

## Presolo Written Test Questions

### A. Written quiz

1. V speeds and their definitions
2. Aircraft emergency procedures

### B. Take-home test

1. Aircraft limitations
2. Aircraft operation and maintenance
3. FARs
  - a. Eligibility requirements for student pilots (61.83)
  - b. Solo flight requirements for student pilots (61.87)
  - c. General limitations (61.89)
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  - e. Careless or reckless operation (91.13)
  - f. Dropping objects (91.15)
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  - v. Fuel requirements for flight in VFR conditions (91.151)
  - w. Basic VFR weather minimums (91.155)
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4. Aeronautical Information Manual
  - a. Wake turbulence
  - b. Radio failure procedures
  - c. Airport markings
  - d. Traffic pattern
    1. Pattern legs
    2. Entry and departure
    3. Standard turns
5. Local procedures
  - a. Frequencies
    1. Airports
    2. Emergency
  - b. Airport procedures
    1. Traffic pattern directions and altitudes
    2. Noise abatement
    3. Particular flight school procedures (as applicable)

## Appendix E

### Presolo Written Test Questions

The instructor may modify the quiz and test as desired for the local training environment.

#### FAR Part 61.87 Solo flight requirements for student pilots:

*Aeronautical knowledge.* A student pilot must demonstrate satisfactory aeronautical knowledge on a knowledge test that meets the requirements of this paragraph:

- (1) The test must address the student pilot's knowledge of—
  - (i) Applicable sections of parts 61 and 91 of this chapter;
  - (ii) Airspace rules and procedures for the airport where the solo flight will be performed, and
  - (iii) Flight characteristics and operational limitations for the make and model of aircraft to be flown.
- (2) The student's authorized instructor must—
  - (i) Administer the test; and
  - (ii) At the conclusion of the test, review all incorrect answers with the student before authorizing that student to conduct a solo flight.

#### Written Quiz

Instructions: Answer each question in the space provided.

1. Define *and* list the following speeds for your aircraft:

$V_S$ -

$V_{SO}$ -

$V_X$ -

$V_Y$ -

$V_A$ -

$V_{FE}$ -

$V_{NO}$ -

$V_{NE}$ -

2. What is the airplane's best glide speed? When is it used?

3. List the procedure to respond to an in-flight engine failure.

4. List the procedure to respond to an engine fire on the ground while starting.

5. List the procedure for loss of communication radio when arriving at an airport with an operating control tower.

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**Take-Home Test**

Instructions: Answer each question in the space provided, using the FARs, the AIM, the *Airport/Facility Directory*, and the *Pilot's Operating Handbook*. Use the space to the left of the question number to list the reference for each question.

1. What is the maximum gross weight of the airplane in the Normal category?
  
2. If a glider is converging with an airplane, which has the right of way?
  
3. What are the limit load factors in both the Normal and Utility categories with the flaps up? Flaps down?
  
4. What preflight action is required of a pilot prior to a flight?
  
5. What is the maximum rpm of your airplane?
  
6. Define an aerobatic maneuver.
  
7. Generally describe the engine in your airplane.
  
8. List the definition of careless or reckless operation.
  
9. What is the oil sump capacity in your airplane? What is the minimum?
  
10. What is the minimum amount of time after the consumption of alcohol a pilot is required to wait before flying?
  
11. What would happen to the fuel indicators if all electricity in the airplane was lost?
  
12. What are the basic VFR weather minimums? What is the minimum visibility for a student pilot?

## **Appendix E**

### **Presolo Written Test Questions**

13. Why is it necessary to drain fuel out of the sumps after refueling and before the first flight of the day?

14. List and describe each of the light gun signals available from air traffic control.

15. Will the engine still run if the master switch is turned off? Why?

16. What are wing-tip vortices (wake turbulence)? With which aircraft are they greatest? Describe proper avoidance.

17. What endorsements are required for solo flight? What three documents must you have in your possession to solo an aircraft as a student?

18. During runup, what is the maximum allowable rpm drop when checking the magnetos?

19. Draw an airport traffic pattern, labeling each leg and the proper entry and departure points. Which turn direction is standard for an airport traffic pattern?

20. List the traffic pattern altitude, direction of turns, noise abatement procedures, and all radio frequencies for the following local area airports (\_\_\_\_\_) and their runways.

21. What is the fuel capacity? How much is usable?

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22. What is the authority and responsibility of the pilot in command?
23. When are you required to wear a safety belt?
24. When are you permitted to deviate from an ATC instruction?
25. What grade(s) of aviation fuel is/are available for use? What color is each?
26. When an aircraft is approaching another head-on, each pilot should alter their course to the \_\_\_\_\_.
27. A(n) \_\_\_\_\_ on the runway indicates that the runway is closed.
28. Draw the pavement marking requiring you to stop before entering a runway.
29. When is dropping objects from an airplane permitted?
30. The \_\_\_\_\_ of two aircraft on approach to the same runway has the right of way.
31. What must a pilot do before entering Class D airspace?
32. What is the minimum safe altitude anywhere? Over congested areas?
33. List the day-VFR weather minimums in Class G, E, and D airspace.
34. List the documents that must be aboard the airplane at all times.
35. When must the airplane's navigation lights be on?
36. Can a student pilot fly into Class B airspace? If so, what is required?
37. What is the minimum reserve fuel required for day VFR operations?