BAY AREA AERO CLUB
AIRCRAFT WRITTEN EXAMINATION

Name _____ Membership Number _____
Medical Class and Date _____ BFR Date _____
Make and Model Aircraft _____ Date _____
Corrected by _____

1. What is the total usable fuel capacity?_____
2. What is the required fuel grade? What color? _____
3. What alternate grade(s) and color(s) of fuel are authorized if the above not available? _____
4. What is the oil capacity? _____
5. What is the minimum recommended oil level? _____
6. What is the maximum aircraft gross weight? _____

7. Give the following airspeeds for this aircraft. Indicate whether Kts or mph, IAS or CAS.
   a. Stall speed, full flaps, wings level _____
   b. Stall speed, flaps up, wings level _____
   c. Stall speed, full flaps, 45-bank _____
   d. Stall speed, flaps up, 45-bank _____
   e. Best angle-of-climb airspeed (Vx) _____
   f. Best rate-of-climb airspeed (Vy) _____
   g. Cruise climb airspeed _____
   h. Maneuvering speed (Va) _____
   i. "Normal" approach speed _____
   j. Maximum flaps-extended speed (Vfe) _____
   k. Short-field landing approach speed _____
      i) Short-field landing flap setting _____
   l. Short-field takeoff initial climb speed _____
      i) Short-field takeoff initial flap setting _____
   m. Airspeed for best glide _____
   n. Maximum crosswind component _____

8. What is the endurance at 65% power (no reserve, 7500 feet) _____
9. What are the required takeoff and landings distances for maximum gross weight, no wind:
   a. Sea level, std temp, ground roll 1. takeoff _____ 2. landing _____
   b. 5000 ft, 80 deg F, 50-ft obstacle 1. takeoff _____ 2. landing _____

10. What are the power setting, fuel consumption and true airspeed for the following conditions?
    a. 65% power, 7500 feet, STD temp
       MP/RPM _____ TAS _____ Fuel consumption _____
    b. 75% power, 3000 feet, STD temp
       MP/RPM _____ TAS _____ Fuel consumption _____

11. Where are the fuel drains located?_____

12. What is the recommended oil viscosity? _____

13. Describe the procedure for leaning the mixture. _____

14. How do you detect carburetor ice? What corrective action should you take in case of carburetor ice?

15. Certain Club airplanes have tabs in the fuel tanks to facilitate partial fuel loads. Does this airplane have tabs? If so, what is the fuel capacity when filled to the tabs?

16. Does this airplane have an auxiliary fuel pump? If so, when is it used?

17. Use the space below to perform a weight and balance calculation, using full fuel and oil, your weight for the pilot and a 170-pound passenger in each additional seat. Are you within limits? If not, what must you delete or shift to fall within limits? Also figure weight and balance with one hour fuel remaining.

The following questions apply only to complex/high performance airplanes.

18. What is the procedure for starting a cold engine?

19. What is the procedure for starting a hot engine?

20. What is the recommended climb power setting (MP/RPM)? What mixture setting (fuel flow) should be used?

21. Fill in the blanks with either "MP" (manifold pressure) or "RPM" as appropriate:
    To increase power, first increase _____, and then increase _____
    To decrease power, first decrease _____, and then decrease _____

22. What are the maximum airspeeds for gear retraction, gear extension, and with gear down-and-locked?

23. Describe the type of landing gear system on this aircraft.

24. What are the indications if the landing gear is not "down-and-locked"?

25. What is the procedure for emergency gear extension?

26. When must the cowl flaps be open? When should they be closed? What engine instrument should you monitor to determine whether the cowl flaps might be opened?