

**Aircraft Checkout**  
***Single-Engine***

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Aircraft Type: \_\_\_\_\_

Instructions: Write the answer to the question in the space provided. If this is a paper copy and more space is needed, use the reverse side. If this is an electronic copy, make room as needed.

1. During a cold weather start, the engine backfires, creating a fire in the intake duct. What should be done under these circumstances?
  
  
  
  
  
  
  
  
  
  
2. When switching from the BOTH to the RIGHT position during the pre-takeoff magneto check, the RPM remains the same as it was in the BOTH position. Does this mean that the right magneto is exceptionally good? Why?
  
  
  
  
  
  
  
  
  
  
3. What technique should be used when applying power for takeoff on a gravel runway?
  
  
  
  
  
  
  
  
  
  
4. During a cross-country flight, the engine begins to run rough, indicating possible spark plug fouling. How can this be verified? If there is evidence of a spark plug being fouled, what can be done?
  
  
  
  
  
  
  
  
  
  
5. While in flight, the oil pressure is low, but the oil temperature remains normal. What might be the problem, and what action should be taken?
  
  
  
  
  
  
  
  
  
  
6. If an engine fire develops during flight, what steps should be followed?
  
  
  
  
  
  
  
  
  
  
7. During flight, it is noted that the ammeter needle is pointed toward the negative side. What might this indicate? Can anything be done about this situation?
  
  
  
  
  
  
  
  
  
  
8. What indicates an excessive charging rate? What steps should be used to alleviate the problem?
  
  
  
  
  
  
  
  
  
  
9. Where is the aircraft battery located?

10. What is the voltage of the battery?
  
11. Is it possible for this aircraft to experience fuel line freeze?
  
12. For this problem, use the takeoff distance chart in the Information Manual and the following information:
  - Airplane takeoff weight.....2,000 Lbs.
  - Headwind.....9kts.
  - Pressure Altitude.....4,000 ft.
  - Temperature.....50 degrees F
  - Runway Surface.....Paved

What is the takeoff distance required to clear a 50-foot obstacle?
  
13. What calibrated airspeed is appropriate to the above question?
  
14. If there is a fairly strong crosswind present during takeoff, what technique should be utilized?
  
15. Assuming a cruising altitude of 8,000 feet has been selected. Based on the cruise performance chart, what settings should be used to produce 75% Power, if the temperature is 10 degrees C above standard temperature?
  
16. Suppose the airplane is stalled at maximum takeoff weight with full flaps, 30 degree bank, aft CG, and the power off. What will be the approximate indicated airspeed when the airplane stalls?
17. In what category is this aircraft licensed?
  
18. Describe the procedure to be followed in the event of loss of engine power while leveling at cruise after a prolonged climb?
  
19. If a go-around must be initiated during a full-flap landing, what technique should be used to avoid objects which must be cleared during the go-around?
  
20. Use the landing distance chart and the following data for this problem:
  - Headwind.....18kts.
  - Field Elevation.....2,500 ft.
  - Temperature.....30 degrees C
  - Altimeter Setting.....29.92

Under these conditions, what is the total landing distance required to clear a 50-foot obstacle? What is the indicated airspeed for the approach?

21. Use the basic empty weight derived from the weight and balance data sheet for this aircraft and the following information to answer this question.

Fuel.....Full  
Weight of Pilot and  
Front Passenger.....Use actual weights

What is the loaded weight of the airplane? Where is the CG within the center of gravity envelope?

22. Under 14CFR Part 91, what are the requirements concerning use of supplemental oxygen for crew and passengers?

23. How does the propeller governor operate to regulate engine RPM?

24. What is the relationship between Manifold Pressure and outside air pressure at low power and at high power settings?

25. Describe the flooded-engine start procedure?