

C182RG

References: 1978 Operating handbook C182RG

1. The Lycoming engine is rated at _____ horsepower.
 - a. 250
 - b. 235
 - c. 220
 - d. 200
2. What is the maximum airspeed for gear extension (VLE) or operation (VLO)?
 - a. 125 KIAS
 - b. 137 KIAS
 - c. 140 KIAS
 - d. 155 KIAS
3. The maximum flap extension speed is _____ for 10 degrees and _____ for more than 10 degrees.
 - a. 95 KIAS and 95 KIAS
 - b. 137 KIAS and 94 KIAS
 - c. 140 KCAS and 95 KCAS
 - d. 140 KIAS and 95 KIAS
4. Maneuvering speed (Va) is _____ at maximum gross weight and _____ at 2000 pounds gross weight.
 - a. 175 KIAS and 140 KIAS
 - b. 182 KIAS and 143 KIAS
 - c. 140 KCAS and 143 KCAS
 - d. 112 KIAS and 89 KIAS
5. N1668R has long range tanks, N757HS does not. The minimum octane fuel is _____ and usable quantity is _____ for N1668R and _____ for N757HS.
 - a. 100LL, 80 gallons, 61 gallons
 - b. 100LL, 75 gallons, 56 gallons
 - c. 93 Octane MOGAS, 56 gallons, 75 gallons
 - d. 100UL, 75 gallons, 56 gallons

6. If the landing gear fails to retract or if the gear up light is intermittent:

- a. the emergency hand pump may be used to retract the gear if the hydraulic fluid has not been depleted
- b. DO NOT extend the gear until just before landing to avoid depleting the hydraulic fluid
- c. extend the gear and land as soon as practicable
- d. the GEAR PUMP circuit breaker should be pulled if the gear motor operation is audible after 1 minute

7. The gross weight, sea level, best rate of climb (Vy) and best angle of climb (Vx) airspeeds are:

- a. 88 KIAS/64 KIAS
- b. 74 KIAS/66 KIAS
- c. 100 KIAS/90 KIAS
- d. 63 KIAS/55 KIAS

8. What is the normal approach speed with flaps down:

- a. 70-80 KIAS
- b. 65-70 KIAS
- c. 65-75 KIAS
- d. 60-70 KIAS

9. What is the minimum recommended short field approach speed with full flaps?

- a. 55 KIAS
- b. 63 KIAS
- c. 65 KIAS
- d. 70 KIAS

10. Maximum demonstrated crosswind velocity is:

- a. 15 knots
- b. 17 knots
- c. 18 knots
- d. 20 knots

11. Suggested flap setting and climb out speed for a short field takeoff is:

- a. 10 deg. flaps and 55 kias
- b. 10 deg. flaps and 63 kias
- c. 20 deg. flaps and 55 kias
- d. 20 deg. flaps and 63 kias

12. The recommended enroute climb for this aircraft is 90 to 100 KIAS and:

- a. 25 inches Hg and 2500 RPM
- b. 23 inches Hg and 2500 RPM
- c. 23 inches Hg and 2400 RPM
- d. 24 inches Hg and 2400 RPM

13. Normal cruising is performed:

- a. At any manifold pressure and RPM when above 6500' PA
- b. Between 2400 and 2100 RPM at any manifold pressure
- c. Between 55% and 75% power IAW the data in section 5
- d. At any manifold pressure that is equal to or less than the RPM/100

14. Maximum performance climb:

- a. 23 inches Hg and 2400 RPM
- b. Full throttle and 2400 RPM
- c. Is at 88 KIAS and full rich mixture until reaching cruise altitude
- d. Is at 88 KIAS decreasing to 74 KIAS at 10,000' with full rich mixture until reaching cruise altitude

15. Fuel at your destination is more expensive than at the Aero Club. As such you decide to operate at best economy mixture setting rather than best power. What performance change would you expect?

- a. approximately 6% greater range with a 3 knot decrease in airspeed
- b. approximately 6% greater range with a 10 knot decrease in airspeed
- c. it would cost more to operate at best economy because the Aero Club charges on Hobbs time
- d. It can't be done because no Aero Club aircraft has an EGT gauge

