



Advisory Circular

TCAA-AC-PEL018D

August 2023

THEORETICAL KNOWLEDGE TESTING FOR A LICENCE OR RATING

1.0 PURPOSE

This Advisory Circular is issued to give guidance on the theoretical knowledge testing for a licence, certificate or rating. Examination subjects are available to the public from the Personnel Licensing (PEL) Office through either the printed or electronic means.

2.0 REFERENCES AND FORMS

2.1 Regulation 26 and relevant regulations in Parts VI, VII, VIII and IX of the Civil Aviation (Personnel Licensing) Regulations;

2.2 Regulation 62A of Civil Aviation (Personnel Licencing) (Amendment) Regulations 2023.

2.3 **The prescribed Forms**

3.0 GUIDANCE AND PROCEDURES

3.1 General Information

The booking of the examinations may be done at the Authority's Personnel Licensing (PEL) Office and the prescribed application forms for booking of the examination may be obtained from the Authority's PEL Office.

3.2 Theoretical Knowledge Testing

3.2.1 Theoretical knowledge tests are provided for the issue of the following licences and certificates:

- a) Private Pilot Licence;
- b) Commercial Pilot Licence;
- c) Airline Transport Pilot Licence;
- d) Ground Instructor Licence;
- e) Flight Engineer Licence;
- f) Air Traffic Controller Licence;
- g) Aircraft Maintenance Engineer Licence;
- h) Flight Operations Officer Licence;
- i) Flight Radiotelephony Operator Licence;



Advisory Circular

TCAA-AC-PEL018D

August 2023

- j) Remote Pilots Licence; and
- k) Cabin Crew Member Certificate.

3.2.2 The requirement for the specific knowledge tests are as detailed in the relevant regulations of the specific Licence under the Civil Aviation (Personnel Licensing) Regulations for the specific licence, certificate or rating sought.

3.3 Booking and Payment of the Examination

3.3.1 All examinations are booked in the PEL office

3.3.2 Applicants are required to provide the PEL office (where applicable), with the instructors written recommendation certifying that the applicant has been instructed and is qualified to sit for the examination sought.

3.3.3 All application and examination fees shall be paid on booking and not later than the set booking date.

3.3.4 Applicants who cancel the examination booking after the booking date should notify the Personal Licencing Office via the email pel@tcaa.go.tz,

3.3.5 Candidates who report ill for an examination should notify the Personal Licencing Office via the email pel@tcaa.go.tz,

3.3.6 There shall be NO cash refund for any application and examination fees paid.

3.4 Examination Venue

3.4.1 Examinations are conducted at the TCAA headquarters examination centre.

3.5 Invigilator and his Responsibilities

3.5.1 The invigilator administering the aviation knowledge test must positively identify each applicant, ensure proper test authorisation is presented, and ensure proper completion of the Test Centre Requirements

3.5.2 The invigilator shall not administer a test to an applicant who does not have satisfactory documentation of test authorization, as is required by the Civil Aviation (Personnel Licensing) Regulations.

3.5.3 The invigilator will provide each applicant with –

- a) A set of instructions for taking the test as prescribed in the computer;
- b) The required supplementary materials free of extraneous marks;



Advisory Circular

TCAA-AC-PEL018D

August 2023

c) An accountable number of sheets of scratch paper;

3.5.4 Inspect the aid(s) the applicant plans to use during the test to ensure that they meet the guidelines issued;

3.5.5 Ensure that the proper examination is available;

3.5.6 Answer applicant's questions regarding the proper use of equipment;

3.5.7 Monitor all activities in the examination room and be on the alert for any misconduct;

3.5.8 Collect printed examinations, handouts and scratch paper at the close of the examination;

3.5.9 Advise the applicant prior to the beginning of the examination that if a break is necessary, examination time continues uninterrupted and the invigilator will monitor the applicant's whereabouts during this break.

3.6 Time Allowed for Examination

The time allowed for the completion of each examination shall be displayed for each subject by the examination computer system.

3.7 Misconduct During Examination

If an applicant appears to be cheating, the invigilator shall immediately discontinue the examination and escort the applicant from the room to avoid disturbing others who may be taking examinations. The invigilator will collect all the applicant's examination materials, including supplementary materials, and advise the applicant that further examination may continue only after the Authority completes an investigation.

3.8 Examination Passing Grades

3.8.1 In order to qualify, candidates must obtain not less than 70% of the possible marks for each subject.

3.8.2 The examination passing grades are as follows:

a) Private Pilot Licence Subjects:

- (i) Air Law
- (ii) Aircraft General Knowledge
- (iii) Flight Performance and Planning
- (iv) Human Performance
- (v) Meteorology
- (vi) Navigation
- (vii) Operational Procedures



Advisory Circular

TCAA-AC-PEL018D

August 2023

- (viii) Principles of Flight
- (ix) Radio Telephony.

