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Instrument Rating Airplane

FAA written exam study guide



Sample only Not the full guide, and not for sale.

The full version can be ordered from the PilotTestQA store.

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Cockpit photograph by Rhys Abel

How to use this guide

The Instrument Rating Airplane (IRA) test is required before you can add an instrument rating to your pilot certificate. The rating allows you to fly under instrument flight rules and in weather below VFR minimums.

The full IRA test contains 60 questions from a databank of 1,552 questions. You are allowed 2 hours for the exam and a score of 70% or better is required to pass. With this study guide, a score of 90% or better while completing the exam within 20-30 minutes is easily achievable.

This study guide is divided into four parts.

PART 1

Part 1 has the questions with only the correct answer shown. It is highly recommended you spend the most time on this section. The trick to passing any FAA written exam is rote memorization of the questions and answers. You will learn the fundamentals and principles of all the material later during ground school and self-study lessons. For now, your main focus is to score as high as possible on the IRA exam. The best way to prepare for the written exam is by reading the question and then the correct answer, then moving on to the next question and answer, repeating this process until you've read all of the questions and their correct answers. The idea in doing this is to allow your brain/eyes to associate the correct answer to each question. After you've read through this section several times, you will begin to identify certain key words in both the question and answer which starts making the answers easier to identify.

PART 2

Part 2 has the questions with all three possible answer choices shown. It is recommended you only study this section after you have studied Part 1 enough times to build your memory for identifying the correct answer. You can use this section to give yourself random quizzes to see how well the correct answer "stands out" from the wrong answers.

PART 3

Part 3 has the questions with all three possible answer choices shown and the correct answer is highlighted. You can use this section by having a second person read random questions to you along with the answer choices and they will easily be able to see whether or not you were correct.

PART 4

Part 4 has the images/graphics that accompany the test questions. Some of these graphics may appear to be of low quality, however they are the exact images (resolution and quality) that will be provided to you on the exam.

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Part 2 Questions with all three answer choices

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Part 3 All three choices, correct answer highlighted

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Part 4
Figures and diagrams >

This is a sample. It does not include all of the questions and answers in the full version of this study guide.

Order the full guide

Part 1

Read the question, then the correct answer, and move on. Repeat until the answer comes with the question.

Aerodynamics and Aircraft

01

You are planning an IFR flight and need to verify the VOR equipment operational check was accomplished within the preceding

CORRECT ANSWER

A 30 days

02

What should be the indication on the magnetic compass as you roll into a standard-rate turn to the right from an easterly heading in the Northern Hemisphere?

CORRECT ANSWER

B The compass will indicate the approximate correct magnetic heading if the roll into the turn is smooth.

FARs

03

A coded transponder with altitude reporting capability is required for all controlled airspace

CORRECT ANSWER

C at and above 10,000 feet MSL (excluding airspace at or below 2,500 feet AGL)

04

Which flight time may be logged as instrument time when on an instrument flight plan?

CORRECT ANSWER

A Only the time you controlled the aircraft solely by reference to flight instruments.

General

05

If the RVR is not reported, what meteorological value should you substitute for 2,400 RVR?

CORRECT ANSWER

B A ground visibility of 1/2 SM

06

All pilots should use the local altimeter setting because it provides

CORRECT ANSWER

C data to enable better vertical separation of aircraft.

07

(Refer to figure 136.) Which illustration depicts an "on glidepath" indication?

CORRECT ANSWER

C 10

IFR and Navigation

08

If a pilot elects to proceed to the selected alternate, the landing minimums used at that airport should be the

CORRECT ANSWER

C minimums specified for the approach procedure selected

09

What point should be used to compute estimated time en route on an IFR flight plan?

CORRECT ANSWER

C The point of first intended landing.

Weather

10

A characteristic of the stratosphere is

CORRECT ANSWER

A relatively small changes in temperature with an increase in altitude.

11

The average height of the troposphere in the middle latitudes is

CORRECT ANSWER

B 37,000 feet

12

(Refer to figure 13.) How will the aircraft in position 4 be affected by a microburst encounter?

