



TTCAA Advisory Circular

Subject: GROUND AND FLIGHT INSTRUCTOR KNOWLEDGE TEST GUIDE

TTCAA Advisory Circular TAC-PEL070

Date: 06/10/02

PURPOSE

1. (1) The purpose of this TTCAA Advisory Circular (TAC) is to provide guidance for applicants preparing to take the Ground or Flight Instructor knowledge tests. Appendices provide lists for each instructor license and rating of subject matter outlines, reference materials, and sample questions with subject matter knowledge codes.

(2) Trinidad and Tobago Civil Aviation Regulations (TTCARs) have been revised and were published on 24 March 2004. These regulations have been published in 12 parts and can be obtained from the Trinidad and Tobago Government Printery, Victoria Avenue, Port of Spain, Trinidad.

(3) TTCAR No.1, Part II covers the requirements for personnel licencing and TTCAR No. 1, Part III covers the requirements for Pilot Training Personnel.

INTRODUCTION

2. (1) What is required to become a skilled and effective instructor? Although some individuals possess more knowledge and skills than others, no one is a natural-born instructor. Competent instructors become so through study, training, and experience.

(2) This knowledge test guide will answer most questions about taking the instructor knowledge tests by covering the following areas: knowledge test eligibility requirements; knowledge areas on the tests; descriptions of the tests; process for taking a knowledge test; validity of Airman Test Reports; use of test aids and materials; cheating or other unauthorized conduct; retesting procedures; and obtaining training and testing publications and general information.

(3) This guide will help applicants in preparing to take one or all of the following tests:

- (a) Fundamentals of Instructing (FOI)
- (b) Ground Instructor—Basic (BGI)
- (c) Ground Instructor—Advanced (AGI)
- (d) Ground Instructor—Instrument (IGI)
- (e) Flight Instructor—Aeroplane (FIA)
- (f) Flight Instructor—Instrument (FII)

- (g) Flight Instructor—Helicopter (FIH) (in development)
- (h) Flight Instructor—Glider (FIG) (in development)
- (i) Flight Instructor – Aeroplane – added rating (AFA) (in development)
- (j) Flight Instructor – Helicopter – added rating (HFA) (in development)
- (k) Flight Instructor – Glider – Added rating (AFG) (in development)

(4) This guide is not offered as an easy way to obtain the necessary information for passing the knowledge tests. Rather, the intent of this guide is to define and narrow the field of study to the required knowledge areas included in the tests.

(5) The Trinidad and Tobago Civil Aviation Authority (TTCAA) airman knowledge tests are a very effective instrument for aviation safety and regulatory compliance. However, these tests can only sample the vast amount of knowledge every pilot needs to operate safely in an ever increasingly complex airspace system.

KNOWLEDGE TEST ELIGIBILITY REQUIREMENTS

3. Individuals pursuing a an instructor rating should review: TTCAR No. 1: Part II, Pilot Licences, Ratings and Authorisations, and TTCAR No. 1: Part III, Pilot Training Personnel The applicant for an instructor knowledge test must be at least 18 years old and have a TTCAA Class medical certificate, as appropriate, to the licence and rating sought.

KNOWLEDGE AREAS ON THE TESTS

4. (1) Instructor tests are comprehensive because they must test the applicant’s knowledge in many subject areas.

(2) Applicant’s pursuing an instructor rating should review the appropriate regulations in TTCARS, No. 1: Part II, for the knowledge areas on the tests.

DESCRIPTIONS OF THE TESTS

5. (1) If applicants are pursuing initial flight or ground instructor licensing, he must successfully complete the fundamentals of instructing knowledge test. However, if the applicant holds a current teacher’s certificate issued by a national or local authority that authorizes him to teach at the secondary or higher education level, or the applicant provides evidence of an equivalent level of experience acceptable to TTCAA, the applicant can receive credit for this test. This test contains 50 questions and applicants are allowed a maximum of 1.5 hours to complete the test.

