

CESSNA 182 RG OPEN BOOK AERO CLUB EXAM

vNov08

1. 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
  
2. The minimum octane fuel and usable gallons for this aircraft are:
  - a. 130 octane and 56 gallons
  - b. 100LL octane and 75 gallons
  - c. 80 octane and 56 gallons
  - d. 100 octane and 56 gallons
  
3. The Lycoming engine is rated at \_\_\_\_\_ horsepower.
  - a. 250
  - b. 235
  - c. 220
  - d. 200
  
4. The landing gear swings downward approximately \_\_\_\_\_ as it starts the retraction cycle and damage can result by retracting it before obtaining at least this much ground clearance.
  - a. 1 foot (the approximate tire height)
  - b. 2 feet
  - c. 4 feet (the approximate length of the landing gear "leg")
  - d. 4 to 6 inches
  
5. The engine should not be operated with less than \_\_\_\_\_ quarts of oil.
  - a. 5 quarts
  - b. 6 quarts
  - c. 8 quarts
  - d. 10 quarts
  
6. If, during climb, the fuel pressure drops below \_\_\_\_\_, use the \_\_\_\_\_ to assure proper engine operation.
  - a. 0.5 psi, alternate static source
  - b. 5 psi, mixture control
  - c. 0.5 psi, aux fuel pump
  - d. 5 psi, throttle
  
7. Wing flap deflection greater than \_\_\_\_\_ are not approved for takeoff.
  - a. 15°
  - b. 20°
  - c. 25°
  - d. 30°
  
8. 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
  
9. What happens to the stalling speed as bank angle increases:
  - a. always the same
  - b. depends on altitude
  - c. decreases
  - d. increases

10. The gross weight, 10,000 feet, best rate of climb ( $V_y$ ) and best angle of climb ( $V_x$ ) airspeeds are:
- 74 KIAS/66 KIAS
  - 72 KIAS/50 KIAS
  - 80 KIAS/63 KIAS
  - 88 KIAS/64 KIAS
11. What is the normal approach speed with flaps down:
- 70-80 KIAS
  - 65-70 KIAS
  - 65-75 KIAS
  - 60-70 KIAS
12. What is the minimum recommended power off, short field approach speed with full flaps:
- 70 KIAS
  - 65 KIAS
  - 63 KIAS
  - 75 KIAS
13. What is the maximum airspeed for gear extension ( $V_{LE}$ ) or operation ( $V_{LO}$ ):
- 137 KIAS
  - 140 KIAS
  - 155 KIAS
  - 125 KIAS
14. What are the maximum airspeeds for extending flaps  $10^\circ$ , and for extending flaps  $10^\circ$  to  $40^\circ$ ?
- 137 KIAS and 94 KIAS
  - 182 KIAS and 175 KIAS
  - 140 KIAS and 95 KIAS
  - 150 KIAS and 100 KIAS
15. What is the maneuvering speed ( $V_a$ ) for maximum gross weight and at 2000 pounds?
- 140 KIAS and 95 KIAS
  - 112 KIAS and 101 KIAS
  - 112 KIAS and 89 KIAS
  - 111 KIAS and 100 KIAS

**FOR QUESTIONS 16 & 17 USE THE FOLLOWING CONDITIONS:**

**The airport elevation is 7000 MSL, 9 knot headwind, 86°F, and the aircraft is at maximum gross weight:**

16. What is the takeoff distance to clear a 50ft obstacle:
- 3415 ft
  - 3140 ft
  - 3425 ft
  - 3805 ft
17. What is the landing distance to clear a 50ft obstacle:
- 1508 ft
  - 1675 ft
  - 1608 ft
  - 1770 ft

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

- a. three green lights
- b. one green light
- c. one amber light
- d. one red light

19. When the nose wheel is lifted for take-off, the gear motor may run for 1 to 2 seconds.

- a. True
- b. False

20. What is the weight, moment, and is the loading acceptable for the following aircraft load:

**BEW - 1860.3**

**Aircraft Moment 63874.9**

**Fuel - 40 gallons (35 useable)**

**Pilot - 220lb**

**Copilot - 180lb**

**Passenger - 190lb**

**Passenger - 170lb**

**Baggage - 120lb in area "A"**

- a. 2965.3, 125.70 (moment/1000), yes
- b. 3948.8, 130.81 (moment/1000), yes
- c. 2948.8, 128.70 (moment/1000), no
- d. 3948.8, 130.81 (moment/1000), no

21. If the flaps are extended beyond 25 degrees with the landing gear up:

- a. A warning horn sounds
- b. The gear automatically extends
- c. Flap extension past 25 degrees is mechanically inhibited with the gear up.
- d. Nothing will happen.

22. Maximum demonstrated crosswind velocity is:

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

23. 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

24. Redline speed (Vne) is:

- a. 193 kias
- b. 182 kias
- c. 190 kias
- d. 192 kias

25. 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

26. A small increase in RPM can be obtained by:
- Rotating the propeller control knob clockwise.
  - Rotating the propeller control knob counter-clockwise.
  - Pushing the propeller control in 1/2" to 1".
  - Rotating the mixture control 3 full turns rich.
27. The propeller maintains a constant speed by means of:
- Oil pressure, centrifugal force, and internal spring.
  - Oil pressure and counter weights.
  - Amazing pilot skill and credit cards.
  - Oleo strut and worm gear.
28. The landing gear emergency hand-pump is located:
- on the lower left instrument panel
  - on the lower center instrument panel
  - on the floor between the front seats
  - on the floor under the pilot's seat
29. The fuel vents are located:
- in the filler caps only.
  - the left fuel tank only.
  - the right fuel tank and both filler caps.
  - the left fuel tank and both filler caps.
30. If the landing gear fails to extend, the emergency procedure calls for the gear lever to be down, extend the emergency hand pump and pump until resistance becomes heavy, about \_\_\_\_\_ cycles, then observe the green light and stow the handle:
- 30
  - 20
  - 10
  - 50
31. In the event of vacuum failure during operations in cloudy conditions the \_\_\_\_\_ should be used in lieu of the artificial horizon and directional gyro:
- turn coordinator
  - airspeed indicator
  - clock
  - vacuum gauge
32. Flight in icing conditions is:
- Prohibited
  - Allowed in light icing.
  - Allowed in light icing with pitot heat and carb heat ON.
  - Allowed if you are on an IFR flight plan.