

# AAA EQC-152 Practice Test (Sample)

## Study Guide



**Everything you need from our exam experts!**

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**SAMPLE**

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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. What is the engine sump oil capacity?**
  - A. 5 Quartz**
  - B. 4 Quartz**
  - C. 6 Quartz**
  - D. 7 Quartz**
  
- 2. What is the suction gauge reading for the aircraft's vacuum system?**
  - A. 3.0-4.0 inHg**
  - B. 4.0-4.9 inHg**
  - C. 4.5-5.4 inHg**
  - D. 5.0-5.9 inHg**
  
- 3. What is the exact fuel quantity used for the range calculation?**
  - A. 24.5**
  - B. 22**
  - C. 25**
  - D. 26.5**
  
- 4. Which option represents the tachometer Green Arc range at sea level?**
  - A. 1,800-2,300 RPM**
  - B. 1,850-2,150 RPM**
  - C. 1,700-2,200 RPM**
  - D. 1,900-2,350 RPM**
  
- 5. KCAS value corresponding to VNE is what?**
  - A. 145 KCAS**
  - B. 140 KCAS**
  - C. 150 KCAS**
  - D. 155 KCAS**

- 6. What is the tachometer normal operating range at 4,000 feet?**
- A. 1,800-2,350 RPM**
  - B. 1,850-2,300 RPM**
  - C. 1,920-2,400 RPM**
  - D. 1,900-2,450 RPM**
- 7. What is the main wheels' tire pressure for this aircraft?**
- A. 28 PSI**
  - B. 30 PSI**
  - C. 31 PSI**
  - D. 29 PSI**
- 8. What is the normal operating oil temperature range?**
- A. 80-200°F**
  - B. 90-230°F**
  - C. 100-245°F**
  - D. 120-260°F**
- 9. Oil quartz do not operate below which value?**
- A. 2 Quartz**
  - B. 4 Quartz**
  - C. 3 Quartz**
  - D. 5 Quartz**
- 10. One kilogram in pounds equals approximately?**
- A. 2.2 lbs**
  - B. 2.0 lbs**
  - C. 1.8 lbs**
  - D. 3.0 lbs**



## **Answers**

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

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## **Explanations**

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**1. What is the engine sump oil capacity?**

- A. 5 Quartz
- B. 4 Quartz
- C. 6 Quartz**
- D. 7 Quartz

Oil capacity is the total amount of oil the engine lubrication system can hold when it's filled to the proper level. It includes the oil in the sump pan plus the oil that fills the filter and the engine passages. Manufacturers specify this capacity so you know exactly how much oil to add after an oil change. For this engine, the published specification is six quarts. That means when you've drained the old oil, replaced the filter, and refilled to the correct level, the system should contain about six quarts. Too little oil risks insufficient lubrication; too much can cause overfill issues. The six-quart figure matches the engine's design and intended oil Volume, making it the correct choice.

**2. What is the suction gauge reading for the aircraft's vacuum system?**

- A. 3.0-4.0 inHg
- B. 4.0-4.9 inHg
- C. 4.5-5.4 inHg**
- D. 5.0-5.9 inHg

Suction gauges in aircraft measure how much negative pressure the vacuum pump is producing to drive the gyros. In most systems, the normal operating range is about 4.5 to 5.4 inches of mercury. A reading in this window means the pump is producing adequate suction for the instruments to stay accurate. If the gauge drops below this range (too low), it suggests leaks, a restricted line, or a weak pump. If it climbs above this range (too high), it can indicate over-suction or a fault in the system that could stress components. So, 4.5-5.4 inHg reflects the typical healthy level for the vacuum system.

**3. What is the exact fuel quantity used for the range calculation?**

- A. 24.5**
- B. 22
- C. 25
- D. 26.5

Range calculations use the usable fuel on board—the amount you can actually burn in flight. This excludes unusable fuel and any reserves that aren't part of the basic endurance calculation. In this problem, the usable fuel quantity to plug into the range equation is 24.5 (units). That's why this value is used for the calculation. The other numbers (22, 25, 26.5) would represent either total fuel or other planning figures not used in the base range calculation, so they don't belong in that specific step.

**4. Which option represents the tachometer Green Arc range at sea level?**

- A. 1,800-2,300 RPM**
- B. 1,850-2,150 RPM**
- C. 1,700-2,200 RPM**
- D. 1,900-2,350 RPM**

The green arc on the tachometer shows the RPM range in which the engine is designed to run during normal, safe operation. Staying within this range helps keep the engine and propeller operating smoothly, efficiently, and without excessive wear. For sea-level operation, the typical safe continuous range is about 1,900 to 2,350 RPM. The lower limit around 1,900 RPM ensures the engine runs smoothly without roughness or stalling, while staying above idle so the engine isn't overworked. The upper limit near 2,350 RPM keeps you below the maximum continuous, reducing the risk of overheating, excessive fuel use, or stress on the engine and propeller. Ranges that are significantly lower risk rough running or stalling, and ranges that go well above 2,350 RPM risk over-stressing the engine. So the green arc that sits roughly between 1,900 and 2,350 RPM is the correct representation for sea-level operation.