(2) All test questions are the objective, multiple-choice type. Each question can be correctly 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. The minimum passing score is 75 percent.

(3) The following tests each contain 100 questions (except for Ground Instructor – Basic, which contains 80 questions), and applicants are allowed a maximum of 2.5 hours to complete each test:

- (a) Ground Instructor—Basic
- (b) Ground Instructor—Advanced

- (c) Ground Instructor—Instrument
- (d) Flight Instructor—Aeroplane
- (e) Flight Instructor—Instrument
- (f) Flight Instructor—Helicopter (in development)
- (g) Flight Instructor—Glider (in development)

(4) Communication between individuals through the use of words is a complicated process. In addition to being an exercise in the application and use of aeronautical knowledge, a knowledge test is also an exercise in communication since it involves the use of the written language. Since the tests involve written rather than spoken words, communication between the test writer and the person being tested may become a difficult matter if care is not exercised by both parties. Consequently, considerable effort is expended to write each question in a clear, precise manner. Test applicants should be sure to carefully read the instructions given with each test, as well as the statements in each test item.

- (5) When taking a test, keep the following points in mind:
- (a) Answer each question in accordance with the latest regulations and guidance publications.
 - (b) Read each question carefully before looking at the possible answers. Test applicants should clearly understand the problem before attempting to solve it.
 - (c) After formulating an answer, determine which choice corresponds with that answer. The answer chosen should completely resolve the problem.
 - (d) From the answers given, it may appear that there is more than one possible answer; however, there is only one answer that is correct and complete. The other answers are either incomplete, erroneous, or represent common misconceptions.
 - (e) If a certain question is difficult, it is best to mark it for review and proceed to the next question. After answering the less difficult questions, return to those marked for review and answer them. The review marking procedure will be explained to test applicants prior to starting the test. Although the computer should alert test applicants to unanswered questions, test applicants should make sure every question has an answer recorded. This procedure will enable test applicants to use the available time to maximum advantage.
 - (f) When solving a calculation problem, the answer closest to the applicant's solution should be selected. The problem has been checked with various types of calculators; therefore, if the problem has been solved correctly, the applicant's answer will be closer to the correct answer than any of the other choices.

PROCESS FOR TAKING A KNOWLEDGE TEST

6. (1) The first step in the process of taking a knowledge test is to contact the TTCAA office. They can provide applicants with information relating to knowledge test prerequisites, required authorizations and endorsements, and where applicants can appear to take computerized knowledge tests and the appropriate fees involved. In addition applicants might want to visit the TTCAA website at <<http://www.caa.gov.tt>>.

(2) The second step in the process of taking a knowledge test is for the applicant to receive an endorsement from an authorized instructor or Aviation Training Organisation that the applicant has completed the required training and is ready to take the knowledge test.

(3) Acceptable forms of endorsement are:

- (a) A certificate of graduation or a statement of accomplishment certifying the satisfactory completion of the ground school portion of a course for the certificate or rating sought. The certificate or statement may be issued by an approved Aviation Training Organisation.
- (b) A written statement or logbook endorsement from an authorized ground or flight instructor certifying that the applicant has completed an applicable ground training or home study course and is prepared to take the knowledge test.
- (c) A failed Airman Test Report, passing Airman Test Report, or expired Airman Test Report (pass or fail), provided that the airman still has the original Airman Test Report in his/her possession.
- (d) An “expired test/credit” letter issued by the TTCAA (in lieu of a duplicate Airman Knowledge Test Report).

(4) The third step in the process of taking a knowledge test is for the applicant to receive written authorisation from TTCAA to take the knowledge test.

(5) The fourth step in taking a knowledge test is to proceed to the TTCAA computer knowledge test centre. An applicant for a knowledge test must provide proper identification. Testing centre personnel will not begin the test until the test applicant’s identification is verified.

(6) Upon completion of the knowledge test, each applicant will receive their own Airman Test Report, showing their test score with an embossed seal to authenticate the validity of the document.

