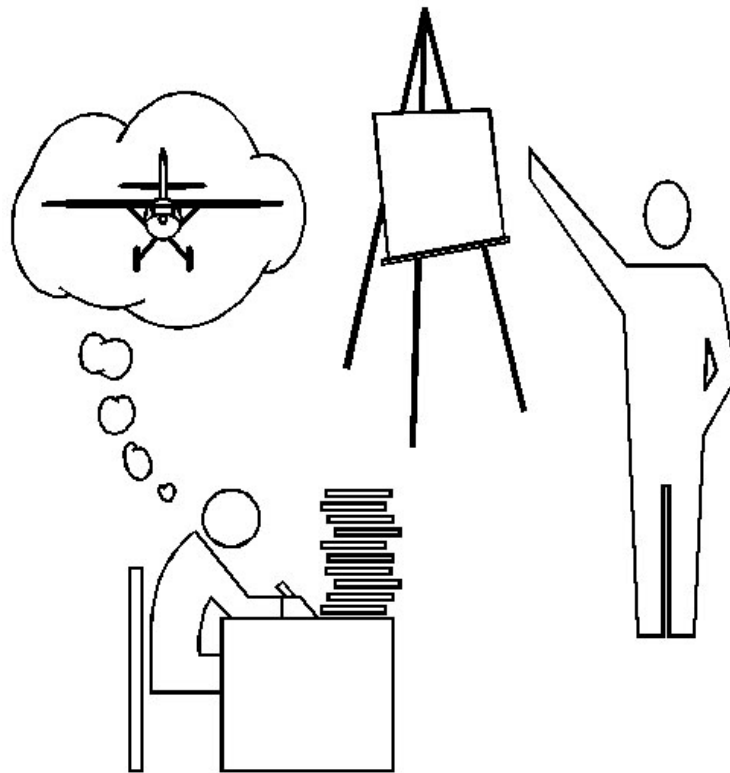


# FLIGHT AND GROUND INSTRUCTOR KNOWLEDGE TEST GUIDE



August 2012



U.S. Department of Transportation  
Federal Aviation Administration



## INTRODUCTION

FAA-G-8082-7G, Flight and Ground Instructor Knowledge Test Guide, provides information for preparing you to take one or all of the following airman knowledge tests. This document supersedes FAA-G-8082-7F, dated February 2012.

TEST NAME	TEST CODE
Fundamentals of Instructing	FOI
Ground Instructor Basic	BGI
Ground Instructor Advanced	AGI
Flight Instructor Airplane	FIA
Flight Instructor Rotorcraft Helicopter	FRH
Flight Instructor Rotorcraft Gyroplane	FRG
Flight Instructor Glider	FIG
Flight Instructor Airplane (added rating)	AFA
Flight Instructor Helicopter (added rating)	HFA
Flight Instructor Gyroplane (added rating)	GFA
Flight Instructor Glider (added rating)	AFG

Federal Aviation Administration (FAA) airman knowledge tests are effective instruments for aviation safety and regulation compliance measurement. However, these tests can only sample the vast amount of knowledge every pilot needs to operate safely in the National Airspace System (NAS).

Comments may be e-mailed to [AFS630Comments@faa.gov](mailto:AFS630Comments@faa.gov).

## KNOWLEDGE TEST ELIGIBILITY REQUIREMENTS

The general qualifications for an Airline Transport Pilot, Aircraft Dispatcher, or Flight Navigator Certificate require that you have a combination of experience, knowledge, and skill.

Title 14 of the Code of Federal Regulations (14 CFR) part 61 requires that pilots must be able to read, write, speak, and understand the English language. If you cannot meet these requirements of English fluency, an airman certificate cannot be issued. For medical reasons, an appropriate limitation may be placed on the certificate.

You must pass the Fundamentals of Instructing Knowledge Test and a Flight or Ground Instructor Knowledge Test specific to the instructor rating sought. You may take these tests on the same day, and you do not have to take them in any particular order.

When applying for any additional instructor rating, you are not required to take the Fundamentals of Instructing Knowledge Test again. Once you have acquired a Flight Instructor Certificate, you are eligible to give ground instruction required for a Pilot or Instructor Certificate or rating, based on the ratings on your Flight Instructor Certificate. Because of this, it is not necessary to obtain a separate Ground Instructor Certificate since you would already have these privileges.

For a summary of knowledge test eligibility requirements for all certification areas listed above, refer to the FAA Airman Knowledge Testing Authorization Matrix located at:

[http://www.faa.gov/training\\_testing/testing/airmen/media/testing\\_matrix.pdf](http://www.faa.gov/training_testing/testing/airmen/media/testing_matrix.pdf)

## ROLE OF THE INSTRUCTOR

All pilot training is directed toward developing safe and competent pilots. The more complete a student understands of theory and principles, the easier it will be for that student to become a safe and competent pilot. It has long been recognized that flight and ground instruction go hand in hand. Each complements the other, resulting in a training program that is both meaningful and comprehensive.

Generally, pilots learn by one of two methods. Some learn by memorization while others acquire knowledge and understanding of basic procedures and techniques and apply these to various piloting operations. The latter method of learning is, by far, more effective. Effective pilot training is based on the knowledge and understanding of principles, along with skills that are essential to flight safety.

The keystone of the present-day training concept is the flight instructor—a professional who should assume full responsibility for all phases of a student pilot's flight and ground instruction. A flight instructor must first be fully qualified as a pilot. In addition, a successful instructor must meet qualifications far beyond those required for certification as a pilot. An instructor must have a thorough understanding of how learning occurs, and how to apply teaching methods that best foster learning. The most important factor is the instructor's own attitude toward instruction that determines the effectiveness of the teaching method. By understanding the teaching and learning processes, instructors will be better qualified to produce pilots who are able to operate safely within the National Airspace System (NAS).

## KNOWLEDGE AREAS ON THE TESTS

Flight and Ground Instructor Knowledge tests are comprehensive because they must test your knowledge in many subject areas. These include all aeronautical knowledge areas required for a Private and Commercial Pilot Certificate, as well as those required for a Flight or Ground Instructor Certificate. When applying for any Flight or Ground Instructor Knowledge Test, you should review the appropriate sections of 14 CFR part 61 for specific knowledge areas on each test.

Flight instructors should be knowledgeable of not only what to do and how to do it, but also why a maneuver is performed and what common errors result if the maneuver or procedure is not performed properly. Ground instructors should also be knowledgeable of all subjects; however, they would not be expected to understand evaluating pilot performance of maneuvers and analyzing common errors.

It is generally accepted that a pilot with much knowledge, but little skill, is not adequately equipped to fly an aircraft. Neither is the pilot who is skillful in the manipulative techniques of flying, but lacks aviation knowledge.

## DESCRIPTIONS OF THE TESTS

If you are pursuing initial flight or ground instructor certification, you must successfully complete the Fundamentals of Instructing Knowledge Test. However, if you hold a current teacher's certificate at the junior or senior high school level, or you are an instructor at a college or university, you can receive credit for this test. This test contains 50 questions, and you are allowed 1 hour and 30 minutes to complete the test. **The minimum passing score is 70 percent.**

In addition, you must successfully complete a knowledge test appropriate to the desired rating. The following tests each contain 100 questions (except for Ground Instructor—Basic, which contains 80 questions), and you are allowed 2 hours and 30 minutes to complete each test.

- Ground Instructor—Basic
- Ground Instructor—Advanced
- Flight Instructor—Airplane
- Flight Instructor—Helicopter
- Flight Instructor—Gyroplane

- Flight Instructor—Glider

If you desire to add a rating to your Flight Instructor Certificate, you must successfully complete a knowledge test, if required, appropriate to the desired rating.

The following tests each contain 25 questions, and you are allowed 1 hour to complete each test.

- Flight Instructor—Airplane—Added Rating
- Flight Instructor—Helicopter—Added Rating
- Flight Instructor—Gyroplane—Added Rating
- Flight Instructor—Glider—Added Rating

All test results expire at the end of 24 calendar months after the month in which the test was taken. All test questions are the objective, multiple-choice type. Each question can be answered by the selection of a single response. Each test question is independent of other questions; therefore, a correct response to one does not depend upon, or influence, the correct response to another.

## **TEST REGISTRATION**

The FAA has designated two Airman Knowledge Testing (AKT) Organization Designation Authorization (ODA) Holders, which sponsor hundreds of knowledge testing center locations. These testing centers offer a full range of airman knowledge tests including: Aircraft Dispatcher, Airline Transport Pilot, Aviation Maintenance Technician, Commercial Pilot, Flight Engineer, Flight Instructor, Flight Navigator, Ground Instructor, Inspection Authorization, Instrument Rating, Parachute Rigger, Private Pilot, Recreational Pilot, Sport Pilot and Military Competence. Contact information for the AKT ODA Holders is provided below under Knowledge Test Centers.

The first step in taking a knowledge test is the registration process. You may either call a central registration phone number or appear at a testing center on a walk-in basis. If you choose to use a central registration phone number to schedule your test, you will need to be prepared to select a test date, choose a testing center, and make financial arrangements for test payment. You may register for tests several weeks in advance, and you may cancel your appointment according to the AKT ODA Holder's cancellation policy. If you do not follow the AKT ODA Holder's cancellation policies, you could be subject to a cancellation fee.

## **APPLICANT IDENTIFICATION AND TEST AUTHORIZATION**

The next step in taking a knowledge test is providing proper identification. You should determine what knowledge test prerequisites are necessary before going to the computer-testing center. Your instructor or local FAA Flight Standards District Office (FSDO) may advise you regarding the documentation required to be presented at the testing facility. Testing center personnel will not begin the test until your identification and eligibility is verified.

Acceptable forms of authorization and retesting procedures are available in the latest version of the Applicant Identification, Information, Verification, & Authorization Requirements Matrix located at:

[http://www.faa.gov/training\\_testing/testing/airmen/media/testing\\_matrix.pdf](http://www.faa.gov/training_testing/testing/airmen/media/testing_matrix.pdf)

## TEST TAKING TIPS

Prior to launching the actual test, the AKT ODA Holder's testing software will provide you with an opportunity to practice navigating through the test. This practice (or tutorial) session may include a "sample" question(s). These sample questions have no relation to the content of the test, but are meant to familiarize you with the look and feel of the system screens, including selecting an answer, marking a question for later review, time remaining for the test, and other features of the testing software.

When taking a test, keep the following points in mind:

- Carefully read the instructions given with the test.
- Answer each question in accordance with the latest regulations and guidance publications.
- Read each question carefully before looking at the answer options. You should clearly understand the problem before attempting to solve it.
- After formulating an answer, determine which answer option corresponds with your answer. The answer you choose should completely resolve the problem.
- From the options given, it may appear there is more than one possible answer; however, there is only one answer that is correct and complete. The other options are either incomplete, erroneous, or derived from popular misconceptions.
- If a certain question is difficult for you, it is best to mark it for review and proceed to the next question. After you answer the less difficult questions, return to those marked for review and answer them. The review marking procedure will be explained to you prior to starting the test. Although the computer should alert you to unanswered questions, make sure every question has an answer recorded. This procedure will enable you to use the available time to maximum advantage.
- When solving a calculation problem, select the answer closest to your solution. The problem has been checked with various types of calculators; therefore, if you have solved it correctly, your answer will be closer to the correct answer than any of the other choices.

## USE OF TEST AIDS AND MATERIALS

You may use aids, reference materials, and test materials within the guidelines listed below, if actual test questions or answers are not revealed. All models of aviation-oriented calculators may be used, including small electronic calculators that perform only arithmetic functions (add, subtract, multiply, and divide). Simple programmable memories, which allow addition to, subtraction from, or retrieval of one number from the memory, are permissible. Also, simple functions, such as square root and percent keys are permissible.

The following guidelines apply:

1. You may use any reference materials provided with the test. In addition, you may use scales, straightedges, protractors, plotters, navigation computers, log sheets, and electronic or mechanical calculators that are directly related to the test.
2. Manufacturer's permanently inscribed instructions on the front and back of such aids (e.g., formulas, conversions, regulations, signals, weather data, frequencies, weight-and-balance formulas) are permissible.
3. Testing centers may provide a calculator to you and/or deny use of your personal calculator based on the following limitations:
  - a. Prior to, and upon completion of the test, while in the presence of the Unit Member (formerly referred to as proctor), you must actuate the ON/OFF switch and perform any other function that ensures erasure of any data stored in memory circuits.

- b. The use of electronic calculators incorporating permanent or continuous type memory circuits without erasure capability is prohibited. The Unit Member may refuse the use of your calculator when unable to determine the calculator's erasure capability.
  - c. Printouts of data must be surrendered at the completion of the test if the calculator incorporates this design feature.
  - d. The use of magnetic cards, magnetic tapes, modules, computer chips, or any other device upon which pre-written programs or information related to the test can be stored and retrieved is prohibited.
  - e. You are not permitted to use any booklet or manual containing instructions related to use of test aids.
- 4. Dictionaries are not allowed in the testing area.
  - 5. The Unit Member makes the final determination relating to test materials and personal possessions you may take into the testing area.

## **TESTING PROCEDURES FOR APPLICANTS REQUESTING SPECIAL ACCOMMODATIONS**

If you are an applicant with a learning or reading disability, you may request approval from AFS-630, through the local FSDO or IFO, to take an airman knowledge test using one of the three options listed below, in preferential order:

- Option 1. Use current testing facilities and procedures whenever possible.
- Option 2. You may use a self-contained, electronic device which pronounces and displays typed-in words (e.g., the Franklin Speaking Wordmaster®) to facilitate the testing process. (NOTE: The device should consist of an electronic thesaurus that audibly pronounces typed-in words and presents them on a display screen. The device should also have a built-in headphone jack for private listening in order to avoid disturbing others during testing.)
- Option 3. If you do not choose to use the first or second option, you may request Unit Member assistance in reading specific words or terms from the test questions and/or supplement book. In the interest of preventing compromise of the testing process, the Unit Member must be an individual with no aviation background or expertise. The Unit Member must provide reading assistance only, with no explanation of words or terms. When this option is requested, the FSDO or IFO inspector must contact the Airman Testing Standards Branch (AFS-630) for assistance in selecting the test site and assisting Unit Member.

Prior to approval of any option, the FSDO or IFO Aviation Safety Inspector must advise you of the regulatory certification requirement of being able to read, write, speak, and understand the English language.

## **CHEATING OR OTHER UNAUTHORIZED CONDUCT**

Computer testing centers must follow strict security procedures to avoid test compromise. These procedures are established by the FAA and are covered in FAA Order 8080.6 (as amended), Conduct of Airman Knowledge Tests. The FAA has directed testing centers to terminate a test at any time a test Unit Member suspects a cheating incident has occurred. An FAA investigation will then be conducted. If the investigation determines that cheating or unauthorized conduct has occurred, then any airman certificate or rating that you hold may be revoked, and you may be prohibited for 1 year from applying for or taking any test for a certificate or rating under 14 CFR part 61.

## **LEARNING STATEMENTS**

Learning statements, as used in airman knowledge testing, refer to a measurable level of knowledge a student should be able to demonstrate following a defined element of training. The most current Learning Statement Reference Guide for Airman Knowledge Testing is online at:

We provide learning statements to help instructors and students become more familiar with the areas of knowledge applicable to the airman training, learning, studying, and testing processes.

Beyond serving as a useful reference in preparing for your airman knowledge test, the Learning Statement Reference Guide will assist you and your instructor in interpreting any learning statement codes that may appear on your Airman Knowledge Test Report. You will receive a test report immediately upon completion of the test. This report will list learning statement codes for any questions you may have answered incorrectly. You and your instructor should match the codes on the test report to the information in the Learning Statement Reference Guide in order to obtain the corresponding areas of knowledge deficiency.

Your instructor may be required to provide instruction on each of the areas of deficiency, and to provide a logbook or training record endorsement certifying you have demonstrated satisfactory knowledge in each area. Also, you must present the *original* Airman Knowledge Test Report to the examiner conducting your practical test. During the practical test, the examiner will refer to the learning codes and statements to evaluate your knowledge in the noted areas of deficiency.

## **AIRMAN KNOWLEDGE TEST REPORTS**

Upon completion of the knowledge test, you will receive your Airman Knowledge Test Report, which reflects your score. The test report will be stamped with the testing center's raised/embossed seal.

The Airman Knowledge Test Report must be presented to the examiner prior to taking the practical test. During the oral portion of the practical test, the examiner is required to evaluate the noted areas of deficiency.

Should you require a duplicate Airman Knowledge Test Report due to loss or destruction of the original, send a signed request accompanied by a check or money order for \$1.00, payable to the FAA. Send the request to:

Federal Aviation Administration  
Airmen Certification Branch, AFS-760  
P.O. Box 25082  
Oklahoma City, OK 73125

Airman Knowledge Test Reports are valid for the 24-calendar month period following the month you complete the practical test. **If the Airman Knowledge Test Report expires before completion of the practical test, you must retake the knowledge test.**

## **TRAINING AND TESTING PUBLICATIONS AND GENERAL INFORMATION**

Most of the current Flight Standards Service airman training and testing publications can be obtained in electronic format from the FAA Website, [www.faa.gov](http://www.faa.gov). The training and testing publications and general information can be found on the opening page of that Website under the Training and Testing tab. If a publication is not available in electronic format, there are instructions for obtaining paper copies. Information found on the Website includes the following:

- Advisory Circulars
- Airworthiness Directives
- Code of Federal Regulations
- Computer Testing Supplements



- Knowledge Test Centers
- Sample Knowledge Test questions
- Knowledge Test Statistics
- Learning Statement Reference Guide
- Practical Test Standards
- Training Handbooks
- Type Certificate Data Sheets

## Advisory Circulars

Advisory circulars (ACs) provide guidance and information on various subjects related to airman certification.

## Airworthiness Directives

Airworthiness Directives (ADs) are notifications to aircraft owners of a known safety deficiency with a specific model of aircraft, engine, avionics, or other system.

## Code of Federal Regulations

The portion of 14 CFR containing what was formerly known as the Federal Aviation Regulations can be found on the Website. 14 CFR contains regulations designed to promote aviation safety, and govern all aviation activities in the United States.


## Computer Testing Supplements


The knowledge testing supplements contain the graphics, legends, and maps that are needed to successfully respond to certain knowledge test items. ODA test center personnel will provide these supplements during the airman knowledge test. You can review them prior to testing at: [http://www.faa.gov/training\\_testing/testing/airmen/test\\_questions/#cts](http://www.faa.gov/training_testing/testing/airmen/test_questions/#cts)

## Knowledge Test Centers

The Knowledge Test Centers portion of the Website contains current listings of Airman Knowledge Testing (AKT) Organization Designation Authorization (ODA) Holders and other testing centers, and the registration telephone numbers to call to register for a test.

The following is a list of the ODA holders authorized to give FAA airman knowledge tests. This list should be helpful in case you choose to register for a test or simply want more information.

-  [\*\*Computer Assisted Testing Service \(CATS\)\*\*](#)  
777 Mariners Island Blvd., Suite 200  
San Mateo, CA 94404  
**Applicant inquiry and test registration: 1-800-947-4228**  
From outside the U.S. (650) 259-8550

-  [\*\*PSI\*\*](#)  
16821 SE McGillivray Blvd., Suite 201  
Vancouver, WA 98683  
**Applicant inquiry and test registration: 1-800-211-2753 or 1-800-211-2754**  
From outside the U.S. (360) 896-9111

## Knowledge Test Questions

Sample questions are located in the Airman Knowledge Test Questions section of the Website and represent the types of questions included in the actual test banks. Practicing these questions will help you become familiar with similar questions on the airman knowledge tests. The knowledge test is not designed to intimidate any prospective airman; it is designed to measure an applicant's understanding of the rules, regulations and knowledge areas required to receive an FAA certificate.

## Knowledge Test Statistics

Test statistics for all airman knowledge tests are contained in a series of tables organized by year and subject area. Individual tables are provided for the following subject areas: test volume, pass rates, average test scores, countries, regions, and district offices.

## Practical Test Standards

The Practical Test Standards outline the knowledge and skill requirements for each airman certificate and rating. The references listed in each task of the Practical Test Standards indicate the specific publications used to develop the skill standards. The ability to issue immediate changes prior to publishing revised printed copies ensures the Practical Test Standards are always accurate and usable.

## Training Handbooks

The training handbooks are the basic information sources an airman applicant should refer to when preparing for the knowledge and practical tests for a specific certificate or rating.

**Classification Code:** the (usually hierarchical) sequence of classification codes that places a question in a unique category. FAA knowledge test question development uses the following hierarchy:

- Topic— Overall subject matter topic code. The highest classification of overall subject matter a knowledge test item was developed to assess (e.g., Aerodynamics).
- Content—Secondary level subject matter code (e.g., Airspeed).
- Specific— the basic hierarchical classification code the subject matter for a knowledge test item (e.g., Thrust).

**Fundamentals of Instructing (FOI)  
Sample Questions**

## FUNDAMENTALS OF INSTRUCTING (FOI)

**1. What should an instructor do with a student who assumes that correction of errors is not important?**

A—Divide complex flight maneuvers into elements.

B—Try to reduce the student's overconfidence to reduce the change of an accident.

C—Raise the standard of performance for each lesson demanding greater effort.

*Answer: C.*

*Learning Statement: Recall instructor techniques—obstacles/planning/activities/outcome.*

**2. During a stall recovery, the instructor allows the student to exceed maneuvering speed. Which best illustrates an 'anti-authority' reaction by the instructor?**

A—There has not been a problem doing this in the past.

B—The aircraft can handle a lot more than the maneuvering speed.

C—The student should know how to recover from a stall by this time.

*Answer: B.*

*Learning Statement: Recall Aeronautical Decision Making (ADM)—hazardous attitudes.*

**3. Proper oral quizzing by the instructor during a lesson can have which result?**

A—Alerts the instructor to the level of student motivation.

B—Identifies points which need more emphasis.

C—Can serve as a lead-in to introduce new material.

*Answer: B.*

*Learning Statement: Recall student evaluation—written tests/oral quiz/critiques.*

**4. The objective of the Practical Test Standards (PTS) is to ensure the certification of pilots at a high level of performance and proficiency, consistent with**

A—safety.

B—the time available.

C—their abilities.

*Answer: A.*

*Learning Statement: Recall student evaluation—learning process.*

**5. Which statement is true regarding positive or negative approaches in aviation instructional techniques?**

A—A student with normal abilities should not be affected by an instructor who emphasizes emergency procedures early in training.

B—A positive approach, to be effective, will point out the pleasurable features of aviation before the unpleasant possibilities are discussed.

C—The introduction of emergency procedures before the student is acquainted with normal operations is likely to be neither discouraging nor affect learning.

