Phase 1: Pre-Flight

Valley Fliers
1402 Auburn Way North, #223
Auburn WA 98002

Name: _____

Certificate Number: _____

Instructor: _____ Certificate Type: _____

Ratings: _____

_____

Check Out Date: _____ Total Flight Time: _____ Last 90 Days: _____

Club check out is in two phases: Phase 1 – Pre-flight. Phase 2 – Flight.

This is an open book check out. The aircraft's documentation will be required to complete the Phase 1 check out. Read the question and the possible answers, then print the letter of the most correct answer on the line next to the question.

1. _____	The gross weight of C177 N34727 is:	**a.** 2500 pounds **b.** 3000 pounds **c.** 2650 pounds
2. _____	The empty weight of C177 N34727 is:	**a.** 1829 pounds **b.** 1730 pounds **c.** 1634 pounds
3. _____	The useable fuel capacity of N34727 is:	**a.** 61 gallons total, 60 gallons useable **b.** 50 gallons total, 49 gallons useable **c.** 40 gallons total, 38 gallons useable
4. _____	What is the total engine oil capacity and, except for an extended flight, when should oil be replenished?	**a.** 8 qts, 6 qts minimum, fill to 7 qts. **b.** 10 qts, 8 qts minimum, fill to 9 qts. **c.** 8 qts, 4 qts minimum, fill to 8 qts.
5. _____	The maximum allowable weight that can be placed in the baggage areas in normal category operations is:	**a.** 150 pounds **b.** 200 pounds **c.** 120 pounds
6. _____	Excessively high engine temperatures, either in the air or on the ground will:	**a.** Increase fuel consumption **b.** Result in damage to hoses and fittings **c.** Cause loss of power, excessive oil use and possible internal engine damage
7. _____	Which statement regarding the use of the cowl flaps is most correct?	**a.** Only open cowl flaps during ground operation **b.** Cowl flaps should be open for ground operations and climbs- during cruise they should be adjusted to maintain CHT at approximately two thirds of the normal operating range (green arc) **c.** Cowl flaps are a nuisance and can always remain closed
8. _____	The first indication of carburetor ice in an aircraft with a constant speed propeller is:	**a.** A decrease in RPM **b.** A decrease in manifold pressure **c.** Rough running engine and RPM loss
9. ____	Before the engine is started you notice the manifold	**a.** Gage is stuck at the full power indication **b.** Throttle is closed, trapping air in manifold

pressure gage is indicating about 29” hg. This is because the:
c. Manifold pressure equal atmospheric pressure when engine is not running

10. ____ What is the primary advantage of a constant speed propeller?
a. To maintain a specific engine speed
b. To obtain a suitable pitch setting for each situation and power setting
c. To obtain a selected pitch angle regardless of the flight situation or power setting

11. ____ When operating an aircraft with a constant speed propeller, which procedure places the least stress on cylinder components?
a. When decreasing power, 1st reduce RPM
b. When decreasing power, keep the RPM constant-reduce manifold pressure only
c. When decreasing power, reduce manifold pressure before RPM

12. ____ The airspeed indicator in N34727 registers in:
a. KPH
b. KTS
c. MPH

13. ____ What is the maximum cross wind component for this aircraft?
a. 15 kts
b. 10 kts
c. 20 kts

14. ____ The distance to clear a 50 ft. obstacle in a maximum effort, no wind, 2200 lb. weight from a paved runway at sea level with a temperature of 15 C (59 F) and altimeter setting of 29.92” is:
a. 705 feet
b. 1430 feet
c. 1085 feet

15. ____ If the runway in question 15 was a dry grass strip, the take-off data would have to be adjusted by:
a. Increase the total distance by 10%
b. Increasing the ground run by 15%
c. Increase both the ground run and total distances by 7% of the total to clear a 50 foot obstacle

16. ____ What engine setting would produce the closest performance to 70% brake horse power at 5,000 feet on a standard day?
a. 2400 RPM, 22” hg for 9.4 gallons/hour
b. 2300 RPM, 21” hg for 8.5 gallons/hour
c. 2200 RPM, 24” hg for 10 gallons/hour

17. ____ With a normally aspirated engine what happens to the manifold pressure during a climb?
a. The manifold pressure increases approximately 1” hg per 1000’ of climb
b. The manifold pressure decrease approximately 1” hg per 1000’ of climb
c. The manifold pressure remains constant due to the variable pitch propeller

18. ____ What power setting and airspeed is recommended for a cruise climb?
a. 2500 to 2700 RPM and 26” hg
b. 2500 to 2700 RPM and 24” hg
c. 2400 to 2600 RPM and 21” hg

19. ____ What is the recommended final approach speed with the flaps extended?
a. 70 to 80 MPH
b. 60 to 70 MPH
c. 50 to 60 MPH

20. ____ What airspeed produces the best glide for an engine out glide?
a. 80 MPH
b. 70 MPH
c. 85 MPH

21. ____ What is the stalling speed in a 60 degree bank with full flaps? (forward CG)
a. 70 MPH IAS
b. 75 MPH IAS
c. 64 MPH IAS

22. ____ What is the recommended flap setting for normal take-off?
a. 10 degrees
b. Flaps not recommended for take-off
c. 0 to 15 degrees

23.
Using the Cessna manual's loading graph and center of gravity moment envelope for C177 N34727, calculate the CG for the following:

Item	**Weight**	**Moment/1000**
Empty Weight		
Oil (9 qts)	17	
Fuel – 50 gallons		
Pilot and Co-Pilot	355	
Rear Seats	225	
Baggage Area	85	
Total Weight and Moment		

