Student Name:_____ Date:_____

Instructor:_____ Reviewed and corrected to 100%

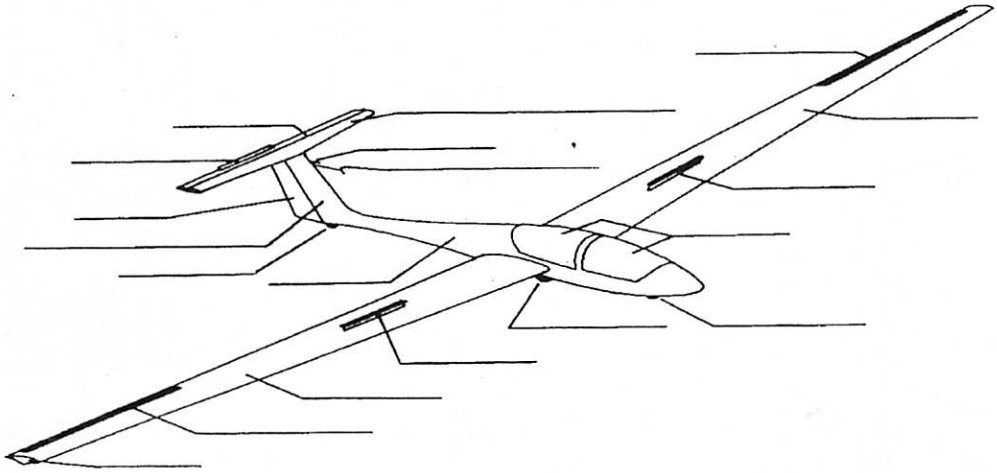
2018 Version

Written Quiz #1

Aerodynamics & Nomenclature

1. Name the parts of the glider indicated by the arrows-

   Please note, the G-103 is pictured because the Academy Text is based on this glider, not the L-23 or 2-33

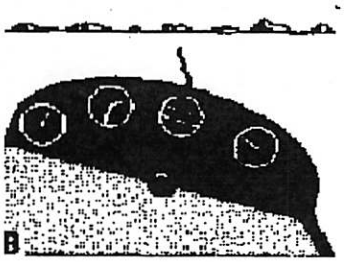


2. Why does an aircraft have the following controls?
   a. Ailerons
   b. Elevator
   c. Rudder
3. What does a wing do?
4. What is angle of attack?

5. Name three things that happen when the angle of attack is changed.
   a.
   b.
   c.
6. How tight should your seat belts be?
7. Where is the release knob?

8. What color is the release knob?
9. What control is used to change the airspeed?
10. Why does a glider have a yaw string?

11. In the following drawing, which rudder pedal should be pressed to straighten the yaw string?



12. Before making a turn, a pilot must:

13. <u>While</u> making a turn, you should be looking:

14. <u>What</u> turns a glider?

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Written Quiz #2
Stability & Turns

1. Name the three axis of a glider:
   a. _____
   b. _____
   c. _____

2. When the glider moves or rotates about an axis, it rotates about the:
   _____ ____ _____

3. The fuselage tends to fly streamlines through the relative airflow because of the _____ effect, and thus is stable about the _____ axis.

4. The glider tends to fly with the wings level because the wings are mounted on the fuselage at an angle called _____.

5. When a pilot "flies" the aircraft, he or she is only controlling three things. They are:
   a. _____
   b. _____
   c. _____

6. The glider tends to fly at a steady airspeed because of a balancing act between gravity acting at the gliders center of gravity, the wing lift acting at the center of pressure, and the DOWNWARD force created by what surface?

7. In a steady shallow turn, the pilot will need to hold some aileron pressure (into or against) the turn because of the _____tendency.

8. In a steady steep turn, the pilot will need to hold some aileron pressure (into or against) the turn because of the _____ tendency.

9. In all steady turns, a small amount of _____ pressure will be needed in the direction of the turn.

10. During a steady turn, if the bank angle and airspeed are correct, but the yaw string is not straight, the _____ should be used to make a correction.

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Written Quiz #3
Forward Stalls

1. What is a stall?
   ___ When an airfoil stops flying.
   ___ When an airfoil stops producing lift.
   ___ When the critical angle of attack of an airfoil is exceeded.
   ___ When the airspeed is too slow.

