Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



**Chesapeake Sport Pilot, LLC**

Cessna 172S G1000 Questionaire

1. List the following speeds (KIAS) and performance numbers:

 VSO \_\_\_\_\_\_\_\_\_\_ Stall Speed Full Flaps

 VS1 \_\_\_\_\_\_\_\_\_\_ Stall Speed Flaps Up

 VX \_\_\_\_\_\_\_\_\_\_ Best Angle of Climb Speed

 VY \_\_\_\_\_\_\_\_\_\_ Best Rate of Climb Speed

 VR \_\_\_\_\_\_\_\_\_\_ Normal Takeoff Rotation Speed

 VFE \_\_\_\_\_\_\_\_\_\_ Flaps >10⁰-30⁰

 VFE\_\_\_\_\_\_\_\_\_\_ Flaps 10⁰

 VA \_\_\_\_\_\_\_\_\_\_ GW 2550 lbs.

 VA \_\_\_\_\_\_\_\_\_\_ GW 2200 lbs.

 VA \_\_\_\_\_\_\_\_\_\_ GW 1900 lbs.

 VNO \_\_\_\_\_\_\_\_\_\_ Normal Operating, Maximum Speed except in Smooth Air

 VNE \_\_\_\_\_\_\_\_\_\_ Never Exceed, Redline Maximum Speed

 **VGlide** \_\_\_\_\_\_\_\_\_\_  **Best Glide Speed**

Maximum Demonstrated Crosswind (knots) \_\_\_\_\_\_\_\_\_\_

Final Approach Speed, Flaps Up \_\_\_\_\_\_\_\_\_ Final Approach Speed, Flaps Down \_\_\_\_\_\_\_\_\_\_

2. What is the Horsepower Rating of the C172S? \_\_\_\_\_\_\_\_\_\_

3. What type and weight oil should be used? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_

4. What happens if the induction air filter becomes blocked?

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. Useable Fuel, Maximum \_\_\_\_\_\_\_\_\_\_ gallons

6. Useable Fuel, tanks filled to bottom edge of filler tab \_\_\_\_\_\_\_\_\_\_ gallons

7. How many fuel sampling points are located on the C172S? \_\_\_\_\_\_\_\_\_

8. How many fuel sampling points should be drained before flight? \_\_\_\_\_\_\_\_\_\_

9. The Fuel Tank Selector shall be in the \_\_\_\_\_\_\_\_\_ position for Takeoff and Landing?

10. Why is the Fuel Tank Selector placed in the Left or Right position on the Securing Airplane

Checklist?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

11. With power settings less than 75%, Mixture should be leaned to what value?

Recommended Lean \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Best Economy \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

12. List when the electric fuel pump should be used.

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\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

13. The airplane has a \_\_\_\_\_\_\_\_\_\_ Volt Electrical System and a \_\_\_\_\_\_\_\_\_ Volt Main Battery.

14. In addition, the airplane has a Standby Battery which serves to power the \_\_\_\_\_\_\_\_\_\_\_\_\_

 bus, if both the Alternator and Main Battery fail.

15. On the Starting Engine Checklist, when the STBY Batt switch is set to the ARM position, the

 \_\_\_\_\_\_\_\_\_\_ Battery is powering the \_\_\_\_\_\_\_\_\_\_\_\_ bus.

16. Later in the same checklist, the Master Switch is turned on. What electrical busses are

 now powered by the Main Battery?

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

17. What items are on the Essential Bus?

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

18. The airplane has how many Avionics Cooling Fans? \_\_\_\_\_\_\_\_\_\_

19. What Warning or Caution Messages could appear on the PFD?

\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_

20. What is KOEL, and what is it used for?

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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21. What is the total distance to clear a 50 foot obstacle, using a Short Field technique?

Maximum Gross Weight, Sea Level, 95⁰ F. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

22. What are the True Airspeed, RPM and Fuel Flow with 75% power at 6000 feet pressure

 altitude, standard temperature? \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_

23. What is Standard Temperature at 6000 feet pressure altitude? \_\_\_\_\_\_\_\_\_\_

24. What is the Maximum Gross Weight for the C172S for Takeoff and Landing? \_\_\_\_\_\_\_\_\_\_

25. Calculate a Weight and Balance with 380 lbs in the front seats, full fuel, and 20 lbs in

 Baggage Area A. Weight \_\_\_\_\_\_\_\_\_\_ C.G. \_\_\_\_\_\_\_\_\_\_

With this loading, if you wanted to add a passenger, what is the

 maximum weight for the passenger in the rear seat? \_\_\_\_\_\_\_\_\_

26. In the example above, what would be the maximum passenger weight in the rear seat if

 the fuel tanks were filled to the bottom of the fuel tank filler tab? \_\_\_\_\_\_\_\_\_\_

27. What happens to pitch control forces and stability as the C.G. moves aft?

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **Weight** **Arm** **Moment**

Empty - N1965H 1757 73,137

Front Seat \_\_\_\_\_\_\_\_ 37 \_\_\_\_\_\_\_\_\_\_

Rear Seat \_\_\_\_\_\_\_\_ 73 \_\_\_\_\_\_\_\_\_\_

Fuel \_\_\_\_\_\_\_\_ 48 \_\_\_\_\_\_\_\_\_\_

Bag Area A\* \_\_\_\_\_\_\_\_ 95 \_\_\_\_\_\_\_\_\_\_

Bag Area B (50 lbs max)\* \_\_\_\_\_\_\_\_ 123 \_\_\_\_\_\_\_\_\_\_

**Total \_\_\_\_\_\_\_\_ \_\_\_\_\_\_C.G. \_\_\_\_\_\_\_\_\_\_**

\*Bag Area A plus Bag Area B (120 lbs max)