*Answer: B.*

*Learning Statement: Recall FOI techniques—responsibilities.*

## LIST OF REFERENCE MATERIALS SPECIFIC TO THE FUNDAMENTALS OF INSTRUCTING (FOI) KNOWLEDGE TEST

<i>Topic</i>	<i>Content</i>	<i>Specific</i>
<b>PLT022</b> <a href="#">Aviation Instructor Handbook, FAA-H-8083-9</a> Fundamentals of Instructing	Techniques-Flight Instruction	Aeronautical Decision Making
<b>PLT104</b> <a href="#">Aviation Instructor Handbook, FAA-H-8083-9</a> Instructional Guidelines	Techniques-Flight Instruction	ADM
Instructional Guidelines	Techniques-Flight Instruction	Situational Awareness
<b>PLT204</b> <a href="#">Aviation Instructor Handbook, FAA-H-8083-9</a> Fundamentals of Instructing	Effective Communication	Developing Communication Skills
Instructional Guidelines	Effective Communication	Teaching Process
<b>PLT211</b> <a href="#">Aviation Instructor Handbook, FAA-H-8083-9</a> Fundamentals of Instructing	Critique / Evaluation	Evaluation
Instructional Guidelines	Critique / Evaluation	Assessment
Instructional Guidelines	Instructional Aids / Training Technologies	Teaching Aids
Instructional Guidelines	Instructor Responsibilities / Professionalism	Evaluation
Instructional Guidelines	Instructor Responsibilities / Professionalism	Pre Solo Requirements
Instructional Guidelines	Teaching Process	Assessment
<b>PLT227</b> <a href="#">Aviation Instructor Handbook, FAA-H-8083-9</a> Fundamentals of Instructing	Techniques-Flight Instruction	Integrated Flight Instruction
Instructional Guidelines	Techniques-Flight Instruction	Integrated Flight Instruction
<b>PLT228</b> <a href="#">Aviation Instructor Handbook, FAA-H-8083-9</a> Instructional Guidelines	Effective Communication	Teaching Process
Instructional Guidelines	Learning Process	Learning Transfer
Instructional Guidelines	Learning Process	Perceptions
Instructional Guidelines	Planning Instructional Activity	Instructor Resources
Instructional Guidelines	Planning Instructional Activity	Lesson Plan
Instructional Guidelines	Planning Instructional Activity	Practice
<b>PLT229</b> <a href="#">Aviation Instructor Handbook, FAA-H-8083-9</a> Fundamentals of Instructing	Learning Process	Learning Theory
Fundamentals of Instructing	Techniques-Flight Instruction	Instructor Responsibilities
Instructional Guidelines	Instructor Responsibilities / Professionalism	Professionalism
<b>PLT230</b> <a href="#">Aviation Instructor Handbook, FAA-H-8083-9</a> Fundamentals of Instructing	Techniques-Flight Instruction	Instructor Responsibilities
Instructional Guidelines	Instructor Responsibilities / Professionalism	Evaluation
<b>PLT231</b> <a href="#">Aviation Instructor Handbook, FAA-H-8083-9</a> Instructional Guidelines	Human Behavior	Anxiety
Instructional Guidelines	Human Behavior	Stress
<b>PLT232</b> <a href="#">Aviation Instructor Handbook, FAA-H-8083-9</a> Instructional Guidelines	Human Behavior	Defense Mechanisms
Instructional Guidelines	Instructor Responsibilities / Professionalism	Professionalism
<b>PLT233</b> <a href="#">Aviation Instructor Handbook, FAA-H-8083-9</a> Fundamentals of Instructing	Human Behavior	Defense Mechanisms
Instructional Guidelines	Human Behavior	Defense Mechanisms
<b>PLT269</b> <a href="#">Aviation Instructor Handbook, FAA-H-8083-9</a> Instructional Guidelines	Human Behavior	Defense Mechanisms
Instructional Guidelines	Human Behavior	Repression
<b>PLT270</b> <a href="#">Aviation Instructor Handbook, FAA-H-8083-9</a> Instructional Guidelines	Human Behavior	Human Needs

**PLT272**[Aviation Instructor Handbook, FAA-H-8083-9](#)

Instructional Guidelines Human Behavior Defense Mechanisms

**PLT295**[Aviation Instructor Handbook, FAA-H-8083-9](#)

Fundamentals of Instructing	Learning Process	Skill Acquisition
Fundamentals of Instructing	Planning Instructional Activity	Objectives
Fundamentals of Instructing	Techniques-Flight Instruction	Fatigue
Fundamentals of Instructing	Techniques-Flight Instruction	Obstacles to Learning During Flight Instruction
Instructional Guidelines	Instructor Responsibilities / Professionalism	Professionalism
Instructional Guidelines	Learning Process	Learning Transfer
Instructional Guidelines	Planning Instructional Activity	Blocks of Learning
Instructional Guidelines	Techniques-Flight Instruction	Apathy
Instructional Guidelines	Techniques-Flight Instruction	Distractions
Instructional Guidelines	Techniques-Flight Instruction	Fatigue

**PLT306**[Aviation Instructor Handbook, FAA-H-8083-9](#)

Fundamentals of Instructing	Learning Process	Levels of Learning
Instructional Guidelines	Learning Process	Learning Characteristics
Instructional Guidelines	Learning Process	Learning Theory
Instructional Guidelines	Learning Process	Learning Transfer

**PLT307**[Aviation Instructor Handbook, FAA-H-8083-9](#)

Instructional Guidelines	Critique / Evaluation	Oral Assessment
Instructional Guidelines	Learning Process	Learning Theory
Instructional Guidelines	Learning Process	Memory

**PLT308**[Aviation Instructor Handbook, FAA-H-8083-9](#)

Fundamentals of Instructing	Learning Process	Definition of Learning
Fundamentals of Instructing	Learning Process	Domains of Learning
Fundamentals of Instructing	Learning Process	Learning Plateau
Fundamentals of Instructing	Learning Process	Learning Theory
Fundamentals of Instructing	Learning Process	Principles of Learning
Fundamentals of Instructing	Learning Process	Skill Acquisition
Instructional Guidelines	Learning Process	Insights
Instructional Guidelines	Learning Process	Learning Characteristics
Instructional Guidelines	Learning Process	Learning Theory
Instructional Guidelines	Learning Process	Perceptions

**PLT419**[Aviation Instructor Handbook, FAA-H-8083-9](#)

Instructional Guidelines	Effective Communication	Teaching Process
Instructional Guidelines	Instructor Responsibilities / Professionalism	Professionalism

**PLT481**[Aviation Instructor Handbook, FAA-H-8083-9](#)

Fundamentals of Instructing	Critique / Evaluation	Evaluation
Fundamentals of Instructing	Effective Communication	Developing Communication Skills
Fundamentals of Instructing	Learning Process	Learning Plateau

**PLT482**[Aviation Instructor Handbook, FAA-H-8083-9](#)

Instructional Guidelines	Critique / Evaluation	Assessment
Instructional Guidelines	Critique / Evaluation	Oral Assessment
Instructional Guidelines	Critique / Evaluation	Oral Quizzing
Instructional Guidelines	Critique / Evaluation	Test Questions
Instructional Guidelines	Critique / Evaluation	Written
Instructional Guidelines	Instructor Responsibilities / Professionalism	Professionalism
Instructional Guidelines	Teaching Methods	Assessment
Instructional Guidelines	Teaching Process	Assessment

**PLT487**[Aviation Instructor Handbook, FAA-H-8083-9](#)

Instructional Guidelines	Instructional Aids / Training Technologies	Teaching Aids
Instructional Guidelines	Teaching Methods	Demonstration / Performance
Instructional Guidelines	Techniques-Flight Instruction	Demonstration / Performance

**PLT488**[Aviation Instructor Handbook, FAA-H-8083-9](#)

Instructional Guidelines	Teaching Methods	Group Learning
Instructional Guidelines	Teaching Methods	Guided Discussion
Instructional Guidelines	Teaching Methods	Lecture

**PLT489**[Aviation Instructor Handbook, FAA-H-8083-9](#)

Fundamentals of Instructing	Learning Process	Teaching Process
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**PLT490**[Aviation Instructor Handbook, FAA-H-8083-9](#)

Instructional Guidelines	Instructor Responsibilities / Professionalism	Professionalism
Instructional Guidelines	Learning Process	Learning Theory

**PLT491**[Aviation Instructor Handbook, FAA-H-8083-9](#)

Fundamentals of Instructing	Critique / Evaluation	Evaluation
Fundamentals of Instructing	Learning Process	Teaching Process
Fundamentals of Instructing	Planning Instructional Activity	Objectives
Instructional Guidelines	Planning Instructional Activity	Blocks of Learning
Instructional Guidelines	Teaching Methods	Lecture
Instructional Guidelines	Teaching Methods	Lesson Preparation

**PLT504**[Aviation Instructor Handbook, FAA-H-8083-9](#)

Instructional Guidelines	Instructional Aids / Training Technologies	Teaching Aids
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**PLT505**[Aviation Instructor Handbook, FAA-H-8083-9](#)

Fundamentals of Instructing	Teaching Methods	Computer-Based Training Method
Instructional Guidelines	Instructional Aids / Training Technologies	Teaching Aids
Instructional Guidelines	Teaching Methods	CAL

**Ground Instructor Basic (BGI)  
Sample Questions**



## GROUND INSTRUCTOR BASIC (BGI)

### 1. Aspect ratio of a wing is defined as the ratio of the

- A—wingspan to the wing root.
- B—wingspan to the mean chord.
- C—square of the chord to the wingspan.

*Answer: B.*

*Learning Statement: Recall forces acting on aircraft—aspect ratio.*

### 2. In a twin-engine airplane, the single-engine service ceiling is the maximum density altitude at which VYSE will produce

- A—50 feet per minute rate of climb.
- B—100 feet per minute rate of climb.
- C—500 feet per minute rate of climb.

*Answer: A.*

*Learning Statement: Recall aircraft performance-instrument markings/airspeed/definition/indications.*

### 3. What effect does high-density altitude have on aircraft performance?

- A—It increases engine performance.
- B—It reduces climb performance.
- C—It increases takeoff performance.

*Answer: B.*

*Learning Statement: Recall aircraft performance—density altitude.*

### 4. Which combination of atmospheric conditions will reduce aircraft takeoff and climb performance?

- A—Low temperature, low-relative humidity, and low-density altitude.
- B—High temperature, low-relative humidity, and low-density altitude.
- C—High temperature, high-relative humidity, and high-density altitude.

*Answer: C.*

*Learning Statement: Recall aircraft performance—atmospheric effects.*

### 5. What is true altitude?

- A—The vertical distance of the aircraft above sea level.
- B—The vertical distance of the aircraft above the surface.
- C—The height above the standard datum plane.

*Answer: A.*

*Learning Statement: Define altitude—absolute/true/indicated/density/pressure.*

## LIST OF REFERENCE MATERIALS SPECIFIC TO THE BASIC GROUND INSTRUCTOR (BGI) KNOWLEDGE TEST

<i>Topic</i>	<i>Content</i>	<i>Specific</i>
<b>PLT004</b>	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>	
Aircraft Performance	Charts	Climb / Cruise Performance Data
Aircraft Performance	Charts	Maximum Climb Chart
<b>PLT005</b>	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>	
Aircraft Performance	Computations	Determining Density Altitude
<b>PLT006</b>	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>	
Aircraft Performance	Charts	Glide Distance
<b>PLT012</b>	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>	
Aircraft Performance	Computations	Computing Takeoff / Climb Distance
Aircraft Performance	Computations	Determining Takeoff Distance
Navigation	Dead Reckoning	Calculations
Navigation	Pilotage	Calculations
<b>PLT013</b>	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>	
Flight Operations	Landing	Determining Crosswind Component
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Performance	Limitations	Effects of Exceeding
<b>PLT015</b>	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>	
Navigation	Dead Reckoning	Calculations
<b>PLT018</b>	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>	
Aerodynamics	Load Factor	Effect of Load Factor on Stalling Speed
Aircraft Performance	Charts	Effect of Load Factor on Stalling Speed
<b>PLT021</b>	<a href="#">Aircraft Weight and Balance Handbook, FAA-H-8083-1</a>	
Weight and Balance	Aircraft Loading	Weight & Balance Charts
Weight and Balance	Center of Gravity	Computations
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Weight and Balance	Aircraft Loading	Weight & Balance Charts
Weight and Balance	Center of Gravity	Computations
<b>PLT022</b>	<a href="#">AC 60-22 Aeronautical Decision Making</a>	
Human Factors	ADM	Hazardous Attitude
Human Factors	ADM	Risk Management
<b>PLT023</b>	<a href="#">AC 00-6 Aviation Weather</a>	
Weather	Meteorology	Density Altitude
<b>PLT037</b>	<a href="#">AC 00-45 Aviation Weather Services</a>	
Weather	Aeronautical Weather Reports	Pilot and Radar Reports, Satellite Pictures
<b>PLT040</b>	<a href="#">Aeronautical Information Manual</a>	
Airspace	Controlled	Class C
<b>PLT041</b>	<a href="#">AC 00-6 Aviation Weather</a>	
Weather	Meteorology	Pressure
<b>PLT059</b>	<a href="#">AC 00-45 Aviation Weather Services</a>	
Weather	Aeronautical Weather Reports	Aviation Routine Weather Reports (METAR)
<a href="#">Aeronautical Information Manual</a>		
Weather	Aeronautical Weather Reports	Aviation Routine Weather Reports (METAR)
<b>PLT061</b>	<a href="#">AC 00-45 Aviation Weather Services</a>	
Weather	Aeronautical Weather Reports	Pilot Reports

<b>PLT063</b>		
<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Aeronautical Weather Reports	Interpret
Weather	Aeronautical Weather Reports	Radar Summary Chart
Weather	Charts / Maps	Radar Summary Charts
<b>PLT064</b>		
<a href="#">14 CFR 91</a>		
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<a href="#">Sectional Aeronautical Chart</a>		
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<a href="#">AC 00-45 Aviation Weather Services</a>		
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Weather	Charts / Maps	Stability Chart
<b>PLT071</b>		
<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Charts / Maps	Surface Analysis Charts
<b>PLT072</b>		
<a href="#">AC 00-45 Aviation Weather Services</a>		
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<b>PLT074</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
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<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Aeronautical Weather Forecasts	Aviation Weather Forecasts
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<b>PLT095</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
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<a href="#">AC 60-22 Aeronautical Decision Making</a>		
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<a href="#">14 CFR 61</a>		
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<a href="#">Aeronautical Information Manual</a>		
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<b>PLT118</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
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<a href="#">14 CFR 91</a>		
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<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
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<a href="#">AC 91-13 Cold Weather Operation of Aircraft</a>		
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<b>PLT127</b>		
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
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<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
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<a href="#">Glider Flying Handbook, FAA-H-8083-13</a>			
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<a href="#">Aeronautical Information Manual</a>			
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Airport Operations	Wake Turbulence		Wake Turbulence Avoidance

<b>PLT511</b>		
<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Meteorology	Air Masses
Weather	Meteorology	Fronts
<b>PLT512</b>		
<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Meteorology	Moisture
<b>PLT516</b>		
<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Meteorology	Air Masses
Weather	Meteorology	Atmospheric Pressure
Weather	Meteorology	Circulation
<b>PLT517</b>		
<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Meteorology	Circulation
<b>PLT518</b>		
<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Hazardous	Turbulence
Weather	Hazardous	Windshear

**Ground Instructor Advanced (AGI)  
Sample Questions**

## GROUND INSTRUCTOR ADVANCED (AGI)

### 1. Aspect ratio of a wing is defined as the ratio of the

- A—wingspan to the wing root.
- B—wingspan to the mean chord.
- C—square of the chord to the wingspan.

*Answer: B.*

*Learning Statement: Recall forces acting on aircraft—aspect ratio.*

### 2. In a twin-engine airplane, the single-engine service ceiling is the maximum density altitude at which VYSE will produce

- A—50 feet per minute rate of climb.
- B—100 feet per minute rate of climb.
- C—500 feet per minute rate of climb.

*Answer: A.*

*Learning Statement: Recall aircraft performance -instrument markings/airspeed/definitions/indications.*

### 3. What effect does high-density altitude have on aircraft performance?

- A—It increases engine performance.
- B—It reduces climb performance.
- C—It increases takeoff performance.

*Answer: B.*

*Learning Statement: Recall aircraft performance—density altitude.*

### 4. Which combination of atmospheric conditions will reduce aircraft takeoff and climb performance?

- A—Low temperature, low-relative humidity, and low-density altitude.
- B—High temperature, low-relative humidity, and low-density altitude.
- C—High temperature, high-relative humidity, and high-density altitude.

*Answer: C.*

*Learning Statement: Recall aircraft performance—atmospheric effects.*

### 5. What is true altitude?

- A—The vertical distance of the aircraft above sea level.
- B—The vertical distance of the aircraft above the surface.
- C—The height above the standard datum plane.

*Answer: A.*

*Learning Statement: Define altitude—absolute/true/indicated/density/pressure.*

## LIST OF REFERENCE MATERIALS SPECIFIC TO THE ADVANCED GROUND INSTRUCTOR (AGI) KNOWLEDGE TEST

<i>Topic</i>	<i>Content</i>	<i>Specific</i>
<b>PLT001</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aircraft Performance	Computations	Computing Takeoff / Climb Distance
<b>PLT004</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aircraft Performance	Charts	Climb Performance Data
<b>PLT006</b> <a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a> Flight Operations	Emergency Procedures	Determining Glide Distance
<b>PLT008</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aircraft Performance	Computations	Determining Landing Distance
<b>PLT012</b> <a href="#">Instrument Flying Handbook, FAA-H-8083-15</a> Navigation	Radio	ADF / NDB
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aircraft Performance	Computations	Basic Calculations
Aircraft Performance	Computations	Computing Takeoff / Climb Distance
Aircraft Performance	Computations	Determining Landing Distance
Aircraft Performance	Computations	Determining Takeoff Distance
Aircraft Performance	Limitations	Basic Calculations
Navigation	Dead Reckoning	Calculations
Navigation	Pilotage	Calculations
<b>PLT013</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aircraft Performance	Charts	Determining Crosswind Component
Aircraft Performance	Limitations	Effects of Exceeding
<b>PLT014</b> <a href="#">Instrument Flying Handbook, FAA-H-8083-15</a> Navigation	Radio	ADF / NDB
Navigation	Radio	VOR
<b>PLT015</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Navigation	Dead Reckoning	Calculations
<b>PLT018</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aerodynamics	Load Factor	Effect of Load Factor on Stalling Speed
Aerodynamics	Principles of Flight	Pitch Attitude
<b>PLT021</b> <a href="#">Aircraft Weight and Balance Handbook, FAA-H-8083-1</a> Weight and Balance	Center of Gravity	Computations
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Weight and Balance	Aircraft Loading	Limitations
Weight and Balance	Aircraft Loading	Shifting Weight
Weight and Balance	Aircraft Loading	Weight & Balance Diagram
Weight and Balance	Center of Gravity	Computations
<b>PLT022</b> <a href="#">AC 60-22 Aeronautical Decision Making</a> Human Factors	ADM	Risk Elements
<b>PLT023</b> <a href="#">AC 00-6 Aviation Weather</a> Weather	Meteorology	Density Altitude
<b>PLT025</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aerodynamics	Principles of Flight	Physics
<b>PLT034</b> <a href="#">14 CFR 1</a> Regulations	14CFR Part 1	Definition

<b>PLT037</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Aeronautical Weather Reports		Pilot and Radar Reports, Satellite Pictures
<b>PLT040</b>			
	<a href="#">Aeronautical Information Manual</a>		
Airspace	Controlled		Class C
<b>PLT044</b>			
	<a href="#">Aeronautical Information Manual</a>		
Airspace	Procedures		Communications
<b>PLT046</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight		Drag
<b>PLT059</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Aeronautical Weather Reports		Aviation Routine Weather Reports (METAR)
	<a href="#">Aeronautical Information Manual</a>		
Weather	Aeronautical Weather Reports		Aviation Routine Weather Reports (METAR)
<b>PLT061</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Aeronautical Weather Reports		Pilot Reports
<b>PLT063</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Aeronautical Weather Reports		Interpret
Weather	Aeronautical Weather Reports		Radar Summary Chart
Weather	Charts / Maps		Radar Summary Charts
<b>PLT064</b>			
	<a href="#">Aeronautical Information Manual</a>		
Airspace	Controlled		Class B
Airspace	Controlled		Class C
Airspace	Controlled		Class D
Airspace	Controlled		Class E
Airspace	Special Use		Procedures
	<a href="#">Sectional Aeronautical Chart</a>		
Navigation	Pilotage		Aeronautical Charts
<b>PLT066</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Charts / Maps		Severe Weather Outlook Charts
<b>PLT068</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Aeronautical Weather Forecasts		Data Interpretation
Weather	Charts / Maps		Significant Weather Prognostic Charts
<b>PLT070</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Charts / Maps		Stability Chart
<b>PLT071</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Charts / Maps		Surface Analysis Charts
<b>PLT072</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Aeronautical Weather Forecasts		Data Interpretation
Weather	Aeronautical Weather Reports		Aviation Routine Weather Reports (METAR)
<b>PLT074</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Performance	Charts		Determining Load Factors
Aircraft Performance	Limitations		Airspeeds
<b>PLT075</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Charts / Maps		Weather Depiction Charts
<b>PLT076</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Aeronautical Weather Forecasts		Data Dissemination
Weather	Charts / Maps		Winds / Temperatures Aloft Charts

<b>PLT078</b>			
	<a href="#">Airport/Facility Directory</a>		
Airport Operations	Tower Controlled		Tower Hours of Operation
Navigation	Pilotage		Airport / Facility Directory
Publications	Airport Facility Directory		Directory Legend
<b>PLT081</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Aeronautical Weather Forecasts		Aviation Weather Forecasts
Weather	Aeronautical Weather Forecasts		Data Dissemination
<b>PLT086</b>			
	<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Aerodynamics	Principles of Flight		Forces Acting on Aircraft
<b>PLT090</b>			
	<a href="#">Instrument Flying Handbook, FAA-H-8083-15</a>		
Navigation	Radio		RMI (Radio Magnetic Indicator)
<b>PLT091</b>			
	<a href="#">Aeronautical Information Manual</a>		
Navigation	Radio		ADF / NDB
	<a href="#">Instrument Flying Handbook, FAA-H-8083-15</a>		
Navigation	Radio		ADF / NDB
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Navigation	Radio		ADF / NDB
<b>PLT095</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Propeller		Slipstream
<b>PLT096</b>			
	<a href="#">Aeronautical Information Manual</a>		
Human Factors	Aeromedical Factors		Physiological
<b>PLT098</b>			
	<a href="#">Aeronautical Information Manual</a>		
Human Factors	Aeromedical Factors		Fitness for Flight
<b>PLT101</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Navigation	Pilotage		Measurement of Direction
<b>PLT103</b>			
	<a href="#">AC 60-22 Aeronautical Decision Making</a>		
Human Factors	ADM		Hazardous Attitude
<b>PLT112</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Airport Operations	Taxiing		Control Positioning
<b>PLT113</b>			
	<a href="#">14 CFR 61</a>		
Regulations	Knowledge / Practical Test		Required Aircraft / Equipment
<b>PLT115</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Powerplant		Mixture Control
<b>PLT116</b>			
	<a href="#">Aeronautical Information Manual</a>		
Airport Operations	Communications		Flight Service Stations
Airport Operations	Wake Turbulence		Wake Turbulence Avoidance
Navigation	Pilotage		Change in Proposed Departure Time
<b>PLT118</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Flight Instruments		Heading Indicator
<b>PLT119</b>			
	<a href="#">Aeronautical Information Manual</a>		
Flight Operations	Approach		Collision Avoidance
<b>PLT123</b>			
	<a href="#">14 CFR 91</a>		
Regulations	VFR Flight Plan		Information Required
<b>PLT126</b>			
	<a href="#">AC 91-13 Cold Weather Operation of Aircraft</a>		
Aircraft Systems	Environmental		Cold Weather Operations



