

Beale Aero Club

Aircraft Written Test

PA-28 161

Piper Warrior

(Required passing score: 80%)

UPDATED: FEBRUARY, 2013

1. Engine oil quantity is a maximum / minimum of ____ quarts.
 - a. 5 / 4
 - b. 8 / 6
 - c. 10 / 8

2. The minimum octane rating for the fuel is aviation grade ____ which is ____ in color.
 - a. 115 / purple
 - b. 100LL / blue
 - c. 80 / red

3. Maximum gross weight and maximum baggage weights are ____ and ____.
 - a. 2500 / 150
 - b. 2300 / 150
 - c. 2440 / 200

4. Engine fire during start is usually the result of:
 - a. over priming
 - b. broken fuel lines
 - c. electrical problems

5. If an engine failure was caused by fuel exhaustion, power will not be restored after switching tanks until empty lines are filled. This will require ____ seconds.
 - a. 5
 - b. 10
 - c. 15

6. If power loss occurs at low altitude, maintain an airspeed of ____ KIAS.
 - a. 65
 - b. 73
 - c. 80

7. Due to higher voltage and radio frequency noise, operation with the ALT switch ON and the BATT switch OFF should be made only when required by:
 - a. electrical failure
 - b. saving battery power
 - c. none of the above

8. Partial carburetor heat may be worse than no heat at all since:
 - a. it may melt part of the ice
 - b. cause the engine to run rough
 - c. it will have no effect on engine performance

9. The use of carburetor heat on the ground for prolonged periods should be avoided because the air is unfiltered.
- true
 - false
10. The electric fuel pump should be in the “on” position for the following operations:
- engine priming
 - takeoff
 - both a and b
11. When starting a flooded engine, the mixture control should be in which position?
- full rich
 - idle cutoff
 - half lean
12. Check the magnetos during engine run-up at ____ RPM. The differential drop should not exceed ____ RPM and maximum drop on either magneto should not exceed ____ RPM.
- 1700 / 75 / 125
 - 1800 / 50 / 150
 - 2000 / 50 / 175
13. Initial approach speed is ____ KIAS while final approach speed is ____ KIAS with full flaps.
- 70 / 63
 - 75 / 66
 - 85 / 70
14. The fuel selector should be on the ____ fuel tank prior to landing.
- fullest
 - left
 - right
15. At 2300 lbs, a pressure altitude of 4,000 feet, 60° F, 0° flaps, and 5 knots headwind; the takeoff ground roll and distance to clear a 50 foot obstacle should be ____ feet and ____ feet, respectively.
- 1300 / 2500
 - 1500 / 2600
 - 1600 / 2800
16. At maximum gross weight, a pressure altitude of 4,000 feet, and standard temperature, the rate of climb should be ____ FPM.
- 450
 - 525
 - 600

17. At gross weight, a pressure altitude of 5,000 feet, 80°F, 75% power (leaned for best power) best power will be obtained by setting the throttle to ____ RPM.

- a. 2450
- b. 2575
- c. 2650

18. Given the following conditions the aircraft weight & balance is:

empty weight	1478.4	moment	125871.0
pilot & pax	300 lbs		
rear pax	180 lbs		
fuel	50 gallons		
baggage	50 lbs		

- a. within limits
- b. over gross weight and out of CG limits
- c. within gross weight and out of CG limits

19. This airplane is rated at ____ horsepower at ____ RPM.

- a. 145 / 2700
- b. 160 / 2700
- c. 180 / 2800

20. Metering of the fuel / air mixture is accomplished by means of a

- a. carburetor
- b. fuel injection system
- c. gravity fed fuel system

21. The fuel quantity is ____ total, ____ useable (all flight conditions) and ____ at the tabs.

- a. 36 / 34 / 20
- b. 52 / 46 / 38
- c. 50 / 48 / 34

22. The electrical system includes a ____ volt battery and a ____ volt, ____ amperes alternator.

- a. 14 / 14 / 60
- b. 12 / 14 / 60
- c. 12 / 12 / 30

23. The ammeter displays:

- a. battery voltage
- b. current flow to and from the battery
- c. load on the alternator

24. The vacuum driven flight instruments are:

- a. altimeter and directional gyro
- b. heading indicator and turn coordinator
- c. attitude indicator, and directional gyro

25. The stall warning horn is typically activated at:

- a. stall speed
- b. 5 to 10 knots below stall speed
- c. 5 to 10 knots above stall speed

PROCEED TO CLOSED BOOK EXAM

CLOSED BOOK EXAM

Engine Fire During Start

1. _____
2. _____
3. _____
4. _____
5. _____

Engine Fire In Flight

1. _____
2. _____
3. _____
4. _____
5. _____

Engine Failure In Flight (Cruise)

1. _____
2. _____
3. _____
4. _____
5. _____

Emergency Approach and Landing

1. _____
2. _____
3. _____
4. _____
5. _____

Fill in all the applicable blanks.

1. V_A _____ Lbs
2. V_A _____ Lbs
3. V_A _____ Lbs
4. V_{FE} _____ (First Extension Increment)
5. V_{LO} _____ Retraction (Retractable Gear Aircraft Only)
6. V_{LO} _____ Extension (Retractable Gear Aircraft Only)
7. Best Glide Speed @ Maximum Gross Weight _____