CORRECT ANSWER

B Performance decreasing with a tailwind and downdraft.

Weight and Balance / Performance

13

The rate of descent required to stay on the ILS glide slope

CORRECT ANSWER

C must be decreased if the ground speed is decreased.

14

To remain on the ILS glidepath, the rate of descent must be

CORRECT ANSWER

A increased if the ground speed is increased

Part 2

All three choices. The correct one is not marked. Use this after Part 1.

Aerodynamics and Aircraft

01

You are planning an IFR flight and need to verify the VOR equipment operational check was accomplished within the preceding

A 30 days

B 30 days or last 30 hours of flight time.

C 30 days or last 10 hours of flight time.

02

What should be the indication on the magnetic compass as you roll into a standard-rate turn to the right from an easterly heading in the Northern Hemisphere?

A The compass will remain on east for a short time, then gradually catch up to the magnetic heading of the aircraft

B The compass will indicate the approximate correct magnetic heading if the roll into the turn is smooth.

C The compass will initially indicate a turn to the left.

FARs

03

A coded transponder with altitude reporting capability is required for all controlled airspace

A below 14,500 feet MSL.

B above 12,500 feet MSL (excluding airspace at or below 2,500 feet AGL)

C at and above 10,000 feet MSL (excluding airspace at or below 2,500 feet AGL)

04

Which flight time may be logged as instrument time when on an instrument flight plan?

A Only the time you controlled the aircraft solely by reference to flight instruments.

B All of the time the aircraft was not controlled by ground references.

C Only the time you were flying in IFR weather conditions.

General

05

If the RVR is not reported, what meteorological value should you substitute for 2,400 RVR?

A A ground visibility of 1/2 NM

B A ground visibility of 1/2 SM

C A slant range visibility of 2,400 feet for the final approach segment of the published approach procedure.

06

All pilots should use the local altimeter setting because it provides

A an accurate indication of pressure altitude.

B correct indications of altitude above ground level

C data to enable better vertical separation of aircraft.

07

(Refer to figure 136.) Which illustration depicts an "on glidepath" indication?

A 11

B 8

C 10

IFR and Navigation

08

If a pilot elects to proceed to the selected alternate, the landing minimums used at that airport should be the

A minimums shown for that airport in a separate listing of "IFR Alternate Minimums."
B alternate minimums shown on the approach chart.
C minimums specified for the approach procedure selected

09

What point should be used to compute estimated time en route on an IFR flight plan?

A The initial approach fix on the expected instrument approach.
B The final approach fix on the expected instrument approach.
C The point of first intended landing.

Weather

10

A characteristic of the stratosphere is

A relatively small changes in temperature with an increase in altitude.
B an overall decrease of temperature with an increase in altitude.
C a relatively even base altitude of approximately 35,000 feet.

11

The average height of the troposphere in the middle latitudes is

A 20,000 feet
B 37,000 feet
C 25,000 feet.

12

(Refer to figure 13.) How will the aircraft in position 4 be affected by a microburst encounter?

A Performance increasing with a tailwind and updraft.

B Performance decreasing with a tailwind and downdraft.

C Performance decreasing with a headwind and downdraft.

Weight and Balance / Performance

13

The rate of descent required to stay on the ILS glide slope

A must be increased if the ground speed is decreased.

B will remain constant if the indicated airspeed remains constant.

C must be decreased if the ground speed is decreased.