<b>PLT127</b>			
<a href="#">AC 00-6 Aviation Weather</a>			
Weather	Meteorology		Density Altitude
<b>PLT131</b>			
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>			
Aircraft Performance	Atmospheric Effects		Ground Effect
<b>PLT132</b>			
<a href="#">14 CFR 1</a>			
Regulations	14CFR Part 1		Means Minimum Takeoff Safety Speed
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>			
Aircraft Performance	Limitations		Airspeeds
<b>PLT141</b>			
<a href="#">Aeronautical Information Manual</a>			
Airport Operations	Lighting		Runway Centerline Lighting
Airport Operations	Marking / Signs		Entrance to Runway
Airport Operations	Marking / Signs		Entry Prohibited
Airport Operations	Marking / Signs		Hold Position Markings
Airport Operations	Marking / Signs		Runway
Airport Operations	Marking / Signs		Runway Exit Sign
Airport Operations	Marking / Signs		Taxiway
<b>PLT146</b>			
<a href="#">Aeronautical Information Manual</a>			
Airport Operations	Traffic Patterns		Segmented Circle
<b>PLT147</b>			
<a href="#">Aeronautical Information Manual</a>			
Airport Operations	Lighting		VASI
<b>PLT161</b>			
<a href="#">14 CFR 91</a>			
Regulations	Airspace Classes		Limitations
Regulations	Airspace Classes		Minimum Flight Visibility
Regulations	Airspace Classes		VFR Requirements
Regulations	Airspace Classes		Visibility and Cloud Clearance
Regulations	Class B Airspace		Maximum Indicated Airspeed
Regulations	Class D Airspace		Maximum Indicated Airspeed
Regulations	Weather Minimums		Special VFR
<a href="#">Aeronautical Information Manual</a>			
Airspace	Controlled		Class A
Airspace	Controlled		Class C
Airspace	Controlled		Class D
Airspace	Controlled		Class E
Airspace	Controlled		Communications
<b>PLT162</b>			
<a href="#">14 CFR 91</a>			
Regulations	Airspace Classes		Maximum Indicated Airspeed
Regulations	Class B Airspace		Maximum Indicated Airspeed
<b>PLT163</b>			
<a href="#">14 CFR 91</a>			
Regulations	14CFR Part 91		Distance from Clouds
Regulations	14CFR Part 91		Special VFR Weather Minimums
<b>PLT165</b>			
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>			
Aircraft Systems	Pitot / Static		Altimeter
<b>PLT168</b>			
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>			
Aerodynamics	Principles of Flight		Stalls
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>			
Aerodynamics	Principles of Flight		Forces Acting on Aircraft
Aerodynamics	Principles of Flight		Pitch Attitude
Aerodynamics	Principles of Flight		Stalls

<b>PLT173</b>			
<a href="#">AC 00-6 Aviation Weather</a>			
Weather	Meteorology		Stability
<b>PLT190</b>			
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>			
Aircraft Systems	Powerplant		Carburetor Icing
<b>PLT191</b>			
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>			
Aircraft Systems	Powerplant		Carburetor Systems
<b>PLT192</b>			
<a href="#">AC 00-6 Aviation Weather</a>			
Weather	Hazardous		Thunderstorms
Weather	Meteorology		Air Masses
Weather	Meteorology		Clouds
<b>PLT194</b>			
<a href="#">Aeronautical Information Manual</a>			
Human Factors	Aeromedical Factors		Visual Illusions
<b>PLT196</b>			
<a href="#">Aeronautical Information Manual</a>			
Airport Operations	Tower Controlled		ATIS
<b>PLT198</b>			
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>			
Navigation	Dead Reckoning		Calculations
<b>PLT202</b>			
<a href="#">Aeronautical Information Manual</a>			
Navigation	Radio		VOR
<b>PLT206</b>			
<a href="#">AC 00-6 Aviation Weather</a>			
Weather	Meteorology		Density Altitude
<b>PLT207</b>			
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>			
Aircraft Systems	Electrical		Electrical System Failure
<b>PLT208</b>			
<a href="#">14 CFR 91</a>			
Regulations	Equipment		Locator Transmitter
<b>PLT214</b>			
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>			
Aerodynamics	Principles of Flight		Forces Acting on Aircraft
<a href="#">Glider Flying Handbook, FAA-H-8083-13</a>			
Aerodynamics	Principles of Flight		Subsonic Planform
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>			
Aerodynamics	Load Factor		Maneuvering Speed
<b>PLT215</b>			
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>			
Aircraft Systems	Flight Instruments		Acceleration Error
Aircraft Systems	Flight Instruments		Compass
Aircraft Systems	Flight Instruments		Deviation Error
<b>PLT219</b>			
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>			
Flight Operations	Maneuvers		Basic
Flight Operations	Maneuvers		Ground Reference
<b>PLT225</b>			
<a href="#">Aeronautical Information Manual</a>			
Navigation	Pilotage		Aircraft Suffixes
<b>PLT226</b>			
<a href="#">AC 00-6 Aviation Weather</a>			
Weather	Meteorology		Fog
<b>PLT232</b>			
<a href="#">AC 60-22 Aeronautical Decision Making</a>			
Human Factors	ADM		Hazardous Attitude
Human Factors	ADM		Risk Management

<b>PLT234</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight		Axes
<b>PLT235</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight		Definition
Aerodynamics	Principles of Flight		Forces Acting on Aircraft
<b>PLT236</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight		Airfoil Design
Aerodynamics	Principles of Flight		Forces Acting on Aircraft
Aerodynamics	Principles of Flight		Pressure Distribution
<b>PLT237</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight		Forces Acting on Aircraft
Aerodynamics	Principles of Flight		Lift
Aerodynamics	Principles of Flight		Physics
<b>PLT238</b>			
	<a href="#">Glider Flying Handbook, FAA-H-8083-13</a>		
Aerodynamics	Principles of Flight		Definition
<b>PLT240</b>			
	<a href="#">Aircraft Weight and Balance Handbook, FAA-H-8083-1</a>		
Aerodynamics	Stability / Control		Stability and Balance Control
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Stability / Control		Aft CG
Aerodynamics	Stability / Control		Indicated Airspeed
Aerodynamics	Stability / Control		Performance Characteristics
Aerodynamics	Stability / Control		Stall and Spin Recovery
<b>PLT242</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight		Forces Acting on Aircraft
Aerodynamics	Principles of Flight		Pressure Distribution
<b>PLT244</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Stability / Control		Design Characteristics
Aerodynamics	Stability / Control		Divergent Oscillations
Aerodynamics	Stability / Control		Rolling
<b>PLT245</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Aerodynamics	Principles of Flight		Spins
<b>PLT246</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight		Forces Acting on Aircraft
<b>PLT248</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Flight Operations	Maneuvers		Basic
<b>PLT249</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Powerplant		Mixture Control
<b>PLT253</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Powerplant		Fuel Injection System
Aircraft Systems	Powerplant		Fuel Selectors
Aircraft Systems	Powerplant		Mixture Control
<b>PLT255</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Fuel / Oil		Grounding
<b>PLT258</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Flight Operations	Maneuvers		Ground Reference

<b>PLT276</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Navigation	Radio	VOR
<b>PLT282</b> <a href="#">14 CFR 121</a>		
Regulations	Documentation	Certificate Holder's Manual
<b>PLT287</b> <a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Charts / Maps	Surface Analysis Charts
<b>PLT289</b> <a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Charts / Maps	Weather Depiction Charts
<b>PLT290</b> <a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Aeronautical Weather Forecasts	Data Dissemination
<b>PLT291</b> <a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Aeronautical Weather Forecasts	Aviation Weather Forecasts
Weather	Aeronautical Weather Forecasts	Data Dissemination
<b>PLT300</b> <a href="#">Aeronautical Information Manual</a>		
Navigation	Radio	VOR
Navigation	Radio	VORTAC
Navigation	Radio	VOT
<b>PLT301</b> <a href="#">AC 00-6 Aviation Weather</a>		
Weather	Meteorology	Temperature
<b>PLT305</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight	Pitch Attitude
Aircraft Systems	Flight Controls / Secondary	Flaps
<b>PLT311</b> <a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Flight Operations	Maneuvers	Turns
<b>PLT316</b> <a href="#">Aeronautical Information Manual</a>		
Weather	Meteorology	National Weather Service Aviation Products
<b>PLT317</b> <a href="#">Aeronautical Information Manual</a>		
Weather	Hazardous	Microburst
<b>PLT320</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Navigation	Dead Reckoning	Calculations
<b>PLT323</b> <a href="#">Aeronautical Information Manual</a>		
Navigation	Pilotage	NOTAMS
<b>PLT324</b> <a href="#">AC 91-13 Cold Weather Operation of Aircraft</a>		
Aircraft Systems	Powerplant	Oil System
<b>PLT326</b> <a href="#">AC 61-107 Operations of Aircraft at Altitudes Above 25,000 Feet MSL and/or MACH numbers (Mmo) Greate</a>		
Aircraft Systems	Environmental	Oxygen Systems
<b>PLT330</b> <a href="#">Aeronautical Information Manual</a>		
Human Factors	Aeromedical Factors	Physiological
<b>PLT331</b> <a href="#">Aeronautical Information Manual</a>		
Human Factors	Aeromedical Factors	Smoking
<b>PLT332</b> <a href="#">Aeronautical Information Manual</a>		
Human Factors	Aeromedical Factors	Physiological

<b>PLT337</b>		
<a href="#">AC 91-43 Unreliable Airspeed Indication</a>		
Aircraft Systems	Pitot / Static	Blockage
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Pitot / Static	Airspeed Indicator
Aircraft Systems	Pitot / Static	Installation Error
<b>PLT343</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Powerplant	Cooling
Aircraft Systems	Powerplant	High Altitude Performance
<b>PLT346</b>		
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Aerodynamics	Principles of Flight	Forces Acting on Aircraft
<b>PLT351</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Propeller	Blade Angle
Aircraft Systems	Propeller	Constant-Speed Propeller
Aircraft Systems	Propeller	Effective Pitch
Aircraft Systems	Propeller	Propeller Slippage
<b>PLT353</b>		
<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Aeronautical Weather Reports	Interpret
<b>PLT366</b>		
<a href="#">49 CFR 830</a>		
Regulations	NTSB Part 830	Reporting
<b>PLT372</b>		
<a href="#">14 CFR 91</a>		
Regulations	Aircraft Inspections	100 Hour Inspection
<b>PLT373</b>		
<a href="#">14 CFR 91</a>		
Regulations	Documentation	Operating Limitations
<b>PLT374</b>		
<a href="#">14 CFR 91</a>		
Regulations	Aircraft Maintenance	Responsibilities
<b>PLT377</b>		
<a href="#">14 CFR 91</a>		
Regulations	Aircraft Maintenance	Documentation
<b>PLT384</b>		
<a href="#">14 CFR 91</a>		
Regulations	Pilot in Command	Passenger Briefing / Seatbelt Usage
<b>PLT386</b>		
<a href="#">14 CFR 61</a>		
Regulations	Student Certificate	Expiration
<b>PLT388</b>		
<a href="#">14 CFR 121</a>		
Regulations	Documentation	Cockpit Voice Recorder
<b>PLT393</b>		
<a href="#">Aeronautical Information Manual</a>		
Airspace	Communications	Restricted Airspace
Airspace	Special Use	Military Training Route
Airspace	Special Use	MOA
Airspace	Special Use	Warning Areas
<b>PLT395</b>		
<a href="#">14 CFR 1</a>		
Regulations	14CFR Part 1	Crewmember
<a href="#">49 CFR 830</a>		
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<b>PLT399</b>		
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<b>PLT404</b>		
<a href="#">14 CFR 91</a>		
Regulations	Equipment	Locator Transmitter

<b>PLT405</b> <a href="#">14 CFR 61</a> Regulations	Eligibility	Practical Test
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<a href="#">14 CFR 91</a> Regulations	Equipment	Minimum Equipment List
<b>PLT407</b> <a href="#">14 CFR 61</a> Regulations	Additional Category Ratings	Requirements
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<b>PLT409</b> <a href="#">14 CFR 61</a> Regulations	Second in Command	Logging Flight Time
<b>PLT411</b> <a href="#">14 CFR 61</a> Regulations	Flight Instructor	Restrictions
<b>PLT413</b> <a href="#">14 CFR 91</a> Regulations	Fuel	Minimum Requirements
<b>PLT415</b> <a href="#">14 CFR 91</a> Regulations	14CFR Part 91	Preflight Action
<b>PLT416</b> <a href="#">49 CFR 830</a> Regulations	NTSB Part 830	Reporting
<b>PLT418</b> <a href="#">14 CFR 61</a> Regulations	14CFR Part 61	Knowledge Test-Retesting
Regulations	FAA Certificates	Advanced/Basic Ground Instructor Limitations
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<b>PLT425</b> <a href="#">14 CFR 91</a> Regulations	Aircraft Maintenance	Rebuilt Engine Requirements
<b>PLT427</b> <a href="#">14 CFR 61</a> Regulations	Type Rating	Medical Certificate Required
<b>PLT430</b> <a href="#">14 CFR 91</a> Regulations	Flight Altitude	VFR
Regulations	Minimum Safe Altitude	Congested Areas
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<b>PLT432</b> <a href="#">14 CFR 1</a> Regulations	14CFR Part 1	Operational Control
<b>PLT435</b> <a href="#">Aeronautical Information Manual</a> Airport Operations	Communications	CTAF
<b>PLT438</b> <a href="#">14 CFR 91</a> Regulations	Pressure Altitude	Supplemental Oxygen
<b>PLT442</b> <a href="#">14 CFR 61</a> Regulations	Pilot in Command	Recent Flight Experience
<b>PLT443</b> <a href="#">14 CFR 61</a> Regulations	14CFR Part 61	Flight Review
<b>PLT444</b> <a href="#">14 CFR 91</a> Regulations	Pilot in Command	Emergency Responsibility

<b>PLT445</b> <a href="#">14 CFR 91</a> Regulations	Pre-Flight	Requirements
<b>PLT447</b> <a href="#">14 CFR 61</a> Regulations	Medical Certificate	Validity Period
<b>PLT448</b> <a href="#">14 CFR 61</a> Regulations	14CFR Part 61	Change of Address
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Regulations	FAA Certificates	Change of Address
<b>PLT455</b> <a href="#">Aeronautical Information Manual</a> Navigation	Pilotage	Closing VFR / DVR Flight Plans
<b>PLT457</b> <a href="#">14 CFR 61</a> Regulations	14CFR Part 61	Fight Instructor Records
Regulations	Student Pilot	Endorsements
<b>PLT461</b> <a href="#">14 CFR 91</a> Regulations	14CFR Part 91	Aircraft Lights
<b>PLT463</b> <a href="#">14 CFR 61</a> Regulations	FAA Certificates	Suspension / Revocation
<a href="#">14 CFR 91</a> Regulations	Alcohol / Drugs	Crewmember Responsibility
Regulations	Alcohol / Drugs	Passenger Limitations
<b>PLT467</b> <a href="#">14 CFR 91</a> Regulations	Class B Airspace	Student Pilot Requirements
Regulations	Flight Altitude	VFR
<b>PLT473</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aircraft Systems	Flight Controls / Secondary	Flaps
<b>PLT477</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aerodynamics	Principles of Flight	Longitudinal Stability
<b>PLT480</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aerodynamics	Principles of Flight	Design Characteristics
Aerodynamics	Stability / Control	Negative Static Stability
<b>PLT482</b> <a href="#">14 CFR 61</a> Regulations	Flight Instructor	Knowledge Test Authorization
<b>PLT492</b> <a href="#">AC 00-6 Aviation Weather</a> Weather	Meteorology	Clouds
Weather	Meteorology	Pressure
Weather	Meteorology	Temperature
<b>PLT495</b> <a href="#">AC 00-6 Aviation Weather</a> Weather	Hazardous	Thunderstorms
<b>PLT497</b> <a href="#">Aeronautical Information Manual</a> Aircraft Systems	Avionics	Aircraft Codes
<b>PLT501</b> <a href="#">AC 00-6 Aviation Weather</a> Weather	Hazardous	Mountain Flying
Weather	Meteorology	Unstable Air
<b>PLT502</b> <a href="#">14 CFR 91</a> Regulations	14CFR Part 91	ATC Light Signals
Regulations	Universal Signals	Control Tower Signals

<b>PLT503</b> <a href="#">Aeronautical Information Manual</a> Human Factors	Aeromedical Factors	Alcohol
<b>PLT508</b> <a href="#">14 CFR 91</a> Regulations	14CFR Part 91	91. 413 ( a )
<b>PLT509</b> <a href="#">Aeronautical Information Manual</a> Airport Operations	Wake Turbulence	Separation
Airport Operations	Wake Turbulence	Wake Turbulence Avoidance
<b>PLT510</b> <a href="#">AC 00-6 Aviation Weather</a> Weather	Meteorology	Circulation
<b>PLT511</b> <a href="#">AC 00-6 Aviation Weather</a> Weather	Hazardous	Icing
Weather	Meteorology	Air Masses
Weather	Meteorology	Fronts
<b>PLT512</b> <a href="#">AC 00-6 Aviation Weather</a> Weather	Meteorology	Moisture
<b>PLT516</b> <a href="#">AC 00-6 Aviation Weather</a> Weather	Meteorology	Atmospheric Pressure
Weather	Meteorology	Circulation
<b>PLT517</b> <a href="#">AC 00-6 Aviation Weather</a> Weather	Meteorology	Circulation
<b>PLT518</b> <a href="#">AC 00-6 Aviation Weather</a> Weather	Hazardous	Windshear



**Flight Instructor Airplane (FIA)  
Sample Questions**

## FLIGHT INSTRUCTOR AIRPLANE (FIA)

### 1. Aspect ratio of a wing is defined as the ratio of the

- A—wingspan to the wing root.
- B—wingspan to the mean chord.
- C—square of the chord to the wingspan.

*Answer: B.*

*Learning Statement: Recall forces acting on aircraft—aspect ratio.*

### 2. In a twin-engine airplane, the single-engine service ceiling is the maximum density altitude at which VYSE will produce

- A—50 feet per minute rate of climb.
- B—100 feet per minute rate of climb.
- C—500 feet per minute rate of climb.

*Answer: A.*

*Learning Statement: Recall aircraft performance- instrument marking/airspeed/definitions/indications.*

### 3. What effect does high-density altitude have on aircraft performance?

- A—It increases engine performance.
- B—It reduces climb performance.
- C—It increases takeoff performance.

*Answer: B.*

*Learning Statement: Recall aircraft performance—density altitude.*

### 4. Which combination of atmospheric conditions will reduce aircraft takeoff and climb performance?

- A—Low temperature, low-relative humidity, and low-density altitude.
- B—High temperature, low-relative humidity, and low-density altitude.
- C—High temperature, high-relative humidity, and high-density altitude.

*Answer: C.*

*Learning Statement: Recall aircraft performance—atmospheric effects.*

### 5. What is true altitude?

- A—The vertical distance of the aircraft above sea level.
- B—The vertical distance of the aircraft above the surface.
- C—The height above the standard datum plane.

*Answer: A.*

*Learning Statement: Define altitude—absolute/true/indicated/density/pressure.*

## LIST OF REFERENCE MATERIALS SPECIFIC TO THE FLIGHT INSTRUCTOR AIRPLANE (FIA) KNOWLEDGE TEST

<i>Topic</i>	<i>Content</i>	<i>Specific</i>
<b>PLT012</b>		
<a href="#">Instrument Flying Handbook, FAA-H-8083-15</a>		
Navigation	Radio	ADF / NDB
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Performance	Computations	Basic Calculations
Navigation	Dead Reckoning	Calculations
Navigation	Pilotage	Calculations
<b>PLT013</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Performance	Limitations	Effects of Exceeding
<b>PLT014</b>		
<a href="#">Instrument Flying Handbook, FAA-H-8083-15</a>		
Navigation	Radio	ADF / NDB
Navigation	Radio	VOR
<b>PLT018</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight	Pitch Attitude
Aircraft Systems	Pitot / Static	Airspeed Indicator
<b>PLT021</b>		
<a href="#">Aircraft Weight and Balance Handbook, FAA-H-8083-1</a>		
Weight and Balance	Aircraft Loading	Graphs
Weight and Balance	Center of Gravity	Shifting Weight
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Weight and Balance	Aircraft Loading	Shifting Weight
Weight and Balance	Aircraft Loading	Weight & Balance Charts
Weight and Balance	Aircraft Loading	Weight & Balance Diagram
Weight and Balance	Center of Gravity	Shifting Weight
<b>PLT022</b>		
<a href="#">AC 60-22 Aeronautical Decision Making</a>		
Human Factors	ADM	Risk Elements
<b>PLT037</b>		
<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Aeronautical Weather Reports	Pilot and Radar Reports, Satellite Pictures, and
<b>PLT040</b>		
<a href="#">Aeronautical Information Manual</a>		
Airspace	Controlled	Class C
<b>PLT041</b>		
<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Meteorology	Pressure
<b>PLT046</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight	Drag
<b>PLT052</b>		
<a href="#">14 CFR 91</a>		
Regulations	Airspace Classes	Class E Airspace
<b>PLT059</b>		
<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Aeronautical Weather Reports	Aviation Routine Weather Reports (METAR)
<b>PLT063</b>		
<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Aeronautical Weather Reports	Radar Summary Chart

