



Single Engine Aircraft Specifications and Limitations

Pilot's Name: _____ Date: _____
 Aircraft Make and Model: _____ Instructor: _____

Answer all of the following questions as completely and thoroughly as possible in preparation for your checkout flight. Refer to the particular Aircraft's POH for answers.

- 1) Provide the following information found in the POH regarding fuel & oil:

Total Fuel Capacity: _____ GALS	Usable Fuel: _____ GALS
Grade of Fuel: _____	Color of Fuel: _____
Oil Capacity: _____ QTS	Minimum Oil: _____ QTS
Type & Weight of Oil: _____	

- 2) Provide the following information found in the POH regarding weight limitations:

Maximum Takeoff Weight? _____ lbs.	Useful Load? _____ lbs.
Maximum Landing Weight? _____ lbs.	Empty Weight? _____ lbs.

- 3) Give the definition and the corresponding airspeed for your aircraft:

	<u>Definition of Abbreviation</u>	<u>Speed (KIAS)</u>
V _{so}	_____	_____
V _{s1}	_____	_____
V _x	_____	_____
V _y	_____	_____
V _{fe}	_____	_____
V _{lo}	_____	_____
V _{le}	_____	_____
V _a	_____	_____
V _{no}	_____	_____
V _{ne}	_____	_____
Best Glide Speed		_____
Turbulent Air Penetration Speed		_____
Maximum Demonstrated Crosswind Velocity		_____

- 4) Provide the following information regarding the engine operation limitations:

What is the maximum continuous power setting? _____ RPM
What is the acceptable RPM range for a static power check? _____ RPM

10) Ammeter/Loadmeter

a) What does the ammeter (or loadmeter) indicate?

b) How would an alternator malfunction be indicated on the ammeter (loadmeter)?

c) What is the corrective action?

NORMAL PROCEDURES

11) What is the GFS recommended procedure for testing the ammeter (loadmeter) prior to flight?

12) Describe the procedure for a balked landing/go around:

13) What should you do if an instructor says “My airplane”?

14) List the airspeeds and power settings for the following operations:

<u>Operation</u>	<u>Speed (KIAS)</u>	<u>Power Setting</u>
Normal Takeoff	_____	_____
Normal Climb	_____	_____
Normal Cruise	_____	_____
Normal Landing (full flaps)	_____	_____
Short Field Landing	_____	_____
Balked Landing/Go Around	_____	_____

PERFORMANCE

15) Proper Leaning Procedures

a) When should the mixture be leaned?

b) What is the proper procedure for leaning the mixture in cruise flight?

20) Calculate the weight and balance for your aircraft with yourself and a passenger who weighs 190 lbs, 50 lbs in baggage area #1 and full fuel.

N	WEIGHT	ARM	MOMENT
Basic Empty Weight			
Useable Fuel(6 lbs/gal)			
Pilot & Front Passenger			
Rear Passenger(s)			
Baggage Area 1			
Baggage Area 2			
Ramp Weight			
Fuel Allowance for Start, Taxi & Run-up			
Takeoff Weight			
Takeoff CG			
Fuel Burn Enroute			
Landing Weight			
Landing CG			

Does the CG fall within the legal limits? _____

AIRCRAFT SYSTEMS

21) What voltage is required for external power start?

System Voltage _____ Volts

Battery Voltage _____ Volts

22) What are the following instruments powered by: Pneumatic (Vacuum or Pressure), Pitot-Static, or Electric System

a) Attitude Indicator _____

b) Heading Indicator _____

c) Turn Coordinator _____

d) Airspeed Indicator _____

e) Vertical Speed Indicator _____

f) Altimeter _____

23) GPS

a) How do you determine if the #1 NAV is in NAV mode or GPS mode?

b) How do you find the nearest airport using GPS?

24) Autopilot

a) What are all the different ways the autopilot can be disengaged?

b) What limitations are associated with the autopilot?

c) Does the autopilot hold heading, altitude, or both in this aircraft (if equipped)?

➤ _____ **Aircraft Specifications and Limitations Exam Completed Satisfactorily**
type of aircraft

Flight Instructor's Signature

Date

Pilots's Signature

Date