Pass Mark per subject is 70%

b) Commercial Pilot Licence Subjects:

- (i) Air Law
- (ii) Aircraft General Knowledge
- (iii) Flight Performance and Planning
- (iv) Human Performance
- (v) Meteorology
- (vi) Navigation
- (vii) Operational Procedures
- (viii) Principles of Flight

Pass Mark per subject is 70%

c) Airline Transport Licence Subjects:

- (i) Air Law
- (ii) Aircraft General Knowledge
- (iii) Flight Performance and Planning
- (iv) Human Performance
- (v) Meteorology
- (vi) Navigation
- (vii) Operational Procedures
- (viii) Principles of Flight

Pass Mark per subject is 70%

d) Ground Instructor Licence Subjects: Pass a knowledge test on the fundamentals of instructing including;

- (i) The Learning Process;
- (ii) Elements of Effective Teaching;



Advisory Circular

TCAA-AC-PEL018D

August 2023

- (iii) Student Evaluation and Testing;
- (iv) Course Development;
- (v) Lesson Planning;
- (vi) Classroom Training Techniques;
- (vii) Techniques of Applied Instructions;
- (viii) Use of Training Aids;
- (ix) Analysis and correction of student errors; and
- (x) Human performance relevant to ground instruction.

Overall Pass Mark is 70%

e) Flight Engineer Licence Subjects:

- (i) Air Law
- (ii) Aircraft General Knowledge
- (iii) Flight Performance and Planning
- (vi) Human Performance
- (iv) Operational Procedures
- (v) Principles of Flight: Fundamentals of Aerodynamics
- (vi) Radio Telephony.

Pass Mark per subject is 70%

f) Air Traffic Controller Licence Subjects:

(i) Aerodrome Control Rating

- i. Air Traffic Management
- ii. ICAO, Air Law and General Aviation
- iii. Aviation Meteorology

(ii) Approach Control (Procedural) Control Rating



Advisory Circular

TCAA-AC-PEL018D

August 2023

- i. Air Traffic Management.
- ii. ICAO, Air Law and General Aviation.

(iii) Approach Control (Surveillance) Rating

- i. Surveillance Theory.
- ii. ATC (Surveillance) Procedures.

(iv) Area Control (Procedural) Control Rating

- i. Air Traffic Management.
- ii. ICAO, Air Law and General Aviation.

(v) Area Control (Surveillance) Rating

- i. Surveillance Theory.
- ii. ATC (Surveillance) Procedures.

Pass Mark per subject is 70%

g) Flight Operations Officer Licence Subjects:

- (i) Air Law
- (ii) Aircraft General Knowledge
- (iii) Flight Performance Calculation and Planning procedures
- (iv) Human Performance
- (v) Meteorology
- (vi) Navigation
- (vii) Operational Procedures
- (viii) Principles of Flight
- (ix) Radio communication: procedures for communication with aircraft and relevant ground stations

Pass Mark per subject is 70%

h) Flight Radio Telephony Operator Licence Subjects:



Advisory Circular

TCAA-AC-PEL018D

August 2023

- (i) The ICAO spelling alphabet;
- (ii) Departure and position reporting;
- (iii) Obtaining meteorological information;
- (iv) Transmission and procedures of distress and urgency signals;
- (v) Communication techniques and Radio Telephony procedures and phraseology;
- (vi) The necessity for brevity in radiotelephony communication and priorities;
- (vii) Pre-flight briefing;
- (viii) Classification of directional finding bearings;
- (ix) Radiotelephony facilities and frequencies available in the Flight Information Region (FIR);
- (x) Information Region (FIR);
- (xi) Elementary knowledge of the relationship between wavelength and frequency;
- (xii) Ability to use the radio equipment of the type installed in the aircraft and including the ability to carry out emergency procedures.

Overall Pass Mark is 70%

i) Remote Pilot Licence:

- i. Air law
- ii. General RPAS knowledge
- iii. RPS general knowledge
- iv. Flight performance, planning and loading:
- v. Human performance
- vi. Meteorology:
- vii. Navigation:
- viii. Operational procedures:

(i)

j) Cabin Crew Member Certificate Subjects:

(aa) An applicant for a cabin crew member certificate shall have met the knowledge requirements for cabin crew member certificate under Regulation 138 of the Civil Aviation (Personnel Licensing) Regulations.

- (i) fire and smoke training;
- (ii) Water survival training;
- (iii) Survival training appropriate to the areas of operation such as polar, desert, jungle or sea;
- (iv) Medical aspects and first aid;
- (v) Passenger handling;
- (vi) Communication;
- (vii) Discipline and responsibilities;
- (viii) Crew resource management.

(bb) The applicant should have clear knowledge of the following –



Advisory Circular

TCAA-AC-PEL018D

August 2023

- (i) The responsibility of cabin crew member to deal promptly with emergencies involving fire and smoke and, in particular, emphasis on the importance of identifying the actual source of the fire;
- (ii) The importance of the cabin crew member informing the flight crew member immediately, as well as the specific actions necessary for co-ordination and assistance, when fire or smoke is discovered;
- (iii) The necessity for the cabin crew member doing frequent checking of potential fire-risk areas including toilets and the associated smoke detectors;
- (iv) The classification of fires and the appropriate type of extinguishing agents and procedures for particular fire situations, the techniques of application of extinguishing agents, the consequences of misapplication, and of use in a confined space; and
- (v) The general procedures of ground based emergency services at aerodromes.