(7) The Airman Test Report lists the subject matter areas for questions answered incorrectly. The total number of subject matter knowledge areas shown on the Airman Test Report is not necessarily an indication of the total number of questions answered incorrectly.

(8) The Appendices of this Knowledge Test Guide contains a list of reference materials for applicants to study during their training for the Private Pilot licence. The questions on the knowledge test will come from these reference materials. TAC-PEL050, Subject Matter Codes for Airman Knowledge Testing, contains subject matter knowledge codes for airman knowledge testing. Applicants should match the subject matter knowledge codes on their Airman Test Report to these codes to review their areas of deficiency.

(9) A list of reference materials has been prepared by TTCAA to establish specific references for all knowledge standards and is to be used when preparing for an airman knowledge test. The list of reference materials is contained in the Appendix to this Knowledge Test Guide.

(10) An applicant’s instructor is required to provide instruction on each of the knowledge areas listed on the Airman Test Report and to complete an endorsement of this instruction. The Airman Test Report must be presented to the flight test examiner prior to taking the skill test. During the oral portion of the skill test, the examiner is required to evaluate the noted areas of deficiency.

(11) Applicants requiring a duplicate Airman Test Report due to loss or destruction of the original, should send a signed request accompanied by cash in the amount of 90 Trinidad and Tobago Dollars (TT) to the Trinidad and Tobago Civil Aviation Authority, P.O. Box 2163, National Mail Centre, Golden Grove Road, Piarco, Republic of Trinidad and Tobago

VALIDITY OF AIRMAN TEST REPORTS

7. Airman Test Reports for the Private Pilot licence are valid for 24 calendar months. The applicant should plan to complete the skill test during the 24 calendar month validity period. If the Airman Test Report expires before completion of the skill test, the applicant must retake the knowledge test.

USE OF TEST AIDS AND MATERIALS

8. Knowledge test applicants may use aids, reference materials, and test materials within the guidelines listed below. 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:

- (a) Applicants may use any reference materials provided with the test. In addition, applicants may use scales, straightedges, protractors, plotters, navigation computers, log sheets, holding pattern entry aids, and electronic or mechanical calculators that are directly related to the test.
- (b) Manufacturers permanently inscribed instructions on the front and back of such aids, e.g., formulas, conversions, regulations, signals, weather data, holding pattern diagrams, frequencies, weight and balance formulas, and air traffic control procedures are permissible.
- (c) TTCAA personnel may provide a calculator to applicants and/or deny use of their personal calculator based on the following limitations:
 - (i) Prior to, and upon completion of the test, while in the presence of the proctor, applicants must actuate the ON/OFF switch and perform any other function that ensures erasure of any data stored in memory circuits, including removal of batteries.
 - (ii) The use of electronic calculators incorporating permanent or continuous type memory circuits without erasure capability is prohibited. The proctor may refuse the use of the applicant's calculator when unable to determine the calculator's erasure capability.
 - (iii) Printouts of data must be surrendered at the completion of the test if the calculator incorporates this design feature.
 - (iv) 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.
 - (v) Applicants are not permitted to use any booklet or manual containing instructions related to use of test aids.
- (d) Dictionaries are not permitted in the testing area.
- (e) The TTCAA test proctor makes the final determination relating to test materials and personal possessions the applicant may take into the testing area.

CHEATING OR OTHER UNAUTHORIZED CONDUCT

9. Computerized knowledge testing must be carried out in accordance with the strictest security procedures to avoid test compromise. The TTCAA Test Proctor will terminate a test at any time that he/she suspects that a cheating incident has occurred. A TTCAA investigation will then be conducted. If the investigation determines that cheating or unauthorized conduct has occurred, then any airman licence, certificate, or rating that the applicant holds may be revoked, and the applicant will be prohibited for 1 year from applying for or taking any test for a licence, certificate or rating under TTCAR No.1.

