SIERRA LEONE CIVIL AVIATION AUTHORITY

ADVISORY CIRCULAR

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Flight Instructor-Aeroplane Skill Test Standards

Director General
Sierra Leone Civil Aviation Authority

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FOREWORD

The Sierra Leone Civil Aviation Authority (SLCAA) has developed skill test standards for airmen licences and ratings and these are published as Advisory Circulars (ACs). This AC establishes the standards for Flight Instructor licence skill tests for Aeroplane. The Authority Inspectors and designated pilot flight test examiners shall conduct skill tests in compliance with these standards. Flight instructors and applicants should find these standards helpful in skill test preparation. Other ACs have been developed for other airmen licences and can be obtained from the SLCAA website: http://www.slcaa.gov.sl

Information considered directive in nature is described in this skill test AC in terms such as "shall" and "must", indicating the actions are mandatory. Guidance information is described in terms such as "should" and "may" indicating the actions are desirable or permissive, but not mandatory.

The Sierra Leone Civil Aviation Regulations (SLCARs) can be obtained from the SLCAA at the address listed below. SLCARs Parts 1A covers the requirements for personnel licensing.

This Skill Test Standard may be downloaded from the SLCAA website at http://www.slcaa.gov.sl Subsequent changes to the Skill Test Standard will also be available on the SLCAA web site.

Comments regarding this publication should be sent to: Sierra Leone Civil Aviation Authority

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SECTION ONE: INSTRUCTIONS

1.1 GENERAL

The SLCAA has developed this skill test AC as the standard that shall be used by SLCAA inspectors and designated flight test examiners when conducting Flight Instructor - aeroplane skill tests. Flight instructors are expected to use this book when preparing applicants for skill tests. Applicants should be familiar with this book and refer to these standards during their training.

1.2 PURPOSE

The purpose of this AC is to prescribe the standards that shall be used by SLCAA inspectors and designated flight test examiners when conducting Flight Instructor - aeroplane skill tests. Flight instructors are expected to use this document when preparing applicants for skill tests. Applicants should be familiar with this document and refer to these standards during their training.

1.3 SKILL TEST STANDARD CONCEPT

The SLCARs specify the areas in which knowledge and skill must be demonstrated by the applicant before the issuance of a licence or rating. The SLCARs provide the flexibility to permit the SLCAA to publish Skill Test Standards (STS) containing the AREAS OF OPERATION and specific TASKS in which pilot competency shall be demonstrated. The SLCAA will revise this STS whenever it is determined that changes are needed in the interest of safety. Adherence to the provisions of the regulations and the STS is mandatory for evaluation of pilot applicants.

1.4 SKILL TEST DESCRIPTION

(1) This AC contains the STS for the Flight Instructor licence for both single engine and multiengine aeroplanes. Section 2 contains the STS for single-engine aeroplanes on land and sea. Section 3 contains the STS for multi-engine aeroplanes on land and sea. The Commercial Pilot STS includes the AREAS OF OPERATION and TASKs for the issuance of an initial commercial pilot licence and for the addition of category ratings and/or class ratings to that licence.

(2) AREAS OF OPERATION are phases of the skill test arranged in a logical sequence within each standard. They begin with preflight preparation and end with post flight procedures. The examiner may conduct the skill test in any sequence that results in a complete and efficient test; however, the ground portion of the skill test shall be accomplished before the flight portion.

(3) TASKS are titles of knowledge areas, flight procedures, or maneuvers appropriate to an AREA OF OPERATION. The abbreviations within parentheses immediately following a TASK refer to the category and/or class aircraft appropriate to that task. The meaning of each abbreviation is as follows:

ASEL Aeroplane – Single-engine Land
AMEL Aeroplane – Multi-engine Land
ASES Aeroplane – Single-engine Sea
AMES Aeroplane – Multi-engine Sea

NOTE: When administering a test based on Section 2 and 3 of this AC, the TASKS appropriate to the class airplane (ASEL, ASES, AMEL, or AMES)

used for the test shall be included in the plan of action. The absence of a class indicates the TASK is for all classes.

(4) NOTE is used to emphasize special considerations required in the AREA OF OPERATION or TASK.

(5) REFERENCE identifies the publication(s) that describe(s) the TASK. Descriptions of TASKS are not included in the standards because this information can be found in the current issue of the listed references. Publications other than those listed may be used for references if their content conveys substantially the same meaning as the referenced publications. The STSs are based on the following references:

SLCARs Part 1A	Personnel Licensing
SLCARs Parts 6A	Operations
SLCARs Part 8	Airworthiness
SLCARs Part 22	General Policies, Procedures, and Definitions
SLCARs Part 25	Instruments and Equipment
SLCARs Part 26	Air Operator Certification
NOTAMS	Notices to Airmen
RESERVED	
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(6) The OBJECTIVE lists the important elements that must be satisfactorily performed to demonstrate competency in a TASK. The OBJECTIVE includes:

(a) Specifically what the applicant should be able to do;

(b) The conditions under which the TASK is to be performed; and

(c) The acceptable standards of performance.

The examiner determines that the applicant meets the TASK OBJECTIVE through the demonstration of competency in all elements of knowledge and/or skill unless otherwise noted. The OBJECTIVES of TASKs in certain AREAS OF OPERATION, such as Fundamentals of Instructing and Technical Subjects, include only knowledge elements. OBJECTIVES of TASKs in AREAS OF OPERATION that include elements of skill, as well as knowledge, also include common errors, which the applicant shall be able to describe, recognise, analyse, and correct.

The OBJECTIVE of a TASK that involves pilot skill consists of four parts. The four parts include determination that the applicant exhibits:

(1) Instructional knowledge of the elements of a TASK. This is accomplished through descriptions, explanations, and simulated instruction;

(2) Instructional knowledge of common errors related to a TASK, including their recognition, analysis, and correction;

(3) The ability to demonstrate and simultaneously explain the key elements of a TASK. The TASK demonstration must be to the COMMERCIAL PILOT skill level2; and

(4) The ability to analyse and correct common errors related to a TASK.

(7) The following abbreviations have the meanings shown

ADF	Automatic Direction Finder
ADM	Aeronautical Decision Making
AIRMETs	Airman's Meteorological Advisories
APV	Approach with Vertical Guidance
ATC	Air Traffic Control
ATIS	Automatic Terminal Information Service
ATS	Air Traffic Service
CAA	Civil Aviation Authority
CDI	Course Deviation Indicator
CFIT	Controlled Flight into Terrain
CRM	Crew Resource Management
DA	Decision Altitude
DH	Decision Height
DME	Distance Measuring Equipment
DP	Departure Procedure
FDC	Flight Data Center
FMS	Flight Management System
FSTD	Flight Simulation Training Device
GLS	GNSS Landing System
GNSS	Global Navigation Satellite System
GPS	Global Positioning System
GPWS	Ground Proximity Warning System
IAP	Instrument Approach Procedure
IFR	Instrument Flight Rules
ILS	Instrument Landing System

IMC	Instrument Meteorological Conditions
IPC	Instrument Proficiency Check
LAHSO	Land and Hold Short Operations
LCD	Liquid Crystal Display
LDA	Localizer-type Directional Aid
LED	Light Emitting Diode
LOC	Localizer
LORAN	Long Range Navigation

MAP	Missed Approach Point
ACA	Minimum Descent Attitude
SLCARS	Sierra Leone Civil Aviation Regulations
METAR	Aviation Routine Weather Report
MLS	Microwave Landing System
NAVAID	Navigational Aid
NDB	Non-Directional Beacon
NOTAM	Notice to Airmen
NPA	Non precision Approach
PA	Precision Approach
RAIM	Receiver Autonomous Integrity Monitoring
RMI	Radio Magnetic Indicator
RNAV	Area navigation
SAS	Stability Augmentation System
SDF	Simplified Directional Facility
SID	Standards Instrument Departure
SIGMETs	Significant Meteorological Advisory
SRM	Single Pilot Resource Management
STAR	Standard Terminal Arrival
STS	Skill Test Standards
TCAS	Traffic Alert and Collision Avoidance System
VDP	Visual Descent Point
VHF	Very High Frequency
VNAV	Vertical Navigation
VOR	Very High Frequency Ominidirectional Range

1.5 USE OF THE SKILL TEST STANDARDS

(1) The Skill Test Standards are designed to evaluate competency in both knowledge and skill.

(2) The SLCAA requires that all skill tests be conducted in accordance with the appropriate STS and the policies set forth in Section 1. Applicants shall be evaluated in ALL TASKS included in the AREAS OF OPERATION of the appropriate STS (unless noted otherwise).

(3) All of the procedures and maneuvers in the Private Pilot and Commercial Pilot Skill Test Standards have been included in the Flight Instructor Skill Test Standards. **However, the flight instructor PTS allows the examiner to select one or more TASKs in each AREA OF OPERATION therefore allowing the skill test for initial certification to be completed within a reasonable time frame.** In certain AREAS OF OPERATION, there are **required** TASKs, which the examiner must select. These **required** TASKs are identified by **NOTES** immediately following the AREA OF OPERATION titles.

(4) The term "instructional knowledge" means the instructor applicant is capable of using the appropriate reference to provide the "application or correlative level of knowledge" of a subject matter topic, procedure, or maneuver.

(5) In preparation for each skill test, the examiner shall develop a written "plan of action" for each skill test. The "plan of action" is a tool, for the sole use of the examiner, to be used in evaluating the applicant. The plan of action need not be grammatically correct or in any formal format. The plan of action must contain all of the required AREAS OF OPERATION and TASKS and any optional TASKS selected by the examiner. The "plan of action" shall incorporate one or more

scenarios that will be used during the skill test. The examiner should try to include as many of the TASKS into the scenario portion of the test as possible, but maintain the flexibility to change due to unexpected situations as they arise and still result in an efficient and valid test. **Any TASK selected for evaluation during a skill test shall be evaluated in its entirety.** If the applicant is unable to perform a TASK listed in the "plan of action" due to circumstances beyond his/her control, the examiner may substitute another TASK from the applicable AREA OF OPERATION.

(6) The examiner is not required to follow the precise order in which the AREAS OF OPERATION and TASKS appear in this book. The examiner may change the sequence or combine TASKS with similar Objectives to have an orderly and efficient flow of the skill test.

(7) The "plan of action" for a test administered *for the addition of an aircraft category and/or class rating* to a flight instructor licence shall include the required AREAS OF OPERATION as indicated in the table at the beginning of each section. The required TASKs appropriate to the rating(s) sought must also be included. In some instances, notes identify additional required TASKs. **Any TASK selected shall be evaluated in its entirety**

NOTE: AREA OF OPERATION XI, Slow Flight, Stalls, and Spins, contains TASKs referred to as "proficiency" and "demonstration." The intent of TASKs A and B (proficiency) is to ensure that the flight instructor applicant is tested on proficiency for the purpose of teaching to students these TASKs that are required for pilot licensing. The intent of TASKs C, D, E, G, and H (demonstration) is to ensure that the flight instructor applicant is knowledgeable and proficient in these maneuvers and can teach them to students for both familiarization and stall/spin awareness purposes.

(8) With the exception of the **required** TASKs, the examiner shall not tell the applicant in advance, which TASKs will be included in the "plan of action." The applicant should be well prepared in **all** knowledge and skill areas included in the standards. Throughout the flight portion of the skill test, the examiner will evaluate the applicant's ability to simultaneously demonstrate and explain procedures and maneuvers, and to give flight instruction to students at various stages of flight training and levels of experience.

(9) The purpose for including common errors in certain TASKs is to assist the examiner in determining that the flight instructor applicant has the ability to recognize, analyze, and correct such errors. The common errors listed in the TASK Objectives may or may not be found in the TASK References. However, the SLCAA considers their frequency of occurrence justification for their inclusion in the TASK Objectives.

(10) The examiner is expected to use good judgment in the performance of simulated emergency procedures. The use of the safest means for simulation is expected. Consideration must be given to local conditions, both meteorological and topographical, at the time of the test, as well as the applicant's workload, and the condition of the aircraft used. If the procedure being evaluated would jeopardize safety, it is expected that the applicant will simulate that portion of the maneuver

1.6 SPECIAL EMPHASIS AREAS

(1) Flight test examiners shall place special emphasis upon areas of aircraft operations considered critical to flight safety. Among these are:

(a) Positive aircraft control;
(b) Positive exchange of the flight controls procedure (who is flying the aircraft);
(c) Stall/spin awareness;
(d) Collision avoidance;
(e) Wake turbulence avoidance;
(f) Runway incursion avoidance;
(g) LAHSO (Land and Hold Short Operations)
(h) CFIT;
(i) ADM and risk management;
(j) Wire strike avoidance
(k) Checklist usage
(l) Temporary flight restrictions (TFRs)
(m) Special use airspace (SUA)
(n) Aviation security; and
(o) Other areas deemed appropriate to any phase of the skill test.

(2) Although these areas may not be specifically addressed under each TASK, they are essential to flight safety and will be evaluated during the skill test. In all instances, the applicant's actions will relate to the complete situation.

1.7 SKILL TEST PREREQUISITES

An applicant for a Flight Instructor Rating for Aeroplane Skill Test is required to:

(1) Meet the applicable requirements in SLCAR Part 1A for a Flight Inspector – Aeroplane rating;
(2) Hold the appropriate medical certificate;
(3) Pass the required knowledge test; and
(4) Instructor Authorisation: Obtain a written endorsement from an authorised instructor certifying that the applicant has met the flight training requirements for the skill test. The endorsement shall also state that the instructor finds the applicant competent to pass the skill test and that the applicant has satisfactory knowledge of the subject area(s) in which a deficiency was indicated by the Airman Knowledge Test Report.

1.8 AIRCRAFT AND EQUIPMENT REQUIRED FOR THE SKILL TEST

(1) The applicant is required to provide an airworthy, certificated aircraft for use during the skill test. This section further requires that the aircraft

(a) Be of Sierra Leonean, foreign, or military registry of the same category, class and type, if applicable, for the licence and/or rating for which the candidate is applying.
(b) Have functioning dual controls, except as provided in SLCAR Part 1A.
(c) Be capable of performing all AREAS OF OPERATION appropriate to the rating sought and have no operating limitations which prohibit its use in any of the AREAS OF OPERATION required for the skill test; and
(d) Be a complex aeroplane furnished by the applicant for the performance of take-off and landing manoeuvres, and appropriate emergency procedures. A complex landplane is one having retractable landing gear, flaps, and controllable propeller or turbine-powered. A complex seaplane is one having flaps and controllable propeller. Aeroplanes that are equipped with a full authority digital engine control (FADEC) system are considered to have a controllable propeller.