Overall Pass Mark is 70%

(J) Aircraft Maintenance Engineer Licence

The detailed information concerning theoretical knowledge requirements and examination for issue or extension of Aircraft Maintenance Engineer Licence are contained in the PEL Advisory Circular TCAA-AC-PEL013C.

3.9 Appeal for a Failed Test: -

Where an applicant has failed a knowledge test, he may appeal to the Authority, if he wishes to contest the fail result, by presenting the appeal case in writing to the Authority within 14 days from the date of the test result. The applicant shall pay an examination appealing of USD 25.

3.10 Examination Pass Standards

3.10.1 Candidates for examinations listed in 3.8 above other than CPL and, ATPL are required to take a prescribed number of examination subjects as prepared. A candidate who does not obtain a pass of 70% in each of the subjects will be awarded a partial pass and will be allowed two further attempts to pass the outstanding subjects. A total pass of all subjects must be accomplished within a three months period from the date of commencement of the first sitting. Failing this, a candidate would not be allowed to re-sit, the examination before a waiting period of not less than 30 days.

3.10.2 Candidates for CPL and ATPL are required to take a prescribed number of examination subjects as prepared. A candidate who does not obtain a pass of 70% in each of the subjects will be awarded a partial pass. A total pass of all subjects must be accomplished within one year from the date of commencement of the first sitting. Failing this, a candidate would not be allowed to re-sit, the examination before a waiting period of not less than 90 days.



Advisory Circular

TCAA-AC-PEL018D

August 2023

3.11 Attendance at the Examination

3.11.1 Candidates should be present at the examination centre with proof of identity at least fifteen (15) minutes prior to the scheduled time for the commencement of each examination paper. Candidates shall sign the examination attendance register by indicating the time he/she entered the examination room and the time leaving the examination room. Candidates shall not remain in the examination room after they finish the examination period unless they are taking another examination.

3.11.2 Bags, briefcases, cellular phones, programmable calculators, smart watches, ear pod, beepers etc are NOT PERMITTED in the examination room. If suitable facilities are not available, such personal belongings may be placed in front of the examination room, under the direction of the invigilating officer.

3.11.3 Examination results will be released to the candidates within fourteen (5) working days via email or hard copy.

3.12 Materials for the Examination

3.12.1 When necessary, the following reference books, Navigation charts, Engineering figures and tables will be available in the examination computer system.

3.12.2 Candidates are NOT permitted to bring their own tables, reference books or papers, including instruction books for calculators and computers into the examination room.

3.12.3 Candidates are required to provide themselves with the necessary navigational computers. No pencil boxes, containers or instrument cases are permitted on the tables. The use of slide rules or instruments containing printed information on critical points, point of no return, distance to the horizon, convergence angle, conversion factors, etc. is not permitted.

3.12.4 Candidates will NOT be permitted to use calculators which are programmable; those having a navigation function; those having a hard copy printout; or devices having an alpha-numeric data bank. However they may use simple hand held electronic calculators in the examinations.

3.12.5 Calculators must not be used in such a manner, or be of such a type, as to cause distraction to other candidates.

3.12.6 A candidate must accept the risk that the misuse or malfunctioning of a calculator may lead to an incorrect answer. No allowance for such an occurrence can be made by the Authority in marking the paper.

3.12.7 All relevant data must be entered in appropriate forms when so directed. Power supplies for operating or recharging electronic calculators may not be available in the examination room.



Advisory Circular

TCAA-AC-PEL018D

August 2023

3.12.8 All used or unused writing paper and other materials supplied to the candidate must be returned to the invigilator at the end of the examination.

3.13 Rules to be Applied for Conduct of Examination

3.13.1 All work must be shown in the proforma, or navigation log forms or on foolscap when so directed; candidates are not allowed to use any loose paper other than that provided at the examination. All papers are to be returned with the answer sheet to the invigilator on completion.

3.13.2 Answer sheets are to be completed using pen. Candidates may use other writing implements for navigation and flight planning at the discretion of the invigilator.

3.13.3 Silence is to be observed in examination room at all times.

3.13.4 If a candidate wishes to speak to the invigilating officer, he should remain seated and raise his hand. It should be noted that the invigilating officer will consider only those questions from candidates, which relate to the general conduct of the examinations and he will not enter into discussion on the interpretation of words or questions contained in the examination papers.

3.13.5 A candidate may leave the room if he finishes before time, subject always to the permission of the invigilating officer. Candidates are to stop work when so directed and must remain seated until all answer material has been collected or unstructured by the invigilating officer.

3.13.6 Any candidate who attempts to remove unauthorized examination materials from the room will be liable to disqualification from those examinations, which have been taken.

3.14 Validity of Knowledge Test Results

Each Knowledge Test Result is valid for a period as stated in the specific Civil Aviation (Personnel Licensing) Regulations for each specific type of the licence.

A handwritten signature in blue ink, consisting of several vertical and horizontal strokes, positioned above a horizontal line.

Director Safety Regulation