RETESTING PROCEDURES

10. (1) Applicants who receive a grade lower than 75 percent and who wish to retest must present the following to TTCAA testing centre personnel when appearing for the purpose of retesting:

- (a) A failed Airman Test Report.
- (b) A written endorsement from an authorized instructor certifying that additional instruction has been given, and the instructor finds the applicant competent to pass the test.
- (c) A written authorisation from TTCAA to retake the test.

(2) Applicants possessing an Airman Test Report with a score of 75 percent or higher who decide to retake the test in anticipation of a better score, may retake the test after 30 days from the date their last test was taken. The TTCAA will not allow applicants to retake a passed test before the 30-day period has lapsed. Prior to retesting, applicants will be required to surrender their current Airman Test Report to the test proctor. The last test taken will reflect the official final score.

OBTAINING TRAINING AND TESTING PUBLICATIONS AND GENERAL INFORMATION

11. Most of the current TTCAA airman training and testing publications can be obtained in electronic format from TTCAA at the TTCAA website at <<http://www.caa.gov.tt>>.

AIRMAN KNOWLEDGE TEST ITEMS

12. Sample questions are contained in the appendix to this test guide and are representative of questions for airman knowledge tests and their corresponding subject matter knowledge codes. These will help airmen 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 the level of competency required to receive a TTCAA licence, authorisation or rating. The list of reference materials contained in the appendix to this test guide is provided to ensure that instructors and students are able to determine the importance of the subject matter to be taught and learned.

COMPUTER TESTING SUPPLEMENTS

13. The computer testing supplements contain the graphics, legends, and maps that are needed to successfully respond to certain knowledge test items. These supplements will be provided by TTCAA test centre personnel during the airman knowledge test.

KNOWLEDGE TEST GUIDES

14. The knowledge test guides describe the knowledge testing policy and procedures for each licence area.

OTHER COMPUTER TESTING INFORMATION

15. Other computer testing information provides specific test information, such as test name, test code (three-digit test identifiers), number of questions, and the time (hours) allotted for each knowledge test. The test identifiers will assist airmen in selecting the proper test for the licence/rating being sought.

SKILL TEST STANDARDS

16. The skill test standards outline the knowledge and skill requirements for each airman licence and rating. The references listed in each task of the skill 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 skill test standards are always accurate and usable.

SUBJECT MATTER REFERENCE/KNOWLEDGE CODES

17. The appendices of this guide contain the listings of reference materials and sample test questions with related subject matter knowledge codes used for airman knowledge testing. The listings of reference materials and subject matter knowledge codes have been prepared by the TTCAA to establish specific references for all knowledge standards. The listings contain reference materials to be used when preparing for all airman knowledge tests. The subject matter knowledge codes contained in TAC- PEL050, should be referred to when reviewing areas of deficiency on airman knowledge test reports.

Ramesh Lutchmedial
Director General of Civil Aviation

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APPENDIX A

FLIGHT INSTRUCTOR – AEROPLANE (FIA) FLIGHT INSTRUCTOR – INSTRUMENT (FII)

SUBJECT MATTER OUTLINE

The following outlines the major topics and underlying content areas on the Flight Instructor – Aeroplane and Flight Instructor - Instrument knowledge tests.

1. Receive and log training from an authorized instructor and pass a flight instructor knowledge test on:
 - (a) The aeronautical knowledge areas for a student, private and flight instructor pilot license applicable to the aircraft category for which flight instructor privileges are sought.
 - (b) The aeronautical knowledge areas for the instrument rating applicable to the category for which instrument flight instructor privileges are sought.
2. Meet the requirements for fundamentals of instruction.

APPENDIX A

GROUND INSTRUCTOR—BASIC (BGI), ADVANCED (AGI), AND INSTRUMENT (IGI)

SUBJECT MATTER OUTLINE

The following outlines the major topics and underlying content areas on the Ground Instructor – Basic, Advanced, and Instrument rating knowledge tests.