1.9 USE OF SLCAA-APPROVED FLIGHT SIMULATION TRAINING DEVICE (RESERVED)

1.10 FLIGHT INSTRUCTOR RESPONSIBILITY

(1) An appropriately rated flight instructor is responsible for training the pilot applicant to acceptable standards in all subject matter areas, procedures, and maneuvers included in the TASKS within the appropriate skill test standard.

(2) Because of the impact of their teaching activities in developing safe, proficient pilots, flight instructors should exhibit a high level of knowledge, skill, and the ability to impart that knowledge and skill to students. Additionally, the flight instructor must certify that the applicant is:

(a) able to make a skill application of the fundamentals of instructing;

(b) competent to teach the subject matter, procedures, and maneuvers included in the standards to students with varying backgrounds and levels of experience and ability;

(c) able to perform the procedures and maneuvers included in the standards to at least the COMMERCIAL PILOT skill level while giving effective flight instruction; and

(d) competent to pass the required skill test for the issuance of the flight instructor licence with the associated category and class ratings or the addition of a category and/or class rating to a flight instructor licence.

(3) Throughout the applicant's training, the flight instructor is responsible for emphasizing the performance of effective visual scanning, collision avoidance, runway incursion avoidance procedures and Land and Hold Short Operations (LAHSO). The flight instructor applicant should develop and use scenario based teaching methods particularly on special emphasis areas.

1.11 EXAMINER RESPONSIBILITY

(1) The examiner conducting the skill test is responsible for determining that the applicant meets acceptable standards of teaching ability, knowledge, and skill in the selected TASKs. The examiner makes this determination by accomplishing an OBJECTIVE that is appropriate to each selected TASK, and includes an evaluation of the applicant's:

(a) Ability to apply the fundamentals of instructing;

(b) Knowledge of, and ability to teach, the subject matter, procedures, and manoeuvres covered in the TASKs;

(c) Ability to perform the procedures and manoeuvres included in the standards to the COMMERCIAL PILOT skill level while giving effective flight instruction; and

(d) Ability to analyse and correct common errors related to the procedures and manoeuvres covered in the TASKs.

(2) It is intended that oral questioning be used at any time during the ground or flight portion of the skill test to determine that the applicant can instruct effectively and has a comprehensive knowledge of the TASKs and their related safety factors.

(3) During the flight portion of the skill test, the examiner shall act as a student during selected manoeuvres. This will give the examiner an opportunity to evaluate the flight instructor applicant's ability to analyse and correct simulated common errors related to these manoeuvres. The examiner will place special emphasis on the applicant's use of visual scanning and collision avoidance procedures, and the applicant's ability to teach those procedures

(4) Examiners should to the greatest extent possible test the applicant's application and correlation skills. When possible scenario based questions should be used during the skill test. The examiner will evaluate the applicant's ability to teach visual scanning, runway incursion avoidance, collision avoidance procedures, and Land and Hold Short Operations (LAHSO).

(5) If the examiner determines that a TASK is incomplete, or the outcome uncertain, the examiner may require the applicant to repeat that TASK, or portions of that TASK. This provision has been made in the interest of fairness and does not mean that instruction, practice, or the repeating of an unsatisfactory TASK is permitted during the licensing process. When practical, the remaining TASKs of the skill test phase should be completed before repeating the questionable TASK.

(6) On multi-engine skill tests where the failure of the most critical engine after lift-off is required, the instructor applicant and examiner must give consideration to local atmospheric conditions, terrain and type of aircraft used. However the failure of an engine shall not be simulated until attaining at least Vsse/Vyse and at an altitude not lower than 400 feet AGL.

(7) During simulated engine failures on multi-engine skill tests, after simulated feathering of the propeller the engine shall be set to zero thrust. The examiner shall require the instructor applicant to simultaneously demonstrate and explain procedures for landing with a simulated feathered propeller with the engine set to zero thrust. **The examiner must not simulate any conditions that may jeopardise safe flight or result in possible damage to the aircraft.**

1.12 SATISFACTORY PERFORMANCE

The skill test is passed if, in the judgement of the examiner, the applicant demonstrates satisfactory performance with regard to:

(1) Knowledge of the fundamentals of instructing;

(2) Knowledge of the technical subject areas;

(3) Knowledge of the flight instructor's responsibilities concerning the pilot licensing process;

(4) Knowledge of the flight instructor's responsibilities concerning logbook entries and pilot licence endorsements;

(5) Ability to demonstrate the procedures and manoeuvres selected by the examiner to at least the commercial pilot skill level while giving effective instruction;

(6) Competence in teaching the procedures and manoeuvres selected by the examiner;

(7) Competence in describing, recognising, analysing, and correcting common errors simulated by the examiner; and

(8) Knowledge of the development and effective use of a course of training, a syllabus, and a lesson plan

1.13 UNSATISFACTORY PERFORMANCE

(1) If, in the judgement of the examiner, the applicant does not meet the standards of performance of any TASK performed, the applicable AREA OF OPERATION is considered unsatisfactory and therefore, the skill test is failed. The examiner or applicant may discontinue the test at any time when the failure of an AREA OF OPERATION makes the applicant ineligible for the licence or rating sought. **The test will be continued only with the consent of the applicant.** If the test is discontinued, the applicant is entitled credit for only those AREAS OF OPERATION and their associated TASKs satisfactorily performed; however, during the retest and at the discretion of the examiner, any TASK may be re-evaluated, including those previously considered satisfactory. Specific reasons for disqualification are:

(a) Failure to perform a procedure or manoeuvre to the COMMERCIAL PILOT skill level while giving effective flight instruction;
(b) Failure to provide an effective instructional explanation while demonstrating a procedure or manoeuvre (explanation during the demonstration must be clear, concise, technically accurate, and complete with no prompting from the examiner);
(c) Any action or lack of action by the applicant which requires corrective intervention by the examiner to maintain safe flight;
(d) Failure to use proper and effective visual scanning techniques to clear the area before and while performing manoeuvres.

(2) When a Disapproval Notice is issued, the examiner must record the applicant's unsatisfactory performance in terms of AREA OF OPERATIONS and specific TASKS not meeting the standard appropriate to the skill test conducted. If the applicant fails the skill test because of a special emphasis area, the Notice of Disapproval shall indicate the associated TASK. An example would be: AREA OF OPERATION IX, Manoeuvring during Slow Flight, failure to teach proper collision avoidance procedures.

(3) In the case of a retest after failure, an applicant may be given credit for those areas of operations successfully completed on the previous skill test, provided the previous test was conducted within 60 days before the retest. If the previous test was conducted more than 60 days before the retest, the examiner must test the applicant in all areas of operation and all TASKS.

1.14 DISCONTINUANCE OF A SKILL TEST

When a skill test is discontinued for reasons other than unsatisfactory performance (i.e., equipment failure, weather, or illness) SLCAA Airman Licence and/or Rating Application, and, if applicable, the Airman Knowledge Test Report, shall be returned to the applicant. The examiner at that time shall prepare, sign, and issue a Letter of Discontinuance to the applicant. The Letter of Discontinuance should identify the AREAS OF OPERATION and their associated TASKS of the skill test that were successfully completed. The applicant shall be advised that the Letter of Discontinuance shall be presented to the examiner when the skill test is resumed, and made part of the licensing file.

1.15 AERONAUTICAL DECISION MAKING AND RISK MANAGEMENT

(1) Throughout the skill test, the examiner evaluates the applicant's ability to use good aeronautical decision-making procedures in order to identify risks. The examiner accomplishes this requirement by developing scenarios that incorporate as many TASKs as possible to evaluate the applicants risk management in making safe aeronautical decisions. For example, the examiner may develop a scenario that incorporates weather decisions and performance planning.

(2) The applicant's ability to utilise all the assets available in making a risk analysis to determine the safest course of action are essential for satisfactory performance. The scenarios should be realistic and within the capabilities of the aircraft used for the skill test.

1.16 DISCONTINUANCE OF A SKILL TEST

When a skill test is discontinued for reasons other than unsatisfactory performance (i.e., equipment failure, weather, or illness) SLCAA Airman Licence and/or Rating Application, and, if applicable, the Airman Knowledge Test Report, shall be returned to the applicant. The examiner at that time shall prepare, sign, and issue a Letter of Discontinuance to the applicant. The Letter of Discontinuance should identify the AREAS OF OPERATION and their associated TASKS of the skill test that were successfully completed. The applicant shall be advised that the Letter of

Discontinuance shall be presented to the examiner when the skill test is resumed, and made part of the licensing file.

1.16 CREW RESOURCE MANAGEMENT (CRM)

(1) CRM refers to the effective use of all available resources; human resources, hardware, and information. Human resources includes all other groups routinely working with the cockpit crew (or if a single-pilot operation, the pilot) who are involved in decisions that are required to operate a flight safely. These groups include, but are not limited to: flight operations officers, cabin crew members, maintenance personnel, and air traffic controllers. CRM is not a single TASK. CRM is a set of skill competencies which must be evident in all TASKS in this skill test standard as applied to the single-pilot or the multi-crew operation. CRM competencies, grouped into three clusters of observable behaviour, are:

(a) COMMUNICATIONS PROCESSES AND DECISIONS
   1) Briefing/debriefing
   2) Inquiry/advocacy/assertiveness
   3) Self-critique
   4) Communication with available personnel resources
   5) Decision making

(b) BUILDING AND MAINTENANCE OF A FLIGHT TEAM
   1) Leadership/followership
   2) Interpersonal relationships

(c) WORKLOAD MANAGEMENT AND SITUATIONAL AWARENESS
   1) Preparation/planning
   2) Vigilance
   3) Workload distribution
   4) Distraction avoidance
   5) Wake turbulence avoidance

(2) CRM deficiencies almost always contribute to the unsatisfactory performance of a TASK. Therefore, the competencies provide an extremely valuable vocabulary for debriefing.

(3) The standards for each CRM competency as generally stated and applied are subjective. Conversely, some of the competencies may be found objectively stated as required operational procedures for one or more TASKS. Examples of the latter include briefings, radio calls, and instrument approach callouts. Whether subjective or objective, application of CRM competencies is dependent upon the composition of the crew.

1.17 SINGLE-PILOT RESOURCE MANAGEMENT

Single-Pilot Resource Management refers to the effective use of ALL available resources: human resources, hardware, and information. It is similar to Crew Resource Management (CRM) procedures that are being emphasised in multi-crew member operations except that only one crew member (the pilot) is involved. Human resources "...include all other groups routinely working with the pilot who are involved in decisions that are required to operate a flight safely. These groups include, but are not limited to: dispatchers, weather briefers, maintenance personnel, and air traffic controllers." Pilot Resource Management is not a single TASK; it is a set of skill competencies that must be evident in all TASKS in this skill test standard as applied to single-pilot operation.

1.18 HOW THE EXAMINER APPLIES CREW RESOURCE MANAGEMENT

(1) Examiners are required to exercise proper CRM competencies in conducting tests as well as expecting the same from applicants.

(2) Pass/Fail judgements based solely on CRM issues must be carefully chosen since they may be entirely subjective. Those Pass/Fail judgements which are not subjective apply to CRM-related procedures in SLCAA-approved operations manuals that must be accomplished, such as briefings to other crew members. In such cases, the operator (or the aircraft manufacturer)

specifies what should be briefed and when the briefings should occur. The examiner may judge objectively whether the briefing requirement was or was not met. In those cases where the operator (or aircraft manufacturer) has not specified a briefing, the examiner shall require the applicant to brief the appropriate items from the following note. The examiner may then judge objectively whether the briefing requirement was or was not met.

(3) The majority of aviation accidents and incidents are due to resource management failures by the pilot/crew; fewer are due to technical failures. Each applicant shall give a crew briefing before each take-off/departure and approach/landing. If the operator or aircraft manufacturer has not specified a briefing, the briefing shall cover the appropriate items, such as runway, SID/STAR/IAP, power settings, speeds, abnormals or emergency prior to or after take-off, emergency return intentions, missed approach procedures, FAF, altitude at FAF, initial rate of descent, DH/MDA, time to missed approach, and what is expected of the other crew members during the take-off/SID and approach/landing. If the first take-off/departure and approach/landing briefings are satisfactory, the examiner may allow the applicant to brief only the changes, during the remainder of the flight.

1.19 APPLICANT'S USE OF CHECKLISTS

Throughout the skill test, the applicant is evaluated on the use of an appropriate checklist. Proper use is dependent on the specific TASK being evaluated. The situation may be such that the use of the checklist, while accomplishing elements of an OBJECTIVE, would be either unsafe or impracticable, especially in a single-pilot operation. In this case, a review of the checklist after the elements have been accomplished would be appropriate. Division of attention and proper visual scanning should be considered when using a checklist.

1.20 USE OF DISTRACTIONS DURING SKILL TESTS

Numerous studies indicate that many accidents have occurred when the pilot has been distracted during critical phases of flight. To evaluate the pilot's ability to utilise proper control technique while dividing attention both inside and/or outside the cockpit, the examiner shall cause a realistic distraction during the flight portion of the skill test to evaluate the applicant's ability to divide attention while maintaining safe flight.

1.21 POSITIVE EXCHANGE OF FLIGHT CONTROLS

(1) During flight, there must always be a clear understanding between pilots of who has control of the aircraft. Prior to flight, a briefing should be conducted that includes the procedure for the exchange of flight controls. A positive three-step process in the exchange of flight controls between pilots is a proven procedure and one that is strongly recommended.

(2) When one pilot wishes to give the other pilot control of the aircraft, he or she will say, "You have the flight controls." The other pilot acknowledges immediately by saying, "I have the flight controls." The first pilot again says "You have the flight controls." When control is returned to the first pilot, follow the same procedure. A visual check is recommended to verify that the exchange has occurred. There should never be any doubt as to who is flying the aircraft. The instructor applicant is expected to teach proper positive exchange of flight controls during the skill test.

