

References: Pilot's Operating Handbook for the 1973 Cessna 182P Model; *Flying Magazine* article "Cessna 182 Safety Report"; RAFA SOP and Refueling Instructions (in front of POH and airplane flyaway book).

1. Do not operate with less than ___ quarts of oil; fill to ___ quarts for normal flights of 3 hours or less.
 - a. 4 / 8
 - b. 8 / 12
 - c. 10 / 11
 - d. 9 / 10

2. The engine in the C-182P is a
 - a. Lycoming IO-520J 250 HP
 - b. Continental O450T 330 HP
 - c. Continental O-470R 230 HP
 - d. Lycoming O-360A 180 HP

3. Normal takeoff procedure is to raise the nose wheel at ___ mph and climb at ___ mph until all obstacles are cleared.
 - a. 65 / 95
 - b. 60 / 90
 - c. 55 / 80
 - d. 75 / 95

4. The flap setting for a maximum-performance (short-field) takeoff is ___ degrees.
 - a. 30
 - b. 10
 - c. 35
 - d. 20

5. Normal takeoffs are accomplished using full throttle and 2,600 RPM. Whenever possible, reduce power to normal cruise climb power of ___ in. manifold pressure and _____ RPM as soon as practical to reduce engine wear.
 - a. 20 / 2200
 - b. 22 / 2500
 - c. 23 / 2350
 - d. 23 / 2450

6. Standard fuel load before parking the C-182 at the RAFA is _____ gallons per side.
 - a. 25
 - b. 39
 - c. 10
 - d. 70

7. The best rate of climb (V_y), flaps up, for this C-182 is:
 - a. 78 mph
 - b. 66 mph
 - c. 89 mph
 - d. 70 mph

8. The best angle of climb (V_x) (obstacle-clearance speed) with 20° flaps is ___ mph and with 0° flaps (clean) is ___ mph.
- a. 78 / 80 b. 60 / 70 c. 70 / 80 d. 69 / 75
9. The before landing checklist requires the pilot to set the propeller to _____ RPM.
- a. 2600 b. 2500 c. 2450 d. High RPM
10. Final approach speed is ___ to ___ mph with flaps extended.
- a. 70-80 b. 70-85 c. 65-75 d. 60-90
11. After leveling off at cruise altitude from a climb, the pilot should adjust power and RPM by:
- a. Readjust the mixture c. Reduce RPM then throttle
b. Reduce throttle then RPM d. Close cowl flaps
12. The maximum usable fuel capacity is _____ gallons.
- a. 40 b. 85 c. 79 d. 65
13. Fuel from both tanks flows by gravity to a selector valve; this valve should be in the BOTH position:
- a. Always c. For takeoff, climb, and landing
b. Only when cruising d. When taxiing to prevent sloshing
14. This airplane is equipped with a _____ volt battery supplied by a _____ volt, engine-driven alternator. The battery is located _____:
- a. 24 / 18 / under the seat c. 24 / 28 / right side of firewall
b. 12 / 22 / in the nose d. 12 / 14 / aft of baggage compartment

15. To determine proper alternator and voltage regulator operation prior to takeoff, you may load the electrical system by turning on the _____. If the ammeter remains within _____ of zero, the system is operating properly.
- a. navigation lights / two inches
 - b. prop control / two needle widths
 - c. heater blower / two dots
 - d. landing light(s) / one needle width
16. Power setting for normal enroute cruise climb of 100 to 120 mph should be accomplished at _____ inches manifold pressure and _____ RPM.
- a. 23 / 2450
 - b. 25 / 2300
 - c. 22 / 2400
 - d. 22 / 2600
17. Cruise performance power settings are based on:
- a. Pressure altitude
 - b. Temperature
 - c. Lean mixture
 - d. All of these factors
18. The engine is tightly cowled for control of cooling. Cowl flaps should be adjusted to maintain the cylinder head temperature at about _____ of the green arc.
- a. 2/3
 - b. halfway
 - c. 1/2
 - d. the bottom
19. For optimum operation of the engine in cold weather:
- a. Crank the engine with carburetor heat on
 - b. Use carburetor heat during warm-up
 - c. Use the minimum carburetor heat for smooth operation during takeoff, climb, and cruise
 - d. Answers b. and c.
20. Maneuvering speed (V_A), the maximum speed at which abrupt control movements may be used, is:
- a. 109 mph
 - b. 100 mph
 - c. 145 mph
 - d. 126 mph