**5. KCAS value corresponding to VNE is what?**

- A. 145 KCAS**
- B. 140 KCAS**
- C. 150 KCAS**
- D. 155 KCAS**

VNE is the maximum airspeed at which the airframe is certified to fly, and exceeding it can cause structural damage from aerodynamic loads. KCAS is the calibrated airspeed value used to express that limit on the instrument scale. For this aircraft, the published VNE corresponds to 145 KCAS, so that is the maximum permissible speed. Speeds around 140 KCAS stay safely below the limit, while speeds like 150 KCAS or 155 KCAS would exceed the certified limit and increase the risk of overstress. Hence, 145 KCAS is the correct value for VNE.

**6. What is the tachometer normal operating range at 4,000 feet?**

- A. 1,800-2,350 RPM**
- B. 1,850-2,300 RPM**
- C. 1,920-2,400 RPM**
- D. 1,900-2,450 RPM**

The tachometer shows engine speed, and the normal operating range is the RPM band where the engine runs smoothly and safely at a given altitude. At 4,000 feet, the recommended cruise RPM sits roughly between 1,900 and 2,450. This range keeps the engine in its efficient, safe operating area: high enough to maintain stable power and smooth operation, but not so high as to overspeed the propeller or exceed the engine's continuous operation limits. RPMs below about 1,900 can lead to roughness or insufficient power for cruise, while RPMs above about 2,450 risk overspeed and excessive loading, especially at altitude.

**7. What is the main wheels' tire pressure for this aircraft?**

- A. 28 PSI**
- B. 30 PSI**
- C. 31 PSI**
- D. 29 PSI**

The main idea here is that tire pressure for the main wheels is a fixed specification chosen by the aircraft manufacturer to balance load support and tire deflection under typical conditions. For this airplane, the recommended cold pressure for the main tires is 29 psi. This value provides enough stiffness to handle the landing loads without causing excessive heat or tire wear, while still maintaining a good contact patch for braking and stability. If you go below this value, the tire deforms more under load, generating extra heat and accelerating wear. If you go above it, the tire becomes too stiff, reducing grip and potentially increasing wear. Always verify the cold pressure before flight using the aircraft's placards/manual, and remember that hot tires will show higher readings after flight.

**8. What is the normal operating oil temperature range?**

- A. 80-200°F**
- B. 90-230°F**
- C. 100-245°F**
- D. 120-260°F**

The main idea is understanding the safe temperature window in which oil can do its job effectively. Oil must be warm enough to flow freely and coat moving parts, but not so hot that it breaks down or loses viscosity. About 100°F is high enough for the oil to have thinned sufficiently from its cold state so it can circulate properly after startup, ensuring good lubrication during initial operation. On the other end, 245°F stays below the point where oil begins to degrade too quickly and lose its protective film under normal operating conditions. Keeping within roughly 100°F to 245°F provides a balance: it allows good lubrication and cooling during warm-up and steady operation without pushing the oil into a regime where oxidation, thinning, or film breakdown becomes a risk. For context, 100°F is about 38°C and 245°F is about 118°C, which corresponds to common limits used for many lubricants in typical engines and gear systems. Choosing a range that starts too low or ends too high would either leave oil too thick to flow when needed or push it into harmful temperatures where lubricant performance suffers.

**9. Oil quartz do not operate below which value?**

- A. 2 Quartz**
- B. 4 Quartz**
- C. 3 Quartz**
- D. 5 Quartz**

Oil-immersed quartz components require a minimum drive to overcome damping from the oil layer. If the value falls below that threshold, the oscillator can't start or sustain oscillation. That minimum threshold is four quartz units, so any value below four won't operate. Values like two or three are under the limit, while five is above it and would operate, but the question asks for the value below which operation fails, which is four.

**10. One kilogram in pounds equals approximately?**

**A. 2.2 lbs**

**B. 2.0 lbs**

**C. 1.8 lbs**

**D. 3.0 lbs**

Converting kilograms to pounds uses the conversion factor that 1 kilogram is about 2.2046 pounds. So the closest quick estimate is 2.2 pounds. The other options are noticeably off: 2.0 pounds is a bit low, 1.8 pounds is too low, and 3.0 pounds is too high. Therefore, 2.2 pounds is the best approximate conversion.

## 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://aaaecq152.examzify.com>**

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