Primary Systems 1 Practice Test (Sample)

Study Guide

BY EXAMZIFY

Everything you need from our exam experts!

Table of Contents

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. Which of the following is the correct listing of the HUD's display master modes?

A. Navigation, air-to-air, and air-to-ground

B. F-16, F-18, and navigation

C. F-16, F-18, and tapes

D. Navigation, approach, and weapons

2. The BFIs provide backup indications in the event of failure of the electronic flight instrument system or the aircraft electrical systems. The BFIs are normally powered by the _____.

A. Battery bus

B. Auxiliary battery

C. Generator bus

D. Main AC buses

3. Prior to raising or lowering the landing gear, ensure airspeed is below which speed?

A. 140 KIAS

B. 120 KIAS

C. 150 KIAS

D. 180 KIAS

4. The purpose of the elevator bobweight is to _____.

A. Provide a balanced control feed

B. Aerodynamically balance the elevator

C. Assist the trim aid device (TAD)

D. Enhance control feedback and help prevent overstressing of the airframe under high G loading

5. Which CAS message color represents hazardous conditions that require immediate pilot attention and may require immediate action?

A. Yellow

B. Green

C. Red

D. White

6. Which statement best describes the effect of rudder trim during flight?

A. It reduces pilot workload

B. It enhances control feedback

C. It prevents opposing control inputs

D. It provides inputs to the trim aid device (TAD)

7. What color are the transmit indicator lights for the radios?

A. Green

B. Red

C. Amber

D. Blue

8. The attitude, airspeed, vertical speed, glideslope and localizer, angle of attack, turn and slip, and wind indicator along with an altimeter, HSI, and accelerometer are displayed on the PFD.

A. The attitude indicator, AOA, airspeed, altitude, vertical speed indicators

B. A compass rose or arc that includes a map, glideslope or lateral deviation indicators, and active FMS waypoint information

C. Aircraft and engine system information and CAS messages

D. The horizontal situation indicator and NAV source, and localizer

9. The purpose of the up front control panel (UFCP) is to provide data entry functionality and control of a wide variety of displays and subsystems.

A. True

B. False

C. It is only used for navigation

D. It is only used for flight plans

10. Which statement about the VHF navigation receiver is true?

A. It processes VOR and ILS signals

B. It processes GPS signals only

C. It processes TACAN signals only

D. It processes VOR and TACAN signals

Answers

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

Explanations

1. Which of the following is the correct listing of the HUD's display master modes?

A. Navigation, air-to-air, and air-to-ground

B. F-16, F-18, and navigation

C. F-16, F-18, and tapes

D. Navigation, approach, and weapons

The HUD's display master modes are the high-level modes that decide what information and symbols dominate the pilot's view, based on the current task. The three primary master modes are navigation for flight guidance, air-to-air for detecting and engaging other aircraft, and air-to-ground for targeting and delivering on ground objectives. In navigation mode, the HUD emphasizes flight-path guidance, waypoints, altitude, airspeed, and other flight-oriented cues to help you stay on course. In air-to-air mode, the focus shifts to target cues, range to targets, lead pursuit indicators, and other symbols that support air combat. In air-to-ground mode, the HUD highlights target designation, weapon status, and aiming/impact cues for ground attacks. Options that reference aircraft models (like F-16 or F-18) or nonstandard terms (such as tapes or approach) aren't how HUD master modes are defined, since those don't represent the set of primary display tasks the HUD is built to support.

2. The BFIs provide backup indications in the event of failure of the electronic flight instrument system or the aircraft electrical systems. The BFIs are normally powered by the _____.

A. Battery bus

B. Auxiliary battery

C. Generator bus

D. Main AC buses

Backup flight indications must stay powered even when the main instruments and electrical system fail. To ensure this, they are fed from the battery bus, which remains energized by the aircraft's main battery and is dedicated to essential/standby equipment. This setup guarantees the BFIs continue to display critical information when generators are offline or other power sources are unavailable. The other options depend on power that isn't reliable during a failure—generator power, main AC power, or limited-time emergency power from an auxiliary battery—so they wouldn't provide the guaranteed standby indication power the battery bus does.

3. Prior to raising or lowering the landing gear, ensure airspeed is below which speed?

A. 140 KIAS

B. 120 KIAS

C. 150 KIAS

D. 180 KIAS

Gear retraction and extension are limited by a maximum operating speed. If you move the gear at speeds above this limit, the doors and gear components can experience excessive aerodynamic loads, risking damage or incomplete deployment. To keep the system within safe limits, you raise or lower the gear only when the airspeed is at or below the published maximum gear operating speed. For many light aircraft used in training scenarios, that limit is 150 KIAS, so you should be below 150 knots indicated before moving the landing gear.

4. The purpose of the elevator bobweight is to _____.

A. Provide a balanced control feed

B. Aerodynamically balance the elevator

C. Assist the trim aid device (TAD)

D. Enhance control feedback and help prevent overstressing of the airframe under high G loading

The elevator bobweight is designed to give the pilot a realistic feel of the loads on the elevator and to help prevent overstressing the airframe during high-G maneuvers. It's a weighted piece attached to the elevator control linkage that increases the force the pilot must exert as the elevator moves and as aerodynamic loads rise. This feedback makes you more aware of how much nose-up or nose-down control you're applying, especially under high-G conditions, so you're less likely to overdeflect the control surface and approach structural limits. It isn't about aerodynamically balancing the elevator, nor is it a trim assist; those have different mechanisms.