2. The primary purpose of stall training is recognition of the signs of an approaching stall. There are six signs of an impending stall. Name all six in the order they occur.

   a.
   b.
   c.
   d.
   e.
   f.

3. Where on the wing of a glider does the stall first occur? Why is the glider designed this way?

4. When the wing stalls, the glider's nose pitches down. Why?

5. What is the minimum stalling speed of the L-22 or SGS 2-33
   Dual_____Kts Solo_____Kts

6. Name six factors that will increase a glider's stall speed.

   a.
   b.
   c.
   d.
   e.
   f.

7. How is a recovery made from a forward stall?

8. If a wing begins to 'drop' during a forward stall entry, how should that wing be picked up? Why should the controls be used as you have stated?

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Written Quiz #4
Preflight Inspection

1. How can you be sure that the controls are working properly before you fly?

2. Who is responsible for the proper completion of a preflight inspection?

3. How do you tell the difference between a castellated nut and a self locking nut?

4. What are some signs of hinge damage?

5. What should the tow release be checked for?

6. How many control connections are on an L-23 or 2-33?

7. How many wing connection fittings are there on a L-23 or 2-33?

8. What should a student pilot do if evidence of damage or wear is found during preflight?

9. What documents are required in the aircraft?

10. Do YOU need ballast when flying L-23, 2-33 from the front seat? How much?

11. What should the pitot tube be checked for?

12. What damage might you expect to find on glider that has been badly ground looped?

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Written Quiz #5
The TLAR Landing Method

1. What is the dive break open glide ratio of the L-23/ 2-33?

2. What is the maximum glide ratio of the L-23/ 2-33?

3. Below 1,000 feet AGL a pilot should never…?

4. How do you estimate that you are at the proper altitude at the I.P.?

5. What is the Pre-Landing checklist?

6. What is the primary judgment decision to be made during the downwind leg?

7. What two checkpoints are used during the down wing leg?

8. What should you do if you experience excessive sink during the down wind leg?

9. What should you do if you experience lift during the down wind leg?

10. How should your turn onto base leg be made?

11. Where should you be looking during your turns?

12. Upon completion of the turn onto base leg you realize that you are high. What should you do?

13. You are high on base leg, ready to turn onto final and realize that you are too high. There is one type of maneuver that should be avoided. What is it?

14. On final, it is important to maintain a constant _____ with the _____ and to freeze a 'spot' on the canopy with the _____.

15. On final you realize that you are above the maximum possible glide slope to your intended touch down point. You should:

16. True or False: The landing pattern is a tool for planning an approach to landing, but can be modified or abandoned in order to make a safe landing.

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Written Quiz #6
Turning Stalls

1. Turning stalls are most dangerous when close to the ground. Why?

2. Name the three occasions when turning stalls are most likely to occur?

   a.
   b.
   c.

3. A turning stall is most dangerous when entered from:

   a. a shallow turn.
   b. a medium turn.
   c. a steep turn.

4. What is the step-by-step recovery from a turning stall?

5. The one important control movement NOT to do during the first steps of a turning stall recovery is:

   a. Apply opposite aileron pressure.
   b. Apply opposite rudder pressure.
   c. Apply forward stick pressure.
   d. Neutralize aileron pressure

6. From the standpoint of turning stall prevention, the safest turn to make when close to the ground is a:

   a. Shallow (10° bank) turn.
   b. Medium (20° to 30° bank) turn.
   c. Steep (45° bank) turn.

7. How are turning stalls close to the ground prevented?

8. Because of the increased risk of stalling, how should the landing pattern be flown in windy, turbulent conditions?

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Written Quiz #7
Spins and Spiral Dives

1. What is the primary indication of a spin or spiral dive?

Symptom	Spin	Spiral Dive
Speed		
Yaw string		
Noise		
G forces		

2. Name three places an accidental spin would most likely occur.

   a.
   b.
   c.

3. Describe the standard spin recovery technique.

4. How does the Center of Gravity location affect the spinning characteristics of a glider?

5. From the standpoint of spins, which is more dangerous: a slipping turn or a skidding turn? Why?

6. What it the spiral dive recovery technique?

7. If a spiral dive is permitted to continue, what is most likely to happen?

8. During a spiral dive recovery, you find yourself above Va speed. How should the controls be used?

9. During a spiral dive recovery, you find yourself at Vne speed. What should you do?