

Purdue Aviation LLC – Student Pilot Pre-Solo Test

Pilot Name: _____ Date: _____

Aircraft: _____ Instructor Name: _____

General Questions:

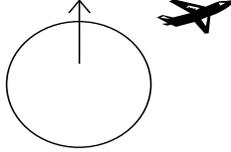
1. What personal documents are required to be in your possession when you fly?
 - a.
 - b.
 - c.
2. What aircraft documents are required to be on board when you fly?
 - a.
 - b.
 - c.
 - d.
3. Can you carry passengers and/or cargo for compensation or hire in our aircraft?
4. Who has the final authority for determining that your rental aircraft is airworthy?
5. Who has the right of way when two aircraft are on final approach at the same time?
6. Except when necessary for takeoff and landing, what are the minimum safe altitudes when flying over congested and un-congested areas?
7. What altitudes should you use when operating under VFR in level cruising flight while on a cross-country flight?
8. What preflight actions are required to be completed by the pilot before each flight?
9. You may not fly as a pilot of a civil aircraft within _____ hours after consuming any alcoholic beverage, or while having _____% blood alcohol content.
10. When are safety belts and shoulder harnesses required?
11. What is the minimum fuel reserve required for day VFR flight?
12. Does high humidity increase or decrease takeoff distance?
13. How do you determine pressure altitude?
14. What are the minimum FAR requirements for carrying passengers?

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15. KLAF 051150Z 32017G24KT 4SM BR FEW020 BKN070 OVC 120 15/13 A3002

What is the present ceiling and surface wind at LAF?

16. Assuming the aircraft shown below is tuned to the VOR pictured and the VOR receiver OBS is set on 45 degrees, is the To-From read-out reading To or From?



17. If you must takeoff following a departing jet transport on the same runway, what precautions should you take?

18. If you must land behind a landing jet transport, where should you aim for touchdown?

Aircraft Questions

19. Define the following V Speeds and list the V Speed for your airplane:

	<u>Speed</u>	<u>Definition</u>
a.	V _{so}	
b.	V _s	
c.	V _x	
d.	V _y	
e.	V _{fe}	
f.	V _a	
g.	V _{no}	
h.	V _{ne}	
i.	V _{mc}	
j.	V _{le}	
k.	V _{lo}	

20. What is the maximum demonstrated crosswind for your airplane?

21. What is the best glide speed for your airplane?

22. What is the total useable fuel for your airplane?

23. What fuel (and color) types can your airplane safely use?

24. What is the minimum oil capacity of your airplane's engine? What is the minimum oil quantity you are allowed to depart with per Lafayette Aviation?

25. Where are the fuel sumps located?

26. When should you use carburetor heat?

27. What are the signs of carburetor ice?

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28. What is the estimated TAS at 5000 ft and 65% power?
29. What RPM or combination of RPM and Manifold Pressure will produce approximately 65% power at 5000 ft?
30. What is the fuel burn in gallons per hour from question 29?
31. With full fuel at 65% power at 5000 ft, allowing a 45-minute reserve, what is the maximum duration of your flight? (**in hours**)
32. What is the Accelerate – Stop Distance at 5000 ft, 75° F, gross weight, no wind? (PA34)
33. What takeoff distance is required to clear a 50 ft obstacle at maximum gross weight at a pressure altitude of 5,000 ft and 75° F? (Assume no wind and a hard surface runway.)
34. What takeoff distance is required to clear a 50 ft obstacle at maximum gross weight at sea level pressure altitude and 75°F? (Assume no wind and a hard surface runway.)
35. How many people, at 170 lbs. each, can this aircraft carry safely with a full fuel load?
36. What is the maximum allowable weight the aircraft can carry in the baggage compartments?
37. Solve a weight and balance problem for the aircraft with full fuel, and all seats occupied by a 180 lb. passenger(s).
 - a. Does your load fall within the weight and balance limits?
 - b. If you are over gross weight, how much fuel would you have to remove?
 - c. If you are under max gross weight, how much baggage could you add?

Local Airport Operations

38. What are the minimum visibility and ceiling requirements for VFR flight into Class D airspace?
39. On a sectional chart what does the magenta shading around KLAF indicate?
40. What are the entry requirements for Class D?
41. What is the TPA (Traffic Pattern Altitude) for KLAF?
42. What is the minimum altitude for turning crosswind in the traffic pattern?
43. List the following KLAF radio frequencies:
 - a. Ground:
 - b. Tower:
 - c. FSS:
 - d. Chicago Center:
 - e. UNICOM:
 - f. Emergency: