

Aviation Meteorology

Microlight Pilot Certificate Examination

Sport
Aviation
Corp Ltd

Question Booklet

Sample Examination

Sport Aviation Corp Ltd

A CAA Certified Part 149 Organisation

www.sportflying.co.nz

Introduction

Suggest Time: Forty Minutes
Questions: 15 multiple choice
Pass Standard: 70% (11 correct answers)
Special Instructions: Please do not mark this examination question booklet

This exam contains 15 questions and has a recommended sitting time of 40 minutes. The actual qualifying exam has 25 multiple choice questions and a maximum sitting time of 1 hour

Required Resources:

An AIP New Zealand Volume IV may be referred to at any time during this exam.

Appendices:

The following appendices are included at the rear of the Answer Booklet and should be used to assist answering questions in this examination. You may write on the Appendices, but must return them with the Examination and Answer Booklets at the end of the examination.

Appendix A: ARFORs and Met Information obtained from an Internet Weather Briefing Website [Extract]

Today's Flight:

- ✓ For today's exam you will be flying from Rotorua Airport, to Hamilton Airport.
- ✓ It is June, and New Zealand is not on Daylight Saving Time.

Examination Questions

1. Before you leave home you check the weather on the internet. What is the official website for obtaining aeronautical weather?

- A) IFIS (Airways Corporation)
- B) MetFlight
- C) MetVuw
- D) NZ Met Service Website

2. While you read the morning's newspaper you study the long range forecast. Weather maps often show the air pressure. Lines that join areas of equal air pressure are known as...

- A) Isogonals
- B) Isotherms
- C) Isobars
- D) Isometrics

3. Later today, the weather is forecast to deteriorate. The weather forecast in Appendix A indicates which of the following weather system is most likely approaching?

- A) A warm front
- B) A cold front
- C) An anticyclone
- D) A foehn wind

4. TAF reports show the forecast conditions for a given period of time. When is the Rotorua TAF report valid for?

- A) 7:00am to 5:00pm NZST, on the 6th day of the month in NZ
- B) 7:00am to 5:00pm NZST, on the 7th day of May
- C) 7:17am to 8:05pm NZST, on the 7th day of the month in NZ
- D) 5:00am to 5:00pm NZST, on the 8th day of the month in NZ

5. After 4pm today, what weather would you expect at Hamilton?

- A) Rain showers
- B) Light rain showers
- C) Heavy rain, with gusts and squalls
- D) Heavy rain, with hail

6. At what time were the METAR reports issued?

- A) 07:20am NZST
- B) 07:20 UTC
- C) 8:00am NZST
- D) 8:00am UTC

7. What are the current cloud conditions at Hamilton?

- A) Overcast, ceiling 2,000 feet AGL
- B) Overcast, ceiling 2,000 feet AMSL
- C) Overcast, ceiling 200 feet AGL
- D) Overcast, ceiling 200 feet AMSL

8. There is thick fog at Hamilton still. Which of the following conditions is most likely to cause fog to form?

- A) Temperature and Dewpoint close together
- B) Low QNH
- C) Light winds
- D) Cold Temperature, but not quite freezing

9. You make your way to Rotorua airport and talk to a local pilot who has just returned, complaining it was very cold in his open-cockpit microlight. At 2,000 feet AGL, what would the air temperature have been?

- A) -1°C
- B) 0°C
- C) 2°C
- D) 4°C

10. You plan to leave Rotorua at 9.00am local time, and the flight should take you less than one hour. What will be the minimum visibility you would expect to encounter?

- A) 8KM
- B) 10KM
- C) 15KM
- D) 20KM

11. In addition to visibility, cloud is another important weather factor to consider. The Area forecast (ARFOR) for Te Kuiti is forecasting scattered cumulus cloud at 2,500 feet. The height of 2,500 feet is given above reference to what point?

- A) Sea Level
- B) Ground Level
- C) The Aerodrome Level of Te Kuiti airfield
- D) The terrain in the area

12. You decide the weather is good enough for you to depart to Hamilton. When you arrive at Hamilton, which runway would you expect to land on?

- A) 07
- B) 18
- C) 25
- D) 36

13. You depart Rotorua with a westerly headwind. You cross the Mamaku Hill Range which runs North/South. Where would you expect the most orographic cloud to be?

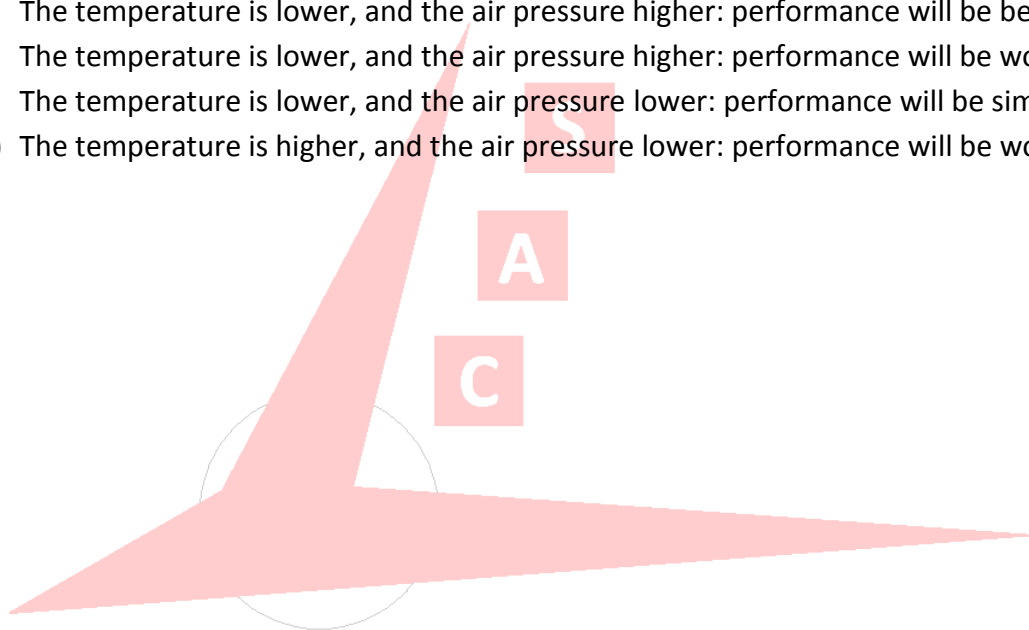
- A) Western side
- B) Eastern side
- C) Above the hills
- D) 5-10nm downwind of the hills

