

Beale Aero Club

Aircraft Written Test

C172 R

(Required passing score: 80%)

THIS TEST IS NOT COMPLETE WITHOUT BOLDFACE/OPS LIMITS

1. Maximum gross landing and takeoff weight is:
 - a. 2300 lbs
 - b. 2440 lbs
 - c. 2450 lbs

2. The engine installed is a Textron Lycoming IO-360-L2A, with ____ hp and ____ rpm.
 - a. 185, 2600
 - b. 145, 2500
 - c. 160, 2400

3. Useable fuel capacity per wing is:
 - a. 26.5 gallons
 - b. 28.0 gallons
 - c. 42.0 gallons

4. Combined baggage compartment maximum weight is:
 - a. 170 lbs
 - b. 120 lbs
 - c. 100 lbs

5. Maximum flap setting for take off and landing is:
 - a. 0°, 40°
 - b. 10°, 30°
 - c. 10°, 40°

6. V_{FE} , maximum flap extension speed for 10°, and for greater than 10° of flaps is:
 - a. 100 KIAS, 100 KIAS
 - b. 110 KIAS, 85 KIAS
 - c. 100 KIAS, 85 KIAS

7. Max range glide speed is ____ KIAS.
 - a. 65
 - b. 80
 - c. 85

8. To prime, advance mixture until fuel flow just starts to rise, then return to ____ position.
 - a. rich
 - b. idle cut-off
 - c. ½ open

9. In warm weather, priming should not be required if a start is attempted within ____ minutes of engine shut down.
 - a. 90
 - b. 60
 - c. 20 to 30

10. In warm weather, the oil pressure gauge must show pressure within ____ seconds.
 - a. 15
 - b. 30
 - c. 60

11. Following the initial attempt, the cranking limit on the starter is:
 - a. 30 seconds on, 60 seconds off – repeated twice
 - b. 30 seconds on, 30 seconds off – repeated twice
 - c. 10 seconds on, 20 seconds off – repeated twice

12. During a magneto check at 1800 RPM, the absence of an RPM drop is:
 - a. indicative of faulty grounding
 - b. indicative of a miss-timed magneto
 - c. both a and b

13. Take off's at airports with elevations in excess of 3,000 feet require:
 - a. a full power static run-up, leaned to maximum RPM
 - b. a full throttle check for engine roughness
 - c. a 2400 RPM static check

14. The POH recommends that cruise or maneuvering flight at any altitude requires leaning the mixture using the EGT gauge:
 - a. to peak EGT
 - b. to 50° richer than peak
 - c. to maximum RPM

15. Failure to lean the mixture may result in:
 - a. excessive fuel consumption and plug fouling
 - b. engine overheating
 - c. burnt valves

16. Short field landings should be made at:
 - a. 62 KIAS with 40° flaps

- b. 50 KIAS with 30° flaps
- c. 62 KIAS with 30° flaps

17. Stall speed KIAS with full flaps and with flaps up, wings level at max gross weight is:

- a. 47, 53
- b. 33, 44
- c. 53, 60

18. For accurate climb data, you must add ____ gallons of fuel for start, taxi, and take off.

- a. 0
- b. 1
- c. 1.1

19. At a pressure altitude of 4,000 feet, standard temperature, 66% BHP, performance planning data is:

- a. 2100 RPM, 106 KTAS, 7.6 GPH
- b. 2200 RPM, 111 KTAS, 7.7 GPH
- c. 2150 RPM, 108 KTAS, 7.6 GPH

20. The basic empty weight of N446AF is 1664.5 lbs, with an arm of 69.3 inches. Calculate the CG for this aircraft with the following load:

- Fuel - 35 gallons
- Front seat passengers – 340 lbs.
- Rear seat passenger – 120 lbs.
- Baggage area one – 25 lbs.

Does the load permit flight within normal and utility categories respectively?

- a. yes, yes
- b. yes, no
- c. more information is needed

21. If the aircraft is fueled to the bottom edge of the fuel filler tab, each tank contains ____ gallons.

- a. 17.5 total
- b. 16 usable
- c. 17.5 usable

22. In the event of fire, to secure fuel at the firewall, you would:

- a. pull the mixture to idle cut-off
- b. switch fuel selector valve to the OFF position
- c. pull the fuel shut-off valve out

23. N446AF has ____ sump drains.
- a. 3
 - b. 5
 - c. 13
24. If the KMA26 Audio Selector Panel fails:
- a. Turn the unit off, then back on.
 - b. Mic select to EMG switches COMM 1 freq internally to 121.5
 - c. Mic select to EMG connects pilot headset directly to COMM 1
25. The NAV/GPS switch on the KLN89B enables the #1 CDI to display:
- a. either NAV 1 or GPS OBS
 - b. GPS "Direct To" data
 - c. controls the function of the heading bug

PROCEED TO CLOSED BOOK EXAM