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Figure 13

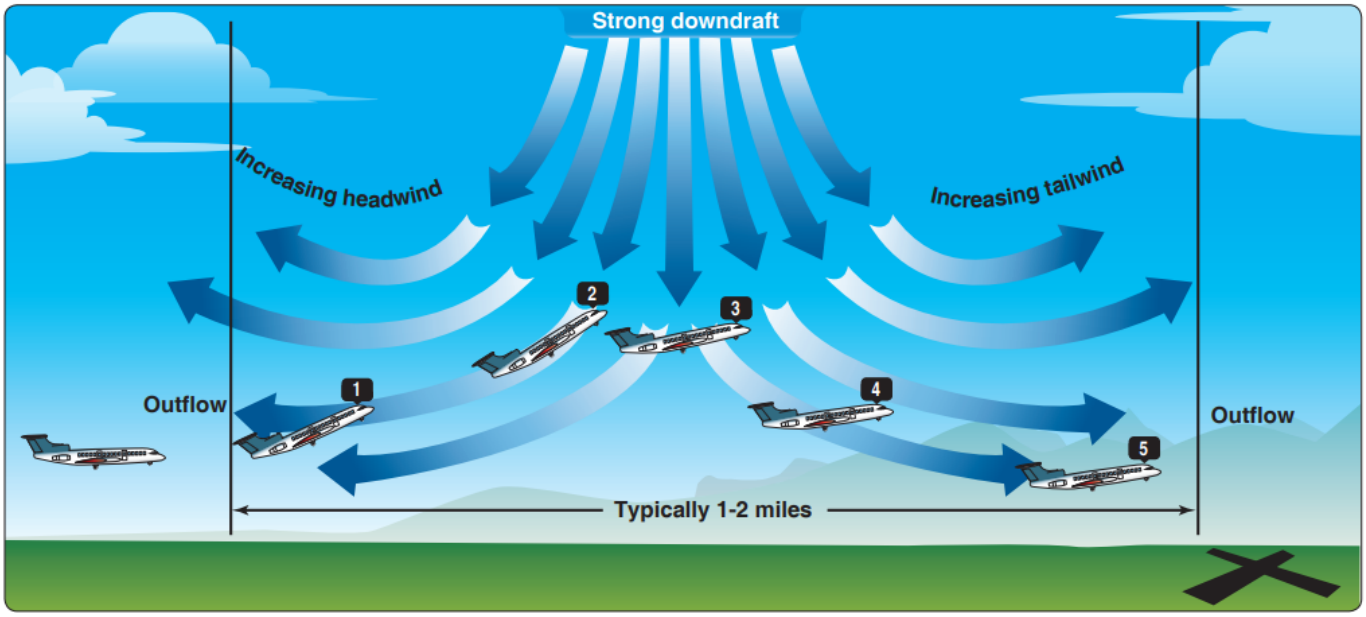


FIGURE 13.—Microburst Section Chart.

Figure 136

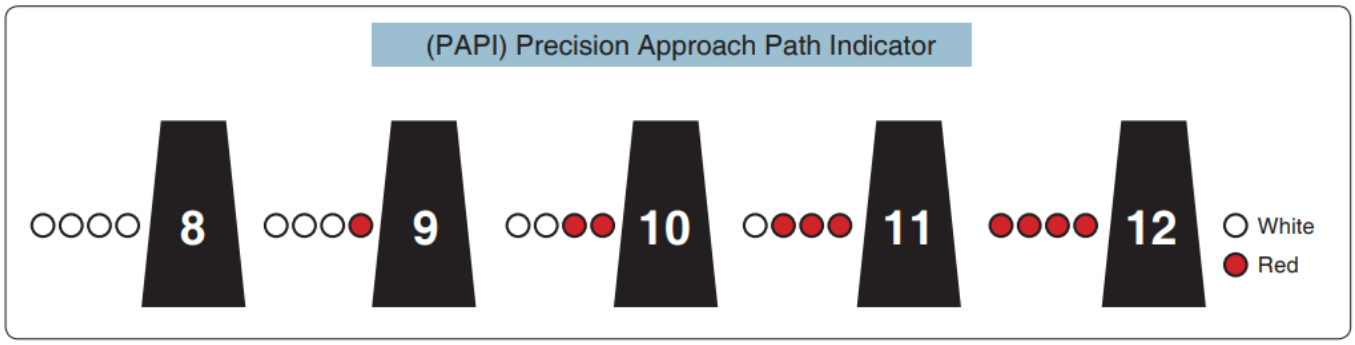


FIGURE 136.—Precision Approach Path Indicator (PAPI).