A. It boils off liquid refrigerant trapped in the oil

B. It cools the compressor oil

C. It increases refrigerant charge

D. It filters refrigerant

The crankcase heater's job is to warm the compressor crankcase so any liquid refrigerant that has migrated into the oil can be boiled off and returned to the vapor space. This prevents refrigerant from diluting the oil and helps avoid slugging or lubrication problems when the compressor restarts. It doesn't cool the oil, increase the refrigerant charge, or filter refrigerant, so those statements aren't true.

2. Joints between different metallic piping materials shall be made with approved dielectric fittings or brass converter fittings.

A. True

B. False

C. Not specified

D. Only in some cases

When metals of different types are joined, galvanic corrosion can occur because dissimilar metals have different electrochemical potentials. In HVAC systems, moisture or other electrolytes can allow current to flow between the metals, causing one to corrode at the joint. Using approved dielectric fittings inserts a non-conductive barrier between the metals, completely isolating them so no galvanic current can flow. Brass converter fittings provide a transition between materials, reducing direct metal-to-metal contact and breaking the galvanic path while still forming a reliable, sealed joint. Because these methods are designed to prevent galvanic corrosion, they are the approved ways to join different metallic piping materials, making the statement true.

3. What is the minimum fire-resistance rating for the barrier that separates oxygen cylinders from other materials?

A. 1 hour

B. 2 hours

C. 1/4 hour

D. 1/2 hour

Oxygen cylinders are stored as oxidizers, so they can intensify a fire if they heat up. A barrier between the oxygen storage area and other materials is meant to slow heat transfer so the cylinders stay cooler long enough for firefighters to respond and for the situation to be controlled. The minimum fire-resistance rating used for this separation is a half-hour, which provides a practical safety window without being unnecessarily costly. Shorter ratings wouldn't reliably protect the cylinders from heat in a real fire, while longer ratings are typically more than what's required for this specific separation.

SAMPLE

4. In oil-burning appliance combustion products, the dew point is the temperature below which components condense on exposed surfaces.

A. Condense

B. Evaporate

C. Oxidize

D. Sublimate

Dew point is the temperature at which water vapor in a gas becomes saturated and begins to condense into liquid on surfaces. In oil-burning appliance exhaust, the hot combustion gases contain a lot of water vapor. As these gases travel through the vent or flue and cool, they reach the dew point. Below that temperature, the water vapor condenses on cooler surfaces, forming liquid condensate (which can become acidic if sulfur compounds are present). This is condensation—not evaporation, oxidation, or sublimation—so the correct idea is that condensation occurs at and below the dew point.

5. A competent person is someone who is able to identify existing and predictable hazards in the surrounding area or working conditions that are unsanitary, dangerous, or hazardous to employees.

A. Competent

B. Supervisor

C. Trainee

D. Apprentice

The key idea is identifying hazards and having the authority to act on them. In OSHA and practical safety practice, a competent person is defined as someone who can identify existing and predictable hazards in the work area or conditions that could be unsanitary, dangerous, or hazardous to employees, and who has the authority to take prompt corrective measures to eliminate them. This exact description matches the term "Competent." A supervisor may oversee safety, and trainees or apprentices may be learning, but the definition centers on both hazard recognition and the authority to correct those hazards, which those other roles don't inherently guarantee.

6. Hydronic radiant floor heating systems should not be installed under the _____.

A. Ceiling joists

B. Floor joists

C. Rafters

D. Studs

Hydronic radiant floor heat is meant to emit heat upward from the floor into the room. For efficient, even heating, the tubing needs to sit in the floor assembly where heat can readily move into the finished floor. Installing the tubing under the floor joists places it behind wood that slows and blocks heat transfer, creating cold spots and reducing overall heat output. Therefore, keep the tubing in the floor area where it can directly heat the finished floor, not under the joists.

SAMPLE

7. On industrial steam boilers the safety valves are required to be mounted in the vertical up position.

A. Horizontal

B. Angled

C. Vertical down

D. Vertical up position

Safety relief valves must vent in a way that guarantees reliable opening, complete discharge, and safe release of steam. Installing them in the vertical up position ensures the discharge path stays clear of condensate that can collect in horizontal runs and interfere with the valve's ability to open fully or reseat after relief. It also directs the released steam upward and away from personnel and nearby equipment, reducing scald and contact hazards. If the valve were horizontal or downward, condensate could accumulate in the discharge line or near the valve seat, potentially blocking the flow, causing hammer effects, or hindering proper reseating after relief. For these reasons, the vertical up orientation is the standard requirement for safety valves on industrial steam boilers.

8. The over-fire draft test reading on an oil burner is negative and approximately -0.02 inches of water column.

A. True

B. False

C. Cannot be negative

D. Always positive

Over-fire draft is the pressure difference inside the furnace during operation, measured in inches of water column. It should be a small negative value, meaning a gentle suction pulling combustion gases toward the vent rather than pushing them back. A reading around -0.02 inches of water column is typical for an oil burner and indicates normal draft direction and magnitude. The negative sign shows there is suction, not pressure pushing back into the room. If the reading were positive, it would indicate an abnormal condition with the furnace under pressure and potential venting problems. If it were zero or far more negative, adjustments might be needed. So the statement is true because a small negative reading like -0.02 in. wc is a common, acceptable result.

9. The vacuum threshold at which fuel oil may break apart is measured in inches of mercury and is which value?

A. 8 inches

B. 12 inches

C. 10 inches

D. 6 inches

Vacuum in inches of mercury is a way to express how strong a pump is pulling on a liquid. For fuel oil, there's a practical limit: when the suction becomes too strong, the oil can break apart into unstable chunks or foam, which disrupts flow and atomization in the burner. That threshold is about 10 inches of mercury. So, at around 10 inHg of vacuum, fuel oil is at the point where it may start to break apart, making that value the correct reference. Keeping vacuum below this level helps maintain smooth flow and proper combustion.

SAMPLE

10. When fuel oil is subjected to a vacuum in excess of how many inches of mercury does it start to come apart?

A. 5

B. 15

C. 20

D. 10

Vacuum lowers the pressure on a liquid, which in turn lowers the boiling points of its components. Fuel oil isn't a single compound but a blend of hydrocarbons with a range of boiling points. When the vacuum reaches a moderate level, the lighter fractions in that blend begin to boil off while the heavier portion remains liquid. That separation—the lighter vapors escaping and the oil changing consistency—is what people mean by the oil starting to come apart. This is why fuel oil systems are operated at controlled vacuum levels: too much vacuum can cause premature vaporization and separation of the oil's components.

SAMPLE

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://hvacd2license.examzify.com

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

SAMPLE