AIRCREWMAN MECHANICAL (AWF) TEST 3 PRACTICE (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

VISIT US ONLINE FOR THE FULL VERSION STUDY GUIDE

https://awf3.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. Relief valves (as a type of valve) are used to do what?

A. They are preset to relieve pressure.

B. They are used to prevent oil from heating.

C. They are installed in the bypass path.

D. They filter the oil.

2. Why are fuses and circuit breakers essential in aircraft electrical systems?

A. They store electrical energy for surges.

B. They generate power for the electrical system.

C. They protect wiring and components from overload by interrupting current.

D. They regulate voltage levels for avionics.

3. Valves control the pressure and flow of oil in the lubrication system. Which of the following is NOT a valve type?

A. Relief valve

B. Temperature valve

C. Check valve

D. Bypass valve

4. Which is NOT a major component of turbojet engines?

A. Inlet duct

B. Compressor

C. Combustion chamber

D. Gearbox assembly

5. What is the function of accessory bearings?

A. Support the compressor rotors

B. Absorb loads created by drive shafts and gears; allows accessory shafts and gears to rotate freely

C. Act like a maze

D. Use reverse threading to prevent leaks

SAMPLE

6. What role do avionics play in navigation and safety?

A. They provide navigation data to the aircraft's computer.

B. They power the air conditioning system.

C. They physically move flight control surfaces.

D. They provide navigation data, situational awareness, communications, and safety monitoring.

7. Which seal type is described as acting like a maze to trap oil?

A. Thread seals

B. Carbon seals

C. Ball bearings

D. Labyrinth seals

8. Which feature helps prevent vapor lock by routing fuel and controlling temperature?

A. Proper routing, anti-vapor lines, maintaining fuel temperature.

B. Increasing fuel pump capacity without routing changes.

C. Ventting more air into tanks.

D. Cooling the cabin.

9. Which item is NOT listed as a type of fuel contamination?

A. Ice

B. Saline water

C. Fresh water

D. Sediment

10. Oil Pressure instruments indicate whether oil is circulating under proper pressure. Which describes the oil pressure measurement?

A. Oil Quantity

B. Oil Temperature

C. Vibration Data

D. Oil Circulating Under Proper Pressure

SAMPLE

Answers

SAMPLE

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

SAMPLE

Explanations

SAMPLE

1. Relief valves (as a type of valve) are used to do what?

A. They are preset to relieve pressure.

B. They are used to prevent oil from heating.

C. They are installed in the bypass path.

D. They filter the oil.

Relief valves are meant to protect a hydraulic system by opening and allowing fluid to bypass the high-pressure side when the pressure reaches a set limit. Placing them in the bypass path lets the excess fluid flow back to the reservoir or low-pressure side, keeping system pressure from rising to damaging levels. The valve is set to a specific pressure so it opens at that point and closes when pressure drops again. This bypass routing is the defining behavior of a relief valve, rather than cooling the oil or filtering it, which are handled by other components.

2. Why are fuses and circuit breakers essential in aircraft electrical systems?

A. They store electrical energy for surges.

B. They generate power for the electrical system.

C. They protect wiring and components from overload by interrupting current.

D. They regulate voltage levels for avionics.

Overcurrent protection is the key idea: fuses and circuit breakers keep aircraft wiring and connected components safe by interrupting current when a circuit is overloaded or a fault occurs. If a fault or overload happens—like a short or damaged wiring—the current can surge and heat insulation quickly. A fuse acts as a one-time protective element that melts and opens the circuit when the current exceeds its rating, stopping further flow and limiting damage or fire risk. A circuit breaker serves the same protective purpose but uses a trip mechanism that opens the circuit when excess current is detected and can be reset after the fault is cleared. In aviation, this protection is crucial because it prevents damage to wires and avionics, contains faults to prevent cascading failures, and helps maintain overall system safety. They don't store energy, generate power, or regulate voltage; their purpose is to interrupt current to stop damage and hazards.

3. Valves control the pressure and flow of oil in the lubrication system. Which of the following is NOT a valve type?

A. Relief valve

B. Temperature valve

C. Check valve

D. Bypass valve

In lubrication systems, valves are used to manage pressure and direct oil flow. A relief valve opens to vent excess pressure, protecting components. A check valve allows flow in one direction and prevents backflow when the pump stops. A bypass valve provides an alternate path for oil, helping regulate flow and pressure in the circuit. A temperature valve, however, isn't a standard valve type used to control pressure or flow; temperature control is typically handled by thermostatic controls or temperature-regulating devices rather than a valve category named for temperature. Therefore, the temperature valve is the one that does not fit as a valve type in this context.

SAMPLE

4. Which is NOT a major component of turbojet engines?

A. Inlet duct

B. Compressor

C. Combustion chamber

D. Gearbox assembly

A turbojet's propulsion flow relies on four fundamental stages: air entry through the inlet, compression to higher pressure, combustion where fuel mixes with the compressed air, and expansion through the turbine and out the exhaust for thrust. The gearbox assembly is not part of that core energy conversion loop; it's an accessory drive used to power auxiliary systems like pumps or generators. While some engines include an accessory gearbox, it's not a core, major component of the turbojet's propulsion cycle. So the gearbox assembly is not a major component of turbojet engines.