16. In a normal landing for the C-182RG, the nose wheel:
- a. should be lowered gently to the runway after the speed has diminished to avoid unnecessary nose gear load
 - b. should be lowered to the runway immediately to prevent ballooning
 - c. should be allowed to fall to the runway upon touchdown so braking can begin
 - d. should be lowered to the runway with forward yoke pressure to improve nose wheel steering
17. When landing in a strong crosswind:
- a. use the minimum flap setting required for the field length
 - b. avoid the use of full flaps
 - c. the wing low method must be used
 - d. the crab method gives the best control
18. The 30 degree bank, power off, 40 degree flaps down stalling speed is (most forward center of gravity):
- a. 42 KIAS/55 KCAS
 - b. 40 KIAS/56 KCAS
 - c. 45 KIAS/59 KCAS
 - d. 38 KIAS/54 KCAS
19. The airport elevation is 7000 MSL (standard pressure), 9 knot headwind, 86F, and the aircraft is at maximum gross weight. What is the takeoff distance to clear a 50ft obstacle?
- a. 1730 ft
 - b. 3140 ft
 - c. 3425 ft
 - d. 3805 ft
20. Takeoff or landing with more than 10 knots of tailwind should be avoided. Takeoff and landing distance:
- a. Doubles with 10 knots of tailwind
 - b. Increases by 10% for each 2 knots of tailwind
 - c. Increases by 10% for each 9 knots of tailwind
 - d. Are increased but can not be calculated for tailwinds

21. You plan a trip at 4000' PA. The temperature is 20 degrees below standard (-13C). What is the maximum manifold pressure that should be used when operating at 2100 RPM:

- a. 21 in Hg so as not to operate "over-square"
- b. 23 in Hg which results in 70% BHP
- c. full throttle since there is nothing in Section 2 regarding engine power limitations
- d. Operating at 2100 RPM has no performance merit so should be avoided

22. Which combination results in the best fuel economy (standard temperature)?

- a. 8,000' PA, 19" MP, 2400 RPM
- b. 8,000' PA, 21" MP, 2100 RPM
- c. 10,000' PA, 18" MP, 2400 RPM
- d. 12,000' PA, 17" MP, 2400 RPM

23. Aero Club regulations require 1 hour of reserve fuel at the destination or an alternate (if required) at normal cruise consumption. The range profile chart on page 5-23 (7HS) and 5-24 (68R) will not yield practical results without a correction for Aero Club aircraft because:

- a. it can be used since the POH overrides Aero Club rules
- b. it provides for only 45 minutes of reserve
- c. it uses only 45% power for the reserve calculation which is less than normal cruise power
- d. both b and c

24. The airport elevation is 7000 MSL (standard pressure), 9 knot headwind, 86F, and the aircraft is at maximum gross weight. What is the landing distance to clear a 50ft obstacle?

- a. 1508 ft
- b. 1540 ft
- c. 820 ft
- d. 1675 ft

25. What is the weight, moment/1000, and is the loading acceptable for the following aircraft load (seats positioned for an "average" occupant):

Empty weight: 1850 lbs. Empty Mom: 64195 in-lbs.
Fuel - 56 gal. Oil - full
Pilot - 220 lbs. Copilot - 180 lbs.
Passenger - 190 lbs. Passenger - 170 lbs.
Baggage - 120 lbs. (in area "A")

- a. 3066.0, 133.4, yes
- b. 3082.9, 133.1, yes
- c. 3066.0, 124.5, no
- d. 3082.9, 133.1, no

26. Given the loading from the previous question, what is the maximum fuel that could be carried?

- a. 56 gallons which is full fuel
- b. 75 gallons which is full fuel
- c. 61 gallons which is at maximum gross weight
- d. 59 gallons which is at maximum gross weight

27. What is the normal gear down and locked indication (in addition to observing the main gear by looking out the side windows or mirror):

- a. resistance becomes heavy on the hand pump
- b. three green lights
- c. one amber light
- d. one green light

28. If the throttle is retarded below about 12 inches of manifold pressure or the flaps are extended beyond 25 degrees with the landing gear not down and locked, the landing gear warning system will:

- a. sound an intermittent tone over the intercom
- b. sound an intermittent tone over the cabin speaker
- c. sound a steady tone over the cabin speaker
- d. flash the gear position lights and sound a steady tone over a dedicated buzzer

29. Loss of oil pressure will cause the constant speed propeller to revert to:

- a. low pitch, low RPM
- b. low pitch, high RPM
- c. high pitch, low RPM
- d. high pitch, high RPM

30. A small increase in RPM can be obtained by:

- a. Rotating the propeller control knob clockwise.
- b. Rotating the propeller control knob counter-clockwise.
- c. Pushing the propeller control in 1/2" to 1"
- d. Rotating the throttle control Knob clockwise.

31. The auxiliary fuel pump should be operated:

- a. anytime the fuel pressure is less than 0.5 psi
- b. for takeoff and landing
- c. for takeoff, climb, and landing
- d. both a and b

32. The landing gear emergency hand-pump is located:

- a. on the lower left instrument panel
- b. on the lower center instrument panel
- c. on the floor under the pilot's seat
- d. on the floor between the front seats

33. The hydraulic system:

- a. is un-powered and operates the retractable landing gear and brakes
- b. operates at 1000 to 1500 psi and operates the retractable landing gear, flaps and brakes
- c. operates at 1000 to 1500 psi and operates only the retractable landing gear
- d. operates at 1000 to 1500 psi and is powered by an engine driven pump