24. ____ What is the recommended tire pressure for the main gear tires?
a. 32 psi on 6.00 x 6 tires
b. 42 psi on 6.00 x 6 tires
c. 30 psi on 6.00 x 6 tires

25. ____ What is the recommended tire pressure for the nose gear tire?
a. 32 psi on 5.00 x 5 tire
b. 35 psi on 5.00 x 6 tire
c. 49 psi on 5.00 x 5 tire

26. ____ When securing the aircraft, the fuel selector valve should be:

a. Turned to either the left or right tank to prevent siphoning
b. Remain on “Both”
c. Turned to the fullest tank

27. Provide the following airspeeds (IAS):

V_a	Design maneuvering speed	_____
V_{no}	Maximum cruise speed	_____
V_{ne}	Never exceed speed	_____
V_y	Best rate of climb speed	_____
V_x	Best angle of climb speed, Flaps 20	_____
V_{fe}	Maximum flap extension speed	_____
V_{s1}	Power off stall, flaps up	_____
V_{so}	Power off stall, flaps 30	_____

28. ____ The easiest way to ground handle this aircraft is to use the tow bar. What is the tow bar turning angle limits?

a. Do not exceed 29 degrees from center
b. To the limit where it will turn no further
c. Do not exceed 45 degrees from center

29. ____ Where is the emergency locator transmitter (ELT) located?

a. Behind the instrument panel on the left side
b. In the baggage compartment, near door
c. Behind the baggage compartment

30. ____ How is the ELT armed in this aircraft?

a. A switch on the unit’s case
b. A switch on the instrument panel, left side
c. It is always armed

31. ____ Where is the battery located?

a. Behind the baggage compartment
b. Behind the engine, on the firewall
c. Under the rear seats

32. ____ What is the voltage of the electrical system?

a. 14 volt generator, 12 volt battery
b. 28 volt alternator, 24 volt battery
c. 14 volt alternator, 12 volt battery

33. ____ Does C177 N34727 have a radio master switch?

a. No, shut off each radio individually
b. Yes, for comm radios only
c. Yes, individual switches can be left on

34. ____ What engine RPM is used for a magneto check?

a. 2000 RPM
b. 1700 RPM
c. 1800 RPM

35. ____ When are spins allowed to be practiced in this airplane?

a. In Utility Category
b. Never, spins are prohibited
c. In Normal Catergory

36. ____ What is the normal tachometer operating range at sea level?

a. 1700-2500 RPM
b. 2100-2500 RPM

c. 1700-1900 RPM

37. ____ What is the manifold gage operating range?

a. 17-30” hg
b. 15-24” hg
c. 15-29” hg

38. ____ What minimum fuel grades (octane) are authorized for use in N34727 and how many fuel drain locations are there?

a. AV 91/96, AV100LL – 4 drains
b. AV 80/87, MoGas – 3 drains
c. AV100LL, AV91/96 – 3 drains

39. ____ Who is responsible for the aircraft documentation that must be on board the airplane before flight?

a. The maintenance officer
b. The pilot in command
c. The safety officer

40. ____ Who is responsible for cleaning the airplane interior and windows after a flight?

a. The next user
b. The cleaning crew
c. The pilot who just completed the flight

41. ____ Who is responsible for installing the control lock, securing the tie-downs and locking the aircraft’s doors and windows?

a. The maintenance officer
b. The person assigned to ramp duty
c. The pilot who just completed the flight

42. ____ Who can perform any maintenance or modifications on club aircraft?

a. Any Club member on the active list
b. Anyone with a pilot’s license, except students
c. The maintenance officer or his designee

43. ____ You notice some oil streaks on the cowl and windscreen. When you wipe it off you notice that the oil is very red. This indicates:

a. The propeller dye pack is activated. The airplane is grounded.
b. The propeller hydraulic fluid is leaking
c. The oil contains Marvin’s Mystery Oil

Phase 2: Flight

Valley Fliers
1402 Auburn Way North, #223
Auburn WA 98002

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Certificate Number: _____

Instructor: _____

Certificate Type: _____

Ratings: _____

_____

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Flight Review	Instructor initials indicating satisfactory performance – refer to applicable PTS
I. Pre-Flight Inspection	
II. Check List and Pre-Start Procedures	
III. Starting Engine	
IV. Normal Departure Operations	
a. Taxing	a. _____
b. Pre Take-off Checks	b. _____
c. Normal Take-off	c. _____
d. Climb – appropriate power settings	d. _____
e. Cruise – appropriate power settings	e. _____
V. Air Work	
a. Steep Turns	a. _____
b. Flight at Minimum Controllable Airspeed	b. _____
c. Stall Recognition and Recovery	c. _____
d. Recovery from Unusual Attitudes by reference to instruments	d. _____
e. Simulated Emergency Descent	e. _____
VI. Normal Arrival Operations	
a. Descent and check list procedures	a. _____
b. Normal landings	b. _____
VII. Pattern Work	
a. Cross wind take-off and landing	a. _____
b. Short field take-off and landing	b. _____
c. Soft field take-off and landing	c. _____
d. Go arounds	d. _____
e. Zero Flap landing	e. _____
VIII. After Landing and Post-Flight Procedures	
IX. Remarks:	

Overall Completion of Transition or Original Aircraft Check Out

Phase 1 – Ground Instruction
Hours of ground instruction completed: _____

Instructors signature: _____

Certificate number: _____

Expiration date: _____

Phase 2 – Flight Review
Hours of flight instruction completed: _____

Instructors signature: _____

Certificate number: _____

Expiration date: _____

I have received training to operate a Cessna C177 aircraft and completed the ground and flight training noted above.

Pilots signature: _____ Date:_____