

JH Academic Bowl Practice Test (Sample)

Study Guide



Everything you need from our exam experts!

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.

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

SAMPLE

- 1. What time is it in Washington state when it is 7:00 AM in Virginia?**
 - A. 7:00 PM**
 - B. 4:00 AM**
 - C. 3:00 AM**
 - D. 6:00 AM**

- 2. On November 21st, many young people will be eager to see the movie version of a novel about love and vampires which reached #1 on the New York Times bestsellers list. Name this first in a series of novels by Stephanie Meyer**
 - A. Twilight**
 - B. New Moon**
 - C. Eclipse**
 - D. Breaking Dawn**

- 3. Which gemstone is composed of just one element?**
 - A. Quartz**
 - B. Ruby**
 - C. Diamond**
 - D. Emerald**

- 4. What is the Mohs hardness for Fluorite?**
 - A. 4**
 - B. 5**
 - C. 6**
 - D. 3**

- 5. Which work tells the story of Paul Bäumer and the tragedy that befalls him while fighting in World War I?**
 - A. A Farewell to Arms**
 - B. The Book Thief**
 - C. All Quiet on the Western Front**
 - D. War and Peace**

- 6. Who was the United States President during the Watergate hearings who later resigned from office?**
- A. Gerald Ford**
 - B. Lyndon Johnson**
 - C. Richard Nixon**
 - D. Jimmy Carter**
- 7. Which state is nicknamed the Buckeye State and was the boyhood home of the Wright brothers?**
- A. Indiana**
 - B. Michigan**
 - C. Ohio**
 - D. Wisconsin**
- 8. Which unit is not part of the US Customary System?**
- A. Foot**
 - B. Mile**
 - C. Liter**
 - D. Pound**
- 9. Diamond is composed of which element?**
- A. Oxygen**
 - B. Nitrogen**
 - C. Hydrogen**
 - D. Carbon**
- 10. Which fundamental relationship does e^{in} illustrate a special case of?**
- A. Pythagorean theorem**
 - B. Euler's formula**
 - C. De Moivre's theorem**
 - D. Cauchy-Riemann equations**

Answers

SAMPLE

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

SAMPLE

Explanations

SAMPLE

1. What time is it in Washington state when it is 7:00 AM in Virginia?

- A. 7:00 PM
- B. 4:00 AM**
- C. 3:00 AM
- D. 6:00 AM

The time difference between these two states is three hours because Virginia is in the Eastern Time Zone and Washington is in the Pacific Time Zone, and Pacific Time is three hours behind Eastern Time. So when it's 7:00 AM in Virginia, you subtract three hours to find the time in Washington: 7:00 AM minus 3 hours equals 4:00 AM. That's why the correct time in Washington is 4:00 AM. The other options would require different differences that don't match the three-hour behind relationship, and daylight saving time doesn't change this offset since both states observe it.

2. On November 21st, many young people will be eager to see the movie version of a novel about love and vampires which reached #1 on the New York Times bestsellers list. Name this first in a series of novels by Stephanie Meyer

- A. Twilight**
- B. New Moon
- C. Eclipse
- D. Breaking Dawn

Twilight is the first book in Stephanie Meyer's Twilight Saga and fits the clue about a movie version released on November 21. The story centers on a romance between a human girl, Bella, and a vampire, Edward, mixing love with supernatural elements, which helped it reach the top spot on the New York Times bestsellers list. The other titles listed are later installments in the same series—New Moon, Eclipse, and Breaking Dawn—so they are not the first book.

3. Which gemstone is composed of just one element?

- A. Quartz
- B. Ruby
- C. Diamond**
- D. Emerald

Diamonds stand out because they are made entirely of carbon atoms arranged in a crystal lattice. An element is a substance that contains only one type of atom, and carbon in this solid form makes diamond a pure element as a gemstone. The other options are minerals that form compounds: quartz is silicon dioxide (two elements, silicon and oxygen); ruby is aluminum oxide with trace chromium for color; emerald is a beryl (beryllium aluminum silicate) with various trace elements. Those materials are composed of multiple elements, not just one. So diamond is the gemstone composed of a single element.

4. What is the Mohs hardness for Fluorite?

- A. 4**
- B. 5**
- C. 6**
- D. 3**

Mohs hardness measures scratch resistance on a relative scale. Fluorite sits between calcite and apatite, meaning it is harder than calcite but softer than apatite. So it can scratch minerals that are softer than fluorite, and it can be scratched by minerals that are harder. Among the options, the value that matches this middle position is the one that reflects fluorite's actual place on the scale. The other choices would place fluorite too soft or too hard relative to its true rank.