<b>PLT064</b>			
<a href="#">14 CFR 91</a>			
Regulations	Airspace Classes		Visibility and Cloud Clearance
<a href="#">Aeronautical Information Manual</a>			
Airspace	Controlled		Class B
Airspace	Controlled		Class C
Airspace	Controlled		Class D
<a href="#">Sectional Aeronautical Chart</a>			
Navigation	Pilotage		Aeronautical Charts
Publications	Aeronautical Charts		Sectionals
<b>PLT066</b>			
<a href="#">AC 00-45 Aviation Weather Services</a>			
Weather	Charts / Maps		Severe Weather Outlook Charts
<b>PLT068</b>			
<a href="#">AC 00-45 Aviation Weather Services</a>			
Weather	Charts / Maps		Significant Weather Prognostic Charts
<b>PLT071</b>			
<a href="#">AC 00-45 Aviation Weather Services</a>			
Weather	Charts / Maps		Surface Analysis Charts
<b>PLT072</b>			
<a href="#">AC 00-45 Aviation Weather Services</a>			
Weather	Aeronautical Weather Forecasts		Data Interpretation
<b>PLT074</b>			
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>			
Aircraft Performance	Charts		Determining Load Factors
<b>PLT075</b>			
<a href="#">AC 00-45 Aviation Weather Services</a>			
Weather	Charts / Maps		Weather Depiction Charts
<b>PLT076</b>			
<a href="#">AC 00-45 Aviation Weather Services</a>			
Weather	Aeronautical Weather Forecasts		Data Dissemination
Weather	Charts / Maps		Winds / Temperatures Aloft Charts
<b>PLT078</b>			
<a href="#">Airport/Facility Directory</a>			
Publications	Airport Facility Directory		Directory Legend
<b>PLT081</b>			
<a href="#">AC 00-45 Aviation Weather Services</a>			
Weather	Aeronautical Weather Forecasts		Data Dissemination
<b>PLT086</b>			
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>			
Flight Operations	Maneuvers		Advanced
Flight Operations	Maneuvers		Ground Reference
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>			
Flight Operations	Maneuvers		Basic
<b>PLT090</b>			
<a href="#">Instrument Flying Handbook, FAA-H-8083-15</a>			
Navigation	Radio		RMI (Radio Magnetic Indicator)
<b>PLT091</b>			
<a href="#">Instrument Flying Handbook, FAA-H-8083-15</a>			
Navigation	Radio		ADF / NDB
<b>PLT095</b>			
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>			
Aircraft Systems	Propeller		Slipstream
<b>PLT096</b>			
<a href="#">Aeronautical Information Manual</a>			
Human Factors	Aeromedical Factors		Physiological
<b>PLT103</b>			
<a href="#">AC 60-22 Aeronautical Decision Making</a>			
Human Factors	ADM		Hazardous Attitude
<b>PLT112</b>			
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>			
Aerodynamics	Stall / Spins		Spin Recovery
Flight Operations	Maneuvers		Advanced
Flight Operations	Maneuvers		Basic

<b>PLT113</b>			
<a href="#">14 CFR 23</a>			
Regulations	14CFR Part 1		Certification Regulation Criteria
<b>PLT116</b>			
<a href="#">Aeronautical Information Manual</a>			
Airport Operations	Communications		Flight Service Stations
Airport Operations	Wake Turbulence		Wake Turbulence Avoidance
<b>PLT124</b>			
<a href="#">Aeronautical Information Manual</a>			
Aircraft Performance	Atmospheric Effects		Determining Density Altitude
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>			
Aircraft Performance	Computations		Determining Density Altitude
<b>PLT131</b>			
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>			
Aircraft Performance	Atmospheric Effects		Ground Effect
<b>PLT132</b>			
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>			
Aircraft Performance	Limitations		Airspeeds
Aircraft Performance	Limitations		Effect of CG Location
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>			
Aircraft Performance	Limitations		Flight Instruments
<b>PLT141</b>			
<a href="#">Aeronautical Information Manual</a>			
Airport Operations	Marking / Signs		Direction to Takeoff Runway(s)
Airport Operations	Marking / Signs		Entrance to Runway
Airport Operations	Marking / Signs		Runway
Airport Operations	Marking / Signs		Runway Exit
Airport Operations	Marking / Signs		Runway Exit Sign
Airport Operations	Marking / Signs		Taxiway
<b>PLT146</b>			
<a href="#">14 CFR 91</a>			
Regulations	Class D Airspace		Minimum Altitudes
<b>PLT161</b>			
<a href="#">14 CFR 91</a>			
Regulations	Airspace Classes		Minimum Flight Visibility
Regulations	Airspace Classes		Transponder / Altitude Reporting Equipment
Regulations	Class B Airspace		Maximum Indicated Airspeed
Regulations	Class D Airspace		Communications
Regulations	Class D Airspace		Maximum Indicated Airspeed
<a href="#">Aeronautical Information Manual</a>			
Airspace	Controlled		Class A
Airspace	Controlled		Communications
<b>PLT162</b>			
<a href="#">14 CFR 91</a>			
Regulations	Class B Airspace		Maximum Indicated Airspeed
<b>PLT163</b>			
<a href="#">14 CFR 91</a>			
Regulations	Weather Minimums		Special VFR
Regulations	Weather Minimums		Visibility
<b>PLT167</b>			
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>			
Aircraft Systems	Pitot / Static		Altimeter
<b>PLT168</b>			
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>			
Aerodynamics	Principles of Flight		Stalls
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>			
Aerodynamics	Principles of Flight		Lift
Aerodynamics	Principles of Flight		Pitch Attitude
Aerodynamics	Principles of Flight		Stalls
<b>PLT170</b>			
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>			
Flight Operations	Approach		Normal Approach / Landing
Flight Operations	Landing		Roundout (Flare)
Flight Operations	Landing		Short-Field Approach / Landing

<b>PLT190</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Powerplant		Carburetor Icing
<b>PLT192</b>			
	<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Hazardous		Thunderstorms
Weather	Meteorology		Clouds
<b>PLT194</b>			
	<a href="#">Aeronautical Information Manual</a>		
Human Factors	Aeromedical Factors		Visual Illusions
<b>PLT195</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Flight Operations	Approach		Normal Approach / Landing
<b>PLT198</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Navigation	Dead Reckoning		Calculations
<b>PLT206</b>			
	<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Meteorology		Density Altitude
<b>PLT208</b>			
	<a href="#">14 CFR 91</a>		
Regulations	Equipment		Locator Transmitter
	<a href="#">Instrument Flying Handbook, FAA-H-8083-15</a>		
Aircraft Systems	Flight Instruments		Attitude Instrument Flying
<b>PLT214</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Aerodynamics	Principles of Flight		Forces Acting on Aircraft
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Load Factor		Maneuvering Speed
<b>PLT215</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Flight Instruments		Compass
<b>PLT218</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Flight Operations	Maneuvers		Basic
Flight Operations	Maneuvers		Stalls / Spins
Flight Operations	Maneuvers		Turns
<b>PLT219</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Flight Operations	Maneuvers		Advanced
Flight Operations	Maneuvers		Basic
Flight Operations	Maneuvers		Ground Reference
Flight Operations	Maneuvers		Skids / Slips
Flight Operations	Maneuvers		Stalls / Spins
Flight Operations	Maneuvers		Turns
	<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Flight Operations	Maneuvers		Basic
<b>PLT221</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Flight Operations	Landing		Normal Approach/Landing
<b>PLT222</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Flight Operations	Emergency Procedures		Approach / Landing
<b>PLT223</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Aircraft Performance	Limitations		Airspeeds
Aircraft Systems	Powerplant		Performance Loss
Flight Operations	Positive Aircraft Control		VMC
<b>PLT225</b>			
	<a href="#">Aeronautical Information Manual</a>		
Navigation	Pilotage		Aircraft Suffixes
<b>PLT226</b>			
	<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Meteorology		Fog

<b>PLT232</b>			
	<a href="#">AC 60-22 Aeronautical Decision Making</a>		
Human Factors	ADM		Hazardous Attitude
<b>PLT235</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight		Forces Acting on Aircraft
<b>PLT236</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Stability / Control		Design Characteristics
<b>PLT237</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight		Forces Acting on Aircraft
<b>PLT238</b>			
	<a href="#">Glider Flying Handbook, FAA-H-8083-13</a>		
Aerodynamics	Principles of Flight		Aspect Ratio
<b>PLT240</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Stability / Control		Adverse Balance
Aerodynamics	Stability / Control		Performance Characteristics
<b>PLT241</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight		Forces Acting on Aircraft
<b>PLT242</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Aerodynamics	Principles of Flight		Forces Acting on Aircraft
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight		Forces Acting on Aircraft
<b>PLT244</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Aerodynamics	Stability / Control		Spiral Instability
Flight Operations	Landing		Normal Approach/Landing
<b>PLT245</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Aerodynamics	Principles of Flight		Accelerated Stall
Aerodynamics	Principles of Flight		Spins
Flight Operations	Maneuvers		Stalls / Spins
<b>PLT248</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Aerodynamics	Principles of Flight		Turns
Flight Operations	Maneuvers		Basic
<b>PLT249</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Powerplant		Mixture Control
<b>PLT253</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Powerplant		Exhaust Gas Temperature Gauge
Aircraft Systems	Powerplant		Fuel Injection System
Aircraft Systems	Powerplant		Fuel Selectors
<b>PLT258</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Flight Operations	Maneuvers		Ground Reference
<b>PLT263</b>			
	<a href="#">AC 00-6 Aviation Weather</a>		
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<b>PLT270</b>			
	<a href="#">AC 60-22 Aeronautical Decision Making</a>		
Human Factors	ADM		Judgment
<b>PLT276</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Navigation	Radio		VOR
<b>PLT278</b>			
	<a href="#">Instrument Flying Handbook, FAA-H-8083-15</a>		
Aircraft Systems	Flight Instruments		Attitude Instrument Flying

<b>PLT289</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Charts / Maps		Weather Depiction Charts
<b>PLT290</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Aeronautical Weather Forecasts		Data Dissemination
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	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Aeronautical Weather Forecasts		Aviation Weather Forecasts
Weather	Aeronautical Weather Forecasts		Data Dissemination
<b>PLT295</b>			
	<a href="#">AC 61-67 Stall Spin Awareness Training</a>		
Instructional Guidelines	Instructor Responsibilities / Professionalism		Demo stalls
	<a href="#">Aviation Instructor Handbook, FAA-H-8083-9</a>		
Instructional Guidelines	Techniques-Flight Instruction		Distractions
<b>PLT300</b>			
	<a href="#">Aeronautical Information Manual</a>		
Navigation	Radio		VOR
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<b>PLT301</b>			
	<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Meteorology		Temperature
<b>PLT305</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Flight Controls / Secondary		Flaps
<b>PLT311</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Flight Operations	Maneuvers		Turns
<b>PLT317</b>			
	<a href="#">Aeronautical Information Manual</a>		
Weather	Hazardous		Microburst
<b>PLT320</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Navigation	Dead Reckoning		Calculations
<b>PLT322</b>			
	<a href="#">Aeronautical Information Manual</a>		
Navigation	Radio		VORTAC
<b>PLT330</b>			
	<a href="#">Aeronautical Information Manual</a>		
Human Factors	Aeromedical Factors		Physiological
<b>PLT331</b>			
	<a href="#">Aeronautical Information Manual</a>		
Human Factors	Aeromedical Factors		Smoking
<b>PLT336</b>			
	<a href="#">Instrument Flying Handbook, FAA-H-8083-15</a>		
Aircraft Systems	Pitot / Static		Altimeter
<b>PLT337</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Pitot / Static		Airspeed Indicator
Aircraft Systems	Pitot / Static		Installation Error
<b>PLT343</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Powerplant		High Altitude Performance
<b>PLT346</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Aerodynamics	Principles of Flight		Forces Acting on Aircraft
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight		Forces Acting on Aircraft
<b>PLT347</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Aircraft Systems	Propeller		The Critical Engine



<b>PLT351</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Propeller	Geometric Pitch
Aircraft Systems	Propeller	Propeller Efficiency
<b>PLT353</b>		
<a href="#">AC 00-45 Aviation Weather Services</a>		
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<b>PLT366</b>		
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<b>PLT370</b>		
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<b>PLT373</b>		
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<b>PLT374</b>		
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<b>PLT386</b>		
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<b>PLT393</b>		
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<b>PLT415</b>		
<a href="#">14 CFR 91</a>		
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<b>PLT416</b> <a href="#">49 CFR 830</a> Regulations	NTSB Part 830	Reporting
<b>PLT418</b> <a href="#">14 CFR 61</a> Regulations	Flight Instructor	Endorsements
<b>PLT419</b> <a href="#">14 CFR 61</a> Regulations Regulations Regulations	Eligibility Flight Instructor Flight Instructor	Stall / Spin Proficiency Certificate Renewal / Duration Endorsements
<b>PLT425</b> <a href="#">14 CFR 91</a> Regulations	Aircraft Maintenance	Documentation
<b>PLT430</b> <a href="#">14 CFR 91</a> Regulations Regulations	Flight Altitude Minimum Safe Altitude	VFR Definition
<b>PLT435</b> <a href="#">Aeronautical Information Manual</a> Airport Operations	Communications	Unicom Frequency
<b>PLT438</b> <a href="#">14 CFR 91</a> Regulations	Pressure Altitude	Supplemental Oxygen
<b>PLT442</b> <a href="#">14 CFR 61</a> Regulations Regulations	Flight Review Type Rating	Currency Requirements Training Requirements
<b>PLT443</b> <a href="#">14 CFR 61</a> Regulations	Type Rating	Training Requirements
<b>PLT447</b> <a href="#">14 CFR 61</a> Regulations	14CFR Part 61	Duration of Medical Certificate
<b>PLT448</b> <a href="#">14 CFR 61</a> Instructional Guidelines Regulations Regulations Regulations Regulations <a href="#">14 CFR 91</a> Regulations	Planning Instructional Activity Student Certificate Student Certificate Student Certificate FAA Certificates	Instructor Resources Endorsements Expiration Limitations Safety Pilot Requirements
<b>PLT451</b> <a href="#">14 CFR 61</a> Regulations Regulations Regulations Regulations	Additional Category Ratings Commercial Pilot Flight Instructor Student Pilot	Requirements Limitations Requirements Experience Requirements
<b>PLT457</b> <a href="#">14 CFR 61</a> Instructional Guidelines Regulations Regulations Regulations	Instructor Responsibilities / Professionalism Flight Instructor Student Certificate Student Pilot	Pre Solo Requirements Endorsements Limitations Endorsements
<b>PLT460</b> <a href="#">14 CFR 61</a> Regulations	Student Pilot	Solo Requirements
<b>PLT467</b> <a href="#">14 CFR 91</a> Regulations	Class B Airspace	Student Pilot Requirements

<b>PLT477</b>		
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Flight Operations	Maneuvers	Stalls / Spins
Instructional Guidelines	Instructor Responsibilities / Professionalism	Demo stalls
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight	Longitudinal Stability
Aircraft Performance	Limitations	Airspeeds
<b>PLT480</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight	Design Characteristics
Aerodynamics	Stability / Control	Basic Concepts of Stability
Aerodynamics	Stability / Control	Design Characteristics
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<b>PLT482</b>		
<a href="#">14 CFR 61</a>		
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<b>PLT484</b>		
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<b>PLT486</b>		
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
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<b>PLT487</b>		
<a href="#">Practical Test Standards</a>		
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<b>PLT492</b>		
<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Meteorology	Pressure
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<b>PLT493</b>		
<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Hazardous	Icing
<b>PLT495</b>		
<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Hazardous	Thunderstorms
<b>PLT501</b>		
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<b>PLT503</b>		
<a href="#">Aeronautical Information Manual</a>		
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<b>PLT509</b>		
<a href="#">Aeronautical Information Manual</a>		
Airport Operations	Wake Turbulence	Wake Turbulence Avoidance
<b>PLT510</b>		
<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Meteorology	Circulation
<b>PLT511</b>		
<a href="#">AC 00-6 Aviation Weather</a>		
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<b>PLT516</b>		
<a href="#">AC 00-6 Aviation Weather</a>		
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<b>PLT518</b>		
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<a href="#">Aeronautical Information Manual</a>		
Weather	Meteorology	Microburst

**Flight Instructor Rotorcraft Helicopter (FRH)  
Sample Questions**

## FLIGHT INSTRUCTOR ROTORCRAFT HELICOPTER (FRH)

**1. During flight, if you apply cyclic control pressure which results in a decrease in pitch angle of the rotor blades at a position approximately 90° to your left, the rotor disc will tilt**

- A—aft.
- B—left.
- C—right.

*Answer: A.*

*Learning Statement: Recall cyclic control pressure—characteristics.*

**2. Rotor blade-flapping action is**

- A—an undesirable reaction to changes in airspeed and blade angle of attack.
- B—an aerodynamic reaction to high speed flight and cannot be controlled by the pilot.
- C—a design feature permitting continual changes in the rotor blade angle of attack, compensating for dissymmetry of lift.

*Answer: C.*

*Learning Statement: Recall rotor system—types/components/operating principles/characteristics.*

**3. The forward speed of a rotorcraft is restricted primarily by**

- A—dissymmetry of lift.
- B—transverse flow effect.
- C—high-frequency vibrations.

*Answer: A.*

*Learning Statement: Recall rotor system—types/components/operating principles/characteristics.*

**4. How does temperature and weight affect the  $V_{NE}$  of a helicopter?**

- A— $V_{NE}$  increases as temperature and weight increase.
- B— $V_{NE}$  decreases as temperature and weight increase.
- C— $V_{NE}$  decreases as temperature increases and weight decreases.

*Answer: B.*

*Learning Statement: Recall aircraft performance—airspeed.*

**5. Performance of a helicopter can be determined by**

- A—knowing the density altitude, gross weight, and surface wind.
- B—the formula  $\pi$  times the rotor diameter divided by the blade area.
- C—the highest altitude that can be maintained in a hover following liftoff.

*Answer: A.*

*Learning Statement: Recall aircraft performance—atmospheric effects.*

## LIST OF REFERENCE MATERIALS SPECIFIC TO THE FLIGHT INSTRUCTOR ROTORCRAFT HELICOPTER (FRH) KNOWLEDGE TEST

<i>Topic</i>	<i>Content</i>	<i>Specific</i>
<b>PLT005</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aircraft Performance	Computations	Determining Density Altitude
<b>PLT008</b> <a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Flight Operations	Landing	Slope Landing
<b>PLT012</b> <a href="#">Instrument Flying Handbook, FAA-H-8083-15</a> Navigation	Radio	ADF / NDB
<b>PLT013</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aircraft Performance Navigation	Computations Dead Reckoning	Basic Calculations Calculations
<b>PLT014</b> <a href="#">Instrument Flying Handbook, FAA-H-8083-15</a> Navigation Navigation	Radio Radio	ADF / NDB VOR
<b>PLT015</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Navigation	Dead Reckoning	Calculations
<b>PLT021</b> <a href="#">Aircraft Weight and Balance Handbook, FAA-H-8083-1</a> Weight and Balance Weight and Balance <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Weight and Balance Weight and Balance	Aircraft Loading Center of Gravity Aircraft Loading Aircraft Loading	Graphs Shifting Weight Shifting Weight Weight & Balance Diagram
<b>PLT022</b> <a href="#">AC 60-22 Aeronautical Decision Making</a> Human Factors	ADM	Risk Management
<b>PLT023</b> <a href="#">AC 00-6 Aviation Weather</a> Weather	Meteorology	Density Altitude
<b>PLT037</b> <a href="#">AC 00-45 Aviation Weather Services</a> Weather	Aeronautical Weather Reports	Pilot and Radar Reports, Satellite Pictures, and
<b>PLT040</b> <a href="#">Aeronautical Information Manual</a> Airspace	Controlled	Class C
<b>PLT051</b> <a href="#">AC 00-45 Aviation Weather Services</a> Weather	Aeronautical Weather Forecasts	Data Interpretation
<b>PLT052</b> <a href="#">14 CFR 91</a> Regulations	Airspace Classes	Class E Airspace
<b>PLT059</b> <a href="#">AC 00-45 Aviation Weather Services</a> Weather <a href="#">Aeronautical Information Manual</a> Weather	Aeronautical Weather Reports Aeronautical Weather Reports	Aviation Routine Weather Reports (METAR) Aviation Routine Weather Reports (METAR)
<b>PLT061</b> <a href="#">AC 00-45 Aviation Weather Services</a> Weather	Aeronautical Weather Reports	Pilot Reports
<b>PLT063</b> <a href="#">AC 00-45 Aviation Weather Services</a> Weather Weather Weather	Aeronautical Weather Reports Aeronautical Weather Reports Charts / Maps	Interpret Radar Summary Chart Radar Summary Charts

<b>PLT064</b>			
	<a href="#">Aeronautical Information Manual</a>		
Airspace	Controlled		Class B
Airspace	Controlled		Class C
Airspace	Controlled		Class D
Airspace	Controlled		Class E
Airspace	Controlled		Equipment Required
Airspace	Special Use		Procedures
	<a href="#">Sectional Aeronautical Chart</a>		
Navigation	Pilotage		Aeronautical Charts
<b>PLT066</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Charts / Maps		Severe Weather Outlook Charts
<b>PLT068</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Aeronautical Weather Forecasts		Data Interpretation
Weather	Charts / Maps		Significant Weather Prognostic Charts
<b>PLT071</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Charts / Maps		Surface Analysis Charts
<b>PLT072</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Aeronautical Weather Forecasts		Data Interpretation
Weather	Aeronautical Weather Reports		Aviation Routine Weather Reports (METAR)
<b>PLT075</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Charts / Maps		Weather Depiction Charts
<b>PLT076</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Aeronautical Weather Forecasts		Data Dissemination
Weather	Charts / Maps		Winds / Temperatures Aloft Charts
<b>PLT081</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Aeronautical Weather Forecasts		Aviation Weather Forecasts
Weather	Aeronautical Weather Forecasts		Data Dissemination
<b>PLT086</b>			
	<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Aerodynamics	Principles of Flight		Forces Acting on Aircraft
<b>PLT090</b>			
	<a href="#">Instrument Flying Handbook, FAA-H-8083-15</a>		
Navigation	Radio		RMI (Radio Magnetic Indicator)
<b>PLT091</b>			
	<a href="#">Instrument Flying Handbook, FAA-H-8083-15</a>		
Navigation	Radio		ADF / NDB
<b>PLT101</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Navigation	Pilotage		Measurement of Direction
<b>PLT103</b>			
	<a href="#">AC 60-22 Aeronautical Decision Making</a>		
Human Factors	ADM		Hazardous Attitude
<b>PLT112</b>			
	<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Airport Operations	Taxiing		Collective Pitch
Flight Operations	Maneuvers		Basic
<b>PLT115</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Powerplant		Mixture Control
<b>PLT116</b>			
	<a href="#">Aeronautical Information Manual</a>		
Airport Operations	Communications		Flight Service Stations
Navigation	Pilotage		Change in Proposed Departure Time

<b>PLT123</b> <a href="#">14 CFR 91</a> Regulations	VFR Flight Plan	Information Required
<b>PLT125</b> <a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Flight Operations	Emergency Procedures	Autorotation
<b>PLT127</b> <a href="#">AC 00-6 Aviation Weather</a> Weather	Meteorology	Density Altitude
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a> Aircraft Performance	Atmospheric Effects	Determining Density Altitude
<b>PLT129</b> <a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Flight Operations	Landing	Slope Operations
<b>PLT131</b> <a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a> Aircraft Performance	Atmospheric Effects	Ground Effect
<b>PLT141</b> <a href="#">Aeronautical Information Manual</a> Airport Operations	Lighting	Rotating Beacon
Airport Operations	Marking / Signs	Heliport Markings
Airport Operations	Marking / Signs	Hold Position
Airport Operations	Marking / Signs	ILS
Airport Operations	Marking / Signs	Prohibited Entry
Airport Operations	Marking / Signs	Runway Exit
Airport Operations	Marking / Signs	Runway with Displaced Threshold
Airport Operations	Marking / Signs	Taxiway
Airport Operations	Marking / Signs	Taxiway Directional Sign
Airport Operations	Marking / Signs	Taxiway to Runway Marking
<b>PLT145</b> <a href="#">Aeronautical Information Manual</a> Airport Operations	Lighting	Pilot Controlled Lighting
<b>PLT146</b> <a href="#">Aeronautical Information Manual</a> Airport Operations	Traffic Patterns	Segmented Circle
<b>PLT161</b> <a href="#">14 CFR 91</a> Regulations	Airspace Classes	Controlled Airspace Requirements
Regulations	Airspace Classes	Limitations
Regulations	Airspace Classes	Minimum Flight Visibility
Regulations	Class B Airspace	Maximum Indicated Airspeed
Regulations	Class D Airspace	Communications
Regulations	Class D Airspace	Maximum Indicated Airspeed
Regulations	Weather Minimums	Special VFR
<a href="#">Aeronautical Information Manual</a> Airspace	Controlled	Class C
Airspace	Controlled	Class D
Airspace	Controlled	Class E
Airspace	Controlled	Communications
<b>PLT162</b> <a href="#">Aeronautical Information Manual</a> Airspace	Uncontrolled	Class D Airspace
<b>PLT163</b> <a href="#">14 CFR 91</a> Regulations	14CFR Part 91	Distance from Clouds
Regulations	Airspace Classes	Minimum Flight Visibility
<b>PLT168</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aerodynamics	Principles of Flight	Forces Acting on Aircraft



