

Advantage Aviation Inc.

PRE-SOLO WRITTEN

Student: _____
Instructor: _____

Date: _____
Date of Review: _____

Student Acknowledgement of Review: _____

FEDERAL AVIATION REGULATIONS (FAR'S)

Part 61 -

1. How long is a Student Pilot Certificate valid for? _____
2. When do you need to have a Student Pilot Certificate? _____
3. How can you get a Student Pilot Certificate? _____
4. What class medical certificate do you need and how long is it valid for? _____
5. What endorsements must you have in order to fly solo? _____
6. Your instructor forgets to sign your Student Pilot Certificate. Is it legal for you to fly solo? Explain: _____
7. How often must you be re-endorsed by your instructor for solo privileges? _____
8. What must be in your possession during solo operations (excluding cross-country)? _____
9. Under what conditions may you land at an airport other than your home airport? _____
10. How far from your home airport are you permitted to venture without a solo cross-country endorsement on your Student Pilot Certificate? _____
11. Define the term "cross-country": _____
12. When operating on a solo cross country flight, what must you have in your possession? _____
13. What endorsements are required to fly on a solo cross country? _____
14. If you move, who must you notify and what happens if you don't? _____
15. What should you do if you lose your license or your medical certificate? _____

Part 91 -

1. Who is the final authority as to the operation of the aircraft? _____
2. Who is it when you are flying solo? _____
3. What authority are you granted in an emergency? _____
4. When should you fasten your seatbelt? Are there any exceptions? _____

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5. What about the shoulder harness? _____

 6. If you were on final approach to land, describe who would have the right-of-way over you: _____

 7. What is the legal definition of night? _____

 8. When can you start logging night time? _____

 9. What aircraft lights must be illuminated at all times when the aircraft is in operation? _____

 10. Is there an exception to this rule? _____

 11. What is the lowest altitude at which you may fly? _____

 12. You are over-flying Fremont on your way to/from the practice area. What minimum altitude should you be at? Explain: _____

 13. On your way back to Palo Alto, your radios fail. Explain what you are going to do: _____

 14. You are on the 45, you get a steady red light signal from the tower. What does it mean and what will you do? _____

 15. What would you do if you got a steady green light instead? Explain: _____

 16. Assuming no indications to the contrary, what direction should turns be made in the traffic pattern? (Answer for class D and E/G airspace airports.) _____

 17. Where can you find the direction of the pattern for any class E/G airspace airport? _____

 18. You are flying at 2500' over Fremont in daytime. What airspace are you in and what are the weather requirements? _____

 19. You are over-flying Byron airport at 11500' at night. What airspace are you in and what are the weather requirements? _____

 20. You are on the ground at Reid-Hillview airport. What airspace are you in? _____

21. The ATIS is as follows: KRHV 1947Z 320/10 2SM BR 040 SKT O50 OVC 09/06 2989 RWY 30. Are you legal to take off? Explain: _____

22. What are the requirements to enter class B airspace? _____

23. What phrase must you hear before entering class B airspace? _____
24. May a student pilot be authorized to land at a primary airport in class B airspace? _____

25. Can you enter San Francisco class B airspace? _____
26. Can you land at San Francisco airport? Explain: _____

27. Where can you find the frequency of the controlling agency for a given class B, C or D airspace area? _____
28. Are you required to do everything ATC tells you to do? Explain: _____

29. What is required to enter Monterey airport airspace (pilot and airplane equipment)? _____

30. What is meant by the term "Special VFR", where can it be done and who can do it? _____

31. Locate Class G airspace on your chart. What are the weather requirements during day? _____

32. You are flying on a 170 magnetic heading. What VFR altitude should you be at? _____
33. You are flying on a 280 magnetic heading. What VFR altitude should you be at? _____
34. You have a late alcohol drink at 11:00pm. Your solo flight is scheduled for 8:00am. Can you go fly? Explain: _____

35. What is the maximum blood alcohol content (BAC) allowable? _____
36. If you have taken cough medicine within the last two hours are you allowed to fly? _____
37. When must you operate your Mode C- altitude encoding transponder? _____

38. You plan on flying over Tracy's Restricted area at 12:00pm local time. Do you need an authorization? Is there an exception? Explain: _____

39. Locate an MOA. Do you need an authorization to enter this airspace? Explain: _____

40. How much fuel must you have on board for a VFR flight? _____

41. During a preflight inspection you discover that a fuel gauge is indicating improperly. Is it legal to fly that aircraft? Explain how you come to that conclusion: _____

