AirOne
FLIGHT ACADEMY

Pilot Name:_____
Last, first, mi.
Date: (mo/dy/yr) _____ Pass/Fail: _____

Instructor:_____ Instructors Initials: _____

1. What is the engine Manufacturer:
   Model:
   Type:
2. What is the horsepower rating?

3. What is the total fuel capacity with normal tanks? Usable?

4. What is the total fuel capacity with long range tanks? Usable?

5. What is the approved fuel grade(s)? Fuel Color(s)?

6. Where are the fuel drains located?

7. When should the fuel tanks be drained?

8. How should the fuel selector valve be positioned when refueling?

   Why?

9. How should the fuel selector valve be positioned for takeoff and landing?

   Why?

10. What is the maximum cruise performance fuel burn in gallons per hour?

11. What is the total oil capacity?

12. What is the prescribed oil quantity for normal flights of less than 3 hours?

    For extended flights?

    Minimum for flight?

13. What is the proper type of oil for use after break-in?

14. What is the proper grade of oil for OAT (outside air temperature):
    Between 30° F and 90° F? For above 60° F?

		Normal Category
15.	What is the basic empty weight for N67797?	
16.	What is the maximum takeoff weight?	
17.	What is the useful load?	
18.	Payload with full fuel?	

(refer to weight and balance data.)

19. What is the total combined weight capacity in the baggage compartment?

20. How much fuel can you carry with a front seat payload of 340 lbs., and 120 lbs. of baggage?

21. What is the maximum crosswind velocity?

Questions 22-25 Refer to the airspeed indicator and/or tachometer.

22. What is the meaning of the green arc?

23. What is the range of the green arc?

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24. What is the maximum engine speed in RPM?

25. How are the maximum engine and air speeds indicated?

26. What are the following recommended airspeeds in KIAS?

	Flaps	Airspeed
Normal takeoff/ climb:	Up	
Normal approach:	Up	
Normal approach:	Down	
En route climb, sea level:	Up	
Short-field takeoff/ climb:	10	
Normal Approach to Land:	Up	
Normal Approach to Land:	Down	
Short-field approach:	Up	

Best rate-of-climb (Vy) at sea level:	
Best angle-of-climb (Vx) at sea level:	
Maximum flap extension 10° (Vfe10°):	
Stall speed, clean (Vs):	
Stall speed, full flaps (Vso):	
Best glide speed:	
Best glide speed flap setting:	
Maneuvering speed, gross weight (Va):	
Never exceed speed (Vne):	

27. What speed should be maintained when penetrating turbulent air and why?

28. What is maneuvering speed (Va) at 1500 lbs.?

29. As gross weight decreases, what happens to maneuvering speed?

30. How many flap settings are there, and how are they operated?

31. What is the power off stall speed (Vs)?

32. What is the flap setting and airspeed for a:
Short field takeoff?

Short field landing?

33. When will the stall horn sound?

34. Name four indications of a stall.

35. How do you detect carburetor ice?

How do you clear carburetor ice?

What is the proper procedure for continued use of carburetor heat?

36. How do you detect an alternator malfunction?

How do you restore electrical power with an alternator malfunction?

What do you do if you cannot restore the alternator?

37. In the event of electrical failure, what flight instruments and equipment would be lost?

38. In the event that the vacuum pump failed without a back-up system, what flight instruments would be lost?

39. Where is the alternative static source located?

40. What flight instruments would be lost if the static system was plugged and there was no alternate static source?

41. What is the correct crosswind landing technique?

42. What is the procedure for a balked landing (go around)?

43. What is the procedure for engine failure immediately after takeoff?

44. Why is it important to lock the engine primer after use?

45. What aircraft documents must be on board the aircraft during flight?

46. What is the range in zero wind, 65% power at 4,000 ft., standard temperature, 24.5 gallons usable fuel, and 45 minutes reserve fuel?

47. What is the hourly fuel consumption (lean mixture) at 4,000 ft pressure altitude, standard temperature, and 75% power?

48. What is the power setting, fuel consumption, and TAS (true airspeed) with maximum gross weight at 8,000 ft, 75% power and standard temperature?

49. Figure the takeoff distance for a short-field takeoff at maximum weight, a pressure altitude of 3,000 ft., and a temperature of 20° F, stall speed at 45^0 bank, gross weight.

50. Work the weight and balance configuration for half tanks, weight of pilot and front passenger of 300 lbs., and baggage of 80 lbs.

51. How does angle of bank affect stall speed?

52. What is the effect (danger) of loading an airplane aft of C.G. limits?

53. What is the stall speed in the following configurations?

Most Rearward Center Of Gravity

Weight Lbs.	Flap Deflection	Angle of bank			
		0^0	30^0	45^0	60^0
		KIAS	KIAS	KIAS	KIAS
1670	UP 10^0 30^0				

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Most Forward Center Of Gravity

54.

Weight Lbs.	Flap Deflection	Angle of bank			
		0^0	30^0	45^0	60^0
		KIAS	KIAS	KIAS	KIAS
1670	UP 10^0 30^0				