<b>PLT170</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Flight Operations	Approach		Go Around
	<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Flight Operations	Landing		Running Landing
Flight Operations	Maneuvers		Advanced
<b>PLT173</b>			
	<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Meteorology		Stability
<b>PLT175</b>			
	<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Aerodynamics	Flight Characteristics		Physics
Aerodynamics	Principles of Flight		Helicopter Emergencies
Flight Operations	Emergency Procedures		Autorotation
<b>PLT186</b>			
	<a href="#">Instrument Flying Handbook, FAA-H-8083-15</a>		
Aircraft Systems	Flight Instruments		Attitude Instrument Flying
<b>PLT190</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Powerplant		Carburetor Icing
<b>PLT191</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Powerplant		Carburetor Systems
<b>PLT192</b>			
	<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Hazardous		Thunderstorms
Weather	Meteorology		Air Masses
Weather	Meteorology		Clouds
<b>PLT194</b>			
	<a href="#">Aeronautical Information Manual</a>		
Human Factors	Aeromedical Factors		Fitness for Flight
Human Factors	Aeromedical Factors		Visual Illusions
<b>PLT196</b>			
	<a href="#">Aeronautical Information Manual</a>		
Airport Operations	Tower Controlled		ATIS
<b>PLT197</b>			
	<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Aerodynamics	Principles of Flight		Coriolis Effect
<b>PLT198</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
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<b>PLT202</b>			
	<a href="#">Instrument Flying Handbook, FAA-H-8083-15</a>		
Navigation	Radio		DME
<b>PLT206</b>			
	<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Meteorology		Density Altitude
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Performance	Atmospheric Effects		Determining Density Altitude
<b>PLT208</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Navigation	Dead Reckoning		Calculations
	<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Flight Operations	Emergency Procedures		Autorotation
Flight Operations	Emergency Procedures		Takeoff
<b>PLT215</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Flight Instruments		Compass
<b>PLT217</b>			
	<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Flight Operations	Maneuvers		Advanced

<b>PLT219</b>		
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Flight Operations	Maneuvers	Ground Reference
<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Flight Operations	Maneuvers	Basic
Flight Operations	Maneuvers	Turns
<b>PLT222</b>		
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Flight Operations	Emergency Procedures	Approach / Landing
<b>PLT225</b>		
<a href="#">Aeronautical Information Manual</a>		
Navigation	Pilotage	Aircraft Suffixes
<b>PLT226</b>		
<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Meteorology	Fog
<b>PLT236</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight	Pressure Distribution
<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Aerodynamics	Principles of Flight	Airfoil
<b>PLT237</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight	Lift
<b>PLT240</b>		
<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Weight and Balance	Center of Gravity	Aft CG
Weight and Balance	Center of Gravity	Center of Gravity Location
Weight and Balance	Center of Gravity	Critical Aft CG
Weight and Balance	Center of Gravity	Insufficient Forward Cyclic Control
<b>PLT241</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight	Forces Acting on Aircraft
<b>PLT242</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight	Forces Acting on Aircraft
Aerodynamics	Principles of Flight	Pressure Distribution
<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Aerodynamics	Principles of Flight	Dissymmetry of Lift
Aerodynamics	Principles of Flight	Translational Lift
<b>PLT248</b>		
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Aerodynamics	Principles of Flight	Level Turns
<b>PLT249</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Powerplant	Mixture Control
<b>PLT253</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Fuel / Oil	Fuel System Preflight
Aircraft Systems	Powerplant	Exhaust Gas Temperature Gauge
Aircraft Systems	Powerplant	Fuel Injection System
Aircraft Systems	Powerplant	Fuel Selectors
Aircraft Systems	Powerplant	Mixture Control
<b>PLT258</b>		
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Flight Operations	Maneuvers	Ground Reference
<b>PLT259</b>		
<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Aerodynamics	Flight Characteristics	Physics
<b>PLT261</b>		
<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Hazardous	Thunderstorms

<b>PLT263</b>			
	<a href="#">AC 00-6 Aviation Weather</a>		
Weather		Meteorology	Fog
<b>PLT264</b>			
	<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Flight Operations		Emergency Procedures	Recovery / Settling with Power
Flight Operations		Emergency Procedures	Settling-With-Power
<b>PLT268</b>			
	<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Flight Operations		Approach	Hovering
<b>PLT271</b>			
	<a href="#">AC 60-22 Aeronautical Decision Making</a>		
Human Factors		ADM	Risk Management
<b>PLT272</b>			
	<a href="#">AC 60-22 Aeronautical Decision Making</a>		
Human Factors		ADM	Judgment
<b>PLT276</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Navigation		Radio	VOR
<b>PLT277</b>			
	<a href="#">14 CFR 91</a>		
Regulations		Aircraft Lights	Night-Flight Operations
<b>PLT278</b>			
	<a href="#">Instrument Flying Handbook, FAA-H-8083-15</a>		
Aircraft Systems		Flight Instruments	Attitude Instrument Flying
<b>PLT287</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather		Charts / Maps	Surface Analysis Charts
<b>PLT289</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather		Charts / Maps	Weather Depiction Charts
<b>PLT290</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather		Aeronautical Weather Forecasts	Data Dissemination
<b>PLT291</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather		Aeronautical Weather Forecasts	Aviation Weather Forecasts
Weather		Aeronautical Weather Forecasts	Data Dissemination
<b>PLT295</b>			
	<a href="#">Aviation Instructor Handbook, FAA-H-8083-9</a>		
Instructional Guidelines		Techniques-Flight Instruction	Distractions
<b>PLT300</b>			
	<a href="#">Aeronautical Information Manual</a>		
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<b>PLT301</b>			
	<a href="#">AC 00-6 Aviation Weather</a>		
Weather		Meteorology	Temperature
<b>PLT309</b>			
	<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Aerodynamics		Principles of Flight	Load Factor
<b>PLT311</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
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<b>PLT316</b>			
	<a href="#">Aeronautical Information Manual</a>		
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<b>PLT317</b>			
	<a href="#">Aeronautical Information Manual</a>		
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<b>PLT320</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
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<b>PLT322</b>		
<a href="#">Aeronautical Information Manual</a>		
Navigation	Radio	VORTAC
<b>PLT331</b>		
<a href="#">Aeronautical Information Manual</a>		
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<b>PLT332</b>		
<a href="#">Aeronautical Information Manual</a>		
Human Factors	Aeromedical Factors	Physiological
<b>PLT336</b>		
<a href="#">Instrument Flying Handbook, FAA-H-8083-15</a>		
Aircraft Systems	Pitot / Static	Altimeter
<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Flight Operations	Approach	Hovering
Flight Operations	Landing	Slope Operations
Flight Operations	Maneuvers	Basic
<b>PLT337</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Pitot / Static	Airspeed Indicator
<b>PLT343</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Powerplant	Cooling
<b>PLT346</b>		
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Aerodynamics	Principles of Flight	Forces Acting on Aircraft
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight	Forces Acting on Aircraft
<b>PLT349</b>		
<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Flight Operations	Maneuvers	Advanced
<b>PLT353</b>		
<a href="#">AC 00-45 Aviation Weather Services</a>		
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<b>PLT366</b>		
<a href="#">49 CFR 830</a>		
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<b>PLT370</b>		
<a href="#">Aeronautical Information Manual</a>		
Flight Operations	Collision Avoidance	Ground Track
<b>PLT372</b>		
<a href="#">14 CFR 91</a>		
Regulations	Aircraft Inspections	100 Hour Inspection
Regulations	Aircraft Maintenance	Documentation
<b>PLT373</b>		
<a href="#">14 CFR 91</a>		
Regulations	Documentation	Operating Limitations
<b>PLT374</b>		
<a href="#">14 CFR 91</a>		
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<b>PLT386</b>		
<a href="#">14 CFR 61</a>		
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<b>PLT393</b>		
<a href="#">Aeronautical Information Manual</a>		
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<b>PLT395</b> <a href="#">49 CFR 830</a> Regulations	NTSB Part 830	Definition
<b>PLT403</b> <a href="#">14 CFR 91</a> Regulations	14CFR Part 91	Emergency-Priority
<b>PLT405</b> <a href="#">14 CFR 61</a> Regulations Regulations <a href="#">14 CFR 91</a> Regulations Regulations Regulations	Flight Instructor Student Pilot  Airspace Classes Equipment Equipment	Application During Suspension Eligibility  Transponder / Altitude Reporting Equipment Minimum Equipment List VFR Night Flights
<b>PLT407</b> <a href="#">14 CFR 61</a> Regulations Regulations	Flight Review Knowledge / Practical Test	Proficiency Check Cheating
<b>PLT409</b> <a href="#">14 CFR 61</a> Regulations Regulations Regulations	Commercial Pilot Eligibility Student Pilot	Logging Flight Time Flight Time Eligibility
<b>PLT411</b> <a href="#">14 CFR 61</a> Regulations Regulations Regulations Regulations	Flight Instructor Flight Instructor Flight Instructor Flight Instructor	Certificate Renewal / Duration Endorsements Requirements Training
<b>PLT413</b> <a href="#">14 CFR 91</a> Regulations	Fuel	Minimum Requirements
<b>PLT414</b> <a href="#">14 CFR 91</a> Regulations	Operational Procedures	Right of Way
<b>PLT415</b> <a href="#">14 CFR 91</a> Regulations	14CFR Part 91	Preflight Action
<b>PLT416</b> <a href="#">49 CFR 830</a> Regulations	NTSB Part 830	Reporting
<b>PLT418</b> <a href="#">14 CFR 61</a> Regulations Regulations	14CFR Part 61 Flight Instructor	Knowledge Test-Retesting Endorsements
<b>PLT419</b> <a href="#">14 CFR 61</a> Regulations	Flight Instructor	Endorsements
<b>PLT425</b> <a href="#">14 CFR 91</a> Regulations	Aircraft Maintenance	Documentation
<b>PLT427</b> <a href="#">14 CFR 61</a> Regulations	Type Rating	Medical Certificate Required
<b>PLT430</b> <a href="#">14 CFR 91</a> Regulations Regulations Regulations	Minimum Safe Altitude Minimum Safe Altitude Minimum Safe Altitude	Congested Areas Definition Helicopter

<b>PLT435</b>		
<a href="#">Aeronautical Information Manual</a>		
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<b>PLT442</b>		
<a href="#">14 CFR 61</a>		
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<b>PLT444</b>		
<a href="#">14 CFR 91</a>		
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<b>PLT445</b>		
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<b>PLT448</b>		
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<a href="#">14 CFR 61</a>		
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<a href="#">14 CFR 61</a>		
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<a href="#">14 CFR 91</a>		
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**PLT470**[Rotorcraft Flying Handbook, FAA-H-8083-21](#)

Aerodynamics	Principles of Flight	Autorotation
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Aerodynamics	Principles of Flight	Coriolis Effect
Aerodynamics	Principles of Flight	Definition
Aerodynamics	Principles of Flight	Dissymmetry of Lift
Aerodynamics	Principles of Flight	Driving Region
Aerodynamics	Principles of Flight	Forces Acting on Aircraft
Aerodynamics	Principles of Flight	Limitations
Aerodynamics	Principles of Flight	Main Rotor System
Aerodynamics	Principles of Flight	Physics
Aerodynamics	Principles of Flight	Rotor Lift
Aerodynamics	Principles of Flight	Translating Tendency or Drift
Aerodynamics	Stability / Control	Translating Tendency or Drift
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Flight Operations	Emergency Procedures	Autorotation
Flight Operations	Emergency Procedures	Loss of Tail Rotor Effectiveness
Flight Operations	Emergency Procedures	Recovery from Low Rotor RPM
Flight Operations	Maneuvers	Helicopter Emergencies

**PLT471**[Rotorcraft Flying Handbook, FAA-H-8083-21](#)

Aircraft Systems	Transmission	Engine Starting
Aircraft Systems	Transmission	Freewheeling Unit

**PLT472**[Rotorcraft Flying Handbook, FAA-H-8083-21](#)

Aerodynamics	Principles of Flight	Forward Flight
Aerodynamics	Principles of Flight	Transverse Flow
Aircraft Systems	Rotor	Improperly Rigged Tail Rotor
Aircraft Systems	Transmission	Vibration

**PLT481**[AC 60-22 Aeronautical Decision Making](#)

Human Factors	ADM	Judgment
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**PLT482**[14 CFR 61](#)

Regulations	Eligibility	Practical Test
Regulations	Flight Instructor	Knowledge Test Authorization
Regulations	Flight Instructor	Student Evaluation

**PLT486**[Rotorcraft Flying Handbook, FAA-H-8083-21](#)

Flight Operations	Takeoff	Crosswind
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**PLT492**[AC 00-6 Aviation Weather](#)

Weather	Meteorology	Temperature
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**PLT495**[AC 00-6 Aviation Weather](#)

Weather	Hazardous	Thunderstorms
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**PLT501**[AC 00-6 Aviation Weather](#)

Weather	Meteorology	Unstable Air
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**PLT502**[Aeronautical Information Manual](#)

Airport Operations	Tower Controlled	Light Signals
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**PLT503**[Aeronautical Information Manual](#)

Human Factors	Aeromedical Factors	Alcohol
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<b>PLT508</b> <a href="#">14 CFR 91</a> Regulations	14CFR Part 91	91. 413 ( a )
<b>PLT509</b> <a href="#">Aeronautical Information Manual</a> Airport Operations	Wake Turbulence	Wake Turbulence Avoidance
<b>PLT511</b> <a href="#">AC 00-6 Aviation Weather</a> Weather	Meteorology	Air Masses
Weather	Meteorology	Fronts
<b>PLT512</b> <a href="#">AC 00-6 Aviation Weather</a> Weather	Meteorology	Moisture
<b>PLT516</b> <a href="#">AC 00-6 Aviation Weather</a> Weather	Meteorology	Air Masses
Weather	Meteorology	Circulation
<b>PLT517</b> <a href="#">AC 00-6 Aviation Weather</a> Weather	Meteorology	Circulation
<b>PLT518</b> <a href="#">AC 00-6 Aviation Weather</a> Weather	Hazardous	Turbulence
Weather	Hazardous	Windshear
<a href="#">Aeronautical Information Manual</a> Weather	Meteorology	Microburst
<b>PLT520</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aircraft Performance	Computations	Determining Density Altitude



**Flight Instructor Rotorcraft Gyroplane (FRG)  
Sample Questions**

## FLIGHT INSTRUCTOR ROTORCRAFT GYROPLANE (FRG)

**1. During flight, if you apply cyclic control pressure which results in a decrease in pitch angle of the rotor blades at a position approximately 90° to your left, the rotor disc will tilt**

- A—aft.
- B—left.
- C—right.

*Answer: A.*

*Learning Statement: Recall cyclic control pressure—characteristics.*

**2. Rotor blade-flapping action is**

- A—an undesirable reaction to changes in airspeed and blade angle of attack.
- B—an aerodynamic reaction to high speed flight and cannot be controlled by the pilot.
- C—a design feature permitting continual changes in the rotor blade angle of attack, compensating for dissymmetry of lift.

*Answer: C.*

*Learning Statement: Recall rotor system—types/components/operating principles/characteristics.*

**3. If the ground wire between the magneto and the ignition switch becomes disconnected, the most noticeable result will be that the engine**

- A—will run very rough.
- B—cannot be started with the switch in the ON position.
- C—cannot be shut down by turning the switch to the OFF position.

*Answer: C.*

*Learning Statement: Recall starter/ignition system—types/components/operating principles/characteristics.*

**4. When the pilot leans the mixture control, what is being accomplished?**

- A—The volume of air entering the carburetor is being reduced.
- B—The volume of air entering the carburetor is being increased.
- C—The amount of fuel entering the combustion chamber is being reduced.

*Answer: C.*

*Learning Statement: Recall fuel system—components/operating principles/characteristics/leaks.*

**5. A slightly below glidepath indication on a 2-bar VASI glidepath is indicated by**

- A—two red lights over two more red lights.
- B—two white lights over two red lights.
- C—two red lights over two white lights.

*Answer: A.*

*Learning Statement: Recall airport operations—visual glide slope indicators.*

## LIST OF REFERENCE MATERIALS SPECIFIC TO THE FLIGHT INSTRUCTOR ROTORCRAFT GYROPLANE (FRG) KNOWLEDGE TEST

<i>Topic</i>	<i>Content</i>	<i>Specific</i>
<b>PLT005</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aircraft Performance	Computations	Determining Density Altitude
<b>PLT012</b> <a href="#">Instrument Flying Handbook, FAA-H-8083-15</a> Navigation	Radio	ADF / NDB
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aircraft Performance	Computations	Basic Calculations
Navigation	Dead Reckoning	Calculations
Navigation	Pilotage	Calculations
<b>PLT014</b> <a href="#">Instrument Flying Handbook, FAA-H-8083-15</a> Navigation	Radio	ADF / NDB
Navigation	Radio	VOR
<b>PLT015</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Navigation	Dead Reckoning	Calculations
<b>PLT021</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Weight and Balance	Aircraft Loading	Weight & Balance Diagram
<b>PLT023</b> <a href="#">AC 00-6 Aviation Weather</a> Weather	Meteorology	Density Altitude
<b>PLT040</b> <a href="#">Aeronautical Information Manual</a> Airspace	Controlled	Class C
<b>PLT041</b> <a href="#">AC 00-6 Aviation Weather</a> Weather	Meteorology	Pressure
<b>PLT059</b> <a href="#">AC 00-45 Aviation Weather Services</a> Weather	Aeronautical Weather Reports	Aviation Routine Weather Reports (METAR)
<b>PLT061</b> <a href="#">AC 00-45 Aviation Weather Services</a> Weather	Aeronautical Weather Reports	Pilot Reports
<b>PLT063</b> <a href="#">AC 00-45 Aviation Weather Services</a> Weather	Aeronautical Weather Reports	Interpret
Weather	Aeronautical Weather Reports	Radar Summary Chart
Weather	Charts / Maps	Radar Summary Charts
<b>PLT064</b> <a href="#">Aeronautical Information Manual</a> Airspace	Controlled	Class B
Airspace	Controlled	Class C
Airspace	Controlled	Class D
Airspace	Controlled	Equipment Required
Airspace	Special Use	Procedures
<a href="#">Sectional Aeronautical Chart</a> Navigation	Pilotage	Aeronautical Charts
<b>PLT068</b> <a href="#">AC 00-45 Aviation Weather Services</a> Weather	Charts / Maps	Significant Weather Prognostic Charts
<b>PLT071</b> <a href="#">AC 00-45 Aviation Weather Services</a> Weather	Charts / Maps	Surface Analysis Charts
<b>PLT072</b> <a href="#">AC 00-45 Aviation Weather Services</a> Weather	Aeronautical Weather Forecasts	Data Interpretation
Weather	Aeronautical Weather Reports	Aviation Routine Weather Reports (METAR)

<b>PLT075</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Charts / Maps		Weather Depiction Charts
<b>PLT076</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Aeronautical Weather Forecasts		Data Dissemination
Weather	Charts / Maps		Winds / Temperatures Aloft Charts
<b>PLT078</b>			
	<a href="#">Airport/Facility Directory</a>		
Airport Operations	Tower Controlled		Tower Hours of Operation
Navigation	Pilotage		Airport / Facility Directory
<b>PLT081</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Aeronautical Weather Forecasts		Aviation Weather Forecasts
Weather	Aeronautical Weather Forecasts		Data Dissemination
<b>PLT091</b>			
	<a href="#">Instrument Flying Handbook, FAA-H-8083-15</a>		
Navigation	Radio		ADF / NDB
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Navigation	Radio		ADF / NDB
<b>PLT095</b>			
	<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Aerodynamics	Stability / Control		Cyclic Control
<b>PLT101</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Navigation	Pilotage		Measurement of Direction
<b>PLT103</b>			
	<a href="#">AC 60-22 Aeronautical Decision Making</a>		
Human Factors	ADM		Hazardous Attitude
<b>PLT112</b>			
	<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Flight Operations	Landing		Crosswind Landing
<b>PLT113</b>			
	<a href="#">14 CFR 61</a>		
Regulations	Knowledge / Practical Test		Required Aircraft / Equipment
<b>PLT116</b>			
	<a href="#">Aeronautical Information Manual</a>		
Airport Operations	Communications		Flight Service Stations
Airport Operations	Wake Turbulence		Wake Turbulence Avoidance
Navigation	Pilotage		Change in Proposed Departure Time
<b>PLT118</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Propeller		Gyroscopic Action of the Propeller
<b>PLT119</b>			
	<a href="#">Aeronautical Information Manual</a>		
Flight Operations	Approach		Collision Avoidance
<b>PLT123</b>			
	<a href="#">14 CFR 91</a>		
Regulations	VFR Flight Plan		Information Required
<b>PLT124</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Performance	Computations		Determining Density Altitude
	<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Aircraft Performance	Atmospheric Effects		Determining Density Altitude
<b>PLT125</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Flight Operations	Approach		Roundout (Flare)

<b>PLT127</b>		
<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Meteorology	Density Altitude
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Aircraft Performance	Atmospheric Effects	Determining Density Altitude
<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Aircraft Performance	Density Altitude	Performance Detractor
<b>PLT141</b>		
<a href="#">Aeronautical Information Manual</a>		
Airport Operations	Lighting	Rotating Beacon
Airport Operations	Marking / Signs	Helipoint Markings
Airport Operations	Marking / Signs	Hold Position
Airport Operations	Marking / Signs	Prohibited Entry
Airport Operations	Marking / Signs	Runway
Airport Operations	Marking / Signs	Taxiway
Airport Operations	Marking / Signs	Taxiway to Runway Marking
<b>PLT145</b>		
<a href="#">Aeronautical Information Manual</a>		
Airport Operations	Lighting	Pilot Controlled Lighting
<b>PLT146</b>		
<a href="#">Aeronautical Information Manual</a>		
Airport Operations	Traffic Patterns	Segmented Circle
<b>PLT149</b>		
<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Airport Operations	Taxiing	Taxiing Procedures
<b>PLT150</b>		
<a href="#">Aeronautical Information Manual</a>		
Airport Operations	Traffic Patterns	Traffic Pattern Entry
<b>PLT161</b>		
<a href="#">14 CFR 91</a>		
Regulations	Airspace Classes	Limitations
Regulations	Airspace Classes	Minimum Flight Visibility
<a href="#">Aeronautical Information Manual</a>		
Airspace	Controlled	Class D
Airspace	Controlled	Class E
Airspace	Controlled	Communications
<b>PLT163</b>		
<a href="#">14 CFR 91</a>		
Regulations	14CFR Part 91	Distance from Clouds
<b>PLT165</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Pitot / Static	Altimeter
<b>PLT170</b>		
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Flight Operations	Approach	Short-Field Approach / Landing
Flight Operations	Landing	Short-Field Approach / Landing
<b>PLT173</b>		
<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Meteorology	Stability
<b>PLT190</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Powerplant	Carburetor Icing
<b>PLT192</b>		
<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Meteorology	Clouds
<b>PLT194</b>		
<a href="#">Aeronautical Information Manual</a>		
Human Factors	Aeromedical Factors	Fitness for Flight
Human Factors	Aeromedical Factors	Visual Illusions
<b>PLT195</b>		
<a href="#">AC 90-48 Pilots' Role in Collision Avoidance</a>		
Flight Operations	Collision Avoidance	Pilot's Role

