



Pre-SOLO Exam

SKYVIEW FLIGHT ACADEMY

GENERAL QUESTIONS

Instructions: All students should answer the general questions to the best of their capability. Instructors are to go over their answers before the day of their solo.

1. What personal documents and endorsements are you required to have before you fly solo?

2. What are your student pilot limitations regarding carriage of passengers or cargo, and flying for compensation or hire?

3. Explain student pilot limitations concerning visibility and flight above clouds.

4. What is the maximum distance you can fly solo from your home base?

5. After a discussion with your flight instructor, what will be the maximum surface wind more than 30° off runway heading for you to solo? What is the maximum surface wind less than 30° for you to solo?

6. Where will your flight instructor write down these limitations?

7. What is the time limitation (duration) of you solo student endorsements?

8. Who has the final authority and responsibility for the operation of the aircraft when you are flying solo?

9. Discuss what preflight action concerning the airport and aircraft performance is specified in the regulations for local flight.

10. During engine run up, you cause rocks, debris and propeller blast to be directed toward another aircraft or person. Could this be considered careless or reckless operations of an aircraft?

11. You should not fly as a pilot of a civil aircraft within _____ hours after consumption of any alcoholic beverage, or while you have _____% by weight or more alcohol in your blood.

12. What are the general requirements pertaining to the use of safety belts and shoulder harnesses?

13. What is the minimum fuel reserve for day VFR flight, and on what cruise speed is the fuel reserve based?

14. What will you set as your personal limit?

15. A transponder with Mode C is required at all times in all airspace at and above _____ feet MSL, excluding the airspace at and below _____ feet AGL.

16. What aircraft certificated and documents must be on board when you are flying solo?

A- _____

R- _____

(R-) _____

O- _____

W- _____

17. No person may operate an aircraft so close to another aircraft as to create a _____.

18. Who has the right of way when two aircraft are on final approach to land at the same time?

19. What action do you need to take if you are overtaking another aircraft and which aircraft has the right of way? What should you do if you are flying a head on collision course with another aircraft? If another single engine aircraft is converging from the right, who has the right of way?

20. Except when necessary for takeoffs and landings, what are the minimum safe altitudes when flying over populated and unpopulated areas?

21. If an altimeter settings not available at an airport, what setting should you use before departing on a local flight?

22. What altitudes should you use when operating under VFR in level cruising flight at more than 3,000 feet AGL?

23. When practicing constant altitude turns, stalls and maneuvering at critically slow airspeeds, the entry altitude must allow a recovery to be completed no lower than _____ feet AGL.

24. When is a go-around appropriate?

25. What general steps should you follow after an engine failure in flight?

26. What do you do if the engine quits upwind on climb out from the runway?

AIRCRAFT QUESTIONS

(Instructions: all students should answer the aircraft questions. If necessary, the instructor may include additional questions that are pertinent to the make and model aircraft to be flown)

1. What is the make and model of the aircraft(s) you are training in?

2. List the minimum equipment and instruments that must be working properly in your aircraft for day VFR flight.

3. Fill in the V-speed definitions and the corresponding speed for your training airplane

SPEED	DEFINITION
(V _{so}) _____	_____
(V _{s1}) _____	_____
(V _x) _____	_____
(V _y) _____	_____
Enroute Climb	_____
(V _{fe}) _____	_____
(V _a solo) _____	_____
(V _a max. wt.) _____	_____
(V _{no}) _____	_____
(V _{ne}) _____	_____

4. What is the best glide speed for your training airplane?

_____ knts

5. Discuss the concepts of V_a (maneuvering speed, your imaginary red line) for different weight loads of your airplane.

6. How does the fuel burn affect V_a ?

7. What are the potential problems resulting from lowering the flaps at speeds above V_{fe} ?

8. What is the maximum allowable flap setting for takeoff in your aircraft?
_____ KIAS

9. The total usable fuel capacity for your aircraft is _____ gallons. On a standard day (sea level temperature, 59° F, altimeter 29.92 in. Hg.) the fuel consumption rate during normal (approximately 75% power) cruise is _____ gallons per hour.

10. What is “the general rule of thumb for fuel burn”?

11. What is the expected time/duration of engine power for your airplane with the above information?

12. If you fly with reduced fuel, as an example “to the tabs” of the Cherokee Warrior, how long do you expect your engine to run before it quits?

13. What grade or grades of fuel can be safely used in your aircraft? What are the colors of the recommended fuels? What happens to the color of the fuel if two grades are mixed?

14. How are you dealing with an induction fire on start up?

15. What is the maximum allowable RPM drop of a mag check? And what is the allowable difference between right and left mag?

