AIR FORCE MANUAL (AFMAN) 15-111 PRACTICE TEST (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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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.

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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!

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Questions

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1. Who will notify the tower as soon as possible when the prevailing visibility at the official weather observation point decreases to less than 4 statute miles?

A. ATC directives

B. EUs with AMOS systems

C. Weather technicians at augmented EUs

D. Observing Aids for Visibility

2. Under Observing Operation, which item describes when augmented observations are available?

A. Full automated operations hours

B. Augmented observations hours

C. Full automated operations hours and augmented observations hours

D. None of the above

3. SPECI criteria will be based on what published guidance?

A. Aviation Selected Special Weather Report (SPECI) Criteria

B. SPECI Guidelines

C. METAR Standards

D. ICAO Weather Management

4. Responsible for preparing surface weather observations, regardless of the mode of operation, will ensure their station information is current and maintained on permanent file at the 14th Weather Squadron (14WS) and in the observing location's historical file?

A. Weather flight

B. Control tower

C. Exploitation units (EU)

D. Base operations

5. Under Basic Weather Watch, what additional duty do weather technicians perform besides taking METARs and disseminating SPECI observations?

A. Continuous Weather Watch (CWW)

B. Basic Weather Watch (BWW)

C. Cooperative Weather Watch (CWW)

D. Observing Aids for Visibility

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6. Which item is explicitly listed as part of Sensor Data for AMOS?

A. Provide listing of AMOS back-up equipment

B. Location of AMOS sensors in relation to runways

C. Date AMOS sensors installed

D. Legacy Fixed-Base Sensors

7. What activity should be performed upon installation, at least annually thereafter, and after any major maintenance on an instrument or sensor?

A. Siting and Exposure

B. Calibration and standardization

C. Maintenance

D. Data logging

8. According to rounding rules, for a positive number, if the fractional part to be dropped is equal to or greater than one-half, the preceding digit will be increased by one.

A. Increased by one

B. Decreased by one

C. Remains the same

D. Truncated to integer part

9. The procedure designation for managing instrument outages in instrument procedures is known as?

A. Dual Instrumentation/Outage

B. Single Instrumentation Failure

C. Instrument Data Reversion

D. Redundant Equipment Protocol

10. What will affect the orientation of the wind equipment, requiring maintenance personnel to be informed of changes?

A. Local magnetic variation

B. Global wind shear

C. Temperature variation

D. Local variation

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Answers

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

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Explanations

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1. Who will notify the tower as soon as possible when the prevailing visibility at the official weather observation point decreases to less than 4 statute miles?

A. ATC directives

B. EUs with AMOS systems

C. Weather technicians at augmented EUs

D. Observing Aids for Visibility

When prevailing visibility at the official weather observation point drops to 4 statute miles or less, the responsibility for alerting the tower falls to the weather technicians assigned to augmented weather units. They are the hands-on observers who monitor visibility changes, verify data, and have direct, established channels to communicate critical weather updates to airfield operations. This ensures the tower receives prompt notice to adjust operations as needed for safety. Automated AMOS systems and the observing aids provide data, but the notification duty is carried out by the human weather personnel at augmented units. ATC directives are issued by air traffic control to manage flights and may request updates, but they are not the ones who trigger the initial notification.

2. Under Observing Operation, which item describes when augmented observations are available?

A. Full automated operations hours

B. Augmented observations hours

C. Full automated operations hours and augmented observations hours

D. None of the above

In Observing Operation, there are two time blocks: full automated operations hours and augmented observations hours. Augmented observations can be performed during either type of period, so the most complete description is that augmented observations are available during both full automated operations hours and augmented observations hours. This shows that augmented data collection isn't limited to a single mode but can occur across the entire observing window. The other options only describe one part of the schedule, which would miss when augmented observations can also happen.

3. SPECI criteria will be based on what published guidance?

A. Aviation Selected Special Weather Report (SPECI) Criteria

B. SPECI Guidelines

C. METAR Standards

D. ICAO Weather Management

The question is about identifying the official published guidance that determines when a SPECI should be issued. The best answer is the Aviation Selected Special Weather Report (SPECI) Criteria document. This specific guidance defines the exact thresholds and situations that require a SPECI, providing standardized criteria used across aviation weather operations so that significant changes in weather, visibility, ceilings, winds, or adverse phenomena are consistently communicated to airfield users. Other options don't fit as precisely. SPECI Guidelines would be a more general or informal set of instructions, not the formal published criteria used for official SPECI issuance. METAR Standards govern routine meteorological observations and their encoding, not the decision thresholds for issuing SPECI reports. ICAO Weather Management covers broader international framework and processes, but the Air Force relies on the dedicated SPECI Criteria document for its precise, published criteria.

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4. Responsible for preparing surface weather observations, regardless of the mode of operation, will ensure their station information is current and maintained on permanent file at the 14th Weather Squadron (14WS) and in the observing location's historical file?