1.22 RATING TASK TABLES

ADDITIONAL RATING TASK TABLE – SINGLE-ENGINE

ADDITION OF A SINGLE-ENGINE CLASS RATING (AND AN AIRPLANE CATEGORY RATING, IF APPROPRIATE) TO A FLIGHT INSTRUCTOR LICENCE	
REQUIRED AREAS OF OPERATION	**FLIGHT INSTRUCTOR LICENCE AND RATING HELD**

	AME	Helicopter	Glider	Airship	Balloon
I	NONE	NONE	NONE	NONE	NONE
II	NONE	C,D	C,D	*	*
III	NONE	C,D	C,D	ALL	ALL
IV	NONE	NONE	NONE	NONE	NONE
V	NONE	*	*	*	*
VI	NONE	*	*	*	*
VII	*	*	*	*	*
VIII	NONE	*	*	*	*
IX	*	*	*	*	*
X	D	*	*	*	*
XI	*	*	*	*	*
XII	NONE	*	*	NONE	*
XIII	*	*	*	*	*
XIV	NONE	*	*	*	*

***NOTE**: If an applicant holds more than one rating on a flight instructor licence and the table indicates both a "NONE" and a "SELECT ONE" for a particular AREA OF OPERATION, the "NONE" entry applies. This is logical since the applicant has satisfactorily accomplished the AREA OF OPERATION on a previous flight instructor skill test. At the discretion of the examiner, the applicant's competence in any AREAS OF OPERATION may be evaluated.*
*Refer to NOTE under AREA OF OPERATION for TASK requirements.

RENEWAL OR REINSTATEMENT OF A FLIGHT INSTRUCTOR TABLE

Aeroplane Single-Engine Category

REQUIRED AREAS OF OPERATION	NUMBER OF TASKS
II	TASK L and 1 other TASK
III	1
IV	1
V	1
VII	2 Takeoffs and 2 Landings
IX	1
X	1
XI	2
XIII	1
XIV	1

The Renewal or Reinstatement of one rating on a flight instructor's licence renews or reinstates all privileges existing on the licence.

ADDITIONAL RATING TASK TABLE – MULTI-ENGINE
ADDITIONAL RATING TASK TABLE

ADDITION OF A MULTIENGINE CLASS RATING (AND AN AIRPLANE CATEGORY RATING, IF APPROPRIATE) TO A FLIGHT INSTRUCTOR LICENCE					
REQUIRED AREAS OF OPERATION	FLIGHT INSTRUCTOR LICENCE AND RATING HELD				
	ASE	Helicopter	Glider	Airship	Balloon
I	NONE	NONE	NONE	NONE	NONE
II	NONE	C,D	C,D	C,D	C,D
III	NONE	NONE	NONE	NONE	NONE
IV	NONE	NONE	NONE	NONE	NONE
V	*	*	*	*	*
VI	NONE	*	*	*	*
VII	*	*	*	*	*
VIII	NONE	*	*	*	*
IX	*	*	*	*	*
X	NONE	*	*	*	*
XI	*	*	*	*	*
XII	NONE	*	*	NONE	*
XIII	*	*	*	*	*
XIV	*	*	*	*	*
XV	NONE	*	*	*	*

***NOTE**: If an applicant holds more than one rating on a flight instructor licence and the table indicates both a "NONE" and a "SELECT ONE" for a particular AREA OF OPERATION, the "NONE" entry applies. This is logical since the applicant has satisfactorily accomplished the AREA OF OPERATION on a previous flight instructor skill test. At the discretion of the examiner, the applicant's competence in any AREAS OF OPERATION may be evaluated.*

* Refer to NOTE under AREA OF OPERATION for TASK requirements.

RENEWAL OR REINSTATEMENT OF A FLIGHT INSTRUCTOR TABLE

Aeroplane Multi-engine Category

REQUIRED AREAS OF OPERATION	NUMBER OF TASKS
II	**TASK L and 1other TASK**
III	1
IV	1
VII	**2 Takeoffs and 2 Landings**
IX	1
X	1
XI	1
XIII	**2**
XIV	1

The Renewal or Reinstatement of one rating on a flight instructor's licence renews or reinstates all privileges existing on the licence.

SECTION TWO: SINGLE-ENGINE SKILL TEST STANDARDS

1.1 APPLICANT'S SKILL TEST CHECKLIST FLIGHT INSTRUCTOR – AIRPLANE SINGLE ENGINE
APPOINTMENT WITH INSPECTOR OR EXAMINER

NAME: _____

LOCATION: _____

TIME/DATE: _____

ACCEPTABLE AIRCRAFT

View-Limiting Device (if applicable)

Aircraft Documents:

Airworthiness Certificate

Registration Certificate

Operating Limitations

Aircraft Maintenance Records:

Airworthiness Inspections

Pilot's Operating Handbook and SLCAA-Approved Airplane Flight Manual

PERSONAL EQUIPMENT

Current Aeronautical Charts

Computer and Plotter

Flight Plan Form

Flight Logs

Current AIM

Current Airport Facility Directory

PERSONAL RECORDS

Pilot Licence

Medical Certificate

Completed Form, Airman Licence and/or Rating Application

Airman Knowledge Test Report

Logbook with Instructor's Endorsement

Letter of Discontinuance (if applicable)

Notice of Disapproval (if applicable)

Approved School Graduation Certificate (if applicable)

Examiner's Fee (if applicable)

1.2 EXAMINER'S CHECKLIST FLIGHT INSTRUCTOR—AIRPLANE SINGLE-ENGINE

APPLICANTS'S NAME: _____

EXAMINER'S NAME: _____

LOCATION: _____

TIME/DATE: _____ **TYPE CHECK:** _____

TYPE AIRPLANE: _____

AREA OF OPERATION:

I. FUNDAMENTALS OF INSTRUCTING

A. The Learning Process
B. Human Behaviour and Effective Communication
C. The Teaching Process
D. Teaching Methods
E. Critique and Evaluation
F. Flight Instructor Characteristics and Responsibilities
G. Planning Instructional Activity

II. TECHNICAL SUBJECT AREAS

A. Aeromedical Factors
B. Visual Scanning and Collision Avoidance
C. Principles of Flight Airplane
D. Flight Controls Airplane Weight
E. and Balance Navigation and
F. Flight Planning Night
G. Operations
H. High Altitude Operations
I. Federal Aviation Regulations and Publications
J. National Airspace System
K. Navigation Systems and Radar Services
L. Logbook Entries and Certificate Endorsements
M. Water and Seaplane Characteristics
N. Seaplane Bases, Rules, and Aids to Marine Navigation

III. PREFLIGHT PREPARATION

A. Certificates and Documents
B. Weather Information
C. Operation of Systems
D. Performance and Limitations
E. Airworthiness Requirements

IV. PREFLIGHT LESSON ON A MANUEVER TO BE PERFORMED IN FLIGHT

A. Maneuver Lesson

V. PREFLIGHT PROCEDURES

A. Preflight Inspection

B. Single-Pilot Resource Management

C. Engine Starting

D. Taxiing—Landplane

E. Taxiing—Seaplane

F. Sailing

G. Before Takeoff Check

VI. AIRPORT AND SEAPLANE BASE OPERATIONS

A. Radio Communications and ATC Light Signals

B. Traffic Patterns

C. Airport/Seaplane Base, Runway and Taxiway Signs, Makings and Lightning

VII. TAKEOFFS, LANDINGS, AND GO-AROUNDS

A. Normal and Crosswind Takeoff and Climb

B. Short-Field (Confined Area ASES) Takeoff and Maximum Performance Climb

C. Soft-Field Takeoff and Climb

D. Glassy-Water Takeoff and Climb

E. Rough-Water Takeoff and Climb

F. Normal and Crosswind Approach and Landing

G. Slip to a Landing

H. Go-Around/Rejected Landing

I. Short-Field (Confined Area ASES) Approach and Landing

J. Soft-Field Approach and Landing

K. Power-Off 180° Accuracy Approach and Landing

L. Glassy-Water Approach and Landing

M. Rough-Water Approach and Landing

VIII. FUNDAMENTALS OF FLIGHT

A. Straight-and-Level Flight

B. Level Turns

C. Straight Climbs and Climbing Turns

D. Straight Descents and Descending Turns

IX. PERFORMANCE MANEUVERS

- **A.** Steep Turns
- **B.** Steep Spirals
- **C.** Chandelles
- **D.** Lazy Eights

X. GROUND REFERENCE MANEUVERS

- **A.** Rectangular Course
- **B.** S-Turns Across a Road
- **C.** Turns Around a Point
- **D.** Eights on Pylons

XI. SLOW FLIGHT, STALLS, AND SPINS

- **A.** Maneuvering During Slow Flight
- **B.** Power-On Stalls (Proficiency)
- **C.** Power-Off Stalls (Proficiency)
- **D.** Crossed-Control Stalls (Demonstration)
- **E.** Elevator Trim Stalls (Demonstration)
- **F.** Secondary Stalls (Demonstration)
- **G.** Spins
- **H.** Accelerated Maneuver Stalls (Demonstration)

XII. BASIC INSTRUMENT MANEUVERS

- **A.** Straight-and-Level Flight
- **B.** Constant Airspeed Climbs
- **C.** Constant Airspeed Descents
- **D.** Turns to Headings
- **E.** Recovery from Unusual Flight Attitudes

XIII. EMERGENCY OPERATIONS

- **A.** Emergency Approach and Landing (Simulated)
- **B.** Systems and Equipment Malfunctions
- **C.** Emergency Equipment and Survival Gear
- **D.** Emergency Descent

XIV. POSTFLIGHT PROCEDURES

- **A.** Post flight Procedures
- **B.** Anchoring
- **C.** Docking and Mooring
- **D.** Beaching
- **E.** Ramping

1.3 AREAS OF OPERATION

I. AREA OF OPERATION: FUNDAMENTALS OF INSTRUCTING

NOTE: The examiner must select TASK F and one other TASK.

A. TASK: THE LEARNING PROCESS

REFERENCE:

Objective: To determine that the applicant exhibits instructional knowledge of the elements of the learning process by describing:

(1) Learning theory
(2) Characteristics of learning
(3) Principles of learning
(4) Levels of learning
(5) Learning physical skills
(6) Memory
(7) Transfer of learning

B. TASK: HUMAN BEHAVIOUR AND EFFECTIVE COMMUNICATION

Objective: To determine that the applicant exhibits instructional knowledge of the elements of the teaching process by describing:

(1) Human behaviour:
  (a) Control of human behaviour
  (b) Human needs
  (c) Defence mechanisms
  (d) The flight instructor as a practical psychologist

(2) Effective communication:
  (a) Basic elements of communication
  (b) Barriers of effective communication
  (c) Developing communication skills

C. TASK: THE TEACHING PROCESS

Objective: To determine that the applicant exhibits instructional knowledge of the elements of the teaching process by describing:

(1) Preparation of a lesson for a ground or flight instructional period.
(2) Presentation methods.
(3) Application, by the student, of the material or procedure presented.
(4) Review and evaluation of student performance.

D. TASK: TEACHING METHODS

Objective: To determine that the applicant exhibits instructional knowledge of the elements of teaching methods by describing:

(1) Material organisation
(2) The lecture method
(3) The cooperative or group learning method
(4) The guided discussion method
(5) The demonstration-performance method
(6) Computer-based training method

E. TASK: CRITIQUE AND EVALUATION

Objective: To determine that the applicant exhibits instructional knowledge of the elements of critique and evaluation by explaining:

(1) Critique:
- (a) Purpose and characteristics of an effective critique.
- (b) Methods and ground rules for a critique.

(2) Evaluation:
- (a) Characteristics of effective oral questions and what types to avoid.
- (b) Responses to student questions.
- (c) Characteristics and development of effective written questions.
- (d) Characteristics and uses of performance test, specifically, the FAA skill test standards.

F. TASK: FLIGHT INSTRUCTOR CHARACTERISTICS AND RESPONSIBILITIES

Objective: To determine that the applicant exhibits instructional knowledge of the elements of flight instructor characteristics and responsibilities by describing:

(1) Aviation instructor responsibilities in:
- (a) Providing adequate instruction.
- (b) Establishing standards of performance.
- (c) Emphasising the positive.

(2) Flight instructor responsibilities in:
- (a) Providing student pilot evaluation and supervision.
- (b) Preparing skill test recommendations and endorsements.
- (c) Determining requirements for conducting additional training and endorsement requirements.

(3) Professionalism as an instructor by:
- (a) Explaining important personal characteristics.
- (b) Describing methods to minimize student frustration.

G. TASK: PLANNING INSTRUCTIONAL ACTIVITY

Objective: To determine that the applicant exhibits instructional knowledge of the elements of planning instructional activity by describing:

(1) Developing objectives and standards for a course of training.
(2) Theory of building blocks of learning.
(3) Requirements for developing a training syllabus.
(4) Purpose and characteristics of a lesson plan.

II. AREA OF OPERATION: TECHNICAL SUBJECT AREAS

NOTE: The examiner must select TASK L and at least one other TASK.

A. TASK: AEROMEDICAL FACTORS

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to aeromedical factors by describing:

(1) How to obtain an appropriate medical certificate.
(2) How to obtain a medical certificate in the event of a possible medical deficiency.
(3) The causes, symptoms, effects, and corrective action of the following medical factors:
- (a) Hypoxia
- (b) Hyperventilation
- (c) Middle ear and sinus problems
- (d) Spatial disorientation
- (e) Motion sickness
- (f) Carbon monoxide poisoning

(g) Fatigue and stress
(h) Dehydration

(4) The effects of alcohol and drugs, and their relationship to flight safety.
(5) The effect of nitrogen excesses incurred during scuba dives and how this affects pilots and passengers during flight.

B. TASK: VISUAL SCANNING AND COLLISION AVOIDANCE

Objective: To determine that the applicant exhibits instructional knowledge of the elements of visual scanning and collision avoidance by describing:

(1) Relationship between a pilot's physical condition and vision.
(2) Environmental conditions that degrade vision.
(3) Vestibular and visual illusions.
(4) "See and avoid" concept.
(5) Proper visual scanning procedure.
(6) Relationship between poor visual scanning habits and increased collision risk.
(7) Proper clearing procedures.
(8) Importance of knowing aircraft blind spots.
(9) Relationship between aircraft speed differential and collision risk.
(10) Situations that involve the greatest collision risk.

C. TASK: PRINCIPLES OF FLIGHT

Objective: To determine that the applicant exhibits instructional knowledge of the elements of principles of flight by describing:

(1) Aerofoil design characteristics.
(2) Aeroplane stability and controllability.
(3) Turning tendency (torque effect).
(4) Load factors in aeroplane design.
(5) Wingtip vortices and precautions to be taken.