16. The maximum oil capacity of your aircraft is _____ quarts, and the minimum oil capacity to begin a flight is _____ quarts.

17. The maximum crosswind component specified by the POH/Owners manual for takeoffs and landings in your training aircraft is _____ knots.

18. When do you use carburetor heat? What are the indications of carburetor icing?

19. What is the takeoff and landing distance over a 50- foot obstacle for your aircraft at your airport? Assume maximum certificated takeoff weight, 80 ° F, winds calm, and an altimeter setting of 29.52.

20. How does the density altitude affect the performance of your airplanes runway length requirements?

21. How does density altitude affect the climb rate of your airplane?

AIRPORT AND LOCAL AIRSPACE QUESTIONS

(Instructions: Flight instructors may assign only those questions that pertain to the student's airport environment and surrounding local area. However, if necessary, instructors may assign additional questions for a particular flying area.)

1. What are the runway(s) at your airport? What are the traffic patterns for each runway at your airport? What is the AGL altitude for the traffic pattern?

2. What is the preferred calm wind runway at Tracy, and what I considered calm wind conditions?

3. Draw the pavement marking requiring you to stop before entering a runway?

4. How do you enter and exit the traffic pattern at your airport? What, if any, radio communications are required?

5. What radio calls are recommended in the traffic pattern at a NON-TOWERED airport? What radio calls are required at your airport?

6. What is the standard direction of turns in the traffic pattern? Give an example of a visual display indicating a nonstandard traffic pattern.

7. What is CTAF? Explain CTAF procedures at your training airport(s).

8. How can you determine if a runway is closed?

9. What are the dimensions of Class D airspace and what requirement(s) must be met prior to entry?

10. What are the two Class D airports North and East of Tracy? How far from TCY are the boundaries of those two airports? What direction and distance to Livermore (LVK)?

11. Can you practice ground reference maneuvers when you are within Class D airspace? Explain

12. If you receive ATC instructions that you feel may compromise safety or will cause you to violate an FAR, what should you do?

13. What is the meaning of each of the following ATC light signals?

IN FLIGHT

- Steady green-_____
- Flashing green-_____
- Flashing red-_____
- Steady red-_____
- Alternating red and green-_____

ON THE GROUND

- Flashing red-_____
- Steady red_____
- Flashing green-_____
- Steady green-_____
- Flashing white-_____
- Alternating read and green-_____

14. In addition to equipment requirements and a student pilot certificate, what other requirement(s), if any, must be met before a student pilot is authorized to fly solo within Class B airspace?

15. Explain the general transponder equipment and use requirement(s) when operating within or near a Class B airspace. (30 NM veil of primary airport)

16. Describe the Class B airspace boundaries that affect your airport. Explain how you can use navigation equipment and/or ground reference points to identify the Class B boundaries. (Draw a diagram, if necessary. Use HWY 680 as a reference, and give altitude limitations over that HWY.)

17. You have called ATC just prior to entering Class B airspace, and the controller tells you to, "Squawk 2466 and ident." Are you now allowed to enter Class B airspace without any further instructions? Explain.

18. On a sectional chart, what does a dashed magenta line around an airport indicate?

19. Explain the minimum visibility and ceiling requirements for VFR flight in Class D airspace.

20. Can a student or recreational pilot request a special VFR clearance in Class D airspace when visibility is less than three miles? Explain your answer.

21. You have called ATC prior to entering Class C airspace, and the controller responds with your call sign and tells you to, "Standby." Are you allowed to enter this airspace without any further instructions? Explain.

22. Describe the typical dimensions of Class C airspace. Is participation in the radar service mandatory within the outer area of Class C airspace?

23. Define the heading and distance for R-2531 from TCY.

24. What is the top of the restricted airspace? Is this AGL or MSL?

25. What are the listed times of use?

STALL AND SPIN QUESTIONS

1. What causes an airplane to stall? (FAA-H-8083-25)

2. What is a spin? (AC 61-67C)

3. What causes a spin? (AC 61-67C)

4. When are spins most likely to occur?

A: _____

B: _____

C: _____

D: _____

E: _____

(AC 61-67C)

5. What procedure should be used to recover from an inadvertent spin?

- (1) _____
- (2) _____
- (3) _____
- (4) _____
- (5) _____
- (6) _____

WX BREIF QUESTIONS

1. When do you need a weather briefing?

2. Define "The vicinity of an airport." (Your instructor most likely gave you the definition. In what book did he find that definition? (AC 00-45 E or F.))

3. What is the phone number to call for a weather briefing?

4. What are the three kinds of briefings, you can ask for on the phone?

5. What is the format of a standard briefing?

6. What is a sigmet versus an airmet?