<b>PLT196</b>			
<a href="#">Aeronautical Information Manual</a>			
Airport Operations	Tower Controlled		ATIS
<b>PLT198</b>			
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>			
Navigation	Dead Reckoning		Calculations
<b>PLT206</b>			
<a href="#">AC 00-6 Aviation Weather</a>			
Weather	Meteorology		Density Altitude
<b>PLT208</b>			
<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>			
Flight Operations	Emergency Procedures		Pilot-Induced Oscillation (PIO)
Flight Operations	Emergency Procedures		Pio / Gyro
<b>PLT213</b>			
<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>			
Aerodynamics	Stability / Control		Horizontal Stabilizer
Aerodynamics	Stability / Control		Longitudinal
<b>PLT215</b>			
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>			
Aircraft Systems	Flight Instruments		Compass
Aircraft Systems	Flight Instruments		Deviation Error
<b>PLT219</b>			
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>			
Flight Operations	Maneuvers		Ground Reference
<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>			
Flight Operations	Maneuvers		Basic
<b>PLT220</b>			
<a href="#">14 CFR 91</a>			
Regulations	Operational Procedures		Right of Way
<b>PLT222</b>			
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>			
Flight Operations	Emergency Procedures		Approach / Landing
<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>			
Flight Operations	Maneuvers		Basic
Flight Operations	Takeoff		Soft Field
<b>PLT226</b>			
<a href="#">AC 00-6 Aviation Weather</a>			
Weather	Meteorology		Fog
<b>PLT231</b>			
<a href="#">AC 60-22 Aeronautical Decision Making</a>			
Human Factors	ADM		Stress Management
<b>PLT235</b>			
<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>			
Aerodynamics	Principles of Flight		Buntover
<b>PLT236</b>			
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>			
Aerodynamics	Principles of Flight		Pressure Distribution
<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>			
Aerodynamics	Principles of Flight		Airfoil
<b>PLT240</b>			
<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>			
Aerodynamics	Principles of Flight		Physics
<b>PLT241</b>			
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>			
Aerodynamics	Principles of Flight		Forces Acting on Aircraft
<b>PLT242</b>			
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>			
Aerodynamics	Principles of Flight		Pressure Distribution
<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>			
Aerodynamics	Principles of Flight		Dissymmetry of Lift

<b>PLT244</b>			
	<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Aerodynamics	Stability / Control		Buntover (Power Pushover)
Aerodynamics	Stability / Control		Pilot-Induced Oscillation (PIO)
Aerodynamics	Stability / Control		Power Pushover
<b>PLT248</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Aerodynamics	Principles of Flight		Level Turns
<b>PLT249</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Powerplant		Mixture Control
<b>PLT251</b>			
	<a href="#">AC 20-43 Aircraft Fuel Control</a>		
Aircraft Systems	Fuel / Oil		Condensation
<b>PLT253</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Powerplant		Mixture Control
<b>PLT258</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Flight Operations	Maneuvers		Ground Reference
<b>PLT259</b>			
	<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Aerodynamics	Flight Characteristics		Physics
<b>PLT260</b>			
	<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Aircraft Systems	Rotor		Blade Flap
<b>PLT263</b>			
	<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Meteorology		Fog
<b>PLT270</b>			
	<a href="#">AC 60-22 Aeronautical Decision Making</a>		
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<b>PLT272</b>			
	<a href="#">AC 60-22 Aeronautical Decision Making</a>		
Human Factors	ADM		Judgment
<b>PLT276</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Navigation	Radio		VOR
<b>PLT280</b>			
	<a href="#">Aeronautical Information Manual</a>		
Human Factors	Aeromedical Factors		Visual Illusions
<b>PLT287</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Charts / Maps		Surface Analysis Charts
<b>PLT289</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Charts / Maps		Weather Depiction Charts
<b>PLT290</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Aeronautical Weather Forecasts		Data Dissemination
<b>PLT291</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Aeronautical Weather Forecasts		Aviation Weather Forecasts
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<b>PLT295</b>			
	<a href="#">Aviation Instructor Handbook, FAA-H-8083-9</a>		
Instructional Guidelines	Techniques-Flight Instruction		Distractions
<b>PLT300</b>			
	<a href="#">Aeronautical Information Manual</a>		
Navigation	Radio		VOR
Navigation	Radio		VORTAC
<b>PLT301</b>			
	<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Meteorology		Temperature

<b>PLT309</b>			
	<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Aerodynamics	Principles of Flight		Load Factor
<b>PLT317</b>			
	<a href="#">Aeronautical Information Manual</a>		
Weather	Hazardous		Microburst
Weather	Meteorology		Microburst
<b>PLT320</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Navigation	Dead Reckoning		Calculations
<b>PLT330</b>			
	<a href="#">Aeronautical Information Manual</a>		
Human Factors	Aeromedical Factors		Physiological
<b>PLT331</b>			
	<a href="#">Aeronautical Information Manual</a>		
Human Factors	Aeromedical Factors		Smoking
<b>PLT332</b>			
	<a href="#">Aeronautical Information Manual</a>		
Human Factors	Aeromedical Factors		Physiological
<b>PLT334</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Human Factors	Aeromedical Factors		Physiological
<b>PLT337</b>			
	<a href="#">AC 91-43 Unreliable Airspeed Indication</a>		
Aircraft Systems	Pitot / Static		Blockage
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Pitot / Static		Airspeed Indicator
<b>PLT346</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight		Forces Acting on Aircraft
<b>PLT353</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Aeronautical Weather Reports		Interpret
<b>PLT366</b>			
	<a href="#">49 CFR 830</a>		
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<b>PLT370</b>			
	<a href="#">Aeronautical Information Manual</a>		
Flight Operations	Collision Avoidance		Ground Track
<b>PLT372</b>			
	<a href="#">14 CFR 91</a>		
Regulations	Aircraft Inspections		100 Hour Inspection
Regulations	Aircraft Inspections		Expiration
Regulations	Aircraft Maintenance		Documentation
<b>PLT373</b>			
	<a href="#">14 CFR 91</a>		
Regulations	Documentation		Operating Limitations
<b>PLT377</b>			
	<a href="#">14 CFR 91</a>		
Regulations	Aircraft Maintenance		Documentation
<b>PLT386</b>			
	<a href="#">14 CFR 61</a>		
Regulations	Flight Instructor		Certificate Renewal / Duration
<b>PLT393</b>			
	<a href="#">Aeronautical Information Manual</a>		
Airspace	Communications		Restricted Airspace
Airspace	Special Use		Military Training Route
Airspace	Special Use		MOA
Airspace	Special Use		Warning Areas



<b>PLT405</b> <a href="#">14 CFR 61</a> Regulations	Eligibility	Practical Test
Regulations	Flight Instructor	Application During Suspension
Regulations	Student Pilot	Eligibility
<a href="#">14 CFR 91</a> Regulations	Equipment	VFR Night Flights
<b>PLT407</b> <a href="#">14 CFR 61</a> Regulations	Flight Review	Proficiency Check
Regulations	Knowledge / Practical Test	Cheating
<b>PLT409</b> <a href="#">14 CFR 61</a> Regulations	Commercial Pilot	Logging Flight Time
Regulations	Eligibility	Flight Time
<b>PLT411</b> <a href="#">14 CFR 61</a> Regulations	Flight Instructor	Certificate Renewal / Duration
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<b>PLT413</b> <a href="#">14 CFR 91</a> Regulations	Fuel	Minimum Requirements
<b>PLT414</b> <a href="#">14 CFR 91</a> Regulations	Operational Procedures	Right of Way
<b>PLT415</b> <a href="#">14 CFR 91</a> Regulations	14CFR Part 91	Preflight Action
<b>PLT416</b> <a href="#">49 CFR 830</a> Regulations	NTSB Part 830	Reporting
<b>PLT418</b> <a href="#">14 CFR 61</a> Regulations	Flight Instructor	Endorsements
Regulations	Student Pilot	Logging Training Time
<b>PLT419</b> <a href="#">14 CFR 61</a> Regulations	Flight Instructor	Endorsements
<b>PLT425</b> <a href="#">14 CFR 91</a> Regulations	Aircraft Maintenance	Documentation
<b>PLT427</b> <a href="#">14 CFR 61</a> Regulations	Type Rating	Medical Certificate Required
<b>PLT430</b> <a href="#">14 CFR 91</a> Regulations	Flight Altitude	VFR
Regulations	Minimum Safe Altitude	Definition
<b>PLT435</b> <a href="#">Aeronautical Information Manual</a> Airport Operations	Communications	CTAF
Airport Operations	Communications	Unicom Frequency
<b>PLT442</b> <a href="#">14 CFR 61</a> Regulations	Pilot in Command	Recent Flight Experience
<b>PLT445</b> <a href="#">14 CFR 91</a> Regulations	Pre-Flight	Requirements
<b>PLT447</b> <a href="#">14 CFR 61</a> Regulations	Medical Certificate	Validity Period

<b>PLT448</b>		
<a href="#">14 CFR 61</a>		
Regulations	14CFR Part 61	Change of Address
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<b>PLT451</b>		
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<b>PLT457</b>		
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<b>PLT460</b>		
<a href="#">14 CFR 61</a>		
Regulations	Student Pilot	Solo Requirements
<b>PLT463</b>		
<a href="#">14 CFR 61</a>		
Regulations	FAA Certificates	Suspension / Revocation
<b>PLT470</b>		
<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Aerodynamics	Principles of Flight	Blade Tip Stall
Aerodynamics	Principles of Flight	Coning
Aerodynamics	Principles of Flight	Dissymmetry of Lift
Aerodynamics	Principles of Flight	Forces Acting on Aircraft
Aerodynamics	Principles of Flight	Forward Flight
Aerodynamics	Principles of Flight	Main Rotor System
Aerodynamics	Principles of Flight	Negative G Maneuver
Aerodynamics	Principles of Flight	Physics
Aerodynamics	Principles of Flight	Prerotation
Aerodynamics	Principles of Flight	Rotor Force
Aerodynamics	Principles of Flight	Rotor Lift
Aerodynamics	Stability / Control	High Forward Airspeed
Flight Operations	Maneuvers	Helicopter Emergencies
<b>PLT472</b>		
<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Aircraft Systems	Rotor	Vibration
<b>PLT480</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Stability / Control	Negative Static Stability
Aerodynamics	Stability / Control	Positive Dynamic Stability
<b>PLT482</b>		
<a href="#">14 CFR 61</a>		
Regulations	Flight Instructor	Knowledge Test Authorization
Regulations	Flight Instructor	Student Evaluation
<b>PLT486</b>		
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Flight Operations	Takeoff	Soft Field
<b>PLT492</b>		
<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Meteorology	Clouds
Weather	Meteorology	Pressure
Weather	Meteorology	Temperature
<b>PLT495</b>		
<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Hazardous	Thunderstorms
<b>PLT502</b>		
<a href="#">Aeronautical Information Manual</a>		
Airport Operations	Tower Controlled	Light Signals

<b>PLT503</b> <a href="#">Aeronautical Information Manual</a> Human Factors	Aeromedical Factors	Alcohol
<b>PLT509</b> <a href="#">Aeronautical Information Manual</a> Airport Operations	Wake Turbulence	Separation
Airport Operations	Wake Turbulence	Wake Turbulence Avoidance
<b>PLT510</b> <a href="#">AC 00-6 Aviation Weather</a> Weather	Meteorology	Circulation
<b>PLT511</b> <a href="#">AC 00-6 Aviation Weather</a> Weather	Meteorology	Air Masses
Weather	Meteorology	Fronts
<b>PLT512</b> <a href="#">AC 00-6 Aviation Weather</a> Weather	Meteorology	Moisture
<b>PLT516</b> <a href="#">AC 00-6 Aviation Weather</a> Weather	Meteorology	Air Masses
Weather	Meteorology	Circulation
<b>PLT518</b> <a href="#">AC 00-6 Aviation Weather</a> Weather	Hazardous	Turbulence
Weather	Hazardous	Windshear
<a href="#">Aeronautical Information Manual</a> Weather	Meteorology	Microburst
<b>PLT520</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aircraft Performance	Computations	Determining Density Altitude

**Flight Instructor Glider (FIG)  
Sample Questions**

## FLIGHT INSTRUCTOR GLIDER (FIG)

### 1. Maximum gliding distance of an aircraft is obtained when

- A—parasite drag is the least.
- B—induced drag and parasite drag are equal.
- C—induced drag equals the coefficient of lift.

*Answer: A.*

*Learning Statement: Recall forces acting on aircraft—airspeed/air density/lift/drag.*

### 2. Aspect ratio of a wing is defined as the ratio of the

- A—wingspan to the wing root.
- B—wingspan to the mean chord.
- C—square of the chord to the wingspan.

*Answer: B.*

*Learning Statement: Recall forces acting on aircraft—aspect ratio.*

### 3. What is true altitude?

- A—The vertical distance of the aircraft above sea level.
- B—The vertical distance of the aircraft above the surface.
- C—The height above the standard datum plane.

*Answer: A.*

*Learning Statement: Define altitude—absolute/true/indicated/density/pressure.*

### 4. The minimum age requirement for the applicant who is seeking a Student Pilot Certificate limited to glider operations is

- A—14 years.
- B—16 years.
- C—17 years.

*Answer: A.*

*Learning Statement: Recall regulations—student pilot endorsements/other endorsements.*

### 5. What normally results from excessive airspeed on final approach?

- A—Bouncing.
- B—Floating.
- C—Ballooning.

*Answer: B.*

*Learning Statement: Recall approach/landing/taxiing techniques.*

## LIST OF REFERENCE MATERIALS SPECIFIC TO THE FLIGHT INSTRUCTOR GLIDER (FIG) KNOWLEDGE TEST

<i>Topic</i>	<i>Content</i>	<i>Specific</i>
<b>PLT005</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aircraft Performance	Computations	Determining Density Altitude
<b>PLT008</b> <a href="#">Glider Flying Handbook, FAA-H-8083-13</a> Flight Operations	Soaring Techniques	Airspeed
<b>PLT012</b> <a href="#">Glider Flying Handbook, FAA-H-8083-13</a> Aircraft Performance	Computations	Cross-Country Soaring
Flight Operations	Launch Procedures	Computations
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Navigation	Dead Reckoning	Calculations
<b>PLT018</b> <a href="#">Glider Flying Handbook, FAA-H-8083-13</a> Aerodynamics	Principles of Flight	Load Factor
<b>PLT021</b> <a href="#">Aircraft Weight and Balance Handbook, FAA-H-8083-1</a> Weight and Balance	Center of Gravity	Formulas
<a href="#">Glider Flying Handbook, FAA-H-8083-13</a> Weight and Balance	Center of Gravity	Winch Tow
<b>PLT022</b> <a href="#">AC 60-22 Aeronautical Decision Making</a> Human Factors	ADM	Hazardous Attitude
Human Factors	ADM	Risk Elements
<b>PLT023</b> <a href="#">AC 00-6 Aviation Weather</a> Weather	Meteorology	Density Altitude
<b>PLT025</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aerodynamics	Principles of Flight	Physics
<b>PLT040</b> <a href="#">Aeronautical Information Manual</a> Airspace	Controlled	Class C
<b>PLT041</b> <a href="#">AC 00-6 Aviation Weather</a> Weather	Meteorology	Pressure
<b>PLT046</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aerodynamics	Principles of Flight	Drag
<b>PLT059</b> <a href="#">AC 00-45 Aviation Weather Services</a> Weather	Aeronautical Weather Reports	Aviation Routine Weather Reports (METAR)
<b>PLT061</b> <a href="#">AC 00-45 Aviation Weather Services</a> Weather	Aeronautical Weather Reports	Pilot Reports
<b>PLT062</b> <a href="#">AC 00-6 Aviation Weather</a> Weather	Charts / Maps	Thermal Soaring
Weather	Meteorology	Thermal Soaring
<b>PLT064</b> <a href="#">Aeronautical Information Manual</a> Airspace	Controlled	Class B
Airspace	Controlled	Class C
Airspace	Controlled	Class D
Airspace	Controlled	Class E
Airspace	Controlled	Equipment Required
Airspace	Special Use	Procedures
<a href="#">Sectional Aeronautical Chart</a> Navigation	Pilotage	Aeronautical Charts

<b>PLT070</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Charts / Maps		Interpret
Weather	Charts / Maps		Stability Chart
<b>PLT071</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Charts / Maps		Surface Analysis Charts
<b>PLT072</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Aeronautical Weather Forecasts		Data Interpretation
Weather	Aeronautical Weather Reports		Aviation Routine Weather Reports (METAR)
<b>PLT075</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Charts / Maps		Weather Depiction Charts
<b>PLT076</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Aeronautical Weather Forecasts		Data Dissemination
Weather	Charts / Maps		Winds / Temperatures Aloft Charts
<b>PLT078</b>			
	<a href="#">Airport/Facility Directory</a>		
Airport Operations	Runway Conditions		Gradient
Airport Operations	Tower Controlled		Tower Hours of Operation
Navigation	Pilotage		Airport / Facility Directory
<b>PLT081</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Aeronautical Weather Forecasts		Aviation Weather Forecasts
Weather	Aeronautical Weather Forecasts		Data Dissemination
<b>PLT086</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Flight Operations	Maneuvers		Basic
<b>PLT091</b>			
	<a href="#">Instrument Flying Handbook, FAA-H-8083-15</a>		
Navigation	Radio		ADF / NDB
<b>PLT095</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Stability / Control		Phugoid Oscillations
<b>PLT098</b>			
	<a href="#">Aeronautical Information Manual</a>		
Human Factors	Aeromedical Factors		Fitness for Flight
<b>PLT101</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Navigation	Pilotage		Aeronautical Charts
Navigation	Pilotage		Measurement of Direction
<b>PLT103</b>			
	<a href="#">AC 60-22 Aeronautical Decision Making</a>		
Human Factors	ADM		Hazardous Attitude
<b>PLT113</b>			
	<a href="#">14 CFR 61</a>		
Regulations	Knowledge / Practical Test		Required Aircraft / Equipment
<b>PLT116</b>			
	<a href="#">Aeronautical Information Manual</a>		
Airport Operations	Communications		Flight Service Stations
<b>PLT120</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Load Factor		Maneuvering Speed
<b>PLT127</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Aircraft Performance	Atmospheric Effects		Determining Density Altitude
<b>PLT131</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Aircraft Performance	Atmospheric Effects		Ground Effect

<b>PLT132</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Performance	Limitations		Airspeeds
<b>PLT134</b>			
	<a href="#">Glider Flying Handbook, FAA-H-8083-13</a>		
Flight Operations	Launch Procedures		Tow Plane Criteria
<b>PLT141</b>			
	<a href="#">Aeronautical Information Manual</a>		
Airport Operations	Marking / Signs		Entry Prohibited
Airport Operations	Marking / Signs		ILS
Airport Operations	Marking / Signs		Runway
Airport Operations	Marking / Signs		Runway Exit
Airport Operations	Marking / Signs		Runway with Displaced Threshold
Airport Operations	Marking / Signs		Taxiway
Airport Operations	Marking / Signs		Taxiway Directional Sign
<b>PLT146</b>			
	<a href="#">Aeronautical Information Manual</a>		
Airport Operations	Traffic Patterns		Segmented Circle
<b>PLT161</b>			
	<a href="#">14 CFR 91</a>		
Regulations	Airspace Classes		Limitations
Regulations	Airspace Classes		Minimum Flight Visibility
Regulations	Airspace Classes		VFR Requirements
Regulations	Airspace Classes		Visibility and Cloud Clearance
	<a href="#">Aeronautical Information Manual</a>		
Airspace	Controlled		Class A
Airspace	Controlled		Class C
Airspace	Controlled		Class D
Airspace	Controlled		Class E
Airspace	Controlled		Communications
<b>PLT162</b>			
	<a href="#">Aeronautical Information Manual</a>		
Airspace	Uncontrolled		Class D Airspace
<b>PLT163</b>			
	<a href="#">14 CFR 91</a>		
Regulations	14CFR Part 91		Distance from Clouds
Regulations	Airspace Classes		Minimum Flight Visibility
Regulations	Weather Minimums		Visibility
<b>PLT165</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Pitot / Static		Altimeter
<b>PLT168</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Aerodynamics	Principles of Flight		Stalls
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight		Forces Acting on Aircraft
Aerodynamics	Principles of Flight		Lift
Aerodynamics	Principles of Flight		Pitch Attitude
Aerodynamics	Principles of Flight		Stalls
<b>PLT170</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Flight Operations	Approach		Landing
Flight Operations	Landing		Crosswind Approach / Landing
Flight Operations	Landing		Roundout (Flare)
	<a href="#">Glider Flying Handbook, FAA-H-8083-13</a>		
Flight Operations	Approach		Landing
Flight Operations	Landing		Off-Field Landing
Flight Operations	Soaring Techniques		Approach and Landing
<b>PLT173</b>			
	<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Meteorology		Stability



<b>PLT192</b>		
<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Hazardous	Thunderstorms
Weather	Meteorology	Air Masses
Weather	Meteorology	Clouds
<b>PLT194</b>		
<a href="#">Aeronautical Information Manual</a>		
Human Factors	Aeromedical Factors	Visual Illusions
<b>PLT195</b>		
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Flight Operations	Approach	Normal Approach / Landing
<b>PLT198</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Navigation	Dead Reckoning	Calculations
<b>PLT206</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Performance	Atmospheric Effects	Determining Density Altitude
<b>PLT208</b>		
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Flight Operations	Landing	Emergency Approaches / Landings (Actual)
<b>PLT215</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Flight Instruments	Acceleration Error
Aircraft Systems	Flight Instruments	Compass
Aircraft Systems	Flight Instruments	Deviation Error
<b>PLT216</b>		
<a href="#">Glider Flying Handbook, FAA-H-8083-13</a>		
Aircraft Systems	Flight Instruments	Total Energy Compensators
<b>PLT219</b>		
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Flight Operations	Maneuvers	Basic
Flight Operations	Maneuvers	Stalls / Spins
Flight Operations	Maneuvers	Turns
<b>PLT221</b>		
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Flight Operations	Landing	Normal Approach/Landing
<b>PLT226</b>		
<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Meteorology	Fog
<b>PLT234</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight	Axes
<b>PLT235</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight	Definition
Aerodynamics	Principles of Flight	Forces Acting on Aircraft
<b>PLT236</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight	Airfoil Design
Aerodynamics	Principles of Flight	Pressure Distribution
Aerodynamics	Stability / Control	Design Characteristics
<b>PLT237</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight	Forces Acting on Aircraft
Aerodynamics	Principles of Flight	Physics
<b>PLT238</b>		
<a href="#">Glider Flying Handbook, FAA-H-8083-13</a>		
Aerodynamics	Principles of Flight	Aspect Ratio
Aerodynamics	Principles of Flight	Definition

