



## PRE-SOLO WRITTEN TEST

Student Pilot: (Print Name) \_\_\_\_\_

Referring Instructor: (Print Name) \_\_\_\_\_

The following written test is designed to meet the minimum requirements of the Federal Aviation Regulations, Subpart C; Student and Recreational Pilots; and the appropriate parts of subsections 61.81, 61.85, 61.87, 61.89, 61.91, 61.93 and 61.95. In addition, this written test is to demonstrate that you, as a student, have satisfactory knowledge of the appropriate portions of Parts 61 and 91 of the FARs that are applicable to student pilots.

**USE THE FAR'S CITED HERE TO ADDRESS THE ANSWERS TO THE QUESTION OR TO DETERMINE YOUR LEVEL OF KNOWLEDGE REQUIRED TO PERFORM SAFE SOLO FLIGHTS.**

For additional information, read the Aeronautical Information Manual (AIM) Chapter 2, 3, and 4.

The questions on the following pages will test your knowledge to handle situations that you may encounter during solo flight. The conditions set forth in this test are not meant to be all-inclusive, but the questions, when answered correctly, will help establish the needed thought process for a successful solo flight at Centennial Airport (KAPA).

1. What is the ATIS frequency at KAPA? \_\_\_\_\_ MHz

2. What is the meaning of ATIS and what is the reason that ATIS is used at busy airports?

\_\_\_\_\_  
\_\_\_\_\_

3. What is the ground control frequency at this airport? \_\_\_\_\_ MHz

4. At what point on the airport is it necessary to contact the ground controller?

\_\_\_\_\_

5. What is a "movement area" and to whom do you talk before entering a movement area?

\_\_\_\_\_

6. Where does the movement area start at Centennial airport?

\_\_\_\_\_  
\_\_\_\_\_

7. What is the **hold line**?

\_\_\_\_\_

8. Where are **hold lines** located on the airport?

\_\_\_\_\_



9. In the box provided below, draw a representation of the hold line.

10. What is the color of the **hold line**? \_\_\_\_\_

11. What does the term "**Line up and wait**" mean?

\_\_\_\_\_

12. During your solo flight, who would tell you to "**Line up and wait**"?

- (a) Your Flight Instructor.
- (b) The police on the airport.
- (c) The ground controller for the airplanes moving within the airport environment.
- (d) The air traffic controller in the tower after you report to him/her your desire to takeoff.

13. What does the term "**cleared for immediate takeoff**" mean, and who would issue such a directive?

- (a) The flight instructor always does this.
- (b) The club manager or the owner of the airplane, if other than you.
- (c) The last person to depart the airport before your turn.
- (d) The tower controller. He\she is doing this because of potential conflicts with other aircraft if you delay your takeoff.

14. At the time you are to depart the airport and prior to your takeoff roll, the tower controller tells you to, "**fly runway heading, I'll call your turn**", this means:

- (a) The tower controller is unsure of what you are to do and wants time to think.
- (b) There is traffic on a right downwind and you are to takeoff into the wind.
- (c) There is potentially conflicting traffic with your planned departure and the tower controller wants to ensure traffic separation by not turning until directed to do so.
- (d) The tower likes to "burn up" your money.

15. What is meant by "**enter right downwind**"?

- (a) The traffic pattern you are to fly is on the left of the airplane.
- (b) The traffic is flying to the right on all the runways.
- (c) The tower controller wants you to enter the **downwind** such that all turns to the runway of intended landing will be **right turns**.
- (d) The tower controller is right handed and it is easier for him/her to turn you to the right.

16. For the airplane that you will be soloing, record in the space provided, the values for the information requested:

$V_x$  \_\_\_\_\_ kts     $V_y$  \_\_\_\_\_ kts     $V_a$  \_\_\_\_\_ kts     $V_{so}$  \_\_\_\_\_ kts    **Airspeed at liftoff** \_\_\_\_\_    **Airspeed on approach** \_\_\_\_\_  
**Best Glide Airspeed** \_\_\_\_\_    **Oil Capacity** \_\_\_\_\_    **Total Fuel Capacity** \_\_\_\_\_  
**Usable Fuel** \_\_\_\_\_    **Fuel Color** \_\_\_\_\_