D. TASK: AEROPLANE FLIGHT CONTROLS

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to the aeroplane flight controls by describing the purpose, location, direction of movement, effect, and proper procedure for use of the:

(1) Primary flight controls
(2) Trim control(s)
(3) Wing flaps

E. TASK: AEROPLANE WEIGHT AND BALANCE

Objective: To determine that the applicant exhibits instructional knowledge of the elements of aeroplane weight and balance by describing:

(1) Weight and balance terms.
(2) Effect of weight and balance on performance.
(3) Methods of weight and balance control.
(4) Determination of total weight and centre of gravity and the changes that occur when adding, removing, or shifting weight.

F. TASK: NAVIGATION AND FLIGHT PLANNING

Objective: To determine that the applicant exhibits instructional knowledge of the elements of navigation and flight planning by describing:

(1) Terms used in navigation.
(2) Features of aeronautical charts.
(3) Importance of using the proper and current aeronautical charts.

(4) Method of plotting a course, selection of fuel stops and alternates, and appropriate actions in the event of unforeseen situations.
(5) Fundamentals of pilotage and dead reckoning.
(6) Fundamentals of radio navigation.
(7) Diversion to an alternate.
(8) Lost procedures.
(9) Computation of fuel consumption.
(10) Importance of preparing and properly using a flight log.
(11) Importance of a weather check and the use of good judgement in making a "go/no-go" decision.
(12) Purpose of and procedure used in, filing a flight plan.

G. TASK: NIGHT OPERATIONS

Objective: To determine that the applicant exhibits instructional knowledge of the elements of night operations by describing:

(1) Factors related to night-vision.
(2) Disorientation and night optical illusions.
(3) Proper adjustment of interior lights.
(4) Importance of having a flashlight with a red lens.
(5) Night pre-flight inspection.
(6) Engine starting procedures, including use of position and anti-collision lights prior to start.
(7) Taxiing and orientation on an aerodrome.
(8) Take-off and climb-out.
(9) In-flight orientation.
(10) Importance of verifying the aeroplane's attitude by reference to flight instruments.
(11) Night emergencies procedures.
(12) Traffic patterns.
(13) Approaches and landings with and without landing lights.
(14) Go-around.

H. TASK: HIGH-ALTITUDE OPERATIONS

REFERENCES: SLCAR Part 6;

Objective: To determine that the applicant exhibits instructional knowledge of the elements of high-altitude operations by describing:

(1) Regulatory requirements for use of oxygen.
(2) Physiological hazards associated with high-altitude operations.
(3) Characteristics of a pressurised aeroplane and various types of supplemental oxygen systems.
(4) Importance of "aviator's breathing oxygen".
(5) Care and storage of high-pressure oxygen bottles.
(6) Problems associated with rapid decompression and corresponding solutions.
(7) Fundamental concept of cabin pressurisation.
(8) Operation of a cabin pressurisation system.

I. TASK: MERAVIAN CIVIL AVIATION REGULATIONS

REFERENCES: SLCAR Parts 1A,6 and 22

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to the Sierra Leone Civil Aviation Regulations and associated publications:

(1) Availability and method of revision of SLCARs parts 22,1A and 6 by describing:

(a) Purpose
(b) General content

(2) Availability of flight information publications, advisory circulars, skill test standards, pilot operating handbooks, and SLCAA-approved aeroplane flight manuals by describing:
(a) Availability
(b) Purpose
(c) General content

J. TASK: NATIONAL AIRSPACE SYSTEM

REFERENCES: SLCAR Part 6

Objective: To determine that the applicant exhibits instructional knowledge of the elements of the national airspace system by describing:

(1) Basic VFR Weather Minimums – for all classes of airspace.
(2) Airspace classes – the operating rules, pilot certification, and aeroplane equipment requirements for the following:
(a) Class A
(b) Class B
(c) Class C
(d) Class D
(e) Class E
(f) Class G
(3) Special use airspace (SUA).
(4) Temporary flight restrictions (TFR).

K. TASK: NAVIGATION SYSTEMS AND RADAR SERVICES

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to navigation systems and radar service by describing:

(1) One ground-based navigational system (VOR/VORTAC, NDB, DME, and LORAN)
(2) Satellite-based navigation system
(3) Radar service and procedures
(4) Global positioning system (GPS)

L. TASK: LOGBOOK ENTRIES AND LICENCE ENDORSEMENTS

REFERENCES: SLCAR Part 1A

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to logbook entries and licence endorsements by describing:

(1) Required logbook entries for instruction given.
(2) Required student pilot licence endorsements, including appropriate logbook entries.
(3) Preparation of a recommendation for a pilot skill test, including appropriate logbook entry for:
(a) Initial pilot certification
(b) Additional pilot certification
(c) Additional aircraft qualification
(4) Required endorsement of a pilot logbook for the satisfactory completion of the required FAA flight review
(5) Required flight instructor records

M. TASK: WATER AND SEAPLANE CHARACTERISTICS (ASES)

REFERENCES: POH/AFM

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to water and seaplane characteristics by describing:

(1) The characteristics of water surface as affected by features, such as:
- (a) Size and location of water operating area
- (b) Protected and unprotected operating areas
- (c) Surface wind
- (d) Direction and height of waves
- (e) Direction and strength of water current
- (f) Floating and partially submerged debris
- (g) Sandbars, islands, and shoals

(2) Seaplane's float or hull construction and its relationship to performance.

(3) Causes of porpoising and skipping and pilot action necessary to prevent or to correct those occurrences.

N. TASK: SEAPLANE BASES, RULES, AND AIDS TO MARINE NAVIGATION (ASES)

REFERENCES: SLCAR Part 6

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to seaplane bases, rules, and aids to marine navigation by describing:

(1) How to locate and identify seaplane bases on charts or in directories.

(2) Operating restrictions at various seaplane bases.

(3) Right-of-way, steering, and sailing rules pertinent to seaplane operation.

(4) Purpose and identification of marine navigation aids such as buoys, beacons, lights, and sound signals.

III. AREA OF OPERATION: PRE-FLIGHT PREPARATION

NOTE: The examiner must select at least one TASK.

A. TASK: LICENCES AND DOCUMENTS

REFERENCES: SLCAR Parts 1A, 6 and 8A

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to licences and documents by describing:

(1) The training requirements for the issuance of a recreational, private, and commercial pilot licence.

(2) The privileges and limitations of pilot licences and ratings at recreational, private, and commercial levels.

(3) Class and duration of medical certificates.

(4) Recent pilot flight experience requirements.

(5) Required entries in pilot logbook or flight record.

B. TASK: WEATHER INFORMATION

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to weather information by describing:

(1) Importance of a thorough pre-flight weather briefing.

(2) Various means and sources of obtaining weather information.

(3) Use of real-time weather reports, forecasts, and charts for developing scenario based training.

(4) In-flight weather advisories.

(5) Recognition of aviation weather hazards to include wind shear.

(6) Factors to be considered in making a "go/no-go" decision.

C. TASK: OPERATION OF SYSTEMS

REFERENCES: POH/AFM

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to the operation of systems, as applicable to the aeroplane used for the skill test, by describing the following systems:

(1) Primary flights controls and trim
(2) Flaps, leading edge devices, and spoilers
(3) Water rudders (ASES)
(4) Powerplant and propeller
(5) Landing gear
(6) Fuel, oil, and hydraulic
(7) Electrical
(8) Avionics
(9) Pitot static, vacuum/pressure and associated instruments
(10) Environmental
(11) De-icing and anti-icing

D. TASK: PERFORMANCE AND LIMITATIONS

REFERENCES: POH/AFM

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to performance and limitations by describing:

(1) Determination of weight and balance condition.
(2) Use of performance charts, tables, and other data in determining performance in various phases of flight.
(3) Effects of exceeding aeroplane limitations.
(4) Effects of atmospheric conditions on performance.
(5) Factors to be considered in determining that the required performance is within the aeroplane's capabilities.

E. TASK: AIRWORTHINESS REQUIREMENTS

REFERENCES: POH/AFM

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to required airworthiness by explaining:

(1) Required instruments and equipment for day/night VFR.
(2) Procedures and limitations for determining airworthiness of the aeroplane with inoperative instruments and equipment with and without a minimum equipment list (MEL).
(3) Requirements and procedures for obtaining a special flight permit.
(4) Airworthiness directives, compliance records, maintenance/inspection requirements, and appropriate records.
(5) Procedures for deferring maintenance on aircraft without an approved MEL.

IV. AREA OF OPERATION: PRE-FLIGHT LESSON ON A MANOEUVRE TO BE PERFORMED IN- FLIGHT

NOTE: Examiner must select at least one manoeuvre TASK from AREAS OF OPERATION VII through XIII, and ask the applicant to present a pre-flight lesson on the selected manoeuvre as the lesson would be taught to a student.

TASK: MANOEUVRE LESSON

REFERENCES: POH/AFM

Objective: To determine that the applicant exhibits instructional knowledge of the selected manoeuvre by:

(1) Stating the purpose.

(2) Giving an accurate, comprehensive oral description, including the elements and common errors.
(3) Using instructional aids, as appropriate.
(4) Describing the recognition, analysis, and correction of common errors.

V. AREA OF OPERATION: PRE-FLIGHT PROCEDURES

NOTE: The examiner must select at least one TASK.

A. TASK: PRE-FLIGHT INSPECTION (ASEL and ASES)

REFERENCES: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of a pre-flight inspection, as applicable to the aeroplane used for the skill test, by describing:
  (a) Reasons for the pre-flight inspection, items that should be inspected, and how defects are detected.
  (b) Importance of using the appropriate checklist.
  (c) How to determine fuel and oil quantity and contamination.
  (d) Detection of fuel, oil, and hydraulic leaks.
  (e) Inspection of the oxygen system, including supply and proper operation (if applicable).
  (f) Inspection of the flight controls and water rudder (if applicable).
  (g) Detection of visible structural damage.
  (h) Removal of tie-downs, control locks, and wheel chocks.
  (i) Removal of ice and frost.
  (j) Importance of the proper loading and securing of baggage, cargo, and equipment.
  (k) Use of sound judgement in determining whether the aeroplane is airworthy and in condition for safe flight.

(2) Exhibits instructional knowledge of common errors related to a pre-flight inspection by describing:
  (a) Failure to use or the improper use of checklist.
  (b) Hazards which may result from allowing distractions to interrupt a visual inspection.
  (c) Inability to recognise discrepancies to determine airworthiness.
  (d) Failure to ensure servicing with the proper fuel and oil.
  (e) Failure to ensure proper loading and securing of baggage, cargo, and equipment.
(3) Demonstrates and simultaneously explains a pre-flight inspection from an instructional standpoint.

B. TASK: SINGLE-PILOT RESOURCE MANAGEMENT (ASEL and ASES)

REFERENCES: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of single-pilot resource management by describing:
  (a) Proper arranging and securing of essential materials and equipment in the cockpit.
  (b) Proper use and/or adjustment of cockpit items such as safety belts, shoulder harnesses, rudder pedals, and seats.
  (c) Occupant briefing on emergency procedures and use of safety belts.

(d) Proper utilisation of all resources required to operate a flight safely: dispatchers, weather briefers, maintenance personnel, and air traffic control.

(2) Exhibits instructional knowledge of common errors related to single-pilot crew resource management by describing:
- (a) Failure to place and secure essential materials and equipment for easy access during flight.
- (b) Failure to properly adjust cockpit items, such as safety belts, shoulder harnesses, rudder pedals, and seats.
- (c) Failure to provide proper adjustment of equipment and controls.
- (d) Failure to provide occupant briefing on emergency procedures and use of safety belts.
- (e) Failure to utilise all resources required to operate a flight safely.

(3) Demonstrates and simultaneously explains single-pilot crew resource management from an instructional standpoint.

C. TASK: ENGINE STARTING (ASEL and ASES)

REFERENCES: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of engine starting, as appropriate to the aeroplane used for the skill test, by describing;
- (a) Safety precautions related to starting.
- (b) Use of external power.
- (c) Effect of atmospheric conditions on starting.
- (d) Importance of following the appropriate checklist.
- (e) Adjustment of engine controls during start.
- (f) Prevention of aeroplane movement during and after start.
- (g) Safety procedures for hand propping an aeroplane.

(2) Exhibits instructional knowledge of common errors related to engine starting by describing:
- (a) Failure to properly use the appropriate checklist.
- (b) Failure to use safety precautions related to starting.
- (c) Improper adjustment of engine controls during start.
- (d) Failure to assure proper clearance of the propeller.

(3) Demonstrates and simultaneously explains engine starting from an instructional standpoint.

D. TASK: TAXIING – LANDPLANE (ASEL)

REFERENCES: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of landplane taxiing by describing:
- (a) Proper brake check and correct use of brakes.
- (b) Compliance with aerodrome/taxiway surface marking, signals, and ATC clearances or instructions.
- (c) How to control direction and speed.
- (d) Flight control positioning for various wind conditions.
- (e) Procedures used to avoid other aircraft and hazards.

(2) Exhibits instructional knowledge of common errors related to landplane taxiing by describing:
- (a) Improper use of brakes.
- (b) Improper positioning of the flight controls for various wind conditions.

(c) Hazards of taxiing too fast.
(d) Failure to comply with aerodrome/taxiway surface marking, signals, and ATC clearances or instructions.

(3) Demonstrates and simultaneously explains landplane taxiing from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to landplane taxiing.

E. TASK: TAXIING – SEAPLANE (ASES)

REFERENCES: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of seaplane taxiing by describing:
(a) Wind effect.
(b) Prevention of porpoising and skipping.
(c) Selection of the most suitable course for taxiing, following available marking aids.
(d) Conditions where idle, ploughing, and step taxiing are used.
(e) Procedures for idle, ploughing, and step taxiing.
(f) Control positioning for various wind conditions.
(g) Use of water rudders.
(h) Procedures used to avoid other aircraft and hazards.
(i) Procedures used to avoid excessive water spray into the propeller.
(j) 180° and 360° turns in idle, ploughing, and step positions.
(k) Application of right-of-way rules.

(2) Exhibits instructional knowledge of common errors related to seaplane taxiing by describing:
(a) Improper positioning of flight controls for various wind conditions.
(b) Improper control of speed and direction.
(c) Failure to prevent porpoising and skipping.
(d) Failure to use the most suitable course and available marking aids.
(e) Failure to use proper clearing procedures to avoid hazards.
(f) Failure to apply right-of-way rules.