<b>PLT240</b>			
	<a href="#">Aircraft Weight and Balance Handbook, FAA-H-8083-1</a>		
Aerodynamics	Stability / Control		Stability and Balance Control
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Stability / Control		Adverse Balance
Aerodynamics	Stability / Control		Aft CG
Aerodynamics	Stability / Control		Performance Characteristics
Aerodynamics	Stability / Control		Stall and Spin Recovery
<b>PLT241</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight		Forces Acting on Aircraft
<b>PLT242</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight		Forces Acting on Aircraft
Aerodynamics	Principles of Flight		Pressure Distribution
<b>PLT244</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Aerodynamics	Stability / Control		Spiral Instability
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Stability / Control		Design Characteristics
Aerodynamics	Stability / Control		Rolling
<b>PLT245</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Aerodynamics	Principles of Flight		Accelerated Stall
Aerodynamics	Principles of Flight		Spins
Flight Operations	Maneuvers		Stalls / Spins
	<a href="#">Glider Flying Handbook, FAA-H-8083-13</a>		
Aerodynamics	Stall / Spins		Steep Spiral
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Stability / Control		Spin
<b>PLT248</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Aerodynamics	Principles of Flight		Level Turns
Aerodynamics	Principles of Flight		Turns
	<a href="#">Glider Flying Handbook, FAA-H-8083-13</a>		
Aerodynamics	Principles of Flight		Physics
<b>PLT257</b>			
	<a href="#">Glider Flying Handbook, FAA-H-8083-13</a>		
Aerodynamics	Principles of Flight		Lift / Drag Devices
Flight Operations	Soaring Techniques		Airspeed
<b>PLT263</b>			
	<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Meteorology		Fog
<b>PLT276</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Navigation	Radio		VOR
<b>PLT277</b>			
	<a href="#">14 CFR 91</a>		
Regulations	Aircraft Lights		Night-Flight Operations
<b>PLT278</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Pitot / Static		Airspeed Indicator
<b>PLT280</b>			
	<a href="#">Aeronautical Information Manual</a>		
Human Factors	Aeromedical Factors		Visual Illusions
<b>PLT287</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Charts / Maps		Surface Analysis Charts
<b>PLT289</b>			
	<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Charts / Maps		Weather Depiction Charts

<b>PLT291</b>		
<a href="#">AC 00-45 Aviation Weather Services</a>		
Weather	Aeronautical Weather Forecasts	Aviation Weather Forecasts
Weather	Aeronautical Weather Forecasts	Data Dissemination
<b>PLT295</b>		
<a href="#">Aviation Instructor Handbook, FAA-H-8083-9</a>		
Instructional Guidelines	Techniques-Flight Instruction	Distractions
<b>PLT301</b>		
<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Meteorology	Temperature
<b>PLT303</b>		
<a href="#">Glider Flying Handbook, FAA-H-8083-13</a>		
Aerodynamics	Principles of Flight	Forces Acting on Aircraft
Aerodynamics	Principles of Flight	Physics
<b>PLT304</b>		
<a href="#">Glider Flying Handbook, FAA-H-8083-13</a>		
Flight Operations	Launch Procedures	Auto Launch
Flight Operations	Launch Procedures	Autotow
Flight Operations	Launch Procedures	CG Hook
Flight Operations	Launch Procedures	Computations
Flight Operations	Launch Procedures	Ground Launch
Flight Operations	Launch Procedures	Landing
Flight Operations	Launch Procedures	Tow Ring Strike
Flight Operations	Launch Procedures	Winch Launch
<b>PLT312</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Stability / Control	Stalling Speed
<b>PLT314</b>		
<a href="#">Aircraft Weight and Balance Handbook, FAA-H-8083-1</a>		
Weight and Balance	Center of Gravity	Formulas
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Flight Operations	Landing	Touchdown
<b>PLT320</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Navigation	Dead Reckoning	Calculations
<b>PLT326</b>		
<a href="#">AC 61-107 Operations of Aircraft at Altitudes Above 25,000 Feet MSL and/or MACH numbers (Mmo) Greate</a>		
Aircraft Systems	Environmental	Oxygen Systems
<b>PLT328</b>		
<a href="#">Glider Flying Handbook, FAA-H-8083-13</a>		
Weight and Balance	Aircraft Loading	Ballast
<b>PLT330</b>		
<a href="#">Aeronautical Information Manual</a>		
Human Factors	Aeromedical Factors	Physiological
<b>PLT331</b>		
<a href="#">Aeronautical Information Manual</a>		
Human Factors	Aeromedical Factors	Smoking
<b>PLT332</b>		
<a href="#">Aeronautical Information Manual</a>		
Human Factors	Aeromedical Factors	Physiological
<b>PLT334</b>		
<a href="#">Aeronautical Information Manual</a>		
Human Factors	Aeromedical Factors	Spatial Disorientation
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Human Factors	Aeromedical Factors	Physiological
<b>PLT337</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Pitot / Static	Airspeed Indicator
<b>PLT366</b>		
<a href="#">49 CFR 830</a>		
Regulations	NTSB Part 830	Reporting

<b>PLT372</b> <a href="#">14 CFR 91</a> Regulations Regulations	Aircraft Inspections Aircraft Maintenance	100 Hour Inspection Documentation
<b>PLT373</b> <a href="#">14 CFR 91</a> Regulations	Documentation	Operating Limitations
<b>PLT374</b> <a href="#">14 CFR 91</a> Regulations	Aircraft Maintenance	Responsibilities
<b>PLT377</b> <a href="#">14 CFR 91</a> Regulations	Aircraft Maintenance	Documentation
<b>PLT384</b> <a href="#">14 CFR 91</a> Regulations	Pilot in Command	Passenger Briefing / Seatbelt Usage
<b>PLT386</b> <a href="#">14 CFR 61</a> Regulations	Flight Instructor	Certificate Renewal / Duration
<b>PLT393</b> <a href="#">Aeronautical Information Manual</a> Airspace Airspace Airspace Airspace	Communications Special Use Special Use Special Use	Restricted Airspace Military Training Route MOA Warning Areas
<b>PLT395</b> <a href="#">49 CFR 830</a> Regulations	NTSB Part 830	Definition
<b>PLT405</b> <a href="#">14 CFR 61</a> Regulations Regulations	Eligibility Flight Instructor	Practical Test Application During Suspension
<b>PLT407</b> <a href="#">14 CFR 61</a> Regulations Regulations Regulations Regulations Regulations Regulations	Additional Category Ratings Flight Review Flight Review Flight Training Knowledge / Practical Test	Requirements Proficiency Check Training Requirements Towing Gliders Cheating
<b>PLT409</b> <a href="#">14 CFR 61</a> Regulations Regulations	Commercial Pilot Eligibility	Logging Flight Time Flight Time
<b>PLT411</b> <a href="#">14 CFR 61</a> Regulations Regulations Regulations	Flight Instructor Flight Instructor Flight Instructor	Certificate Renewal / Duration Endorsements Requirements
<b>PLT414</b> <a href="#">14 CFR 91</a> Regulations	Operational Procedures	Right of Way
<b>PLT416</b> <a href="#">49 CFR 830</a> Regulations	NTSB Part 830	Reporting
<b>PLT418</b> <a href="#">14 CFR 61</a> Regulations Regulations Regulations	14CFR Part 61 Flight Instructor Student Pilot	Knowledge Test-Retesting Endorsements Logging Training Time

<b>PLT419</b> <a href="#">14 CFR 61</a> Regulations Regulations	Eligibility Flight Instructor	Stall / Spin Proficiency Endorsements
<b>PLT425</b> <a href="#">14 CFR 91</a> Regulations Regulations	Aircraft Maintenance Aircraft Maintenance	Documentation Rebuilt Engine Requirements
<b>PLT430</b> <a href="#">14 CFR 91</a> Regulations Regulations Regulations	Minimum Safe Altitude Minimum Safe Altitude Minimum Safe Altitude	Acrobatic Flight Congested Areas Definition
<b>PLT435</b> <a href="#">Aeronautical Information Manual</a> Airport Operations Airport Operations	Communications Communications	CTAF Unicom Frequency
<b>PLT438</b> <a href="#">14 CFR 91</a> Regulations	Pressure Altitude	Supplemental Oxygen
<b>PLT442</b> <a href="#">14 CFR 61</a> Regulations	Flight Review	Currency Requirements
<b>PLT448</b> <a href="#">14 CFR 61</a> Regulations Regulations Regulations Regulations	Eligibility FAA Certificates Student Certificate Student Certificate	Flight Time Change of Address Endorsements Limitations
<b>PLT457</b> <a href="#">14 CFR 61</a> Regulations Regulations Regulations Regulations Regulations	14CFR Part 61 14CFR Part 61 Student Certificate Student Certificate Student Pilot	Endorsement Flight Instructor Records Endorsements Limitations Endorsements
<b>PLT460</b> <a href="#">14 CFR 61</a> Regulations	Student Pilot	Solo Requirements
<b>PLT463</b> <a href="#">14 CFR 61</a> Regulations	FAA Certificates	Suspension / Revocation
<b>PLT467</b> <a href="#">14 CFR 91</a> Regulations	Class B Airspace	Student Pilot Requirements
<b>PLT473</b> <a href="#">Glider Flying Handbook, FAA-H-8083-13</a> Aircraft Systems <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aircraft Systems	Flight Controls / Secondary Flight Controls / Secondary	Spoilers Flaps
<b>PLT474</b> <a href="#">AC 00-6 Aviation Weather</a> Weather Weather <a href="#">Glider Flying Handbook, FAA-H-8083-13</a> Flight Operations Flight Operations	Meteorology Meteorology Soaring Techniques Soaring Techniques	Mountain Wave Soaring Soaring Weather Airspeed Turns
<b>PLT477</b> <a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a> Flight Operations	Maneuvers	Stalls / Spins

<b>PLT480</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Stability / Control	Basic Concepts of Stability
Aerodynamics	Stability / Control	Negative Static Stability
Aerodynamics	Stability / Control	Positive Dynamic Stability
<b>PLT482</b>		
<a href="#">14 CFR 61</a>		
Regulations	Flight Instructor	Knowledge Test Authorization
Regulations	Flight Instructor	Student Evaluation
<b>PLT492</b>		
<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Meteorology	Clouds
Weather	Meteorology	Pressure
<b>PLT494</b>		
<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Charts / Maps	Thermal Soaring
Weather	Meteorology	Clouds
Weather	Meteorology	Thermal Soaring
<a href="#">Glider Flying Handbook, FAA-H-8083-13</a>		
Flight Operations	Soaring Techniques	Approach and Landing
Flight Operations	Soaring Techniques	Forward Speed
<b>PLT495</b>		
<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Hazardous	Thunderstorms
<b>PLT496</b>		
<a href="#">Glider Flying Handbook, FAA-H-8083-13</a>		
Flight Operations	Launch Procedures	Crosswind Procedures
<b>PLT501</b>		
<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Hazardous	Mountain Flying
Weather	Meteorology	Mountain Wave Soaring
Weather	Meteorology	Unstable Air
<b>PLT503</b>		
<a href="#">Aeronautical Information Manual</a>		
Human Factors	Aeromedical Factors	Alcohol
<b>PLT510</b>		
<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Meteorology	Thermal Soaring
<b>PLT511</b>		
<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Hazardous	Mountain Flying
Weather	Meteorology	Air Masses
Weather	Meteorology	Frontal Soaring
<b>PLT512</b>		
<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Meteorology	Moisture
<b>PLT516</b>		
<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Meteorology	Air Masses
Weather	Meteorology	Atmospheric Pressure
Weather	Meteorology	Circulation
Weather	Meteorology	Sea Breeze Soaring
<b>PLT518</b>		
<a href="#">AC 00-6 Aviation Weather</a>		
Weather	Hazardous	Turbulence
Weather	Hazardous	Windshear
<b>PLT520</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Performance	Computations	Determining Density Altitude

**Flight Instructor Airplane (Added Rating) (AFA)  
Sample Questions**

## FLIGHT INSTRUCTOR AIRPLANE (ADDED RATING) (AFA)

### 1. Aspect ratio of a wing is defined as the ratio of the

- A—wingspan to the wing root.
- B—wingspan to the mean chord.
- C—square of the chord to the wingspan.

*Answer: B.*

*Learning Statement: Recall forces acting on aircraft—aspect ratio.*

### 2. In a twin-engine airplane, the single-engine service ceiling is the maximum density altitude at which VYSE will produce

- A—50 feet per minute rate of climb.
- B—100 feet per minute rate of climb.
- C—500 feet per minute rate of climb.

*Answer: A.*

*Learning Statement: Recall aircraft performance—instrument markings/airspeed/definitions/indications.*

### 3. What effect does high-density altitude have on aircraft performance?

- A—It increases engine performance.
- B—It reduces climb performance.
- C—It increases takeoff performance.

*Answer: B.*

*Learning Statement: Recall aircraft performance—density altitude.*

### 4. Which combination of atmospheric conditions will reduce aircraft takeoff and climb performance?

- A—Low temperature, low-relative humidity, and low-density altitude.
- B—High temperature, low-relative humidity, and low-density altitude.
- C—High temperature, high-relative humidity, and high-density altitude.

*Answer: C.*

*Learning Statement: Recall aircraft performance—atmospheric effects.*

### 5. What is true altitude?

- A—The vertical distance of the aircraft above sea level.
- B—The vertical distance of the aircraft above the surface.
- C—The height above the standard datum plane.

*Answer: A.*

*Learning Statement: Define altitude—absolute/true/indicated/density/pressure.*



## LIST OF REFERENCE MATERIALS SPECIFIC TO THE FLIGHT INSTRUCTOR AIRPLANE (ADDED RATING) (AFA) KNOWLEDGE TEST

<i>Topic</i>	<i>Content</i>	<i>Specific</i>
<b>PLT018</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aerodynamics	Principles of Flight	Pitch Attitude
<b>PLT021</b> <a href="#">Aircraft Weight and Balance Handbook, FAA-H-8083-1</a> Weight and Balance	Center of Gravity	Shifting Weight
<b>PLT046</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aerodynamics	Principles of Flight	Drag
<b>PLT052</b> <a href="#">14 CFR 91</a> Regulations	Airspace Classes	Class E Airspace
<b>PLT074</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aerodynamics	Load Factor	Effect of Bank Angle on Stall Speed
Aircraft Performance	Charts	Determining Load Factors
Aircraft Performance	Limitations	Airspeeds
<b>PLT086</b> <a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a> Flight Operations	Maneuvers	Ground Reference
<b>PLT118</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aircraft Systems	Flight Instruments	Heading Indicator
Aircraft Systems	Propeller	Gyroscopic Action of the Propeller
<b>PLT126</b> <a href="#">AC 91-13 Cold Weather Operation of Aircraft</a> Aircraft Systems	Environmental	Cold Weather Operations
<b>PLT131</b> <a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a> Aircraft Performance	Atmospheric Effects	Ground Effect
<b>PLT132</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aircraft Performance	Limitations	Flight Instruments
<b>PLT141</b> <a href="#">Aeronautical Information Manual</a> Airport Operations	Marking / Signs	Hold Position
Airport Operations	Marking / Signs	Hold Position Markings
Airport Operations	Marking / Signs	Runway
Airport Operations	Marking / Signs	Taxiway
Airport Operations	Marking / Signs	Taxiway to Runway Marking
<b>PLT161</b> <a href="#">14 CFR 91</a> Regulations	Airspace Classes	Limitations
Regulations	Weather Minimums	Special VFR
<b>PLT162</b> <a href="#">14 CFR 91</a> Regulations	Airspace Classes	Maximum Indicated Airspeed
<b>PLT163</b> <a href="#">14 CFR 91</a> Regulations	14CFR Part 91	Special VFR Weather Minimums
Regulations	Weather Minimums	Special VFR
<b>PLT167</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aircraft Systems	Pitot / Static	Altimeter
<b>PLT168</b> <a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a> Aerodynamics	Principles of Flight	Stalls
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aerodynamics	Principles of Flight	Stalls

**PLT170**[Airplane Flying Handbook, FAA-H-8083-3A](#)

Flight Operations	Approach
Flight Operations	Approach
Flight Operations	Landing
Flight Operations	Landing

Normal Approach / Landing  
Short-Field Approach / Landing  
Crosswind Approach / Landing  
Short-Field Approach / Landing

**PLT190**[Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25](#)

Aircraft Systems	Powerplant
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Carburetor Icing

**PLT207**[Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25](#)

Aircraft Systems	Electrical
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Electrical System Failure

**PLT219**[Airplane Flying Handbook, FAA-H-8083-3A](#)

Flight Operations	Maneuvers
Flight Operations	Maneuvers
Flight Operations	Maneuvers
Flight Operations	Maneuvers
Flight Operations	Maneuvers

Advanced  
Basic  
Ground Reference  
Stalls / Spins  
Turns

**PLT237**[Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25](#)

Aerodynamics	Principles of Flight
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Forces Acting on Aircraft

**PLT240**[Aircraft Weight and Balance Handbook, FAA-H-8083-1](#)

Aerodynamics	Stability / Control
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Stability and Balance Control

[Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25](#)

Aerodynamics	Stability / Control
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Adverse Balance

Aerodynamics	Stability / Control
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Aft CG

Aerodynamics	Stability / Control
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Indicated Airspeed

Aerodynamics	Stability / Control
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Performance Characteristics

Aerodynamics	Stability / Control
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Stall and Spin Recovery

**PLT241**[Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25](#)

Aerodynamics	Principles of Flight
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Forces Acting on Aircraft

**PLT244**[Airplane Flying Handbook, FAA-H-8083-3A](#)

Flight Operations	Landing
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Normal Approach/Landing

[Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25](#)

Aerodynamics	Stability / Control
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Divergent Oscillations

**PLT245**[Airplane Flying Handbook, FAA-H-8083-3A](#)

Aerodynamics	Principles of Flight
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Accelerated Stall

Aerodynamics	Principles of Flight
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Spins

Flight Operations	Maneuvers
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Stalls / Spins

[Glider Flying Handbook, FAA-H-8083-13](#)

Aerodynamics	Stall / Spins
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Steep Spiral

[Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25](#)

Aerodynamics	Stability / Control
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Spin

**PLT246**[Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25](#)

Aerodynamics	Principles of Flight
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Forces Acting on Aircraft

**PLT249**[Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25](#)

Aircraft Systems	Powerplant
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Mixture Control

**PLT253**[Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25](#)

Aircraft Systems	Powerplant
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Fuel Selectors

**PLT258**[Airplane Flying Handbook, FAA-H-8083-3A](#)

Flight Operations	Maneuvers
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Ground Reference

<b>PLT312</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Stability / Control	Stalling Speed
<b>PLT337</b>		
<a href="#">AC 91-43 Unreliable Airspeed Indication</a>		
Aircraft Systems	Pitot / Static	Blockage
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Pitot / Static	Installation Error
<b>PLT343</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Powerplant	High Altitude Performance
Aircraft Systems	Powerplant	Power
<b>PLT351</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Propeller	Constant-Speed Propeller
Aircraft Systems	Propeller	Propeller Efficiency
<b>PLT404</b>		
<a href="#">14 CFR 91</a>		
Regulations	Equipment	Locator Transmitter
<b>PLT407</b>		
<a href="#">14 CFR 61</a>		
Regulations	14CFR Part 61	Regulatory Requirement
Regulations	Eligibility	Flight Time
Regulations	Operating Pressurized Aircraft	Training Requirements
Regulations	Type Rating	Additional Training
<b>PLT409</b>		
<a href="#">14 CFR 61</a>		
Regulations	14CFR Part 61	Eligibility
<b>PLT411</b>		
<a href="#">14 CFR 61</a>		
Regulations	Flight Instructor	Requirements
<b>PLT418</b>		
<a href="#">14 CFR 61</a>		
Regulations	Flight Instructor	Endorsements
<b>PLT442</b>		
<a href="#">14 CFR 61</a>		
Regulations	Flight Review	Currency Requirements
Regulations	Private Pilot	Currency Requirements
<b>PLT443</b>		
<a href="#">14 CFR 61</a>		
Regulations	14CFR Part 61	Flight Review
Regulations	Type Rating	Training Requirements
<b>PLT448</b>		
<a href="#">14 CFR 91</a>		
Regulations	FAA Certificates	Safety Pilot Requirements
<b>PLT457</b>		
<a href="#">14 CFR 61</a>		
Regulations	Student Pilot	Endorsements
<b>PLT473</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Flight Controls / Secondary	Flaps
<b>PLT477</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Performance	Limitations	Airspeeds
<b>PLT480</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Stability / Control	Negative Static Stability
<b>PLT482</b>		
<a href="#">14 CFR 61</a>		
Regulations	Eligibility	Practical Test
<b>PLT484</b>		
<a href="#">14 CFR 1</a>		
Regulations	14CFR Part 1	Vs

**PLT486**

[Airplane Flying Handbook, FAA-H-8083-3A](#)

Flight Operations

Takeoff

Soft Field

**Flight Instructor Helicopter (Added Rating) (HFA)  
Sample Questions**

## FLIGHT INSTRUCTOR HELICOPTER (ADDED RATING) (HFA)

**1. During flight, if you apply cyclic control pressure which results in a decrease in pitch angle of the rotor blades at a position approximately 90° to your left, the rotor disc will tilt**

- A—aft.
- B—left.
- C—right.

*Answer: A.*

*Learning Statement: Recall cyclic control pressure—characteristics.*

**2. Rotor blade-flapping action is**

- A—an undesirable reaction to changes in airspeed and blade angle of attack.
- B—an aerodynamic reaction to high speed flight and cannot be controlled by the pilot.
- C—a design feature permitting continual changes in the rotor blade angle of attack, compensating for dissymmetry of lift.

*Answer: C.*

*Learning Statement: Recall rotor system—types/components/operating principles/characteristics.*

**3. The forward speed of a rotorcraft is restricted primarily by**

- A—dissymmetry of lift.
- B—transverse flow effect.
- C—high-frequency vibrations.

*Answer: A.*

*Learning Statement: Recall rotor system—types/components/operating principles/characteristics.*

**4. How does temperature and weight affect the  $V_{NE}$  of a helicopter?**

- A— $V_{NE}$  increases as temperature and weight increase.
- B— $V_{NE}$  decreases as temperature and weight increase.
- C— $V_{NE}$  decreases as temperature increases and weight decreases.