5. What is the function of accessory bearings?

A. Support the compressor rotors

B. Absorb loads created by drive shafts and gears; allows accessory shafts and gears to rotate freely

C. Act like a maze

D. Use reverse threading to prevent leaks

The function of accessory bearings is to absorb the loads created by drive shafts and gears and to keep accessory shafts and gears rotating freely. In an engine's accessory gearbox, these bearings support the shafts that drive pumps, generators, starters, and other accessories. They take both radial loads (from gear mesh and shaft bending) and axial loads (from gear thrust or belt tensions) and maintain proper alignment, which reduces wear and keeps the gears meshing smoothly. This smooth rotation and load handling are what allow the accessory devices to operate reliably with minimal friction. They don't support compressor rotors, aren't a maze, and aren't related to reverse threading for leaks.

6. What role do avionics play in navigation and safety?

A. They provide navigation data to the aircraft's computer.

B. They power the air conditioning system.

C. They physically move flight control surfaces.

D. They provide navigation data, situational awareness, communications, and safety monitoring.

Avionics are the electronic systems that manage how the aircraft navigates, communicates, and stays safe. They collect and process navigation data from GPS, inertial navigation, radio aids, and data links, then feed it to flight management and cockpit displays to guide route, altitude, and speed. They also enhance situational awareness by presenting information about traffic, terrain, weather, and system status. In addition, avionics handle communications with air traffic control and other systems, and they monitor aircraft health to provide alerts and automated safety checks. This integration means avionics cover navigation data, awareness of the surrounding flight environment, communications, and safety monitoring, making them the most complete description of their role. The other options miss key functions: navigation data to the computer is only part of avionics, powering air conditioning is environmental control, and moving flight control surfaces is a mechanical function, not avionics.

SAMPLE

7. Which seal type is described as acting like a maze to trap oil?

A. Thread seals

B. Carbon seals

C. Ball bearings

D. Labyrinth seals

Labyrinth seals create a maze-like path with interlocking ridges on the housing and shaft. Oil trying to escape must weave through multiple turns and narrow gaps, causing successive pressure drops and trapping oil in pockets along the path. This geometry greatly reduces leakage without relying on contact between surfaces, which is why they're described as acting like a maze to trap oil. Thread seals rely on threaded interfaces and gaskets, carbon seals depend on a seal-face contact, and ball bearings are not a seal type.

8. Which feature helps prevent vapor lock by routing fuel and controlling temperature?

A. Proper routing, anti-vapor lines, maintaining fuel temperature.

B. Increasing fuel pump capacity without routing changes.

C. Ventting more air into tanks.

D. Cooling the cabin.

Vapor lock happens when fuel in the lines gets heated enough to form vapor, which blocks the pump from delivering liquid fuel to the engine. The most effective way to prevent this is to manage how the fuel is routed and keep its temperature within safe limits. Proper routing moves the fuel line away from heat sources and through cooler areas, reducing heat soak. Anti-vapor lines add a safeguard by separating the hot areas from the main feed and guiding any vapor so it doesn't reach the pump, which helps maintain a steady supply of liquid fuel. Keeping the fuel temperature controlled—through routing choices, adequate fuel quantity, and airflow management—lowers the likelihood that fuel will vaporize in the lines. Venting more air into tanks isn't a direct solution and can destabilize pressures, while simply increasing pump capacity without addressing the routing or temperature factors won't prevent vapor lock.

9. Which item is NOT listed as a type of fuel contamination?

A. Ice

B. Saline water

C. Fresh water

D. Sediment

The idea here is that fuel contamination is categorized by the substance involved, not by its physical state. Water is the primary contaminant and can appear as fresh water or saline water, while sediment refers to solid debris. Ice isn't listed as its own contaminate type because it's simply water that's frozen. In other words, ice signals water contamination, not a separate category. So ice isn't a distinct listed type of fuel contamination, whereas fresh water, saline water, and sediment are.

SAMPLE

10. Oil Pressure instruments indicate whether oil is circulating under proper pressure. Which describes the oil pressure measurement?

A. Oil Quantity

B. Oil Temperature

C. Vibration Data

D. Oil Circulating Under Proper Pressure

Oil pressure measurement is a direct indicator of whether oil is circulating under the proper pressure. The gauge or sensor in the lubrication system is meant to confirm that oil is being pumped and reaching critical bearings with sufficient pressure to maintain a lubricating film. It's not about how much oil is present (quantity), nor about how hot the oil is (temperature), and it's not about vibration data. A proper pressure reading means the oil is circulating correctly; a low reading signals possible pump, leak, or blockage issues, while a high reading can point to valve or relief-valve problems.

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://awf3.examzify.com

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

SAMPLE