17. What is the flap setting your instructor stated as appropriate for a safe takeoff? \_\_\_\_\_ Degrees



18. While you are performing your solo in the traffic pattern, the radio stops working and you can no longer communicate with the tower. What are you expected to do?
- (a) Continue in the pattern as I have been doing previously, because no one wants to talk to me.
  - (b) I will watch carefully for other traffic and fly a normal pattern as I had been doing, but I will look for conflicting traffic and check to see if the tower is using light-gun signals to communicate with me.
  - (c) I will land, bringing the airplane to a complete stop off the runway "BEYOND THE HOLD LINE" onto a taxi way and then look for light gun signals from the tower before proceeding to my parking area. I will flash my Landing/taxi light while pointed at the tower to attract the ground controller's attention.
  - (d) I will do b, and c. When I have determined that I have received permission from the tower or other airport authority, I will taxi as necessary to parking.
19. In the space provided write the meaning of the light-gun signals indicated below: (see 91.125)
- (a) Steady GREEN on the ground. \_\_\_\_\_
  - (b) Steady RED in the air. \_\_\_\_\_
  - (c) Steady GREEN in the air. \_\_\_\_\_
  - (d) Flashing RED when you are the Ground. \_\_\_\_\_
20. When you took off to do your solo, the tower frequency you were using was 118.9 MHZ. While doing your touch and goes, and you are monitoring the radio, you hear the tower telling various aircraft to "**change frequency to 123.7 and contact the tower.**" What can you anticipate next?
- (a) The tower will call you and tell you to change to 123.7 since that is the frequency for the touch-and-go traffic on the runway.
  - (b) The tower frequency of 118.9 is getting congested and this is how the air traffic controller can ease the workload on him/her.
  - (c) All traffic operating on the touch-and-go runway will be using 123.7 MHZ. This means you will have to switch radio frequencies when told to change by tower. You will do this on the radio you heard the request on or the other communications radio if one is available.
  - (d) All of the above.
21. Prior to soloing you must have documents on your person and endorsements from your Flight Instructor. Which of these endorsements and documents are needed?
- (a) A current Student Certificate which is also your medical.
  - (b) The instructor must have endorsed the medical/student certificate.
  - (c) You must also have an appropriately endorsed logbook.
  - (d) All of the above.
22. If at any time during my solo, I feel uncomfortable about the airplane, or my situation, which of the following is **the more** appropriate action? I will:
- (a) Contact the tower and tell them of my concern.
  - (b) Tell the tower I want to "full stop" or land when I do the next radio communication.
  - (c) Just stop the airplane when I touchdown again.
  - (d) If I do not understand the tower controller's instruction, I will ask for a "repeat last transmission", if I believe something to be wrong with the airplane, I will tell the tower I need to land the next time.



23. What is the meaning of Class B airspace?

- (a) It means my instructor has not given me a grade of A and I can only fly in the B airspace.
- (b) Class B airspace is that air space above Centennial's Airspace, and begins at 8000 feet mean sea level (M.S.L.).
- (c) The Controller did not pass his/her training with a higher grade, and he/she will not let me use the A airspace.
- (d) Class B airspace is better than "C" airspace, which is Centennial's airspace identification.

24. There are Class B airspace limits placed on me as a student pilot. Which of these apply around this airport?

- (a) The floor of the Class B is 8000 feet above mean sea level at Centennial airport.
- (b) I cannot enter the Class B airspace unless I received appropriate clearance from Denver on frequency 132.75.
- (c) The Class B is controlled airspace.
- (d) All of the above and I have read 91.129, Class D ops.

25. What are the Federal Aviation Regulations (FAR's) needed to ensure that I, and my Flight Instructor, have met the minimum requirements for my solo flight?

- (a) FAR Part 61, Subpart C, Section 61.81, Section 61.83, and Section 61.85.
- (b) Subpart C- Student Pilots; FAR Part 61, Section 61.87, paragraphs (a), (b), (c), and (d).
- (c) FAR Part 61, Section 61.87 (k) and (m).
- (d) All of the above.

26. Which of the following best addresses what is meant by the term "solo flight"?

- (a) When the instructor is in the airplane with me.
- (b) Solo means, I only have one friend with me during the flight.
- (c) Means flight time during which I, as a student pilot, am the sole occupant of the airplane.
- (d) Solo means when I am close to the ground, or the opposite of "so high."

27. If on final approach to land or to do "touch and goes," I see that an airplane is on the runway for which I intend to land or touch and go, I will:

- (a) Plan to stop the airplane before I get to the airplane on the runway in front of me.
- (b) Plan to execute a go-around to the side of the runway that is not closest to the parallel runway.
- (c) Listen to the tower for instructions, and/or call the tower and tell them I am going around due to traffic on the runway.
- (d) Use either (b) or (c) above, whichever is best suited to safety and to prevent traffic conflicts.

28. If at any time you do not understand the tower controller's instructions, what should you do?

- (a) Ignore the information that I am receiving from the tower on my radio.
- (b) Answer "Wilco" or "Roger", since it sounds like pilot talk.
- (c) Request "Centennial tower, repeat the last radio transmission to "Aircraft model XXXX." (Whatever make and number your aircraft is; e.g., Husky 34HY)
- (d) Tell the tower you received and understand all of the information.

29. My flight instructor has had me visit the Centennial Airport Tower and had me get a tour and briefing from the



tower personnel on duty at the time of my visit.

Yes [ ] No [ ]

30. I agree that if during my solo flight, the winds are reported to be greater than 8 knots at 90-degrees to the runway, (260<sup>0</sup> to 280<sup>0</sup> from the West or 080<sup>0</sup> to 100<sup>0</sup> the east), that I will bring the airplane to a full-stop landing the next touchdown or as soon as I have received clearance from the tower to touch-n-go. I will tell the tower controller of my intentions to land at my earliest opportunity.

