

# **Beale Aero Club Aircraft**

## **Written Test**

### **C172 R**

**(Required passing score: 80%)**

**THIS TEST IS NOT COMPLETE WITHOUT BOLDFACE/OPS LIMITS**

**\*\*PLEASE MAKE SURE ALL ANSWERS FOR THIS TEST ARE  
ON FORM 1584C- ANSWER BUBBLE SHEET LOCATED IN  
THE BEALE ONLINE LIBRARY\*\***

1. Maximum gross landing and takeoff weight is:
  - a. 2300 lbs
  - b. 2440 lbs
  - c. 2450 lbs
  
2. Useable fuel capacity per wing is:
  - a. 26.5 gallons
  - b. 28.0 gallons
  - c. 42.0 gallons
  
3. Combined baggage compartment maximum weight is:
  - a. 170 lbs
  - b. 120 lbs
  - c. 100 lbs
  
4. Maneuvering speed at 2,450 lbs, 2,000 lbs, and 1,600 lbs is \_\_\_\_\_ KIAS respectively.
  - a. 97, 91, 81
  - b. 163, 129, 99
  - c. 99,92, 81
  
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. In warm weather, priming should not be required if a start is attempted within \_\_\_\_\_ minutes of engine shut down.
  - a. 60 to 90
  - b. 50 to 60
  - c. 20 to 30
  
9. In warm weather, the oil pressure gauge must show pressure within \_\_\_\_\_ seconds.
  - a. 15
  - b. 30
  - c. 60
  
10. 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
  
11. 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
  
12. Take off's at airports with elevations in excess of 3,000 ft 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
  
13. Failure to lean the mixture may result in:
  - a. excessive fuel consumption and plug fouling
  - b. engine overheating
  - c. burnt valves
  
14. 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

15. When landing in a strong crosswind, use \_\_\_\_\_ flap setting required for field length.
- a. maximum
  - b. minimum
  - c. 0°
16. In a balked landing climb, reduce the flap setting to \_\_\_\_\_ immediately after full power is applied.
- a. 20°
  - b. 0°
  - c. Don't change flap setting
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 1630 lbs, with a moment of 64.5 lb-in/1000. Calculate the CG for this aircraft with the following load:

Fuel- 35 gallons  
Front seat passengers- 340 lbs  
Rear seat passengers- 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. The airspace in both fuel tanks is interconnected by a vent line and, therefore, some sloshing of fuel between tanks can be expected when the tanks are nearly full and the wings are not level.
- a. true
  - b. false
23. The aircraft has \_\_\_\_\_ sump drains
- a. 3
  - b. 5
  - c. 13

(For questions 24 and 25 refer to the Aircraft Supplements available on the Beale Online Library)

24. It is vital you refer to the pointer that corresponds to the current \_\_\_\_\_ for an accurate AOA (angle of attack) indication. Failing to do so may result in inadvertently entering into a dangerous AOA condition.
- a. aircraft flaps configuration
  - b. power setting
  - c. bank angle
25. What does the GPS HOME key do?
- a. Creates a direct course to home airport
  - b. Single press returns to the menu page; press and hold returns to default NAV page
  - c. Goes back to the start-up page

**PROCEED TO BOLDFACE/ OPS LIMITS**