

# EPRI RIGGER'S HANDBOOK PRACTICE TEST (SAMPLE)

## STUDY GUIDE



*Prepare with structure. Pass with confidence*



**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. In Calculate CG, which expression gives End1?**
- A.  $\text{End1} = \text{End2 weight} \times \text{total length}$
  - B.  $\text{End1} = \text{End2 weight} / \text{total weight} \times \text{total length}$
  - C.  $\text{End1} = \text{End2 weight} / \text{End1 total length}$
  - D.  $\text{End1} = \text{End2} + \text{total length}$
- 2. What is the temperature range recommended for eyebolts?**
- A. 0 to 100 Degrees Fahrenheit
  - B. 275 Degrees Fahrenheit to 30 Degrees Fahrenheit
  - C. -40 Degrees Fahrenheit to 400 Degrees Fahrenheit
  - D. 20 Degrees Fahrenheit to 100 Degrees Fahrenheit
- 3. Eyebolts are used for what purpose?**
- A. Ropes
  - B. Wheels
  - C. Boom Extension
  - D. Anchor Points in Lifting and Rigging
- 4. If the boom angle becomes shallower, what happens to the crane's capacity?**
- A. Increases
  - B. Fluctuates
  - C. Stays the Same
  - D. Decreases
- 5. What unit is weight per cubic foot typically expressed in?**
- A. Pounds per cubic inch
  - B. Pounds per cubic foot
  - C. Kilograms per cubic meter
  - D. Newtons per cubic foot

6. For swivel hoist rings, the threaded portion length is how many times the bolt diameter?
- A. 2 x bolt diameter
  - B. 1.5 x bolt diameter
  - C. 0.5 x bolt diameter
  - D. 1 x bolt diameter
7. The 'Rule of thumb' minimum for wire rope to sheave ratio is
- A. 10:1
  - B. 15:1
  - C. 20:1
  - D. 25:1
8. What is the temperature range for eye nuts?
- A. 275 Degrees Fahrenheit to 30 Degrees Fahrenheit
  - B. 0 to 100 Degrees Fahrenheit
  - C. -40 Degrees Fahrenheit to 400 Degrees Fahrenheit
  - D. -10 to 200 Degrees Fahrenheit
9. ASME BTH-1 is primarily concerned with which area?
- A. Design of Lifting Devices
  - B. Electrical safety
  - C. Fire protection
  - D. PPE requirements
10. To what concept does the abbreviation CG refer?
- A. Cable Gauge
  - B. Center of Gravity
  - C. Cradle Grip
  - D. Component Grounding

## **Answers**

SAMPLE

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

SAMPLE

## **Explanations**

SAMPLE

### 1. In Calculate CG, which expression gives End1?

- A.  $\text{End1} = \text{End2 weight} \times \text{total length}$
- B.  $\text{End1} = \text{End2 weight} / \text{total weight} \times \text{total length}$**
- C.  $\text{End1} = \text{End2 weight} / \text{End1 total length}$
- D.  $\text{End1} = \text{End2} + \text{total length}$

Center of gravity on a two-load span comes from balancing moments. If you measure from the end where one weight sits, only the weight at the other end creates a moment about that reference. The distance to the CG from that end is the moment divided by the total weight. With span length  $L$  and weights  $W1$  at End1 and  $W2$  at End2, the moment about End1 is  $W2 \times L$ , and the CG is located a distance  $x = (W2 \times L) / (W1 + W2)$  from End1. This matches the expression  $\text{End1} = (\text{End2 weight} / \text{total weight}) \times \text{total length}$ . So End1 equals the right-end weight divided by the total weight, multiplied by the total length. The other forms don't represent the moment-to-distance conversion correctly: they either omit dividing by total weight, use End1 in the denominator, or add quantities that don't reflect a balance of moments.

### 2. What is the temperature range recommended for eyebolts?

- A. 0 to 100 Degrees Fahrenheit
- B. 275 Degrees Fahrenheit to 30 Degrees Fahrenheit**
- C. -40 Degrees Fahrenheit to 400 Degrees Fahrenheit
- D. 20 Degrees Fahrenheit to 100 Degrees Fahrenheit

Eyebolts must be used within a temperature range that keeps their strength, ductility, and any lubricant performance reliable in the field. Extreme cold can make metal brittle and lubricants thick or ineffective, while high heat can alter material properties or degrade coatings—both scenarios can compromise safe lifting and the integrity of the threaded connection. The range in question, roughly 30°F up to 275°F, reflects a practical span that covers common outdoor and shop conditions—from chilly mornings to heat exposure on hot equipment—without venturing into extremes where standard eyebolts may not be rated. The other options either show too narrow a window for everyday rigging or imply extremes that aren't typically supported by standard eyebolts, making the middle range the best fit for typical use.

### 3. Eyebolts are used for what purpose?

- A. Ropes
- B. Wheels
- C. Boom Extension
- D. Anchor Points in Lifting and Rigging**

Eyebolts provide a fixed attachment point for lifting and rigging equipment. In lifting operations you need a dependable place to connect slings, shackles, or hooks, and the eye of the bolt serves as that anchor point where the load can be attached and pulled in a controlled direction. They're selected and rated for the load they'll carry, and the lift is designed so the force is applied along the axis of the eye. Eyebolts aren't intended for guiding ropes, adding wheels, or extending booms, and improper use (like side loading or bending) can cause failure. Use the correct size and rating and ensure the load path stays in the plane of the eye for safe lifting and rigging.

