Engines Auxiliary Power Unit (APU) Practice Exam (Sample)

Study Guide

BY EXAMZIFY

Everything you need from our exam experts!

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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 indicates the APU is ready to provide electrical power?

A. APU GEN OFF BUS light illuminates

B. APU start switch ON

C. EEC standby

D. APU door open

2. Maximum reverse thrust detent position is which number?

A. No. 3

B. No. 1

C. No. 2

D. Full reverse

3. What combination must occur for the engine fuel shutoff valve to open besides moving the start lever to IDLE?

A. EEC sends a signal to open

B. Start lever to RUN

C. N2 must be above 60%

D. Start lever to IDLE and EEC signal to open

4. To perform a ground start ignition to the selected igniter, what position should the engine start lever be in?

A. IDLE

B. GRD

C. FLT

D. CONT

5. What does an amber TAI above the N1 gauges indicate?

A. Cowl anti-ice valve is not in the position indicated by the related engine anti-ice switch.

B. The engine anti-ice switch is stuck in the OFF position.

C. The amber TAI indicates engine N1 over-speed.

D. The engine anti-ice system is failed.

6. In soft alternate mode, which indicators are visible on the engine panel?

A. ON and ALTN

B. Only ON

C. Only ALTN

D. Neither

7. On the MAX engine display, what does the additional FUEL FLOW warning light indicate?

A. Engine fuel flow is abnormally high compared to FMC expected fuel flow

B. Fuel flow is normal

C. Fuel pump failed

D. Fuel flow lower than expected

8. Which electrical buses are shed when the APU is the sole power source in flight?

A. Essential bus only

B. All galley and main buses

C. Avionics bus only

D. Battery and essential bus

9. What is the approximate engine starter cutout speed (as a percent of N2) for the NG?

A. 56% N2

B. 60% N2

C. 52% N2

D. 58% N2

10. Which component is an Electronic Control Unit (ECU) used to manage APU operations?

A. Electronic Control Unit (ECU)

B. Engine Control Unit

C. Fuel Control Unit

D. APU Controller

Answers

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

Explanations

1. What indicates the APU is ready to provide electrical power?

A. APU GEN OFF BUS light illuminates

B. APU start switch ON

C. EEC standby

D. APU door open

The APU is considered ready to supply electrical power when its generator is connected to the electrical bus and actively delivering power. The APU GEN OFF BUS light serves as the direct cue for that status: when this light is illuminated, it indicates the APU generator is in the position to feed power to the bus, confirming electrical readiness. Starting the APU (switch ON) merely initiates the APU; it doesn't by itself confirm that the generator is supplying power to the bus. EEC standby relates to engine control electronics, not the APU electrical output. An open APU door points to a physical access condition, not to whether electrical power is being provided.

2. Maximum reverse thrust detent position is which number?

A. No. 3

B. No. 1

C. No. 2

D. Full reverse

Detents on the thrust reverser control are fixed, repeatable positions that keep the system within safe limits. The maximum reverse thrust detent is the second detent from idle. This position provides enough reverse thrust to help decelerate on landing while staying within the engine and airframe limits. The first detent would give less reverse thrust, not the maximum, and the third detent would exceed the standard maximum used for normal ops. "Full reverse" refers to a broader range or mode outside the fixed detent positions and isn't a standard detent setting. So the best choice is the second detent.

3. What combination must occur for the engine fuel shutoff valve to open besides moving the start lever to IDLE?

A. EEC sends a signal to open

B. Start lever to RUN

C. N2 must be above 60%

D. Start lever to IDLE and EEC signal to open

Fuel flow to the engine is controlled by two conditions that must occur together. First, the start lever must be in the IDLE position to begin a safe, controlled start. Second, the Electronic Engine Control (EEC) must command the fuel shutoff valve to open. Only when both the lever is at IDLE and the EEC issues an open command will the valve actually open and fuel flow begin. Relying on just the EEC signal won't work if the lever isn't in IDLE, and simply having the lever at RUN won't guarantee the valve opens because the system is designed to prevent fuel flow until the engine is ready for a safe start. A threshold like N2 isn't the controlling factor for opening the valve in this context. So the required combination is: start lever at IDLE and an EEC signal to open.

4. To perform a ground start ignition to the selected igniter, what position should the engine start lever be in?

A. IDLE

B. GRD

C. FLT

D. CONT

Beginning a ground start requires the ignition system to light off as the starter brings the engine up from zero. Putting the engine start lever in idle sets the ignition circuit for the selected igniter and allows the fuel-air mixture to ignite as the compressor spool increases from rest. The other positions are for different phases of operation (flight or continuous ignition) and do not provide the proper light-off sequence needed for a fresh ground start. So, the correct practice is to have the start lever in idle to perform a ground start ignition to the chosen igniter.