A. Weather flight

B. Control tower

C. Exploitation units (EU)

D. Base operations

Exploitation units are responsible for turning observations into usable data and maintaining the integrity of the weather data system, which includes keeping station metadata up to date and ensuring both the permanent file at the 14th Weather Squadron and the observing location's historical file reflect current information. This setup provides a reliable, traceable record of station characteristics (location, instruments, changes over time) that supports accurate analysis and mission planning. While the weather flight handles the day-to-day collection and posting of surface observations, the enterprise-level task of maintaining master station data and archival records rests with exploitation units. The control tower and base operations focus on immediate operational functions rather than long-term data archival and metadata management.

5. Under Basic Weather Watch, what additional duty do weather technicians perform besides taking METARs and disseminating SPECI observations?

A. Continuous Weather Watch (CWW)

B. Basic Weather Watch (BWW)

C. Cooperative Weather Watch (CWW)

D. Observing Aids for Visibility

The key idea is that Basic Weather Watch includes maintaining the weather watch itself in addition to collecting METARs and issuing SPECI observations. In this role, weather technicians actively monitor current conditions, verify data, and ensure timely dissemination so that base operations have up-to-date weather information throughout their shift. This watch responsibility is what differentiates it from other watch types. Other options refer to different watch programs or tasks that aren't the same duty described here.

6. Which item is explicitly listed as part of Sensor Data for AMOS?

A. Provide listing of AMOS back-up equipment

B. Location of AMOS sensors in relation to runways

C. Date AMOS sensors installed

D. Legacy Fixed-Base Sensors

Sensor Data in AMOS covers the hardware and support items needed to keep the sensor network running, including what back-up equipment exists. Providing a listing of AMOS back-up equipment is explicitly included because it supports maintenance, rapid replacement, and continuity of observations if a primary sensor or component fails. This kind of inventory helps ensure readiness and reliability of the measurement system. The other items don't fit as part of Sensor Data: where the sensors are located relative to runways belongs to siting or installation details, not the backup and maintenance inventory; the installation date is historical asset information rather than current sensor support data; and mentioning legacy fixed-base sensors refers to older equipment as a category, not to the current sensor-support data itself.

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7. What activity should be performed upon installation, at least annually thereafter, and after any major maintenance on an instrument or sensor?

A. Siting and Exposure

B. Calibration and standardization

C. Maintenance

D. Data logging

Calibration and standardization establishes the baseline accuracy of an instrument by comparing its readings to known standards and adjusting as needed. This ensures measurements stay accurate after installation, during periodic maintenance, and after any major work that could affect the sensor. By keeping the instrument aligned with traceable standards, you maintain reliable data and measurement consistency over time. Siting and exposure relates to where the instrument is placed and its environmental conditions, which can affect readings but don't by themselves verify or restore accuracy. Data logging is about recording results, not ensuring their correctness. Maintenance is a broader upkeep activity, but calibration specifically targets accuracy and traceability, which is why it's the correct choice.

8. According to rounding rules, for a positive number, if the fractional part to be dropped is equal to or greater than one-half, the preceding digit will be increased by one.

A. Increased by one

B. Decreased by one

C. Remains the same

D. Truncated to integer part

Rounding up happens when the part you drop is at least 0.5. For a positive number, if that dropped fractional part is equal to or greater than one-half, you increase the digit before the decimal by one. For example, 7.5 becomes 8, and 3.7 becomes 4—the units digit is raised by one to reflect rounding to the nearest whole number. If the fractional part were less than 0.5, you would keep the integer part as is (round down), and truncating would simply drop the fraction without changing the integer part. This is why the result in this scenario is an increase of the preceding digit by one.

9. The procedure designation for managing instrument outages in instrument procedures is known as?

A. Dual Instrumentation/Outage

B. Single Instrumentation Failure

C. Instrument Data Reversion

D. Redundant Equipment Protocol

The main idea here is redundancy during instrument procedures. The designation Dual Instrumentation/Outage communicates that the procedure is set up to be flown with two independent sources of instrument data, and an outage (one source inoperative) is accounted for within the procedure. This means you have a defined way to continue safely using either the remaining primary source plus a backup, or a specified degraded guidance method, while maintaining situational awareness and adherence to the procedure's safety margins. The other options don't represent the formal designation used to manage instrument outages in procedures, because they don't convey the explicit dual-source/outage framework that this term provides.

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10. What will affect the orientation of the wind equipment, requiring maintenance personnel to be informed of changes?

A. Local magnetic variation

B. Global wind shear

C. Temperature variation

D. Local variation

Orientation of wind equipment relies on a reference direction, and local conditions can shift that reference. Local variation captures changes in the local magnetic field or other nearby influences that cause the instrument's direction reading to drift relative to true north. When these local variations change, maintenance personnel must be informed so the equipment can be recalibrated or realigned to maintain accurate wind direction readings. Global wind shear affects how wind speed changes with height, not the device's orientation, and temperature variation mainly influences sensor output rather than where the device is pointed.

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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://afman15111.examzify.com

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

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