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”:

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?
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. You 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?________
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:
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?______________________________

LOCAL FLYING CLUB 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?______________________________