5. What does an amber TAI above the N1 gauges indicate?

A. Cowl anti-ice valve is not in the position indicated by the related engine anti-ice switch.

B. The engine anti-ice switch is stuck in the OFF position.

C. The amber TAI indicates engine N1 over-speed.

D. The engine anti-ice system is failed.

This is about a mismatch between what the anti-ice system is commanded to do and what the cowl anti-ice valve actually does. The amber TAI light above the N1 gauges signals that the cowl anti-ice valve is not in the position that the related engine anti-ice switch is commanding. In other words, if you set the engine anti-ice switch to ON or OFF, the valve should move to the corresponding open or closed position, and the indicator would align with that command. When it doesn't match, the amber TAI lights up to warn you that there could be a valve, actuator, or sensor fault, or a wiring issue preventing proper valve movement. So this choice is the best because it directly describes the purpose of the amber TAI as indicating a discrepancy between the commanded valve position and the actual valve position. It's not an indication of an N1 over-speed, nor does it by itself mean the anti-ice switch is stuck OFF, and while a fault in the anti-ice system could be involved, the amber TAI specifically points to a valve-position mismatch rather than a generic "system failed" message. If you see it, treat the anti-ice function as suspect and verify the valve position and related circuitry according to procedures.

6. In soft alternate mode, which indicators are visible on the engine panel?

A. ON and ALTN

B. Only ON

C. Only ALTN

D. Neither

In soft alternate mode, both indicators on the engine panel light up to show two linked pieces of information: the engine is on (ON) and the alternate path is active (ALTN). This dual indication helps the crew confirm that the engine is running while the system is using its backup/alternate configuration. If only the ON light were visible, you wouldn't know that the alternate path is engaged; if only the ALTN light were visible, you'd know the alternate mode is selected but not that the engine is currently on. If neither light is on, there's no clear status of either condition. So seeing both ON and ALTN together is the correct, informative state in soft alternate mode.

7. On the MAX engine display, what does the additional FUEL FLOW warning light indicate?

A. Engine fuel flow is abnormally high compared to FMC expected fuel flow

B. Fuel flow is normal

C. Fuel pump failed

D. Fuel flow lower than expected

This question tests how the MAX engine display communicates an abnormal fuel condition by comparing actual fuel flow to what the FMC expects. The system watches the real fuel flow and, based on current thrust settings, altitude, and other factors, the flight management computer provides an expected fuel flow value. If the actual flow goes higher than that expected value by the set tolerance, the additional FUEL FLOW warning light comes on to alert the crew of an over-fueling condition. Why this is the best answer: it directly reflects the way the warning is triggered—an actual fuel flow that exceeds the FMC's predicted value triggers the warning, signaling a potential fault or abnormal operation that needs attention. A fuel pump failure usually affects fuel delivery in a way that would lead to reduced or unstable flow rather than an elevated flow compared to expectations, so it wouldn't cause this specific warning. A normal fuel flow would not illuminate the warning, and fuel flow lower than expected would trigger a different indication or warning.

8. Which electrical buses are shed when the APU is the sole power source in flight?

A. Essential bus only

B. All galley and main buses

C. Avionics bus only

D. Battery and essential bus

When the APU is the only power source, the electrical system prioritizes essential needs and trims away nonessential loads to stay within the APU's capacity. The galley and main buses feed nonessential equipment and general distribution across the aircraft, so disconnecting them reduces the overall electrical load without compromising critical systems. Thus, the buses that are shed are the galley and main buses. The essential and avionics buses (often supported by the battery for standby power if needed) stay powered to maintain flight safety and critical operations. Other options would either keep noncritical loads active or remove more power than necessary, risking essential systems.

9. What is the approximate engine starter cutout speed (as a percent of N2) for the NG?

A. 56% N2

B. 60% N2

C. 52% N2

D. 58% N2

Starter cutout speed is the point at which the engine's starter automatically disengages after accelerating the high-pressure spool (N2) to a speed where ignition and stable light-off can be achieved. For the Boeing 737 NG with CFM56-7B engines, the design target is in the mid-50s percent N2, with 56% N2 being the typical approximate value used in standard start procedures. This speed provides enough momentum for reliable ignition while protecting the starter from overuse or overspeed. Other options sit outside the usual window: a value around 60% is higher than the common cutout for normal starts, and values around 52% or 58% are not as close to the standard mid-50s target. In practice, environmental factors like temperature and bleed air conditions can shift the exact cutout a notch, but 56% N2 is the representative starting specification for the NG.

10. Which component is an Electronic Control Unit (ECU) used to manage APU operations?

A. Electronic Control Unit (ECU)

B. Engine Control Unit

C. Fuel Control Unit

D. APU Controller

In APUs, the control logic that coordinates everything is handled by an Electronic Control Unit, the brain of the system. This unit gathers data from sensors such as speeds, temperatures, and pressures, and uses that information to drive actuators for fuel metering, ignition, and valve positions. It manages the starting sequence, maintains proper idle and load, and enforces safety interlocks and fault monitoring, ensuring the APU runs smoothly and safely. Other options refer to more specific or less standardized terms. The Engine Control Unit is tied to the main propulsion engine rather than the APU. A Fuel Control Unit would focus narrowly on fuel flow rather than the full control of APU operations. An APU Controller is not the standard name used in typical APU systems. The term Electronic Control Unit best matches the component that handles overall APU control.

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://enginesapu.examzify.com

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