(3) Demonstrates and simultaneously explains seaplane taxiing from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to seaplane taxiing.

F. TASK: SAILING (ASES)

REFERENCES: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of sailing by describing:
(a) Procedures used in sailing (engine idling or shut down, as appropriate).
(b) Conditions and situations where sailing would be used.
(c) Selection of the most favourable course to follow.
(d) Use of flight controls, flaps, doors, and water rudders to follow the selected course.
(e) Procedures used to change direction from downwind to crosswind.
(f) Control of speed.

(2) 2. Exhibits instructional knowledge of common errors related to sailing by describing:

(a) Failure to select the most favourable course to destination.
(b) Improper use of controls, flaps, and water rudders.
(c) Improper procedure when changing direction.
(d) Improper procedure for speed control.

(3) Demonstrates and simultaneously explains sailing from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to sailing.

G. TASK: BEFORE TAKE-OFF CHECK (ASEL and ASES)

REFERENCES: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of the before take-off check by describing:
(a) Positioning the aeroplane with consideration for other aircraft, surface conditions, and wind.
(b) Division of attention inside and outside the cockpit.
(c) Importance of following the checklist and responding to each checklist item.
(d) Reasons for assuring suitable engine temperatures and pressures for run-up and take-off.
(e) Method used to determine that aeroplane is in a safe operating condition.
(f) Importance of reviewing take-off performance airspeeds, expected take-off distances, and emergency procedures.
(g) Method used for assuring that the take-off area or path is free of hazards.
(h) Method of avoiding runway incursions and ensuring no conflict with traffic prior to taxiing into take-off position.

(2) Exhibits instructional knowledge of common errors related to the before take-off check by describing:
(a) Failure to properly use the appropriate checklist.
(b) Improper positioning of the aeroplane.
(c) Improper acceptance of marginal engine performance.
(d) An improper check of flight controls.
(e) Hazards of failure to review take-off and emergency procedures.
(f) Failure to avoid runway incursions and to ensure no conflict with traffic prior to taxiing into take-off position.

(3) Demonstrates and simultaneously explains a before take-off check from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to a before take-off check.

VI. AREA OF OPERATION: AERODROME AND SEAPLANE BASE OPERATIONS

NOTE: The examiner must select at least one TASK.

A. TASK: RADIO COMMUNICATIONS AND ATC LIGHT SIGNALS (ASEL and ASES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of radio communications and ATC light signals by describing:
(a) Selection and use of appropriate radio frequencies.
(b) Recommended procedure and phraseology for radio communications.
(c) Receipt of, acknowledgement of, and compliance with ATC clearances and instructions.
(d) Interpretation of, and compliance with, ATC light signals.

(2) Exhibits instructional knowledge of common errors related to radio communications and ATC light signals by describing:
  (a) Use of improper frequencies.
  (b) Improper procedure and phraseology when using radio communications.
  (c) Failure to acknowledge, or properly comply with, ATC clearances and instructions.
  (d) Failure to understand, or to properly comply with, ATC light signals.

(3) Demonstrates and simultaneously explains radio communication procedures from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to radio communications and ATC light signals.

B. TASK: TRAFFIC PATTERNS (ASEL and ASES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of traffic patterns by describing:
  (a) Operations at aerodromes and seaplane bases with and without operating control towers.
  (b) Adherence to traffic pattern procedures, instructions, and rules.
  (c) How to maintain proper spacing from other traffic.
  (d) How to maintain the desired ground track.
  (e) Wind shear and wake turbulence avoidance procedures.
  (f) Orientation with the runway or landing area in use.
  (g) How to establish a final approach at an appropriate distance from the runway or landing area.
  (h) Use of checklist.

(2) Exhibits instructional knowledge of common errors related to traffic patterns by describing:
  (a) Failure to comply with traffic pattern instructions, procedures, and rules.
  (b) Improper correction for wind drift.
  (c) Inadequate spacing from other traffic.
  (d) Poor altitude or airspeed control.

(3) Demonstrates and simultaneously explains traffic patterns from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to traffic patterns.

C. TASK: AERODROME/SEAPLANE BASE, RUNWAY AND TAXIWAY SIGNS, MARKINGS, AND LIGHTING (ASEL and ASES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of aerodrome/seaplane base runway and taxiway signs, markings, and lighting by describing:
  (a) Identification and proper interpretation of aerodrome/seaplane base, runway and taxiway signs and markings with emphasis on runway incursion avoidance.
  (b) Identification and proper interpretation of aerodrome/seaplane base, runway and taxiway lighting with emphasis on runway incursion avoidance.

(2) Exhibits instructional knowledge of common errors related to aerodrome/seaplane base, runway and taxiway signs, markings, and lighting by describing:
  (a) Failure to comply with aerodrome/seaplane base, runway and taxiway signs and markings.

(b) Failure to comply with aerodrome/seaplane base, runway and taxiway lighting.
(c) Failure to use proper runway incursion avoidance procedures.

(3) Demonstrates and simultaneously explains aerodrome/seaplane base, runway and taxiway signs, markings, and lighting from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to aerodrome/seaplane base, runway and taxiway signs, markings, and lighting.

VII. AREA OF OPERATION: TAKE-OFFS, LANDINGS, AND GO-AROUNDS

NOTE: The examiner must select at least two take-off *and two landing TASKS.*

A. TASK: NORMAL AND CROSSWIND TAKE-OFF AND CLIMB (ASEL and ASES)

REFERENCES: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of a normal and crosswind take-off and climb by describing:
(a) Procedures before taxiing onto the runway or take-off area to ensure runway incursion avoidance.
(b) Normal and crosswind take-off and lift-off procedures.
(c) Difference between a normal and a glassy-water take-off (ASES).
(d) Proper climb attitude, power setting, and airspeed (VY).
(e) Proper use of checklist.

(2) Exhibits instructional knowledge of common errors related to a normal and crosswind take-off and climb by describing:
(a) Improper runway incursion avoidance procedures.
(b) Improper use of controls during a normal or crosswind take-off.
(c) Inappropriate lift-off procedures.
(d) Improper climb attitude, power setting, and airspeed (VY).
(e) Improper use of checklist.

(3) Demonstrates and simultaneously explains a normal or a crosswind take-off and climb from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to a normal or a crosswind take-off and climb.

B. TASK: SHORT-FIELD (CONFINED AREA – ASES) TAKE-OFF AND MAXIMUM PERFORMANCE CLIMB (ASEL and ASES)

REFERENCES: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of a short-field take-off and climb by describing:
(a) Procedures before taxiing onto the runway or take-off area to ensure runway incursion avoidance.
(b) Short-field take-off and lift-off procedures.
(c) Initial climb attitude and airspeed (VX) until obstacle is cleared (50 feet AGL).
(d) Proper use of checklist.

(2) Exhibits instructional knowledge of common errors related to a short-field take-off and climb by describing:
(a) Improper runway incursion avoidance procedures.
(b) Improper use of controls during a short-field take-off.
(c) Improper lift-off procedures.

(d) Improper initial climb attitude, power setting, and airspeed (VX) to clear obstacle.
(e) Improper use of checklist.

(3) Demonstrates and simultaneously explains a short-field take-off and climb from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to a short-field take-off and climb.

C. TASK: SOFT-FIELD TAKE-OFF AND CLIMB (ASEL)

REFERENCES: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of a soft-field take-off and climb by describing:
(a) Procedures before taxiing onto the runway or take-off area to ensure runway incursion avoidance.
(b) Soft-field take-off and lift-off procedures.
(c) Initial climb attitude and airspeed, depending on if an obstacle is present.
(d) Proper use of checklist.

(2) Exhibits instructional knowledge of common errors related to a soft-field take-off and climb by describing:
(a) Improper runway incursion avoidance procedures.
(b) Improper use of controls during a soft-field take-off.
(c) Improper lift-off procedures.
(d) Improper climb attitude, power setting, and airspeed (VY or VX).
(e) Improper use of checklist.

(3) Demonstrates and simultaneously explains a soft-field take-off and climb from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to a soft-field take-off and climb.

D. TASK: GLASSY-WATER TAKE-OFF AND CLIMB (ASES)

REFERENCES: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of a glassy-water take-off and climb by describing:
(a) Procedures before taxiing onto the take-off area to ensure waterway is clear of objects or obstructions.
(b) Flight control, flap, and water rudder use during glassy-water take-off procedures.
(c) Appropriate planning attitude and lift-off procedures on glassy water.
(d) Initial climb attitude and airspeed (VX, if an obstacle is present (50 feet AGL), or VY).
(e) Proper use of after take-off checklist.

(2) Exhibits instructional knowledge of common errors related to a glassy-water take-off and climb by describing:
(a) Improper take-off water way clearance procedures.
(b) Poor judgement in the selection of a suitable take-off area.
(c) Improper use of controls during a glassy-water take-off.
(d) Inappropriate lift-off procedures.
(e) Hazards of inadvertent contact with the water after becoming airborne.

(f) Improper climb attitude, power setting, and airspeed (VY or VX).
(g) Improper use of checklist.

(3) Demonstrates and simultaneously explains a glassy-water take-off and climb from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to a glassy-water take-off and climb.

E. TASK: ROUGH-WATER TAKE-OFF AND CLIMB (ASES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of a rough-water take-off and climb by describing:
(a) Procedures before taxiing onto the take-off area to ensure waterway is clear of objects or obstructions.
(b) Flight control, flap and water rudder use during rough-water take-off procedures.
(c) Appropriate planning attitude and lift-off procedures on rough water.
(d) Initial climb attitude and airspeed (VX, if an obstacle is present (50 feet AGL), or VY).
(e) Proper use of after take-off checklist.

(2) Exhibits instructional knowledge of common errors related to a rough-water take-off and climb by describing:
(a) Improper take-off water way clearance procedures.
(b) Poor judgement in the selection of a suitable take-off area.
(c) Improper use of controls during a rough-water take-off.
(d) Inappropriate lift-off procedures.
(e) Hazards of inadvertent contact with the water after becoming airborne.
(f) Improper climb attitude, power setting, and airspeed (VY or VX).
(g) Improper use of checklist.

(3) Demonstrates and simultaneously explains a rough-water take-off and climb from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to a rough-water take-off and climb.

F. TASK: NORMAL AND CROSSWIND APPROACH AND LANDING (ASEL and ASES)

REFERENCES: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of a normal and a crosswind approach and landing by describing:
(a) How to determine landing performance and limitations.
(b) Configuration, power, and trim.
(c) Obstructions and other hasards which should be considered.
(d) A stabilised approach at the recommended airspeed to the selected touchdown area.
(e) Course of action if selected touchdown area is going to be missed.
(f) Coordination of flight controls.
(g) A precise ground track.
(h) Wind shear and wake turbulence avoidance procedures.

(i) Most suitable crosswind procedure.
(j) Timing, judgement, and control procedure during roundout and touchdown.
(k) Directional control after touchdown.
(l) Use of brakes (landplane).
(m) Use of checklist.

(2) Exhibits instructional knowledge of common errors related to a normal and a crosswind approach and landing by describing:
(a) Improper use of landing performance data and limitations.
(b) Failure to establish approach and landing configuration at appropriate time or in proper sequence.
(c) Failure to establish and maintain a stabilised approach.
(d) Inappropriate removal of hand from throttle.
(e) Improper procedure during roundout and touchdown.
(f) Poor directional control after touchdown.
(g) Improper use of brakes (ASEL).

(3) Demonstrates and simultaneously explains a normal or a crosswind approach and landing from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to a normal or crosswind approach and landing.

G. TASK: SLIP TO A LANDING (ASEL and ASES)

REFERENCES: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of a slip (forward and side) to a landing by describing:
(a) Configuration, power, and trim.
(b) Obstructions and other hazards which should be considered.
(c) A stabilised slip at the appropriate airspeed to the selected touchdown area.
(d) Possible airspeed indication errors.
(e) Proper application of flight controls.
(f) A precise ground track.
(g) Wind shear and wake turbulence avoidance procedures.
(h) Timing, judgement, and control procedure during transition from slip to touchdown.
(i) Directional control after touchdown.
(j) Use of brakes (ASEL).
(k) Use of checklist.

(2) Exhibits instructional knowledge of common errors related to a slip (forward and side) to a landing by describing:
(a) Improper use of landing performance data and limitations.
(b) Failure to establish approach and landing configuration at appropriate time or in proper sequence.
(c) Failure to maintain a stabilised slip.
(d) Inappropriate removal of hand from throttle.
(e) Improper procedure during transition from the slip to the touchdown.
(f) Poor directional control after touchdown.
(g) Improper use of brakes (landplane).

(3) Demonstrates and simultaneously explains a forward or sideslip to a landing from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to a forward or sideslip to a landing.

H. TASK: GO-AROUND/REJECTED LANDING (ASEL and ASES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of a go-around/rejected landing by describing:
- (a) Situations where a go-around/rejected landing is necessary.
- (b) Importance of making a prompt decision.
- (c) Importance of applying take-off power immediately after the go-around/rejected landing decision is made.
- (d) Importance of establishing proper pitch attitude.
- (e) Wing flaps retraction.
- (f) Use of trim.
- (g) Landing gear retraction.
- (h) Proper climb speed.
- (i) Proper track and obstruction clearance.
- (j) Use of checklist.

(2) Exhibits instructional knowledge of common errors related to a go-around/rejected landing by describing:
- (a) Failure to recognise a situation where a go-around/rejected landing is necessary.
- (b) Hazards of delaying a decision to go-around/rejected landing.
- (c) Improper power application.
- (d) Failure to control pitch attitude.
- (e) Failure to compensate for torque effect.
- (f) Improper trim procedure.
- (g) Failure to maintain recommended airspeeds.
- (h) Improper wing flaps or landing gear retraction procedure.
- (i) Failure to maintain proper track during climb-out.
- (j) Failure to remain well clear of obstructions and other traffic.

(3) Demonstrates and simultaneously explains a go-around/rejected landing from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to a go-around/rejected landing.

I. TASK: SHORT-FIELD (CONFINED AREA – ASES) APPROACH AND LANDING (ASEL and ASES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of a short-field approach and landing by describing:
- (a) How to determine landing performance and limitations.
- (b) Configuration and trim.
- (c) Proper use of pitch and power to maintain desired approach angle.
- (d) Obstructions and other hazards which should be considered.
- (e) Effect of wind.
- (f) Selection of touchdown and go-around points.