*Answer: B.*

*Learning Statement: Recall aircraft performance—airspeed.*

**5. Performance of a helicopter can be determined by**

- A—knowing the density altitude, gross weight, and surface wind.
- B—the formula  $\pi$  times the rotor diameter divided by the blade area.
- C—the highest altitude that can be maintained in a hover following liftoff.

*Answer: A.*

*Learning Statement: Recall aircraft performance—atmospheric effects.*

## LIST OF REFERENCE MATERIALS SPECIFIC TO THE FLIGHT INSTRUCTOR HELICOPTER (ADDED RATING) (HFA) KNOWLEDGE TEST

<i>Topic</i>	<i>Content</i>	<i>Specific</i>
<b>PLT021</b> <a href="#">Aircraft Weight and Balance Handbook, FAA-H-8083-1</a> Weight and Balance	Center of Gravity	Formulas
<b>PLT112</b> <a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Airport Operations	Taxiing	Cyclic Pitch
<b>PLT124</b> <a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Aircraft Performance	Atmospheric Effects	Determining Density Altitude
<b>PLT125</b> <a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Flight Operations	Emergency Procedures	Autorotation
<b>PLT127</b> <a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a> Aircraft Performance	Atmospheric Effects	Determining Density Altitude
<b>PLT129</b> <a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Flight Operations	Landing	Slope Operations
<b>PLT141</b> <a href="#">Aeronautical Information Manual</a> Airport Operations	Marking / Signs	Direction to Takeoff Runway(s)
Airport Operations	Marking / Signs	Entrance to Runway
Airport Operations	Marking / Signs	Entry Prohibited
Airport Operations	Marking / Signs	Hold Short
<b>PLT161</b> <a href="#">14 CFR 91</a> Regulations	Class B Airspace	Maximum Indicated Airspeed
Regulations	Weather Minimums	Special VFR
<b>PLT169</b> <a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Flight Operations	Emergency Procedures	Autorotation
<b>PLT170</b> <a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Flight Operations	Landing	Running Landing
Flight Operations	Maneuvers	Advanced
<b>PLT175</b> <a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Aerodynamics	Flight Characteristics	Physics
Flight Operations	Emergency Procedures	Autorotation
<b>PLT190</b> <a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Aircraft Systems	De-Icing / Anti-Icing	Carburetor Air Temperature Gauge
<b>PLT208</b> <a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Flight Operations	Emergency Procedures	Autorotation
Flight Operations	Emergency Procedures	Takeoff
<b>PLT219</b> <a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Flight Operations	Maneuvers	Turns
<b>PLT236</b> <a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Aerodynamics	Principles of Flight	Airfoil
<b>PLT240</b> <a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Weight and Balance	Center of Gravity	Center of Gravity Location
Weight and Balance	Center of Gravity	CG Aft of Aft Limit
Weight and Balance	Center of Gravity	Insufficient Forward Cyclic Control
<b>PLT242</b> <a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Aerodynamics	Principles of Flight	Dissymmetry of Lift

<b>PLT259</b> <a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Aerodynamics	Flight Characteristics	Physics
<b>PLT264</b> <a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Flight Operations	Emergency Procedures	Recovery / Settling with Power
<b>PLT268</b> <a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Flight Operations	Approach	Hovering
Flight Operations	Landing	Hovering
<b>PLT309</b> <a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Aerodynamics	Principles of Flight	Load Factor
<b>PLT336</b> <a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Flight Operations	Maneuvers	Basic
<b>PLT349</b> <a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Flight Operations	Maneuvers	Advanced
<b>PLT386</b> <a href="#">14 CFR 61</a> Regulations	Flight Instructor	Certificate Renewal / Duration
<b>PLT405</b> <a href="#">14 CFR 61</a> Regulations	Student Pilot	Eligibility
<a href="#">14 CFR 91</a> Regulations	Airspace Classes	Transponder / Altitude Reporting Equipment
<b>PLT407</b> <a href="#">14 CFR 61</a> Regulations	Flight Review	Proficiency Check
Regulations	Student Pilot	Training Requirements
<b>PLT409</b> <a href="#">14 CFR 61</a> Regulations	Eligibility	Flight Time
Regulations	Student Pilot	Eligibility
<b>PLT411</b> <a href="#">14 CFR 61</a> Regulations	Flight Instructor	Requirements
Regulations	Flight Instructor	Training
<b>PLT413</b> <a href="#">14 CFR 91</a> Regulations	Fuel	Minimum Requirements
<b>PLT430</b> <a href="#">14 CFR 91</a> Regulations	Minimum Safe Altitude	Helicopter
<b>PLT442</b> <a href="#">14 CFR 61</a> Regulations	Flight Review	Currency Requirements
Regulations	Pilot in Command	Recent Flight Experience
<b>PLT451</b> <a href="#">14 CFR 61</a> Regulations	Commercial Pilot	Requirements
<b>PLT457</b> <a href="#">14 CFR 61</a> Regulations	Student Pilot	Endorsements
<b>PLT460</b> <a href="#">14 CFR 61</a> Regulations	Student Pilot	Solo Requirements
<b>PLT467</b> <a href="#">14 CFR 91</a> Regulations	Weather Minimums	Special VFR



**PLT470**[Rotorcraft Flying Handbook, FAA-H-8083-21](#)

Aerodynamics	Principles of Flight
Aerodynamics	Principles of Flight
Aerodynamics	Principles of Flight
Aerodynamics	Principles of Flight
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Aerodynamics	Principles of Flight
Aerodynamics	Principles of Flight
Aerodynamics	Principles of Flight
Aerodynamics	Stability / Control
Aircraft Systems	Rotor
Aircraft Systems	Rotor
Flight Operations	Emergency Procedures
Flight Operations	Emergency Procedures
Flight Operations	Maneuvers

Coning  
Coriolis Effect  
Dissymmetry of Lift  
Forward Flight  
Limitations  
Main Rotor System  
Physics  
Pitch Attitude  
Rotor Lift  
Translating Tendency or Drift  
Translating Tendency or Drift  
Autorotation  
Vibration  
Autorotation  
Recovery from Low Rotor RPM  
Helicopter Emergencies

**PLT471**[Rotorcraft Flying Handbook, FAA-H-8083-21](#)

Aircraft Systems	Transmission
Aircraft Systems	Transmission

Engine Starting  
Freewheeling Unit

**PLT472**[Rotorcraft Flying Handbook, FAA-H-8083-21](#)

Aerodynamics	Principles of Flight
Aircraft Systems	Rotor
Aircraft Systems	Transmission

Forward Flight  
Improperly Rigged Tail Rotor  
Vibration

**PLT482**[14 CFR 61](#)

Regulations	Flight Instructor
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Student Evaluation

**PLT486**[Rotorcraft Flying Handbook, FAA-H-8083-21](#)

Flight Operations	Takeoff
Flight Operations	Takeoff

Crosswind  
Running / Rolling Takeoff

**PLT520**[Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25](#)

Aircraft Performance	Computations
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Determining Density Altitude

**Flight Instructor Gyroplane (Added Rating) (GFA)  
Sample Questions**

## FLIGHT INSTRUCTOR GYROPLANE (ADDED RATING) (GFA)

### 1. Rotor blade-flapping action is

A—an undesirable reaction to changes in airspeed and blade angle of attack.

B—an aerodynamic reaction to high speed flight and cannot be controlled by the pilot.

C—a design feature permitting continual changes in the rotor blade angle of attack, compensating for dissymmetry of lift.

*Answer: C.*

*Learning Statement: Recall rotor system—types/components/operating principles/characteristics.*

### 2. During flight, if you apply cyclic control pressure which results in a decrease in pitch angle of the rotor blades at a position approximately 90° to your left, the rotor disc will tilt

A—aft.

B—left.

C—right.

*Answer: A.*

*Learning Statement: Recall cyclic control pressure—characteristics.*

### 3. If the ground wire between the magneto and the ignition switch becomes disconnected, the most noticeable result will be that the engine

A—will run very rough.

B—cannot be started with the switch in the ON position.

C—cannot be shut down by turning the switch to the OFF position.

*Answer: C.*

*Learning Statement: Recall starter/ignition system—types/components/operating principles/characteristics.*

### 4. When the pilot leans the mixture control, what is being accomplished?

A—The volume of air entering the carburetor is being reduced.

B—The volume of air entering the carburetor is being increased.

C—The amount of fuel entering the combustion chamber is being reduced.

*Answer: C.*

*Learning Statement: Recall fuel system—components/operating principles/characteristics/leaks.*

### 5. A slightly below glidepath indication on a 2-bar VASI glidepath is indicated by

A—two red lights over two white lights.

B—two white lights over two red lights.

C—two red lights over two more red lights.

*Answer: C.*

*Learning Statement: Recall airport operations—visual glide slope indicators.*

## LIST OF REFERENCE MATERIALS SPECIFIC TO THE FLIGHT INSTRUCTOR GYROPLANE (ADDED RATING) (GFA) KNOWLEDGE TEST

<i>Topic</i>	<i>Content</i>	<i>Specific</i>
<b>PLT021</b> <a href="#">Aircraft Weight and Balance Handbook, FAA-H-8083-1</a> Weight and Balance	Center of Gravity	Formulas
<b>PLT086</b> <a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Aerodynamics	Principles of Flight	Forces Acting on Aircraft
<b>PLT112</b> <a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Flight Operations	Landing	Crosswind Landing
<b>PLT113</b> <a href="#">14 CFR 61</a> Regulations	Knowledge / Practical Test	Required Aircraft / Equipment
<b>PLT118</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aircraft Systems	Propeller	Gyroscopic Action of the Propeller
<b>PLT124</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aircraft Performance	Computations	Determining Density Altitude
<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Aircraft Performance	Atmospheric Effects	Determining Density Altitude
<b>PLT127</b> <a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Aircraft Performance	Density Altitude	Performance Detractor
<b>PLT129</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aircraft Performance	Computations	Determining Takeoff Distance
<b>PLT141</b> <a href="#">Aeronautical Information Manual</a> Airport Operations	Marking / Signs	Runway
Airport Operations	Marking / Signs	Taxiway
<b>PLT149</b> <a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Airport Operations	Taxiing	Taxiing Procedures
<b>PLT161</b> <a href="#">14 CFR 91</a> Regulations	Airspace Classes	Minimum Flight Visibility
Regulations	Class D Airspace	Communications
<a href="#">Aeronautical Information Manual</a> Airspace	Controlled	Class D
<b>PLT170</b> <a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a> Flight Operations	Approach	Short-Field Approach / Landing
Flight Operations	Landing	Short-Field Approach / Landing
<b>PLT190</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aircraft Systems	Powerplant	Carburetor Icing
<b>PLT208</b> <a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a> Flight Operations	Landing	Emergency Approaches / Landings (Actual)
<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Flight Operations	Emergency Procedures	Pilot-Induced Oscillation (PIO)
Flight Operations	Emergency Procedures	Pio / Gyro
<b>PLT213</b> <a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Aerodynamics	Stability / Control	Horizontal Stabilizer
Aerodynamics	Stability / Control	Longitudinal
<b>PLT219</b> <a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a> Flight Operations	Maneuvers	Ground Reference
<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Flight Operations	Maneuvers	Basic

<b>PLT222</b>			
	<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Flight Operations	Maneuvers		Basic
Flight Operations	Takeoff		Soft Field
<b>PLT235</b>			
	<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Aerodynamics	Principles of Flight		Buntover
<b>PLT240</b>			
	<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Aerodynamics	Principles of Flight		Physics
<b>PLT242</b>			
	<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Aerodynamics	Principles of Flight		Dissymmetry of Lift
<b>PLT244</b>			
	<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Aerodynamics	Stability / Control		Buntover (Power Pushover)
Aerodynamics	Stability / Control		Pilot-Induced Oscillation (PIO)
Aerodynamics	Stability / Control		Power Pushover
<b>PLT258</b>			
	<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Flight Operations	Maneuvers		Ground Reference
<b>PLT259</b>			
	<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Aerodynamics	Flight Characteristics		Physics
<b>PLT260</b>			
	<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Aircraft Systems	Rotor		Blade Flap
<b>PLT309</b>			
	<a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a>		
Aerodynamics	Principles of Flight		Load Factor
<b>PLT351</b>			
	<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aircraft Systems	Propeller		Blade Angle
Aircraft Systems	Propeller		Geometric Pitch
<b>PLT386</b>			
	<a href="#">14 CFR 61</a>		
Regulations	Flight Instructor		Certificate Renewal / Duration
<b>PLT405</b>			
	<a href="#">14 CFR 91</a>		
Regulations	Equipment		Minimum Equipment List
<b>PLT407</b>			
	<a href="#">14 CFR 61</a>		
Regulations	Flight Review		Proficiency Check
<b>PLT409</b>			
	<a href="#">14 CFR 61</a>		
Regulations	Eligibility		Flight Time
<b>PLT411</b>			
	<a href="#">14 CFR 61</a>		
Regulations	Flight Instructor		Endorsements
<b>PLT413</b>			
	<a href="#">14 CFR 91</a>		
Regulations	Fuel		Minimum Requirements
<b>PLT418</b>			
	<a href="#">14 CFR 61</a>		
Regulations	14CFR Part 61		Knowledge Test-Retesting
<b>PLT419</b>			
	<a href="#">14 CFR 61</a>		
Regulations	Flight Instructor		Endorsements
<b>PLT427</b>			
	<a href="#">14 CFR 61</a>		
Regulations	Type Rating		Medical Certificate Required
<b>PLT442</b>			
	<a href="#">14 CFR 61</a>		
Regulations	Flight Review		Currency Requirements

<b>PLT448</b> <a href="#">14 CFR 61</a> Regulations	FAA Certificates	Rec Pilot Privileges
<b>PLT451</b> <a href="#">14 CFR 61</a> Regulations Regulations	14CFR Part 61 Eligibility	Experience Requirements Flight Time
<b>PLT457</b> <a href="#">14 CFR 61</a> Regulations Regulations	14CFR Part 61 Student Pilot	Eligibility-Student Pilots Endorsements
<b>PLT460</b> <a href="#">14 CFR 61</a> Regulations	Student Pilot	Solo Requirements
<b>PLT470</b> <a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Aerodynamics Aerodynamics Aerodynamics Aerodynamics Aerodynamics Aerodynamics Aerodynamics Aerodynamics Aerodynamics	Principles of Flight Principles of Flight Principles of Flight Principles of Flight Principles of Flight Principles of Flight Principles of Flight Principles of Flight Principles of Flight Stability / Control	Forces Acting on Aircraft Forward Flight Main Rotor System Negative G Maneuver Physics Prerotation Rotor Force Rotor Lift High Forward Airspeed
<b>PLT472</b> <a href="#">Rotorcraft Flying Handbook, FAA-H-8083-21</a> Aircraft Systems	Rotor	Vibration
<b>PLT480</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a> Aerodynamics	Stability / Control	Negative Static Stability
<b>PLT482</b> <a href="#">14 CFR 61</a> Regulations	Flight Instructor	Student Evaluation
<b>PLT486</b> <a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a> Flight Operations	Takeoff	Soft Field

**Flight Instructor Glider (Added Rating) (AFG)  
Sample Questions**

## FLIGHT INSTRUCTOR GLIDER (ADDED RATING) (AFG)

### 1. Maximum gliding distance of an aircraft is obtained when

- A—parasite drag is the least.
- B—induced drag and parasite drag are equal.
- C—induced drag equals the coefficient of lift.

*Answer: A.*

*Learning Statement: Recall forces acting on aircraft—airspeed/air density/lift/drag.*

### 2. Aspect ratio of a wing is defined as the ratio of the

- A—wingspan to the wing root.
- B—wingspan to the mean chord.
- C—square of the chord to the wingspan.

*Answer: B.*

*Learning Statement: Recall forces acting on aircraft—aspect ratio.*

### 3. What is true altitude?

- A—The vertical distance of the aircraft above sea level.
- B—The vertical distance of the aircraft above the surface.
- C—The height above the standard datum plane.

*Answer: A.*

*Learning Statement: Define altitude—absolute/true/indicated/density/pressure.*

### 4. The minimum age requirement for the applicant who is seeking a Student Pilot Certificate limited to glider operations is

- A—14 years.
- B—16 years.
- C—17 years.

*Answer: A.*

*Learning Statement: Recall regulations—student pilot endorsements/other endorsements.*

### 5. What normally results from excessive airspeed on final approach?

- A—Bouncing.
- B—Floating.
- C—Ballooning.

*Answer: B.*

*Learning Statement: Recall approach/landing/taxiing techniques.*



## LIST OF REFERENCE MATERIALS SPECIFIC TO THE FLIGHT INSTRUCTOR GLIDER (ADDED RATING) (AFG) KNOWLEDGE TEST

<i>Topic</i>	<i>Content</i>	<i>Specific</i>
<b>PLT008</b> <a href="#">Glider Flying Handbook, FAA-H-8083-13</a>		
Flight Operations	Soaring Techniques	Airspeed
<b>PLT012</b> <a href="#">Glider Flying Handbook, FAA-H-8083-13</a>		
Aircraft Performance	Computations	Cross-Country Soaring
Flight Operations	Launch Procedures	Computations
<b>PLT018</b> <a href="#">Glider Flying Handbook, FAA-H-8083-13</a>		
Aerodynamics	Principles of Flight	Load Factor
<b>PLT021</b> <a href="#">Glider Flying Handbook, FAA-H-8083-13</a>		
Weight and Balance	Center of Gravity	Winch Tow
<b>PLT062</b> <a href="#">AC 00-6 Aviation Weather</a>		
Weather	Charts / Maps	Thermal Soaring
Weather	Meteorology	Thermal Soaring
<b>PLT141</b> <a href="#">Aeronautical Information Manual</a>		
Airport Operations	Marking / Signs	Direction to Takeoff Runway(s)
Airport Operations	Marking / Signs	ILS
Airport Operations	Marking / Signs	Prohibited Entry
Airport Operations	Marking / Signs	Runway
Airport Operations	Marking / Signs	Runway Exit
Airport Operations	Marking / Signs	Runway with Displaced Threshold
Airport Operations	Marking / Signs	Taxiway Directional Sign
<b>PLT161</b> <a href="#">14 CFR 91</a>		
Regulations	Airspace Classes	Minimum Flight Visibility
Regulations	Airspace Classes	Visibility and Cloud Clearance
<b>PLT163</b> <a href="#">14 CFR 91</a>		
Regulations	Airspace Classes	Minimum Flight Visibility
Regulations	Weather Minimums	Visibility
<b>PLT168</b> <a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Aerodynamics	Principles of Flight	Stalls
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight	Forces Acting on Aircraft
Aerodynamics	Principles of Flight	Lift
Aerodynamics	Principles of Flight	Pitch Attitude
Aerodynamics	Principles of Flight	Stalls
<b>PLT170</b> <a href="#">Glider Flying Handbook, FAA-H-8083-13</a>		
Flight Operations	Approach	Landing
Flight Operations	Landing	Off-Field Landing
Flight Operations	Soaring Techniques	Approach and Landing
<b>PLT214</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Load Factor	Maneuvering Speed
<b>PLT216</b> <a href="#">Glider Flying Handbook, FAA-H-8083-13</a>		
Aircraft Systems	Flight Instruments	Total Energy Compensators
<b>PLT235</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight	Forces Acting on Aircraft

<b>PLT236</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight	Forces Acting on Aircraft
Aerodynamics	Stability / Control	Design Characteristics
<b>PLT237</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Principles of Flight	Forces Acting on Aircraft
Aerodynamics	Principles of Flight	Physics
<b>PLT240</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Stability / Control	Adverse Balance
Aerodynamics	Stability / Control	Stall and Spin Recovery
<b>PLT244</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Stability / Control	Design Characteristics
<b>PLT245</b>		
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Aerodynamics	Principles of Flight	Spins
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Stability / Control	Spin
<b>PLT248</b>		
<a href="#">Airplane Flying Handbook, FAA-H-8083-3A</a>		
Aerodynamics	Principles of Flight	Turns
<b>PLT257</b>		
<a href="#">Glider Flying Handbook, FAA-H-8083-13</a>		
Flight Operations	Soaring Techniques	Airspeed
<b>PLT303</b>		
<a href="#">Glider Flying Handbook, FAA-H-8083-13</a>		
Aerodynamics	Principles of Flight	Forces Acting on Aircraft
Aerodynamics	Principles of Flight	Physics
<b>PLT304</b>		
<a href="#">Glider Flying Handbook, FAA-H-8083-13</a>		
Flight Operations	Launch Procedures	Autotow
Flight Operations	Launch Procedures	CG Hook
Flight Operations	Launch Procedures	Computations
Flight Operations	Launch Procedures	Ground Launch
Flight Operations	Launch Procedures	Landing
Flight Operations	Launch Procedures	Tow Line Slack
Flight Operations	Launch Procedures	Tow Ring Strike
Flight Operations	Launch Procedures	Winch Launch
<b>PLT312</b>		
<a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Stability / Control	Stalling Speed
<b>PLT328</b>		
<a href="#">Glider Flying Handbook, FAA-H-8083-13</a>		
Weight and Balance	Aircraft Loading	Ballast
<b>PLT337</b>		
<a href="#">AC 91-43 Unreliable Airspeed Indication</a>		
Aircraft Systems	Pitot / Static	Blockage
<b>PLT386</b>		
<a href="#">14 CFR 61</a>		
Regulations	Flight Instructor	Certificate Renewal / Duration
<b>PLT407</b>		
<a href="#">14 CFR 61</a>		
Regulations	Additional Category Ratings	Requirements
Regulations	Flight Review	Training Requirements
Regulations	Flight Training	Towing Gliders
<b>PLT409</b>		
<a href="#">14 CFR 61</a>		
Regulations	Eligibility	Flight Time
<b>PLT411</b>		
<a href="#">14 CFR 61</a>		
Regulations	Flight Instructor	Requirements

<b>PLT419</b> <a href="#">14 CFR 61</a>		
Regulations	Eligibility	Stall / Spin Proficiency
<a href="#">14 CFR 91</a>		
Regulations	Minimum Safe Altitude	Acrobatic Flight
<b>PLT438</b> <a href="#">14 CFR 91</a>		
Regulations	Pressure Altitude	Supplemental Oxygen
<b>PLT448</b> <a href="#">14 CFR 61</a>		
Regulations	Eligibility	Flight Time
<b>PLT457</b> <a href="#">14 CFR 61</a>		
Regulations	Student Pilot	Endorsements
<b>PLT474</b> <a href="#">Glider Flying Handbook, FAA-H-8083-13</a>		
Flight Operations	Soaring Techniques	Airspeed
<b>PLT480</b> <a href="#">Pilot's Handbook of Aeronautical Knowledge, FAA-H-8083-25</a>		
Aerodynamics	Stability / Control	Positive Dynamic Stability
<b>PLT494</b> <a href="#">AC 00-6 Aviation Weather</a>		
Weather	Charts / Maps	Thermal Soaring
Weather	Meteorology	Thermal Soaring
<a href="#">Glider Flying Handbook, FAA-H-8083-13</a>		
Flight Operations	Soaring Techniques	Approach and Landing
<b>PLT511</b> <a href="#">AC 00-6 Aviation Weather</a>		
Weather	Meteorology	Frontal Soaring