Yes [ ] No [ ]

31. If there is a **CHECKLIST** in the airplane or aircraft dispatch book, I will check to ensure that the **CHECKLIST** is appropriate for the airplane that I will use for solo. To do this I will check the model number indicated on the **CHECKLIST** with that in the approved airplane flight manual, usually called the Pilots Operating Handbook (POH). If I find that there is a discrepancy, I will use the POH as my source for the operational **CHECKLIST**.

True [ ] False [ ]

32. What are the runways at Centennial Airport?

- a. Runway 71L and 71R with the other end being L53 and R53. The touch-n-go runway 71R and 53L.
- b. Runways 17L and 17R. The other end does not matter.
- c. Runway 17L and 35R is the "main" runway. Runway 17R and 35L is considered the "touch-n-go" runway. Runway 28 and 10 are not available for my use for solo flight.
- d. All of the above.

33. To recover from a "balloon" or a bounce, I will:

- a. Add full power the instant I recognize the balloon or bounce. I will ensure my airspeed is above a stall, for the configuration I have the aircraft in (usually greater than 60-65 knots).
- b. Retract the flaps ONE NOTCH at a time. So, if using flaps set at full down, say 30 degrees flaps down, my action would be to bring the flap handle to the TAKE OFF position. This action causes my flaps to come up and I can expect a slight "sink."
- c. I will not attempt to land the airplane again on this try. I will do a complete "go-around" and tell the Tower controller I plan a "full stop" on the next try.
- d. All of the above.

34. As an aid in doing quick-safety checks of my actions in the airplane that I will be soloing in, I have been taught the mnemonic (memory crutch), **GUMPS**. I have learned that this means:

- (a) **G** is for **GAS**, and the word gas can be thought of as **G**=gas, which means to verify that the "fuel selector" valve is in the ON position; and **AS** for A/S, meaning airspeed, which is a reminder to check to be sure that I am at a safe airspeed and altitude for what it is that I am about to do.
- (b) **U** is for **UNDERCARRIAGE**, which means check to see if the gear is down.
- (c) **M** is for **MIXTURE**, which is a reminder to verify that the fuel flow to the carburetor is adequate to prevent "fuel starvation".
- (d) **P** is for **POWER**. This is a reminder that I am to be using the necessary power for the takeoff or landing phase of my flight. It is also to remind me that power changes can be used to assist in my safe descent/climb or to hold my altitude.
- (e) **S** stands for the **SAFETY** of flight. It is broken down as, **S** = SAFETY, meaning, LOOK, USE THE CHECKLIST, CHECK FOR TRAFFIC, CHECK AIRSPEED, AVIATE-NAVIGATE-COMMUNICATE, and SAFETY.



If the word SAFETY is broken down, I know that it is a good mnemonic also. It can be used as:

- S = SAFETY**
- A = ALTITUDE AND AIRSPEED**
- F = FLAPS, at the correct settings**
- E = ELECTRIC, for lights on landing and taxi**
- T = TRAFFIC, see and avoid**
- Y = YAW, meaning keep the ball centered in the turns!**

(f) All of the above.

35. Since I will be solo to the practice area (s) in the near future, my instructor and I have studied the TAC for specific ground reference points to be used as identifying locations for the practice area.

- a. True
- b. False
- c. Not required
- d. Only when I fly by myself

36. I know the flight path to be flown, going to the practice area, and the altitude.

- a. This does not apply to me.
- b. Yes, I know there are direction and altitudes for safety, these are \_\_\_\_\_ going out to the practice area, and \_\_\_\_\_ coming back to KAPA.

37. The radio frequency to use in the practice area is: \_\_\_\_\_. When in the practice area, for safety reasons, I will announce my position and altitude every \_\_\_\_\_.

38. What are the suggested points used to contact KAPA tower, when coming back from the practice area?

From the Southeast \_\_\_\_\_ From the Southwest \_\_\_\_\_

### CERTIFICATION

I, \_\_\_\_\_, Pilot Certificate # \_\_\_\_\_, certify that I have received instruction on each of the areas for which I have provided answers to the above questions and fully understand the nature, intent, and extent of the question. I have also been instructed on the runway designations (numbers) and directions from which I must approach the runways to land or take off. My Instructor has had me read the EMERGENCY SECTION in the Pilots Operating Handbook (POH) and discussed the procedures with me. I understand the procedures as they relate to my solo flight. I have read appropriate sections of FAR 91, subparts A, B, C, D, and E.

Signed \_\_\_\_\_ Date \_\_\_\_\_

I, \_\_\_\_\_, Instructor Certificate # \_\_\_\_\_ CFI, exp. \_\_\_\_\_, have reviewed and discussed the test questions and answers with Mr/Ms. \_\_\_\_\_, a pre-solo candidate for a private or sport pilot certificate. We have discussed those questions that were incorrectly answered. The answers to those missed questions have been clarified using FARs, the AIM, and other appropriate training materials.

Signed \_\_\_\_\_ Date \_\_\_\_\_