(g) A stabilised approach at the recommended airspeed to the selected touchdown point.
(h) Coordination of flight controls.
(i) A precise ground track.
(j) Timing, judgement, and control procedure during roundout and touchdown.
(k) Directional control after touchdown.
(l) Use of brakes (ASEL).
(m) Use of checklist.

(2) Exhibits instructional knowledge of common errors related to a short-field approach and landing by describing:
(a) Improper use of landing performance data and limitations.
(b) Failure to establish approach and landing configuration at appropriate time or in proper sequence.
(c) Failure to establish and maintain a stabilised approach.
(d) Improper procedure in use of power, wing flaps, and trim.
(e) Inappropriate removal of hand from throttle.
(f) Improper procedure during roundout and touchdown.
(g) Poor directional control after touchdown.
(h) Improper use of brakes.

(3) Demonstrates and simultaneously explains a short-field approach and landing from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to a short-field approach and landing.

J. TASK: SOFT-FIELD APPROACH AND LANDING (ASEL)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of a soft-field approach and landing by describing:

(a) How to determine landing performance and limitations.
(b) Configuration and trim.
(c) Obstructions and other hazards which should be considered.
(d) Effect of wind and landing surface.
(e) Selection of a touchdown area.
(f) A stabilised approach at the recommended airspeed to the selected touchdown point.
(g) Coordination of flight controls.
(h) A precise ground track.
(i) Timing, judgement, and control procedure during roundout and touchdown.
(j) touchdown in a nose-high pitch attitude at minimum safe airspeed.
(k) Proper use of power.
(l) Directional control after touchdown.
(m) Use of checklist.

(2) Exhibits instructional knowledge of common errors related to a soft-field approach and landing by describing:
(a) Improper use of landing performance data and limitations.
(b) Failure to establish approach and landing configuration at appropriate time or in proper sequence.

(c) Failure to establish and maintain a stabilised approach.
(d) Failure to consider the effect of wind and landing surface.
(e) Improper procedure in use of power, wing flaps, and trim.
(f) Inappropriate removal of hand from throttle.
(g) Improper procedure during roundout and touchdown.
(h) Failure to hold back elevator pressure after touchdown.
(i) Closing the throttle too soon after touchdown.
(j) Poor directional control after touchdown.
(k) Improper use of brakes.

(3) Demonstrates and simultaneously explains a soft-field approach and landing from an instructional standpoint.
(4) Analyses and corrects simulated common errors related to a soft-field approach and landing.

K. TASK: 180° POWER-OFF ACCURACY APPROACH AND LANDING (ASEL)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of a 180° power-off accuracy approach and landing by describing:
(a) Configuration and trim.
(b) Effects of wind and selection of a touchdown area.
(c) The key points in the pattern.
(d) A stabilised approach at the recommended airspeed to the selected touchdown area.
(e) Coordination of flight controls.
(f) Timing, judgement, and control procedure during roundout and touchdown.
(g) Directional control after touchdown.
(h) Use of checklist.
(2) Exhibits instructional knowledge of common errors related to a 180° power-off accuracy approach and landing by describing:
(a) Failure to establish approach and landing configuration at proper time or in proper sequence.
(b) Failure to identify the key points in the pattern.
(c) Failure to establish and maintain a stabilised approach.
(d) Failure to consider the effect of wind and landing surface.
(e) Improper use of power, wing flaps, or trim.
(f) Improper procedure during roundout and touchdown.
(g) Failure to hold back elevator pressure after touchdown.
(h) Poor directional control after touchdown.
(i) Improper use of brakes.
(3) Demonstrates and simultaneously explains a 180 degree power-off accuracy approach and landing from an instructional standpoint.
(4) Analyses and corrects simulated common errors related to a 180 degree power-off accuracy approach and landing.

L. TASK: GLASSY-WATER APPROACH AND LANDING (ASES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of a glassy-water approach and landing by describing:

(a) How to determine landing performance and limitations.
(b) Configuration and trim.
(c) Deceptive characteristics of glassy water.
(d) Selection of a suitable landing area and go-around point.
(e) Terrain and obstructions which should be considered.
(f) Detection of hazards in the landing area such as shallow water, obstructions, or floating debris.
(g) Coordination of flight controls.
(h) A precise ground track.
(i) A power setting and pitch attitude that will result in the recommended airspeed and rate of descent throughout the final approach to touchdown.
(j) How to maintain positive after landing control.
(k) Use of checklist.

(2) Exhibits instructional knowledge of common errors related to a glassy-water approach and landing by describing:
(a) Improper use of landing performance data and limitations.
(b) Failure to establish approach and landing configuration at appropriate time and in proper sequence.
(c) Failure to establish and maintain a stabilised approach at the recommended airspeed and rate of descent.
(d) Improper procedure in use of power, wing flaps, or trim.
(e) Inappropriate removal of hand from throttle.
(f) Failure to touch down with power in the proper stabilised attitude.
(g) Failure to maintain positive after landing control.

(3) Demonstrates and simultaneously explains a glassy-water approach and landing from an instructional standpoint.
(4) Analyses and corrects simulated common errors related to a glassy-water approach and landing.

M. TASK: ROUGH-WATER APPROACH AND LANDING (ASES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of a rough-water approach and landing by describing:
(a) How to determine landing performance and limitations.
(b) Review of wind conditions.
(c) How landing area characteristics can be evaluated.
(d) Selection of a suitable landing area and go-around point.
(e) Terrain and obstructions which should be considered.
(f) Detection of hazards in the landing area such as shallow water, obstructions, or floating debris.
(g) Configuration and trim.
(h) Coordination of flight controls.
(i) A precise ground track.
(j) A stabilised approach at the recommended airspeed to the selected touchdown area.
(k) Timing, judgement, and control procedure during roundout and touchdown.

(l) Maintenance of positive after-landing control.
(m) Use of checklist.

(2) Exhibits instructional knowledge of common errors related to a rough-water approach and landing by describing:
(a) Improper use of landing performance data and limitations.
(b) Failure to establish approach and landing configuration at appropriate time or in proper sequence.
(c) Failure to establish and maintain a stabilised approach.
(d) Improper procedure in use of power, wing flaps, or trim.
(e) Inappropriate removal of hand from throttle.
(f) Improper procedure during roundout and touchdown.
(g) Failure to maintain positive after-landing control.

(3) Demonstrates and simultaneously explains a rough-water approach and landing from an instructional standpoint.
(4) Analyses and corrects simulated common errors related a rough-water approach and landing.

VIII. AREA OF OPERATION: FUNDAMENTALS OF FLIGHT

NOTE: The examiner must select at least one TASK.

A. TASK: STRAIGHT-AND-LEVEL FLIGHT (ASEL and ASES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of straight-and-level flight by describing:
(a) Effect and use of flight controls.
(b) The integrated flight instruction method.
(c) Outside and instrument references used for pitch, bank, and power control; the cross-check and interpretation of those references; and the control procedure used.
(d) Trim procedure.
(e) Methods that can be used to overcome tenseness and over controlling.

(2) Exhibits instructional knowledge of common errors related to straight-and-level flight by describing:
(a) Failure to cross-check and correctly interpret outside and instrument references.
(b) Application of control movements rather than pressures.
(c) Uncoordinated use of flight controls.
(d) Faulty trim procedure.

(3) Demonstrates and simultaneously explains straight-and-level flight from an instructional standpoint.
(4) Analyses and corrects simulated common errors related to straight-and-level flight.

B. TASK: LEVEL TURNS (ASEL and ASES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of level turns by describing:
(a) Effect and use of flight controls.
(b) The integrated flight instruction method.
(c) Outside and instrument references used for pitch, bank, and power control; the cross-check and interpretation of those references; and the control procedure used.

(d) Trim procedure.
(e) Methods that can be used to overcome tenseness and over controlling.

(2) Exhibits instructional knowledge of common errors related to level turns by describing:
(a) Failure to cross-check and correctly interpret outside and instrument references.
(b) Application of control movements rather than pressures.
(c) Uncoordinated use of flight controls.
(d) Faulty altitude and bank control.

(3) Demonstrates and simultaneously explains level turns from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to level turns.

C. TASK: STRAIGHT CLIMBS AND CLIMBING TURNS (ASEL and ASES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of straight climbs and climbing turns by describing:
(a) Effect and use of flight controls.
(b) The integrated flight instruction method.
(c) Outside and instrument references used for pitch, bank, and power control; the cross-check and interpretation of those references; and the control procedure used.
(d) Trim procedure.
(e) Methods that can be used to overcome tenseness and over controlling.

(2) Exhibits instructional knowledge of common errors related to straight climbs and climbing turns by describing:
(a) Failure to cross-check and correctly interpret outside and instrument references.
(b) Application of control movements rather than pressures.
(c) Improper correction for torque effect.
(d) Faulty trim procedure.

(3) Demonstrates and simultaneously explains straight climbs and climbing turns from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to straight climbs and climbing turns.

D. TASK: STRAIGHT DESCENTS AND DESCENDING TURNS (ASEL and ASES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of straight descents and descending turns by describing:
(a) Effect and use of flight controls.
(b) The integrated flight instruction method.
(c) Outside and instrument references used for pitch, bank, and power control; the cross-check and interpretation of those references; and the control procedure used.
(d) Trim procedure.
(e) Methods that can be used to overcome tenseness and over controlling.

(2) Exhibits instructional knowledge of common errors related to straight descents and descending turns by describing:

(a) Failure to cross-check and correctly interpret outside and instrument references.
(b) Application of control movements rather than pressures.
(c) Uncoordinated use of flight controls.
(d) Faulty trim procedure.
(e) Failure to clear engine and use carburettor heat, as appropriate.

(3) Demonstrates and simultaneously explains straight descents and descending turns from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to straight descents and descending turns.

IX. AREA OF OPERATION: PERFORMANCE MANOEUVRES

NOTE: The examiner must select at least TASKS A or B and C or D.

A. TASK: STEEP TURNS (ASEL and ASES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of steep turns by describing:
(a) Relationship of bank angle, load factor, and stalling speed.
(b) Overbanking tendency.
(c) Torque effect in right and left turns.
(d) Selection of a suitable altitude.
(e) Orientation, division of attention, and planning.
(f) Entry and rollout procedure.
(g) Coordination of flight and power controls.
(h) Altitude, bank, and power control during the turn.
(i) Proper recovery to straight-and-level flight.

(2) Exhibits instructional knowledge of common errors related to steep turns by describing:
(a) Improper pitch, bank, and power coordination during entry and rollout.
(b) Uncoordinated use of flight controls.
(c) Improper procedure in correcting altitude deviations.
(d) Loss of orientation.

(3) Demonstrates and simultaneously explains steep turns from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to steep turns.

B. TASK: STEEP SPIRALS (ASEL and ASES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of steep spirals by describing:
(a) Selection of entry altitude.
(b) Entry airspeed and power setting.
(c) Selection of a proper ground reference point.
(d) Division of attention and planning.
(e) Coordination of flight controls.
(f) Maintenance of constant radius around selected point.
(g) Maintenance of constant airspeed throughout manoeuvre.

(2) Exhibits instructional knowledge of common errors related to steep spiral by describing:
(a) Improper pitch, bank, and power coordination during entry or completion.
(b) Uncoordinated use of flight controls.

(c) Improper planning and lack of maintenance of constant airspeed and radius.
(d) Failure to stay orientated to the number of turns and the rollout heading.

(3) Demonstrates and simultaneously explains a steep spiral from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to steep spirals.

C. TASK: CHANDELLES (ASEL and ASES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of chandelles by describing:
(a) Selection of entry altitude.
(b) Entry airspeed and power setting.
(c) Division of attention and planning.
(d) Coordination of flight controls.
(e) Pitch and bank attitudes at various points during the manoeuvre.
(f) Proper correction for torque effect in right and left turns.
(g) Achievement of maximum performance.
(h) Completion procedure.

(2) Exhibits instructional knowledge of common errors related to chandelles by describing:
(a) Improper pitch, bank, and power coordination during entry or completion.
(b) Uncoordinated use of flight controls.
(c) Improper planning and timing of pitch and bank attitude changes.
(d) Factors related to failure in achieving maximum performance.
(e) A stall during the manoeuvre.

(3) Demonstrates and simultaneously explains chandelles from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to chandelles.

D. TASK: LAZY EIGHTS (ASEL and ASES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of lazy eights by describing:
(a) Selection of entry altitude.
(b) Selection of suitable reference points.
(c) Entry airspeed and power setting.
(d) Entry procedure.
(e) Orientation, division of attention, and planning.
(f) Coordination of flight controls.
(g) Pitch and bank attitudes at key points during the manoeuvre.
(h) Importance of consistent airspeed and altitude control at key points during the manoeuvre.
(i) Proper correction for torque effect in right and left turns.
(j) Loop symmetry.

(2) Exhibits instructional knowledge of common errors related to lazy eights by describing:
(a) Poor selection of reference points.
(b) Uncoordinated use of flight controls.
(c) Unsymmetrical loops resulting from poorly planned pitch and bank attitude changes.
(d) Inconsistent airspeed and altitude at key points.
(e) Loss of orientation.

(f) Excessive deviation from reference points.

(3) Demonstrates and simultaneously explains lazy eights from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to lazy eights.

X. AREA OF OPERATION: GROUND REFERENCE MANOEUVRES

***Note**: The examiner must select TASK D and one other TASK.*

A. TASK: RECTANGULAR COURSE (ASEL and ASES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of a rectangular course by describing:

(a) How to select a suitable altitude.

(b) How to select a suitable ground reference with consideration given to emergency landing areas.

(c) Orientation, division of attention, and planning.

(d) Configuration and airspeed prior to entry.

(e) Relationship of a rectangular course to an aerodrome traffic pattern.

(f) Wind drift correction.

(g) How to maintain desired altitude, airspeed, and distance from ground reference boundaries.

(h) Timing of turn entries and rollouts.

(i) Coordination of flight controls.

(2) Exhibits instructional knowledge of common errors related to a rectangular course by describing:

(a) Poor planning, orientation, or division of attention.

(b) Uncoordinated flight control application.

(c) Improper correction for wind drift.

(d) Failure to maintain selected altitude or airspeed.

(e) Selection of a ground reference where there is no suitable emergency landing area within gliding distance.