14. As you approach the Mamaku Hill Range, where would you expect to encounter the most turbulence?

- A) Western side
- B) Eastern side
- C) Above the hills
- D) At higher altitudes

15. You stop at a small airstrip on the way to Hamilton. The weather can have a large affect on your aircraft's take off performance. Comparing conditions to the ISA Standard day helps you predict your aircraft's performance. How do today's conditions compare to those of the ISA day?

- A) The temperature is lower, and the air pressure higher: performance will be better
- B) The temperature is lower, and the air pressure higher: performance will be worse
- C) The temperature is lower, and the air pressure lower: performance will be similar
- D) The temperature is higher, and the air pressure lower: performance will be worse



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Instructions

Please read the following instructions and sign below before commencing the examination. Time taken completing this page is not included in the allocated time for the examination.

This exam contains 15 questions and has a recommended sitting time of 40 minutes. The actual qualifying exam has 25 multiple choice questions and a maximum sitting time of 1 hour

The suggest sitting time is forty minutes. There is no additional reading time allocated at the start of the examination.

Applicants should answer all fifteen questions. All questions are 'multiple choice'. Read the question and select the correct answer. Indicate your choice of answer by placing a ✖ in the appropriate box on the next page of this Answer Booklet.

Please use a blue or black ink pen. Do not use pencil, or red or green pen. The required pass standard is 70% which requires you to correctly answer at least 11 questions. Applicants will be notified of their result in writing.

At the end of this examination, please hand this completed Answer Booklet, including all appendices with your Examination Question Booklet to the supervisor. Please do not mark or write on the Examination Question Booklet. Failure to return all these documents will result in your examination grade being withheld. The Examination Question Booklet and Answer Booklet are the property of Sport Aviation Corp Limited, and are protected by copyright.

During this examination, you may not communicate with any other persons except the examination supervisor, copy from another applicant, refer to unauthorised material, or remove any examination material from this room. You may refer to an AIP NZ Volume IV at any time during this examination.

By signing below, you agree to abide by the examination instructions detailed above. It is an offence to breach these instructions under CAR Part 61.19 and sanctions are enforceable for such breaches.

Signature: _____

Date: _____

Answer Sheet

	A	B	C	D
Question One	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Question Two	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Question Three	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Question Four	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Question Five	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Question Six	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Question Seven	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Question Eight	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Question Nine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Question Ten	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Question Eleven	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Question Twelve	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Question Thirteen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Question Fourteen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Question Fifteen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Question Sixteen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Question Seventeen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Question Eighteen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Question Nineteen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Question Twenty	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Question Twenty-One	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Question Twenty-Two	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Question Twenty-Three	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Question Twenty-Four	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Question Twenty-Five	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Administration Use

Name: _____

SAC Client ID: _____

Examination Subject:

 Meteorology

Paper Version:

 Sample

Marker's Name: _____

Answers Correct:

Result:
 PASS RESIT

Appendix A: Weather reports obtained from the internet [Extract]

ARFOR LISTINGS

NOTE: ALL HEIGHTS IN FEET AMSL (WIND:TRUE/SPEED:KNOTS)
CLOUD AMOUNTS: FEW 1-2/8 SCT 3-4/8 BKN 5-7/8 OVC 8/8

TK (Te Kuiti): issued 07-18:24 UTC valid 1800 to 0200 UTC

1000 24005
3000 23020
5000 23025 PS01
7000 24030 MS02
10000 24050 MS09
FZL 9,000FT LOWERING TO 6,500FT BY 00Z
VIS 40KM RED TO 8000M IN SHRA
CLD AREAS SCT CUSC 2500 TOPS 8000, BECMG BKN BASE LOWERING 1400
IN PRECIP
WX ISOL AREAS OF MORNING FG
RA SPREADING FROM THE SOUTHWEST LATE MORNING

TAF LISTINGS

NOTE: ALL HEIGHTS IN FEET ABOVE AD LEVEL (WIND:TRUE/SPEED:KNOTS)

ROTORUA (NZRO)

TAF NZRO 071706Z 0717/0805
27012KT 20KM SCT030
BECMG 0722/0801 15KM BKN020 +SHRA
2000FT WIND 23020KT
BECMG 1004/1006 21030KT

HAMILTON (NZHN)

TAF NZHN 071708Z 0717/0805
28005KT 0200 FG BKN001
BECMG 0719/0720 20KM SCT025
BECMG 0720/0802 22015KT 10KM BKN020 -SHRA
TEMPO 0804/0805 6000 +RAGS BKN012
2000FT WIND 23020KT

METAR LISTINGS

NOTE: ALL HEIGHTS IN FEET ABOVE AD LEVEL (WIND:TRUE/SPEED:KNOTS)

ROTORUA (NZRO)

METAR 072000 AUTO 26003KT 21KMNDV // SCT024/// 06/MS01 Q1016

HAMILTON (NZHN)

METAR 072000 AUTO VRB02KT 3000NDV FG OVC002 03/03 Q1014