

**HANG GLIDING**

**A - CLASS THEORY TEST**

**Pilot's Name (Capitals): …………………………………………………….**

**Examiner's Name: …………………………………………………………...**

**Instructor's Licence No: ……………………………………………………**

**Date Written: ………………………………………………………………….**

**Date Marked: ………………………………………………………………….**

**MARKS**

**A B C**

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**20 20 42 82**

Pass Mark = 85%

**NOTES:**

*Please answer concisely. The test answers must be your own effort and should not be copied from others!*

*Draw sketches where required (distinguish between describe and/or illustrate). Where sketches are provided, write/draw answers on them. The test can be completed online and then printed to finish the drawings/illustrations and hard copy to be submitted to your instructor. If written, please write legibly.*

**SECTION A:** METEROROLOGY AND AIRFLOW

1. What conditions can be expected near dust devils? (2)

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1. What conditions would you expect flying in a berg wind? (2)

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1. What are three primary causes of turbulence? (3)

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4. What is cloud suck and what causes it? (2)

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5. Which major factors work to produce the greatest ridge lift components (4)

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1. How many times greater is the force of a 20kph wind in relation to a 10 kph wind? (1)

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1. Illustrate how turbulence is created and dissipated behind another aircraft. (2)

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1. Under what circumstances could you safely turn downwind and fly behind a ridge (2)

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1. What are the dangers associated with flying in the vicinity of or below a thundercloud? (2)

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Section Total= [20]

**SECTION B:** GLIDER STRUCTURE

1. Illustrate the following wing features:
2. Camber
3. Chord
4. Anhedral & Dihedral (4)

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1. What are the effects of anhedral and dihedral? (2)

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1. What is the effect of over tightening structural bolts? (1)

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1. What is the effect of: (2)
2. Bowing one leading edge more than the other?

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1. Bowing both leading edges down excessively?

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1. What possible structural causes can there be for a glider to pull to the left? (2)

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1. What precautions should you take when installing a camera on the glider nose or wingtip?

How would such precautions affect performance and handling? (3)

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1. What is the effect of reducing the camber in performed battens? (3)

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1. What dive recovery and pitch stability features are built into glider designs? (2)

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1. How can wider wingspans influence glider response or handling? (1)

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Section Total [20]

**SECTION C:** FLYING SKILLS AND AIRMANSHIP

1. Describe how to execute a good 360degree turn. (2)

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1. Describe the correct take-off technique from a cliff in: (4)
2. Light wind

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1. Strong wind

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1. Describe and illustrate ground effect. (3)

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1. Describe and illustrate the execution of a good top landing. State the precautions to be

taken. (3)

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1. Describe and illustrate the correct approach pattern from a position high over the landing

field. (3)

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1. Explain the procedures for a forced landing in water (6)

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1. Which way must you turn if you enter a thermal which is: (2)
2. being worked by a glider above you

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1. being worked by a glider below you

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1. If you are circling in a thermal and another below you is climbing rapidly towards you,

what action must you take? (1)

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1. Describe the possible handling differences when upgrading to a higher performing glider (6)

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1. Why would you not fly a Mylar glider in rain with reverence to airflow over the wing and associated handling? (4)

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1. What are the four most important steps in parachute deployment? (4)

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1. Under what circumstances would you deploy your parachute? (3)

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1. How often should your parachute be repacked? (1)

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Section Total [42]

**Grand Total= 82**