5. Which CAS message color represents hazardous conditions that require immediate pilot attention and may require immediate action?

A. Yellow

B. Green

C. Red

D. White

In cockpit alerting, urgency is conveyed by color. Red is used for hazardous conditions that require immediate pilot attention and may call for immediate action. This color stands out and signals a high-priority situation, such as a fire, engine failure, or other critical system malfunction, where quick, organized response is essential. Green typically means normal operation, yellow indicates a caution or advisory condition that warrants attention but not immediate action, and white is informational or less urgent guidance.

6. Which statement best describes the effect of rudder trim during flight?

A. It reduces pilot workload

B. It enhances control feedback

C. It prevents opposing control inputs

D. It provides inputs to the trim aid device (TAD)

Rudder trim sets a small, steady deflection to counterbalance the yawing moments the airplane tends to develop, such as engine torque, propeller pulsations, or crosswinds. By offsetting that constant tendency, you don't have to keep applying rudder pedal input to hold a heading, which makes the airplane feel more stable and its yaw behavior more predictable. Because the trim takes care of the steady yaw tendency, your subsequent rudder actions produce a more natural, proportional response. The aircraft's feel becomes more consistent, so you can sense and react to changes in heading or wind with clearer feedback from the control surfaces. In this sense, trim enhances control feedback—the pilot gets a steadier, more intuitive sense of how the aircraft responds to inputs. It's not about providing inputs to a trim aid device, and it doesn't inherently prevent opposing inputs. And while trimming can reduce ongoing pedal effort, the statement that best captures the effect on the pilot's perception and control is the improved feedback.

7. What color are the transmit indicator lights for the radios?

A. Green

B. Red

C. Amber

D. Blue

Status indicators use color coding to show what the radio is doing at a glance. For transmitting, a green light usually turns on to confirm that the transmission is going out. That quick, visible signal helps you know you're on air without having to listen or check other indicators. Red lights are often used for faults or when the radio is in a different state, amber can indicate standby or caution, and blue is frequently used for data or a special function. In this setup, the transmit indicator being green is the standard cue that your voice is being transmitted.

8. The attitude, airspeed, vertical speed, glideslope and localizer, angle of attack, turn and slip, and wind indicator along with an altimeter, HSI, and accelerometer are displayed on the PFD.

A. The attitude indicator, AOA, airspeed, altitude, vertical speed indicators

B. A compass rose or arc that includes a map, glideslope or lateral deviation indicators, and active FMS waypoint information

C. Aircraft and engine system information and CAS messages

D. The horizontal situation indicator and NAV source, and localizer

The main idea is to know what a PFD (primary flight display) is designed to show: the pilot's immediate flight status in a compact, easy-to-read format. On the PFD, you want the aircraft's orientation and the core flight metrics you monitor constantly. Attitude (the artificial horizon) is central because it tells you the aircraft's pitch and bank. Angle of attack is increasingly included to help with stall awareness. Airspeed and vertical speed indicators show how fast you're moving and how quickly you're climbing or descending, while the altitude readout keeps you aware of your height above the ground. Together, these pieces give a clear, essential picture of how the airplane is flying at that moment. The other items listed—glideslope and localizer (ILS guidance cues), wind indicator, HSI, and accelerometer—are more aligned with navigation guidance, flight management, or system/status displays rather than the core flight status shown on the PFD. They are typically presented on the navigation display or separate cockpit instruments rather than all on the PFD. That's why the combination that emphasizes attitude, AOA, airspeed, altitude, and vertical speed best represents what the PFD is designed to show.

9. The purpose of the up front control panel (UFCP) is to provide data entry functionality and control of a wide variety of displays and subsystems.

A. True

B. False

C. It is only used for navigation

D. It is only used for flight plans

The Up-Front Control Panel is a versatile interface that lets pilots enter data and manage a wide range of cockpit displays and subsystems from a single location on the glareshield. This means it's not limited to navigation or just handling flight plans; it also handles data entry for routing, performance values, altitudes, and other parameters, while simultaneously controlling what different displays show and how various systems behave. For example, you can input a new waypoint or adjust cruise altitude, tune radio frequencies, control radar and display pages, and set autopilot modes—all through the UFCP. So the statement is true because the UFCP serves as both a data-entry tool and a control hub for many displays and subsystems, not restricted to a single task.

10. Which statement about the VHF navigation receiver is true?

A. It processes VOR and ILS signals

B. It processes GPS signals only

C. It processes TACAN signals only

D. It processes VOR and TACAN signals

VHF navigation receivers are designed to handle signals in the VHF aviation band, specifically the VOR beacons that provide bearing information and the localizer portion of an ILS, which gives lateral guidance to the runway. GPS operates in a different, L-band GNSS spectrum, not VHF, and TACAN uses UHF frequencies. So the statement that the VHF navigation receiver processes VOR and ILS signals is the accurate description of its role.

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://primarysys1.examzify.com

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