**4. If the boom angle becomes shallower, what happens to the crane's capacity?**

- A. Increases
- B. Fluctuates
- C. Stays the Same
- D. Decreases**

*The lifting capacity is determined by the load moment about the crane's base. As the boom angle becomes shallower (closer to horizontal), the load's lever arm from the base increases, so the same weight creates a larger tipping moment. To keep within safe limits, the crane must lift a smaller weight. If the boom is steeper (more vertical), the moment is smaller and more weight can be lifted within the rated limits. So, the crane's capacity decreases when the boom angle is shallower.*

**5. What unit is weight per cubic foot typically expressed in?**

- A. Pounds per cubic inch
- B. Pounds per cubic foot**
- C. Kilograms per cubic meter
- D. Newtons per cubic foot

*Weight per volume is called weight density, and in US customary units it's expressed as pounds per cubic foot. Weight is a force, and the pound-force together with a cubic foot gives a convenient, standard unit for how much weight is carried per unit volume. Other options don't fit as neatly: pounds per cubic inch would just be a much smaller volume and isn't the common standard; kilograms per cubic meter is mass density (mass per volume), not weight per volume; Newtons per cubic foot isn't a standard unit in common practice (the SI form would be Newtons per cubic meter). So the typical unit is pounds per cubic foot.*

**6. For swivel hoist rings, the threaded portion length is how many times the bolt diameter?**

- A. 2 x bolt diameter
- B. 1.5 x bolt diameter**
- C. 0.5 x bolt diameter
- D. 1 x bolt diameter

*For swivel hoist rings, having a threaded portion length of 1.5 times the bolt diameter ensures enough thread engagement to safely transfer the lifting load. This length distributes the load across more threads, reducing the risk of stripping or pullout and accommodating minor misalignments. The other options provide too little or unnecessary extra engagement, which can compromise reliability or practicality.*

## 7. The 'Rule of thumb' minimum for wire rope to sheave ratio is

- A. 10:1
- B. 15:1
- C. 20:1**
- D. 25:1

When wire rope bends around a sheave, the tighter the bend, the higher the bending stress and contact pressure on the rope. A practical guideline to keep rope life and performance reasonable is a 20-to-1 ratio: the sheave diameter should be about twenty times the rope diameter. This larger bend radius reduces stress on the rope strands, minimizes wear in the grooves, and helps the rope track smoothly in the sheave, which together extend rope service life and improve safety. Using smaller ratios would mean tighter bends, more wear, and faster degradation of the rope. In real-world use, manufacturers may specify larger diameters for specific rope constructions or service conditions, but 20:1 is the standard rule of thumb.

## 8. What is the temperature range for eyenuts?

- A. 275 Degrees Fahrenheit to 30 Degrees Fahrenheit**
- B. 0 to 100 Degrees Fahrenheit
- C. -40 Degrees Fahrenheit to 400 Degrees Fahrenheit
- D. -10 to 200 Degrees Fahrenheit

Eyenuts are lifting hardware that may be exposed to a wide variety of environments, from very cold outdoor settings to hot industrial processes. Because the material (usually steel) must maintain strength and not become brittle in the cold or lose its hardness and coating integrity in heat, a broad temperature rating is used. The typical range to ensure safe performance is from -40°F to 400°F. This covers extreme cold without becoming brittle and high temperatures without compromising strength or coating protection. The other ranges are either too narrow or don't represent a standard, practical span for rigging hardware that might encounter both freezing conditions and heat.

## 9. ASME BTH-1 is primarily concerned with which area?

- A. Design of Lifting Devices**
- B. Electrical safety
- C. Fire protection
- D. PPE requirements

This question tests understanding that ASME BTH-1 focuses on how lifting devices are designed and certified to safely lift and move heavy components. The standard sets requirements for the design, fabrication, and testing of those lifting devices to ensure they have adequate strength, proper safety factors, and clear documentation before use. It isn't about electrical safety, fire protection, or PPE programs, which are governed by other standards and safety rules. For example, a rigging setup might include hoists, hooks, slings, and lifting lugs, and BTH-1 would guide how these devices are sized, rated, inspected, and tested to prevent failures during lifting operations.

**10. To what concept does the abbreviation CG refer?**

- A. Cable Gauge
- B. Center of Gravity**
- C. Cradle Grip
- D. Component Grounding

*CG stands for Center of Gravity, the single point where the object's weight can be considered to act. This concept is essential in rigging and lifting because it determines how the load will behave when suspended. If the lift line passes through the CG and the load is balanced, the forces on the sling and hardware stay vertical, reducing side loading and unintended rotation. When the load is uneven, the CG shifts, which can cause tipping, swinging, or unequal stresses on attachments. Therefore, riggers locate and align the lifting point with the load's CG and adjust the rigging to keep the CG within the line of pull. The other options aren't about balance under gravity: Cable Gauge measures size, Cradle Grip is a different grip type, and Component Grounding relates to electrical safety.*

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](mailto:hello@examzify.com).

Or visit your dedicated course page for more study tools and resources:

<https://epririggershandbook.examzify.com>

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

SAMPLE