

Beale Aero Club Aircraft

Written Test

T41-C

(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. The maximum gross weight for normal category operations is _____ lbs.
 - a. 2200
 - b. 2500
 - c. 2700

2. What is the maximum amount of time for operating the starter motor and the cooling time between starts?
 - a. 30 seconds and 3 minutes
 - b. 1 minute and 3 minutes
 - c. 2 minutes and 5 minutes

3. Should the oil pressure indications become abnormal in cold weather for no apparent reason, you should:
 - a. continue to destination and be watchful for other signs of engine problems
 - b. shut down the engine
 - c. declare an emergency and land as soon as practical

4. Except during emergency engine shutdowns, the fuel shut off valve should be left in the push _____ position.
 - a. on
 - b. off
 - c. does not matter

5. Should the aneroid in the engine driven fuel pump fail, it will fail in the _____ position.
 - a. full rich
 - b. full lean
 - c. present

6. Fuel quantity indicators are accurate only in:
 - a. stabilized straight and level flight
 - b. level flight below 2300 RPM
 - c. RPM settings below 1500

7. If no other electrical malfunctions exist, how many times may a circuit breaker be reset?
 - a. 0
 - b. 1
 - c. 2

8. The stall warning horn is designed to activate _____ knots above stall?
 - a. 3-5
 - b. 5-7
 - c. 5-10

9. To prevent burn injury to ground personnel, ensure the pitot heat is turned off:
 - a. during ground operations
 - b. after pitot heat check
 - c. both a and b

10. Don not use the cabin heating without:
 - a. a source of fresh air
 - b. closing the cabin vents
 - c. selecting an RPM setting below 2300

11. The engine should start within 2 or 3 revolutions. If this does not occur, the probable cause is:
 - a. excessive lean or rich mixture
 - b. vapor lock
 - c. both a and b

12. A throttle setting of _____RPM while stopped on the ground will aid in engine cooling, lubrication and prevent spark plug fouling.
 - a. 800
 - b. 1000
 - c. 1200

13. Excessive RPM during ground operation may result in FOD to:
 - a. stabilizer
 - b. propeller
 - c. both a and b

14. The engine oil pressure gauge should show a positive indication within _____ seconds.
 - a. 30
 - b. 45
 - c. 60

15. If the magneto switch is accidentally turned to the OFF position during the magneto check, you should:
 - a. turn back to both immediately
 - b. leave in the OFF position and retard the throttle to idle
 - c. return to the parking ramp for a maintenance check

16. During a short field take off, once safely airborne and clear of obstacles, raise the flaps at a minimum speed of _____MPH.
 - a. 75
 - b. 85
 - c. 95

17. In the event of an engine driven fuel pump failure, the best chance of regaining engine power is:
 - a. throttle position above 2100 RPM
 - b. aux fuel pump switch to LOW
 - c. both a and b

18. If an ammeter deflection follows throttle movement, usually the cause is:
 - a. engine over speed
 - b. throttle increased too rapidly
 - c. a faulty regulator

19. During spin recovery, premature relaxation of the control inputs may _____ the recovery, resulting in additional altitude loss.
 - a. expedite
 - b. inhibit
 - c. delay

20. Using the licensed empty weight normal category (sample airplane) weight and moment, with full oil, full fuel, 1 pilot at 180 lbs, 1 front passenger at 130 lbs, a rear seat passenger at 160 lbs, and a 5 lbs in the baggage compartment, determine the total weight and moment of the aircraft.
 - a. 2440 lbs and 100.25 lb-in
 - b. 2238 lbs and 91.15 lb-in
 - c. 2169 lbs and 95.80 lb-in

21. Using the data in question 20, if there was an additional rear passenger at 180 lbs, would the aircraft still be inside the center of gravity and moment envelope?
 - a. yes
 - b. no

22. With the weight of 2200 lbs, 75°F, pressure altitude of 2,500 ft, 10 kt headwind, determine to total distance necessary to clear a 50-foot obstacle on takeoff.
- a. 890 ft
 - b. 979 ft
 - c. 780 ft
23. At 7,500 ft pressure altitude, 2600 RPM, TAS will be _____ and fuel burn will be _____ GPH:
- a. 126 MPH – 8.7
 - b. 138 MPH – 10.5
 - c. 128 MPH – 9.2
24. What is the landing distance (ground run and total to clear a 50 ft obstacle) for a max gross weight aircraft with 5 kts of headwind at 2,500 ft pressure altitude?
- a. 585 ft --- 1,251 ft
 - b. 715 ft --- 1,529 ft
 - c. 650 ft --- 1,390 ft

(For question 25 refer to the Aircraft Supplements available on the Beale Online Library)

25. For EDM (engine data management) fuel calculations to be accurate, it is _____ that you inform the EDM of the correct amount of usable fuel onboard the aircraft.
- a. advised
 - b. mandatory
 - c. not necessary