1. Receive and log training from an authorized instructor and pass a knowledge test on the aeronautical knowledge areas appropriate to the aircraft category, for the licence and ratings below as applicable:
 - (a) For a basic rating, the knowledge for a student and private pilot licence as listed in this Part.
 - (b) For an advanced rating, the student, private, commercial and airline transport pilot knowledge areas as listed in this Part.
 - (c) For an instrument rating, the knowledge for the instrument rating as listed in this Part.

2. Meet the requirements for fundamentals of instructing as listed.

APPENDIX A

FUNDAMENTALS OF INSTRUCTION (FOI)

SUBJECT MATTER OUTLINE

The following outlines the major topics and underlying content areas on the Fundamentals of Instructing knowledge test.

- (1) In addition to specific requirements listed in this section, and except as identified in (2) below, applicants for instructor licences, ratings and authorizations shall have received and logged training from an authorized instructor on the fundamentals of instructing and have passed a knowledge test on the following areas of instructing:
 - (a) techniques of applied instruction.
 - (b) assessment of student performance in those subjects in which ground instruction is given.
 - (c) the learning process.
 - (d) elements of effective teaching.
 - (e) student evaluation and testing, training philosophies.
 - (f) training program development.
 - (g) lesson planning.
 - (h) classroom instructional techniques.
 - (i) use of training aids, including flight simulation training devices as appropriate.
 - (j) analysis and correction of student errors.
 - (k) human performance relevant to flight instruction.
 - (l) hazards involved in simulating system failures and malfunctions in the aircraft.
 - (m) principles of threat and error management.

- (2) The following applicants do not need to comply with paragraph (1) of this subsection:
 - (a) The holder of an instructor licence issued under this part who has already passed the knowledge test in the areas of instructing.
 - (b) The holder of a current teacher's certificate issued by a national or local authority that authorises the person to teach at a secondary educational level or higher.
 - (c) A person who provides evidence of an equivalent level of experience acceptable to TTCAA.

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APPENDIX B

FLIGHT AND GROUND INSTRUCTOR (AGI), (BGI), AND (FIA)

SAMPLE TEST QUESTIONS AND ANSWERS

1. (Refer to figure 41.) If on a magnetic heading of 310° and receiving ADF indication 3, what would be the magnetic bearing to the station?

- A — 085°.
- B — 135°.
- C — 315°.

Answer A—Subject Matter Knowledge Code: N80.

2. To act as pilot-in-command of an aeroplane that has retractable landing gear, flaps, and a controllable pitch propeller, a pilot is required to

- A — successfully complete a skill test in such an aeroplane.
- B — have a logbook endorsement from an authorized flight instructor certifying proficiency in an aeroplane with more than 200 horsepower.
- C — receive an endorsement certifying ground and flight training from an authorized flight instructor in such an aeroplane, or approved flight training device, and a high performance aeroplane endorsement.

Answer C—Subject Matter Knowledge Code: B112.

3. While maintaining a magnetic heading of 180° and a true airspeed of 130 knots, the 270° radial of a VOR is crossed at 1037 and the 260° radial at 1042. The approximate time and distance to the station would be

- A—30 minutes and 65 NM.
- B—42 minutes and 104 NM.
- C—44 minutes and 96 NM.

Answer A—Subject Matter Knowledge Code: N15.

4. The pivotal altitude for eights-on-pylons is dependent primarily upon the

- A — groundspeed.
- B — true airspeed.
- C — distance from the pylon.

Answer A—Subject Matter Knowledge Code: G09.

5. When performing a chandelle, where should maximum pitch occur?

- A — 45° point.
- B — 90° point.
- C — 180° point.

Answer B—Subject Matter Knowledge Code: G04.

APPENDIX B

FLIGHT AND GROUND INSTRUCTOR (AGI), (BGI), AND (FIA)

SAMPLE TEST QUESTIONS AND ANSWERS

6. (Refer to figure 6.) What sky condition and visibility are forecast for upper Michigan in the eastern portions after 2300Z?

- A — Ceiling 1,000 feet overcast and 3 to 5 statute miles visibility.
- B — Ceiling 1,000 feet overcast and 3 to 5 nautical miles visibility.
- C — Ceiling 100 feet overcast and 3 to 5 statute miles visibility

Answer A—Subject Matter Knowledge Code: M134.