(3) Demonstrates and simultaneously explains a rectangular course from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to a rectangular course.

B. TASK: S-TURNS ACROSS A ROAD (ASEL and ASES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of S turns across a road by describing:

(a) How to select a suitable altitude.

(b) How to select a suitable ground reference line with consideration given to emergency landing areas.

(c) Orientation, division of attention, and planning.

(d) Configuration and airspeed prior to entry.

(e) Entry procedure.

(f) Wind drift correction.

(g) Tracking of semicircles of equal radii on either side of the selected ground reference line.

(h) How to maintain desired altitude and airspeed.

(i) Turn reversal over the ground reference line.

(j) Coordination of flight controls.

(2) Exhibits instructional knowledge of common errors related to S turns across a road by describing:
   (a) Faulty entry procedure.
   (b) Poor planning, orientation, or division of attention.
   (c) Uncoordinated flight control application.
   (d) Improper correction for wind drift.
   (e) An unsymmetrical ground track.
   (f) Failure to maintain selected altitude or airspeed.
   (g) Selection of a ground reference line where there is no suitable emergency landing area within gliding distance.

(3) Demonstrates and simultaneously explains S turns across a road from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to S turns across a road.

C. TASK: TURNS AROUND A POINT (ASEL and ASES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of turns around a point by describing:
   (a) How to select a suitable altitude.
   (b) How to select a suitable ground reference point with consideration given to emergency landing areas.
   (c) Orientation, division of attention, and planning.
   (d) Configuration and airspeed prior to entry.
   (e) Entry procedure.
   (f) Wind drift correction.
   (g) How to maintain desired altitude, airspeed, and distance from reference point.
   (h) Coordination of flight controls.

(2) Exhibits instructional knowledge of common errors related to turns around a point by describing:
   (a) Faulty entry procedure.
   (b) Poor planning, orientation, or division of attention.
   (c) Uncoordinated flight control application.
   (d) Improper correction for wind drift.
   (e) Failure to maintain selected altitude or airspeed.
   (f) Selection of a ground reference point where there is no suitable emergency landing area within gliding distance.

(3) Demonstrates and simultaneously explains turns around a point from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to turns around a point.

D. TASK: EIGHTS ON PYLONS (ASEL and ASES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of eights on pylons by describing:
   (a) How to determine the approximate pivotal altitude.
   (b) How to select suitable pylons with consideration given to emergency landing areas.
   (c) Orientation, division of attention, and planning.
   (d) Configuration and airspeed prior to entry.
   (e) Relationship of groundspeed change to the performance of the manoeuvre.
   (f) Pilot's "line-of-sight" reference to the pylon.

(g) Entry procedure.
(h) Procedure for maintaining "line-of-sight" on the pylon.
(i) Proper planning for turn entries and rollouts.
(j) How to correct for wind drift between pylons.
(k) Coordination of flight controls.

(2) Exhibits instructional knowledge of common errors related to eights on pylons by describing:
(a) Faulty entry procedure.
(b) Poor planning, orientation, and division of attention.
(c) Uncoordinated flight control application.
(d) Use of an improper "line-of-sight" reference.
(e) Application of rudder alone to maintain "line-of-sight" on the pylon.
(f) Improper planning for turn entries and rollouts.
(g) Improper correction for wind drift between pylons.
(h) Selection of pylons where there is no suitable emergency landing area within gliding distance.

(3) Demonstrates and simultaneously explains eights on pylons from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to eights on pylons.

XI. AREA OF OPERATION: SLOW FLIGHT, STALLS, AND SPINS

***Note**: The examiner must select at least one proficiency stall (TASK B or C), at least one demonstration stall (TASK D, E, F, or H), and TASK G.*

A. TASK: MANOEUVREING DURING SLOW FLIGHT (ASEL and ASES)

References: POH/AFM.

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of manoeuvring during slow flight by describing:
(a) Relationship of configuration, weight, centre of gravity, manoeuvring loads, angle of bank, and power to flight characteristics and controllability.
(b) Relationship of the manoeuvre to critical flight situations, such as go-around.
(c) Performance of the manoeuvre with selected landing gear and flap configurations in straight-and-level flight and level turns.
(d) Specified airspeed for the manoeuvre.
(e) Coordination of flight controls.
(f) Trim technique.
(g) Reestablishment of cruise flight.

(2) Exhibits instructional knowledge of common errors related to manoeuvring during slow flight by describing:
(a) Failure to establish specified gear and flap configuration.
(b) Improper entry technique.
(c) Failure to establish and maintain the specified airspeed.
(d) Excessive variations of altitude and heading when a constant altitude and heading are specified.
(e) Rough or uncoordinated control technique.
(f) Improper correction for torque effect.
(g) Improper trim technique.
(h) Unintentional stalls.
(i) Inappropriate removal of hand from throttles.

(3) Demonstrates and simultaneously explains manoeuvring during slow flight from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to manoeuvring during slow flight.

B. TASK: POWER-ON STALLS (PROFICIENCY) (ASEL and ASES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of power-on stalls, in climbing flight (straight or turning), with selected landing gear and flap configurations by describing:

(a) Aerodynamics of power-on stalls.

(b) Relationship of various factors such as landing gear and flap configuration, weight, centre of gravity, load factor, and bank angle to stall speed.

(c) Flight situations where unintentional power-on stalls may occur.

(d) Entry technique and minimum entry altitude.

(e) Performance of power-on stalls in climbing flight (straight or turning).

(f) Coordination of flight controls.

(g) Recognition of the first indications of power-on stalls.

(h) Recovery technique and minimum recovery altitude.

(2) Exhibits instructional knowledge of common errors related to power-on stalls, in climbing flight (straight or turning), with selected landing gear and flap configurations by describing:

(a) Failure to establish the specified landing gear and flap configuration prior to entry.

(b) Improper pitch, heading, and bank control during straight ahead and turning stalls.

(c) Improper pitch and bank control during turning stalls.

(d) Rough or uncoordinated control procedure.

(e) Failure to recognise the first indications of a stall.

(f) Failure to achieve a stall.

(g) Improper torque correction.

(h) Poor stall recognition and delayed recovery.

(i) Excessive altitude loss or excessive airspeed during recovery.

(j) Secondary stall during recovery.

(3) Demonstrates and simultaneously explains power-on stalls, in climbing flight (straight or turning), with selected landing gear and flap configurations, from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to power-on stalls, in climbing flight (straight or turning), with selected landing gear and flap configurations.

C. TASK: POWER-OFF STALLS (PROFICIENCY) (ASEL and ASES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of power-off stalls, in descending flight (straight or turning), with selected landing gear and flap configurations by describing:

(a) Aerodynamics of power-off stalls.

(b) Relationship of various factors, such as landing gear and flap configuration, weight, centre of gravity, load factor, and bank angle to stall speed.
(c) Flight situations where unintentional power-off stalls may occur.
(d) Entry technique and minimum entry altitude.
(e) Performance of power-off stalls in descending flight (straight or turning).
(f) Coordination of flight controls.
(g) Recognition of the first indications of power-off stalls.
(h) Recovery technique and minimum recovery altitude.

(2) Exhibits instructional knowledge of common errors related to power-off stalls, in descending flight (straight or turning), with selected landing gear and flap configurations by describing:
(a) Failure to establish the specified landing gear and flap configuration prior to entry.
(b) Improper pitch, heading, and bank control during straight-ahead stalls.
(c) Improper pitch and bank control during turning stalls.
(d) Rough or uncoordinated control technique.
(e) Failure to recognise the first indications of a stall.
(f) Failure to achieve a stall.
(g) Improper torque correction.
(h) Poor stall recognition and delayed recovery.
(i) Excessive altitude loss or excessive airspeed during recovery.
(j) Secondary stall during recovery.

(3) Demonstrates and simultaneously explains power-off stalls, in descending flight (straight or turning), with selected landing gear and flap configurations, from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to power-off stalls, in descending flight (straight or turning), with selected landing gear and flap configurations.

D. TASK: CROSSED-CONTROL STALLS (DEMONSTRATION) (ASEL and ASES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of crossed-control stalls, with the landing gear extended by describing:
(a) Aerodynamics of crossed-control stalls.
(b) Effects of crossed controls in gliding or reduced airspeed descending turns.
(c) Flight situations where unintentional crossed-control stalls may occur.
(d) Entry procedure and minimum entry altitude.
(e) Recognition of crossed-control stalls.
(f) Recovery procedure and minimum recovery altitude.

(2) Exhibits instructional knowledge of common errors related to crossed-control stalls, with the landing gear extended by describing:
(a) Failure to establish selected configuration prior to entry.
(b) Failure to establish a crossed-control turn and stall condition that will adequately demonstrate the hazards of a crossed-control stall.
(c) Improper or inadequate demonstration of the recognition and recovery from a cross-control stall.

(d) Failure to present simulated student instruction that emphasises the hazards of a cross-control condition in a gliding or reduced airspeed condition.

(3) Demonstrates and simultaneously explains a crossed-control stall, with the landing gear extended, from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to a crossed-control stall with the landing gear extended.

E. TASK: ELEVATOR TRIM STALLS (DEMONSTRATION) (ASEL and ASES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of elevator trim stalls, in selected landing gear and flap configurations by describing:

(a) Aerodynamics of elevator trim stalls.

(b) Hazards of inadequate control pressures to compensate for thrust, torque, and up-elevator trim during go-around and other related manoeuvres.

(c) Entry procedure and minimum entry altitude.

(d) Recognition of elevator trim stalls.

(e) Importance of recovering from an elevator trim stall immediately upon recognition.

(2) Exhibits instructional knowledge of common errors related to elevator trim stalls, in selected landing gear and flap configurations by describing:

(a) Failure to present simulated student instruction that adequately emphasises the hazards of poor correction for torque and up-elevator trim during go-around and other manoeuvres.

(b) Failure to establish selected configuration prior to entry.

(c) Improper or inadequate demonstration of the recognition of and the recovery from an elevator trim stall.

(3) Demonstrates and simultaneously explains elevator trim stalls, in selected landing gear and flap configurations, from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to elevator trim stalls in selected landing gear and flap configurations.

F. TASK: SECONDARY STALLS (DEMONSTRATION) (ASEL and ASES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of secondary stalls, in selected landing gear and flap configurations by describing:

(a) Aerodynamics of secondary stalls.

(b) Flight situations where secondary stalls may occur.

(c) Hazards of secondary stalls during normal stall or spin recovery.

(d) Entry procedure and minimum entry altitude.

(e) Recognition of a secondary stall.

(f) Recovery procedure and minimum recovery altitude.

(2) Exhibits instructional knowledge of common errors related to secondary stalls, in selected landing gear and flap configurations by describing:

(a) Failure to establish selected configuration prior to entry.

(b) Improper or inadequate demonstration of the recognition of and recovery from a secondary stall.

(c) Failure to present simulated student instruction that adequately emphasises the hazards of poor procedure in recovering from a primary stall.

(3) Demonstrates and simultaneously explains secondary stalls, in selected landing gear and flap configurations, from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to secondary stalls in selected landing gear and flap configurations.

G. TASK: SPINS (ASEL)

***Note**: At the discretion of the examiner, a logbook record attesting applicant instructional competency in spin entries, spins, and spin recoveries may be accepted in lieu of this TASK. The flight instructor who conducted the spin instruction must certify the logbook record.*

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of spins by describing:

(a) Anxiety factors associated with spin instruction.

(b) Aerodynamics of spins.

(c) Aeroplanes approved for the spin manoeuvre based on airworthiness category and type certificate.

(d) Relationship of various factors such as configuration, weight, centre of gravity, and control coordination to spins.

(e) Flight situations where unintentional spins may occur.

(f) How to recognise and recover from imminent, unintentional spins.

(g) Entry procedure and minimum entry altitude for intentional spins.

(h) Control procedure to maintain a stabilised spin.

(i) Orientation during a spin.

(j) Recovery procedure and minimum recovery altitude for intentional spins.

(2) Exhibits instructional knowledge of common errors related to spins by describing:

(a) Failure to establish proper configuration prior to spin entry.

(b) Failure to achieve and maintain a full stall during spin entry.

(c) Failure to close throttle when a spin entry is achieved.

(d) Failure to recognise the indications of an imminent, unintentional spin.

(e) Improper use of flight controls during spin entry, rotation, or recovery.

(f) Disorientation during a spin.

(g) Failure to distinguish between a high-speed spiral and a spin.

(h) Excessive speed or accelerated stall during recovery.

(i) Failure to recover with minimum loss of altitude.

(j) Hazards of attempting to spin an aeroplane not approved for spins.

(3) Demonstrates and simultaneously explains a spin (one turn) from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to spins.

H. TASK: ACCELERATED MANOEUVRE STALLS (DEMONSTRATION) (ASEL and ASES)

***Note**: This TASK must be completed by oral examination or demonstration at the discretion of the examiner.*

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of accelerated manoeuvre stalls by describing:

(a) Aerodynamics of accelerated manoeuvre stalls.

(b) Flight situations where accelerated manoeuvre stalls may occur.

(c) Hazards of accelerated stalls during stall or spin recovery.
(d) Entry procedure and minimum entry altitude.
(e) Recognition of the accelerated stall.
(f) Recovery procedure and minimum recovery altitude.

(2) Demonstrates and simultaneously explains accelerated manoeuvre stall, from an instructional standpoint.

(3) Exhibits instructional knowledge of common errors related to accelerated manoeuvre stalls by describing:
(a) Failure to establish proper configuration prior to entry.
(b) Improper or inadequate demonstration of the recognition of and recovery from an accelerated manoeuvre stall.
(c) Failure to present simulated student instruction that adequately emphasises the hasards of poor procedures in recovering from an accelerated stall.

(4) Analyses and corrects simulated common errors related to accelerated stalls.

XII. AREA OF OPERATION: BASIC INSTRUMENT MANOEUVRES

***Note**: The examiner must select at least one TASK.*

A. TASK: STRAIGHT-AND-LEVEL FLIGHT (ASEL and ASES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of straight-and-level flight solely by reference to instruments by describing
(a) Instrument cross-check, instrument interpretation, and aircraft control.
(b) Instruments used for pitch, bank, and power control, and how those instruments are used to maintain altitude, heading, and airspeed.
(c) Trim procedure.