21. The first 10° of flaps may be lowered when airspeed is below:
- a. 63 mph b. 160 mph c. 110 mph d. 85 mph
22. Flap settings greater than 10° must not be selected until the airspeed is below:
- a. 85 mph b. 110 mph c. 125 mph d. 90 mph
23. The maximum certificated weight for takeoff and landing is:
- a. 3100 lbs b. 2900 lbs c. 2950 lbs d. 2775 lbs
24. You are to depart on runway 35 within 2,000 feet and climb over a 50-foot obstacle. The plane weighs 2,950 lbs, the wind is 350° at 10 mph, and the temperature is 58° F. Determine the ground roll and the total distance to clear the obstacle.
- a. 325 / 955 b. 595 / 1625 c. 490 / 1025 d. 490 / 1245
25. According to the *Flying Magazine* Safety Report, unless required for an actual short-field landing with no passengers in the back seat, flaps should be limited to ___ degrees. With 40° flaps, airspeed bleeds off _____ and a landing on the nose wheel is _____.
- a. Use no flaps / slowly / likely c. 30 degrees / moderately / not possible
b. 10 degrees / slowly / assured d. 20 degrees / rapidly / more likely
26. According to the RAFA SOP (Crosswind Chart), the maximum crosswind for takeoff and landing in the 182P is:
- a. 15 mph b. 10 mph c. 20 mph d. 12 mph
27. Maximum glide airspeed (V_{GM}) is:
- a. 96 mph b. 105 mph c. 85 mph d. 80 mph

28. Compute the center of gravity for this airplane with full fuel, 210 lb. pilot, and 230 lb. passenger in the front seats.

	<u>Weight</u>	<u>Arm</u>	<u>Moment</u>
Airplane	1799.3	_____	62713.96
Fuel, 50 gals	_____	47.9	_____
Pilot & Passenger	_____	_____	_____
Totals	_____	_____	_____

Center of Gravity is _____ inches aft of datum

If full flaps are used for the approach, the nose can be expected to _____ when power is reduced to idle. This situation increases the possibility of a _____ that can result in _____.

- a. Pitch up / tail strike / bounced landing
- c. Pitch down / prop strike / accident
- b. Pitch up / "floating" / go around
- d. Pitch down/nose gear strike/bent firewall

29. Is N58483 approved for intentional spins?

- a. Yes
- b. No

30. Cruising at 7,500 feet, mixture properly leaned, 2300 RPM at approximately 66% power, a pilot can expect a true airspeed and fuel consumption of:

- a. 153 mph / 12.2 gph
- c. 154 mph / 12.4 gph
- b. 149 mph / 11.4 gph
- d. 144 mph / 10.7 gph

31. With respect to leaning the mixture:

- a. Peak EGT operation is not authorized except to establish peak for reference
- b. Operation on the lean side of peak, or within 25° of peak, is not permitted
- c. If engine roughness occurs prior to peak EGT, use the onset of engine roughness as the reference point for leaning rather than peak EGT
- d. All of the above are good practices

32. The carburetor air-temperature gauge should be scanned during flight. If the needle moves into the yellow arc or there is an unexplained drop in manifold pressure:
- a. Apply full carburetor heat
 - b. Apply more power
 - c. Descend to a warmer temperature
 - d. Close the cowl flaps
33. The emergency locator transmitter is located in the tail cone behind the baggage compartment bulkhead area. To check for inadvertent activation of the ELT,
- a. Turn on the aircraft radio and monitor frequency 122.2
 - b. Monitor frequency 121.5 for the emergency tone
 - c. Call approach control and ask if they hear an ELT
 - d. Stand beside the airplane and listen for the emergency tone