

# Aircraft Checkout Knowledge

Indicate aircraft type: \_\_\_\_\_

CFI Initials

Indicate which model/ year manual used: \_\_\_\_\_

\_\_\_\_\_ 1. V-speeds (indicated)

$V_{SO}$ (flaps & gear)	$V_X$	$V_A$
$V_S$ (clean)	$V_Y$	$V_{NO}$
$V_R$	$V_{FE}$	$V_{Best\ glide}$
$V_{LO}$ (if retractable gear)	$V_{YSE}$ (multi eng)	$V_{approach}$

\_\_\_\_\_ 2. The aircraft manual only gives "Short Field" takeoff distances, sometimes with and without flaps. How much do you increase your distance estimates for an ordinary, "Normal" takeoff?  
\_\_\_\_\_

\_\_\_\_\_ 3. What is this plane's usable fuel capacity? (Full & any tabs, aux tanks if applicable)  
\_\_\_\_\_

\_\_\_\_\_ 4. How many gallons per hour does it burn @ full-power (100%) climb? (at lower altitudes)  
\_\_\_\_\_

\_\_\_\_\_ 5. How many quarts of oil maximum & minimum to fly? What SAE weight?  
\_\_\_\_\_

\_\_\_\_\_ 6. How many volts is the battery? \_\_\_\_\_ Charging system volts? \_\_\_\_\_

\_\_\_\_\_ 7. Where are the battery and GPU socket? \_\_\_\_\_

\_\_\_\_\_ 8. What is the procedure for switching fuel tanks? When/ why would you?  
\_\_\_\_\_

\_\_\_\_\_ 9. What things should you do when an ammeter shows discharge, loadmeter zero, or volts show equal/ less than the battery rating? \_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_ 10. What can you do if you have to follow slower traffic in the pattern? \_\_\_\_\_  
\_\_\_\_\_

While starting, you notice smoke or flame coming out of the cowling.

\_\_\_\_\_ 11. What is the most likely cause? \_\_\_\_\_

\_\_\_\_\_ 12. Why do you keep cranking? \_\_\_\_\_

\_\_\_\_\_ 13. What controls do you move while cranking? \_\_\_\_\_

\_\_\_\_\_ 14. How long do you crank before shutting down/ evacuating? \_\_\_\_\_

\_\_\_\_\_ 15. If it starts, how long @ what power do you run? \_\_\_\_\_

\_\_\_\_\_ 16. For the heaviest empty-weight plane of this type on our line, what's the most weight you can load besides fuel? \_\_\_\_\_ Heaviest legal landing weight? \_\_\_\_\_

Pilot Name:

Instructor Name:

Date:

- \_\_\_\_\_ 17. Discuss with CFI for every plane of this type on our flight line: carburetor vs fuel injected, engine types/ rated power, and engine/ prop & mixture controls & settings for all phases of flight.  
**3 minute turbo cooldown after landing on turbo-charged engines.**
- \_\_\_\_\_ 18. Discuss with CFI difference between "hot" and "cold" starts: summer vs winter, high altitude vs low, max & min amount of priming for each, and max & min RPM after start.
- \_\_\_\_\_ 19. Discuss with CFI for every plane of this type on our flight line: number/ location of fuel sumps; number/ location of fuel vents; methods for switching tanks and turning fuel off.
- \_\_\_\_\_ 20. Discuss with CFI the differences between each plane of this type on our line regarding; Basic Empty Weights, usefull loads, and standard fuel levels set by Line Service.
- \_\_\_\_\_ 21. Discuss with CFI for every plane of this type on our flight line: number of vacuum pumps; other attitude/ heading (or AHRS) systems and indicators.
- \_\_\_\_\_ 22. Discuss with CFI for every plane of this type on our flight line: pitot & static systems and instrument displays; indicators, troubleshooting errors/ failures and backups; how static pressure is used by transponders and auto-pilots; stall awareness & indications.
- \_\_\_\_\_ 23. Discuss with CFI hydraulic systems on this type, and any warning or backup systems.
- \_\_\_\_\_ 24. Discuss with CFI differences between daytime traffic pattern operations vs when the tower is closed - application of A/FD published procedures.
- \_\_\_\_\_ 25. Discuss with CFI: Phoenix Class B rules & proximity above and West; what to do if Tower assigns extended upwind from Runways 22, or extended downwinds in the north-side traffic pattern.
- \_\_\_\_\_ 26. Discuss with CFI procedures for checking in/ out airplanes when Dispatch is closed.

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***Applicable to all retractable-gear planes:***

- \_\_\_\_\_ 27. Discuss with CFI: limiting speeds (max & min) for gear retraction & extension; order of configuration changes (gear, power, flaps, etc.) from cruise ("clean") to full-landing ("dirty").
- \_\_\_\_\_ 28. Discuss with CFI: troubleshooting gear retraction & extension failures versus indications; use of tower and Falcon Exec guidance while still airborne; and methods for manual gear extension.

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***Applicable only to multi-engine planes:***

- \_\_\_\_\_ 29. Discuss with CFI: how much and why Vx & Vy change from normal to single-engine climb; and resulting change in performance at local airports versus higher altitude; effects of wt & balance.
- \_\_\_\_\_ 30. Discuss with CFI: differences in "Accelerate-Go" vs "Accelerate-Stop" distances compared to rwy.
- \_\_\_\_\_ 31. Discuss with CFI: planned engine-out procedures in-flight: no fuel selector off, throttle only below 3000' AGL, no engine cuts from half Vr to 500' AGL, etc.
- \_\_\_\_\_ 32. Discuss with CFI: No touch & go's in turbo twins; taxi-back only with less than 3500' remaining.