7. (Refer to figure 46.) At what altitude does the Class B airspace begin over Hayward Aerodrome (area 3)?

- A — Surface.
- B — 1,500 feet MSL.
- C — 3,000 feet MSL.

Answer C—Subject Matter Knowledge Code: F01.

8. What is the location of the CG if 60 pounds are removed from Station 70?

Aircraft weight	8,420 lbs
CG location	Station 85

- A — 85.1.
- B — 84.9.
- C — 84.1.

Answer A—Subject Matter Knowledge Code: W09.

9. (Refer to figure 19.) At which angle of attack does the aeroplane travel the maximum horizontal distance per foot of altitude lost?

- A — 6°.
- B — 12.3°.
- C — 20°.

Answer A—Subject Matter Knowledge Code: R35.

10. If the same angle of attack is maintained in ground effect as when out of ground effect, lift will

- A — increase, and induced drag will decrease.
- B — decrease, and parasite drag will increase.
- C — decrease, and parasite drag will decrease.

Answer A—Subject Matter Knowledge Code: R69.

APPENDIX B

FLIGHT AND GROUND INSTRUCTOR (AGI), (BGI), AND (FIA)

SAMPLE TEST QUESTIONS AND ANSWERS

11. 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—Subject Matter Knowledge Code: R133.

12. If an aircraft has negative dynamic and positive static stability, this will result in

- A — undamped oscillations.
- B — divergent oscillations.
- C — convergent oscillations.

Answer B—Subject Matter Knowledge Code: R142.

13. What is the purpose of the yellow demarcation bar marking?

- A — Delineates runway with a displaced threshold from a blast pad, stopway or taxiway that precedes the runway.
- B — Delineates entrance to runway from a taxiway.
- C — Delineates beginning of runway available for landing when pavement is aligned with runway on approach side.

Answer A—Subject Matter Knowledge Code: P105.

14. If the air temperature is +6 °C at an elevation of 700 feet and a standard (average) temperature lapse rate exists, what will be the approximate freezing level?

- A — 6,700 feet MSL.
- B — 3,700 feet MSL.
- C — 2,700 feet MSL.

Answer B—Subject Matter Knowledge Code: M116.

APPENDIX B

FLIGHT AND GROUND INSTRUCTOR (AGI), (BGI), AND (FIA)

SAMPLE TEST QUESTIONS AND ANSWERS

15. Consider the following air mass characteristics:

- 1. Cumuliform clouds.**
- 2. Stable lapse rate.**
- 3. Unstable lapse rate.**
- 4. Stratiform clouds and fog.**
- 5. Smooth air (above the friction level) and poor visibility.**
- 6. Turbulence up to about 10,000 feet and good visibility except in areas of precipitation.**

A moist air mass, which is colder than the surface over which it passes, frequently has which of the above characteristics?

- A — 1, 3, and 6.
- B — 3, 4, and 5.
- C — 2, 4, and 5.

Answer A—Subject Matter Knowledge Code: M90.

16. While in flight, an alternating red and green light directed at you from the control tower means

- A — exercise extreme caution.
- B — give way to other aircraft and keep circling.
- C — return for landing; expect steady green light at proper time.

Answer A—Subject Matter Knowledge Code: T02.

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APPENDIX C

**FUNDAMENTALS OF INSTRUCTION (FOI)
SAMPLE TEST QUESTIONS AND ANSWERS**

1. When has instruction taken place?

- A — When all the required material has been presented.
- B — When a procedure has been explained, and the desired student response has occurred.
- C — When the student hears what is presented.

Answer B—Subject Matter Knowledge Code: J80.

2. A written test having the characteristic of discrimination will

- A—be easy to give and easily graded.
- B—distinguish between students both low and high in achievement.
- C—include a representative and comprehensive sampling of the course objectives.

Answer B—Subject Matter Knowledge Code: J57.