5. Which work tells the story of Paul Bäumer and the tragedy that befalls him while fighting in World War I?

- A. A Farewell to Arms**
- B. The Book Thief**
- C. All Quiet on the Western Front**
- D. War and Peace**

This question tests your knowledge of a novel that follows Paul Bäumer as he fights in World War I. *All Quiet on the Western Front* tells his story, presenting his voice as a German soldier on the Western Front and showing how war strips away youth, hope, and humanity through brutal trench fighting and shared hardship with comrades. The tragedy he experiences—his death amid the chaos of battle—embodies the book's stark critique of war and its cost to individuals and a generation. The other works don't feature Paul Bäumer: *A Farewell to Arms* centers on an American ambulance driver in Italy, *The Book Thief* follows a girl in Nazi Germany, and *War and Peace* covers Napoleonic-era Russia.

6. Who was the United States President during the Watergate hearings who later resigned from office?

- A. Gerald Ford**
- B. Lyndon Johnson**
- C. Richard Nixon**
- D. Jimmy Carter**

This question tests knowledge of a president who faced serious scandal and chose to step down rather than face removal. Richard Nixon was the president in office during the Watergate investigations. As the evidence and political pressure mounted, the threat of impeachment grew, and Nixon decided to resign. He did so on August 8, 1974, becoming the only U.S. president to resign from office. His departure led to Gerald Ford becoming president, and Ford later issued a pardon for Nixon. The other names were presidents at different times and did not resign in connection with Watergate: Lyndon Johnson left office in 1969 after his term ended and did not resign amid a scandal, and Jimmy Carter served from 1977 to 1981. Gerald Ford, who followed Nixon, did not resign.

7. Which state is nicknamed the Buckeye State and was the boyhood home of the Wright brothers?

- A. Indiana**
- B. Michigan**
- C. Ohio**
- D. Wisconsin**

The main idea is matching a state's nickname with a famous historical detail about where the Wright brothers grew up. The Buckeye State nickname comes from the buckeye trees—seed pods that produce shiny brown nuts used as a symbol for Ohio. The Wright brothers, Orville and Wilbur, spent their boyhood in Dayton, Ohio, where they developed their early skills and even ran a bicycle shop before turning to flight. So Ohio fits both parts of the clue: it's known as the Buckeye State and it's where the Wright brothers spent their formative years. The other states have different nicknames and aren't connected as their boyhood home.

8. Which unit is not part of the US Customary System?

- A. Foot**
- B. Mile**
- C. Liter**
- D. Pound**

This question hinges on which units come from the US Customary System versus the metric system. In the US Customary System, common length units are feet and miles, and common mass units include pounds. Liter, on the other hand, is a metric unit of volume defined as one cubic decimeter. Since liter belongs to the metric system, it is the unit that does not fit with the US Customary System.

9. Diamond is composed of which element?

- A. Oxygen**
- B. Nitrogen**
- C. Hydrogen**
- D. Carbon**

Diamond is a pure form of carbon, an element on the periodic table. In diamond, each carbon atom bonds covalently to four others, creating a rigid three-dimensional lattice. This network of strong bonds is what makes diamond exceptionally hard and gives it a very high melting point. Because the substance is composed entirely of carbon atoms, carbon is the correct element. The other elements listed—oxygen, nitrogen, and hydrogen—do not form the crystalline network that defines diamond, so they do not make up diamond's structure.

10. Which fundamental relationship does $e^{i\pi}$ illustrate a special case of?

A. Pythagorean theorem

B. Euler's formula

C. De Moivre's theorem

D. Cauchy-Riemann equations

At the heart is Euler's formula, which links complex exponentials to trigonometric functions. For any real angle θ , $e^{i\theta}$ equals $\cos \theta$ plus $i \sin \theta$. Setting $\theta = \pi$ gives $e^{i\pi} = \cos \pi + i \sin \pi = -1$, so the exponential at angle π lands exactly at -1 on the real axis. This shows how the exponential function encodes rotation on the complex plane, precisely what Euler's formula describes. De Moivre's theorem is related and follows from this idea when you raise the exponential to a power, but the direct relationship shown by $e^{i\pi}$ is Euler's formula. The other concepts don't describe this specific bridge between exponential form and circular trigonometry.

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://jhacademicbowl.examzify.com>

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

SAMPLE