42. You are flying at 13500' MSL. Are you required to use supplemental oxygen? Explain: _____

43. What documents must be carried on board an aircraft during each flight? _____

VFR CHARTS

1. How can you tell if fuel is available at a particular airport? _____

2. How can you tell where class B airspace is? _____

3. What is the difference between the airports colored magenta and the airports colored blue? _____

4. How can you tell where class E airspace is? _____

5. How can you tell where class G airspace is? _____

6. Examine the San Francisco airport data block on the VFR terminal chart. List all the available information that you see: _____

7. At Moffett airport, what does the small "c" mean (next to the tower frequency)? _____

8. What do the large numbers in each quadrangle on the chart mean? _____

9. What does the yellow areas represent on a VFR chart? _____

AERODYNAMICS

1. What are the four forces acting on an airplane in flight? _____

2. What is an aerodynamic stall? _____

3. What effect does bank angle have on stall speed? _____

4. What effect does engine power output have on stall speed? _____

5. In general terms, describe your stall recovery technique: _____

6. Why is rudder necessary in a turn? _____

7. Why is up-elevator necessary in a turn? _____

8. What causes the over-banking tendency of most airplanes in a turn? _____

9. How would you identify a skidding turn? _____

10. How would you identify a slipping turn? _____

11. Name the left turning tendencies caused by the propeller: _____

12. What are the flaps for on an airplane? _____

AIRCRAFT

General -

1. When you drain the fuel sumps you discover clear liquid in your tester. What could this liquid be and is it acceptable for use in aircraft? _____

2. What would happen in you ran a 100-octane engine on 80 octane fuel? _____

3. Could you run an 80-octane engine on 100 octane fuel? Why? _____

Electrical System -

1. What is the battery used for? _____

2. What is the use of an alternator? _____

3. If you switch off the master switch in flight, what will happen to the engine? Why? _____

4. How would you know that the alternator has failed and what should you do if it has? _____

5. What is the purpose of the circuit breakers and how many times should you reset them if they pop? _____

Powerplant and Instruments -

1. If the engine is rough during the magneto check, what is happening? _____

2. What can you do about it? _____

3. If the engine does not seem to be performing like you are used to during the takeoff roll, what should you do? (Explain the whole procedure.) _____

4. Why does the RPM of the engine drop during a carburetor heat check? _____

5. Describe a flooded start procedure: _____

6. Is it considered good practice to pump the throttle during an engine start? Why or why not? _____

7. What is the engine-driven vacuum pump for? _____

8. The static port(s) get clogged. What instruments will be affected? _____

9. The pitot tube is clogged. What instruments will be affected? _____

Emergency procedures -

1. What should you do if your flaps get stuck down? _____

2. What should you do if your flaps get stuck up? _____

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3. What can you do in case of an elevator failure? _____

 4. What can you do in case of an ailerons failure? _____

 5. How do you determine that your brakes will work before you land? _____

 6. What should you do if your brakes fail? _____

 7. What should you do in the event of an electrical fire in flight? _____

 8. What should you do if an engine fire occurs during start? _____

WAKE TURBULENCE

1. When is wake turbulence produced? _____

2. When does an airplane produce the most wake turbulence? _____

3. Describe the general behavior of wake turbulence in still air: _____

4. What effect will wind have on these characteristics? _____

5. If you are taking off behind a heavier aircraft, when should you attempt to rotate? _____

6. If you are landing behind a heavier aircraft where should you attempt to target your flare? _____

7. Describe at least four steps you can take to avoid wake turbulence: _____

WINDSHEAR

1. What is windshear? _____

2. How do you recognize windshear from the cockpit when it is happening? _____

3. List at least three situations in which you would EXPECT windshear to be a potential problem: _____

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4. What weather phenomena are most often associated with windshear? _____

 5. What should you do if you believe windshear is a possibility on an approach you intend to make? _____

 6. If you encountered windshear on short final, who would you report it to and why? _____

 7. How would you recognize windshear occurring during the takeoff roll? _____

 8. How would you recognize windshear occurring during the initial climb? _____

 9. What is the best way to avoid windshear? _____

PAFC RULES

1. Can you do touch and go's at Palo Alto while flying solo? _____
2. Can you fly at night? _____

3. You come to the club for a solo flight. No instructor is present, only the front desk person. Can you go fly solo? Why? _____

4. You come to the club for a solo flight at 7:00 pm. An instructor is present, checks your logbook, but tells you he/she is going on a flight or leaving the club. Can you go on your solo flight? _____

5. Who must you check with prior to any solo operations? _____

6. Under what conditions should you pull the airplane out if its parking spot prior to engine start? _____

7. Should you attempt to "angle" the airplane into its spot while taxiing in? _____

8. If mechanical irregularities are noted during a preflight inspection, to whom should you report them and when? _____

9. If the hobbs meter in the airplane shows something other than the entry in the tach book what should you do? _____

10. When must covers or window shades be re-installed on the airplane? _____