3. After individuals are physically comfortable and have no fear for their safety, which human needs become the prime influence on their behavior?

- A — Social.
- B — Physical.
- C — Egoistic.

Answer A—Subject Matter Knowledge Code: J95.

4. Faulty performance due to student overconfidence should be corrected by

- A — increasing the standard of performance for each lesson.
- B — praising the student only when the performance is perfect.
- C — providing strong, negative evaluation at the end of each lesson.

Answer A—Subject Matter Knowledge Code: J116.

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APPENDIX D

**FLIGHT INSTRUCTOR - INSTRUMENT (FII)
GROUND INSTRUCTOR – INSTRUMENT (IGI)**

SAMPLE TEST QUESTIONS AND ANSWERS

1. How long does a pilot meet the recency of experience requirements for IFR flight after successfully completing an instrument competency check if no further IFR flights are made?

- A — 90 days.
- B — 6 calendar months.
- C — 12 calendar months.

Answer B—Subject Matter Knowledge Code: B118.

2. When an altimeter is changed from 30.11 inches Hg to 29.96 inches Hg, in which direction will the indicated altitude change and by what value?

- A—Altimeter will indicate 15 feet lower.
- B—Altimeter will indicate 150 feet lower.
- C—Altimeter will indicate 150 feet higher.

Answer B—Subject Matter Knowledge Code: C64.

3. What responsibility does the pilot in command of an IFR flight assume upon entering VFR conditions?

- A — Report VFR conditions to ARTCC so that an amended clearance may be issued.
- B — Use VFR operating procedures.
- C — To see and avoid other traffic.

Answer C—Subject Matter Knowledge Code: G39.

4. The sensations which lead to spatial disorientation during instrument flight conditions

- A — are frequently encountered by beginning instrument pilots, but never by pilots with moderate instrument experience.
- B — occur, in most instances, during the initial period of transition from visual instrument flight.
- C — must be suppressed and complete reliance placed on the indications of the flight instruments.

Answer C—Subject Matter Knowledge Code: K09.

5. What is the primary pitch instrument during a stabilized climbing left turn at cruise climb airspeed?

- A — Attitude indicator.
- B — VSI.
- C — Airspeed indicator.

Answer C—Subject Matter Knowledge Code: L3

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APPENDIX E

FLIGHT AND GROUND INSTRUCTOR

LIST OF REFERENCE MATERIALS

The publications listed below contain study material applicants need to be familiar with when preparing for private pilot knowledge tests. Most of these publications can be purchased from TTCAA or be downloaded from the TTCAA web site at <http://www.caa.gov.tt>. ICAO publications can be purchased from ICAO at: <http://www.icao.int>. The latest revision of the listed references should be requested.

1. The Trinidad and Tobago Civil Aviation Act, No.11, 2001
2. Trinidad and Tobago Civil Aviation Regulations (TTCARs), in particular:
 - (a) TTCAR No.1—General Application and Personnel Licensing
 - (b) TTCAR No.2—Operations
 - (c) TTCAR No.5—Airworthiness
 - (d) TTCAR No.7—Instruments and Equipment
 - (e) TTCAR No.11—Aerial Work
3. ICAO Annexes: 3, 10 Volume II, 11 and 14 (pertinent parts)
4. ICAO Document 4444: General provisions, Aero Control service, Approach control service, Aerodrome control service, and Flight information and alerting service.
5. Aeronautical Information Publication (AIP) Eastern Caribbean
6. Sectional Aeronautical Chart
7. Airport/Facility Directory
8. FAA-H-8083-9 - Aviation Instructor's Handbook
9. FAA-H-8083-25—Pilot's Handbook of Aeronautical Knowledge (adopted in cooperation with FAA)
10. FAA-H-8083-3—Airplane Flying Handbook (adopted in cooperation with FAA)
11. FAA-H-8083-1—Aircraft Weight and Balance (adopted in cooperation with FAA)
12. FAA- H-8083-23—Seaplane (adopted in cooperation with FAA)