(2) Exhibits instructional knowledge of common errors related to straight-and-level flight solely by reference to instruments by describing:
(a) "Fixation," "omission," and "emphasis" errors during instrument cross-check.
(b) Improper instrument interpretation.
(c) Improper control applications.
(d) Failure to establish proper pitch, bank, or power adjustments during altitude, heading, or airspeed corrections.
(e) Faulty trim procedure.

(3) Demonstrates and simultaneously explains straight-and-level flight, solely by reference to instruments, from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to straight-and-level flight, solely by reference to instruments.

B. TASK: CONSTANT AIRSPEED CLIMBS (ASEL and ASES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of straight and turning, constant airspeed climbs, solely by reference to instruments by describing:
(a) Instrument cross-check, instrument interpretation, and aircraft control.
(b) Instruments used for pitch, bank, and power control during entry, during the climb, and during level off, and how those instruments are used to maintain climb heading and airspeed.
(c) Trim procedure.

(2) Exhibits instructional knowledge of common errors related to straight and turning, constant airspeed climbs, solely by reference to instruments by describing:

(a) "Fixation," "omission," and "emphasis" errors during instrument cross-check.
(b) Improper instrument interpretation.
(c) Improper control applications.
(d) Failure to establish proper pitch, bank, or power adjustments during heading and airspeed corrections.
(e) Improper entry or level-off procedure.
(f) Faulty trim procedure.

(3) Demonstrates and simultaneously explains a straight and turning, constant airspeed climb, solely by reference to instruments, from an instructional standpoint.
(4) Analyses and corrects simulated common errors related to straight and turning, constant airspeed climbs, solely by reference to instruments.

C. TASK: CONSTANT AIRSPEED DESCENTS (ASEL and ASES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of straight and turning, constant airspeed descents, solely by reference to instruments by describing:
(a) Instrument cross-check, instrument interpretation, and aircraft control.
(b) Instruments used for pitch, bank, and power control during entry, during the descent, and during level off, and how those instruments are used to maintain descent heading and airspeed.
(c) Trim procedure.
(2) Exhibits instructional knowledge of common errors related to straight and turning, constant airspeed descents, solely by reference to instruments by describing:
(a) "Fixation," "omission," and "emphasis" errors during instrument cross-check.
(b) Improper instrument interpretation.
(c) Improper control applications.
(d) Failure to establish proper pitch, bank, or power adjustments during heading and airspeed corrections.
(e) Improper entry or level-off procedure.
(f) Faulty trim procedure.
(3) Demonstrates and simultaneously explains a straight and turning, constant airspeed descent, solely by reference to instruments, from an instructional standpoint.
(4) Analyses and corrects simulated common errors related to straight and turning, constant airspeed descents, solely by reference to instruments.

D. TASK: TURNS TO HEADINGS (ASEL and ASES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of turns to headings, solely by reference to instruments by describing:
(a) Instrument cross-check, instrument interpretation, and aircraft control.
(b) Instruments used for pitch, bank, and power control during turn entry, during the turn, and during the turn rollout, and how those instruments are used.
(c) Trim procedure.
(2) Exhibits instructional knowledge of common errors related to turns to headings, solely by reference to instruments by describing:

(a) "Fixation," "omission," and "emphasis" errors during instrument cross-check.
(b) Improper instrument interpretation.
(c) Improper control applications.
(d) Failure to establish proper pitch, bank, and power adjustments during altitude, bank, and airspeed corrections.
(e) Improper entry or rollout procedure.
(f) Faulty trim procedure.

(3) Demonstrates and simultaneously explains a turn to a heading, solely by reference to instruments, from an instructional standpoint.
(4) Analyses and corrects simulated common errors related to turns to headings, solely by reference to instruments.

E. TASK: RECOVERY FROM UNUSUAL FLIGHT ATTITUDES (ASEL and ASES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of recovery from unusual flight attitudes by describing:
(a) Conditions and situations that may result in unusual flight attitudes.
(b) The two basic unusual flight attitudes – nose-high (climbing turn) and nose-low (diving spiral).
(c) How unusual flight attitudes are recognised.
(d) Control sequence for recovery from a nose-high attitude and the reasons for that sequence.
(e) Control sequence for recovery from a nose-low attitude and the reasons for that sequence.
(f) Reasons why the controls should be coordinated during unusual flight attitude recoveries.
(2) Exhibits instructional knowledge of common errors related to recovery from unusual flight attitudes by describing:
(a) Failure to recognise an unusual flight attitude.
(b) Consequences of attempting to recover from an unusual flight attitude by "feel" rather than by instrument indications.
(c) Inappropriate control applications during recovery.
(d) Failure to recognise from instrument indications when the aeroplane is passing through a level flight attitude.
(3) Demonstrates and simultaneously explains a recovery from nose-high and a nose-low flight attitude from an instructional standpoint.
(4) Analyses and corrects simulated common errors related to recovery from unusual flight attitudes.

XIII. AREA OF OPERATION: EMERGENCY OPERATIONS

Note: *The examiner must select at least TASKS A and B.*

A. TASK: EMERGENCY APPROACH AND LANDING (SIMULATED) (ASEL and ASES)

Note: The examiner must NOT simulate a power failure by placing the fuel selector to the "off" position or by placing the mixture control in the "idle-cutoff" position. No simulated emergency approach is to be continued below 500 feet AGL, unless over an area where a safe landing can be accomplished in compliance with SLCARs, POH/AFM.

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements related to an emergency approach and landing by describing:
   (a) Prompt establishment of the best glide airspeed and the recommended configuration.
   (b) How to select a suitable emergency landing area.
   (c) Planning and execution of approach to the selected landing area.
   (d) Use of emergency checklist.
   (e) Importance of attempting to determine reason for the malfunction.
   (f) Importance of dividing attention between flying the approach and accomplishing emergency checklist.
   (g) Procedures that can be used to compensate for undershooting or overshooting selected emergency landing area.

(2) Exhibits instructional knowledge of common errors related to an emergency approach and landing by describing:
   (a) Improper airspeed control.
   (b) Poor judgement in the selection of an emergency landing area.
   (c) Failure to estimate the approximate wind speed and direction.
   (d) Failure to fly the most suitable pattern for existing situation.
   (e) Failure to accomplish the emergency checklist.
   (f) Undershooting or overshooting selected emergency landing area.

(3) Demonstrates and simultaneously explains an emergency approach with a simulated engine failure from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to an emergency approach with a simulated engine failure.

B. TASK: SYSTEMS AND EQUIPMENT MALFUNCTIONS (ASEL and ASES)

References: POH/AFM

Note: *The examiner must not simulate a system or equipment malfunction in a manner that may jeopardise safe flight or result in possible damage to the* aeroplane.

Objective: To determine that the applicant exhibits instructional knowledge of at least five (5) of the equipment malfunctions, appropriate to the aeroplane used for the skill test by describing recommended pilot action for:

(1) Smoke, fire, or both, during ground or flight operations.
(2) Rough running engine or partial power loss.
(3) Loss of engine oil pressure.
(4) Fuel starvation.
(5) Engine overheat.
(6) Hydraulic malfunction.
(7) Electrical malfunction.
(8) Carburettor or induction icing.
(9) Door or window opening in flight.
(10) Inoperative or "runaway" trim.
(11) Landing gear or flap malfunction.
(12) Pressurisation malfunction.

C. TASK: EMERGENCY EQUIPMENT AND SURVIVAL GEAR (ASEL and ASES)

References: POH/AFM

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to emergency equipment and survival gear appropriate to the aeroplane used for the skill test by describing:

(1) Equipment and gear appropriate for operation in various climates, over various types of terrain, and over water.

(2) Purpose, method of operation or use, servicing and storage of appropriate equipment.

D. TASK: EMERGENCY DESCENT (ASEL and ASES)

References: POH/AFM

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to emergency descents appropriate to the aeroplane flown by:

(1) Exhibiting instructional knowledge of the elements related to an emergency descent by describing:

(a) Situations that require an emergency descent.

(b) Proper use of the prescribed emergency checklist to verify accomplishment of procedures before initiating and during the emergency descent.

(c) Proper use of clearing procedures before initiating and during the emergency descent.

(d) Procedures for recovering from an emergency descent.

(e) Manufacturer's procedures.

(2) Exhibiting instructional knowledge of common errors related to an emergency descent by describing:

(a) The consequences of failing to identify reason for executing an emergency descent.

(b) Improper use of the prescribed emergency checklist to verify accomplishment of procedures for initiating the emergency descent.

(c) Improper use of clearing procedures for initiating the emergency descent.

(d) Improper procedures for recovering from an emergency descent.

(3) Demonstrates and simultaneously explains an approach and landing with a simulated inoperative engine from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to an approach and landing with an inoperative engine.

XIV. AREA OF OPERATION: POST-FLIGHT PROCEDURES

***Note:** The examiner must select TASK A and, for ASES applicants, at least one other TASK.*

A. TASK: POST-FLIGHT PROCEDURES (ASEL and ASES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of post-flight procedures by describing:

(a) Parking procedure (ASEL)

(b) Engine shutdown and securing cockpit

(c) Deplaning passengers

(d) Securing aeroplane

(e) Post-flight inspection

(f) Refuelling

(2) Exhibits instructional knowledge of common errors related to post-flight procedures by describing:

(a) Hazards resulting from failure to follow recommended procedures.
(b) Poor planning, improper procedure, or faulty judgement in performance of post-flight procedures.

B. TASK: ANCHORING (ASES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of anchoring by describing:
(a) How to select a suitable area for anchoring.
(b) Recommended procedure for anchoring in a lake, river, or tidal area.
(c) Number of anchors and lines to be used to ensure seaplane security in various conditions.
(d) Hazards to be avoided during anchoring.
(e) Requirements for anchoring lights.

(2) Exhibits instructional knowledge of common errors related to anchoring by describing:
(a) Hazards resulting from failure to follow recommended anchoring procedures.
(b) Consequences of poor planning, improper procedure, or poor judgement when anchoring.
(c) Consequences of failure to use anchor lines of adequate length and strength to ensure seaplane security.

(3) Demonstrates and simultaneously explains anchoring from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to anchoring.

C. TASK: DOCKING AND MOORING (ASES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of docking and mooring by describing:
(a) How to select a suitable area for docking and mooring.
(b) Recommended procedure for mooring in a lake, river, or tidal area.
(c) Number of tie-downs and lines to be used to ensure seaplane security in various conditions.
(d) Hazards to be avoided during docking and mooring.
(e) Requirements for docking and mooring lights.

(2) Exhibits instructional knowledge of common errors related to docking and mooring by describing:
(a) Hazards resulting from failure to follow recommended procedures.
(b) Consequences of poor planning, improper procedure, or poor judgement when docking and mooring.
(c) Consequences of failure to use docking or mooring lines of adequate length and strength to ensure seaplane security.

(3) Demonstrates and simultaneously explains docking and mooring from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to docking and mooring.

D. TASK: BEACHING (ASES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of beaching by describing:

(a) Recommended procedures for beaching.
(b) Factors to be considered, such as beach selection, water depth, current, tide, and wind.
(c) Procedures to be followed to ensure seaplane security.
(d) Hazards to be avoided.

(2) Exhibits instructional knowledge of common errors related to beaching by describing:
(a) Hazards resulting from failure to follow recommended procedures.
(b) Consequences of poor beach selection, poor planning, improper procedure, or faulty judgement when beaching.
(c) A consequence of failure to take appropriate precautions to avoid hazards or to ensure that seaplane is secure.

(3) Demonstrates and simultaneously explains beaching from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to beaching.

E. TASK: RAMPING (ASES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of ramping by describing:
(a) Factors such as type of ramp surface, wind, current, and direction and control of approach speed.
(b) Recommended procedures for ramping.
(c) Hazards to be avoided.

(2) Exhibits instructional knowledge of common errors related to ramping by describing:
(a) Hazards resulting from failure to follow recommended procedures.
(b) Consequences of poor planning, improper procedure, or faulty judgement when ramping.
(c) Consequences of failure to take appropriate precautions to avoid hazards or to ensure that the seaplane is secure.

(3) Demonstrates and simultaneously explains ramping from an instructional

(4) Analyses and corrects simulated common errors related to ramping.

SECTION THREE: MULTI-ENGINE SKILL TEST STANDARDS

1.1 APPLICANT'S SKILL TEST CHECKLIST FLIGHT INSTRUCTOR – AIRPLANE MULTI-ENGINE

APPOINTMENT WITH INSPECTOR OR EXAMINER:

NAME:_____

LOCATION:_____

TIME/DATE:_____

ACCEPTABLE AIRCRAFT:

View-Limiting Device (if applicable)

Aircraft Documents:

Airworthiness Certificate

Registration Certificate

Operating Limitations

Aircraft Maintenance Records:

Airworthiness Inspections

Pilot's Operating Handbook, SLCAA-Approved Airplane Flight Manual

PERSONAL EQUIPMENT:

Current Aeronautical Charts

Computer and Plotter

Flight Plan Form

Flight Logs

Current AIM

Current Airport Facility Directory

PERSONAL RECORDS:

Pilot Licence

Medical Certificate

Completed SLCAA Forms, Airman Licence and/or Rating Application

Airman Knowledge Test Report

Logbook with Instructor's Endorsement

Letter of Discontinuance (if applicable)

Notice of Disapproval (if applicable)

Approved School Graduation Certificate (if applicable)

Examiner's Fee (if applicable)

1.2 EXAMINER'S CHECKLIST FLIGHT INSTRUCTOR—AIRPLANE (MULTIENGINE)

APPLICANT'S NAME: _____

EXAMINER'S NAME:_____

DATE:_____**TYPE CHECK:**_____

TYPE AIRPLANE:_____

AREA OF OPERATION:

I. FUNDAMENTALS OF INSTRUCTING

- **A.** The Learning Process
- **B.** Human Behavior and Effective Communication
- **C.** The Teaching Process
- **D.** Teaching Methods
- **E.** Critique and Evaluation
- **F.** Flight Instructor Characteristics and Responsibilities
- **G.** Planning Instructional Activity

II. TECHNICAL SUBJECT AREAS

- **A.** Aeromedical Factors
- **B.** Visual Scanning and Collision Avoidance
- **C.** Principles of Flight Airplane
- **D.** Flight Controls Airplane Weight
- **E.** and Balance Navigation and
- **F.** Flight Planning Night
- **G.** Operations
- **H.** High Altitude Operations
- **I.** Federal Aviation Regulations and Publications
- **J.** National Airspace System
- **K.** Navigation Aids and Radar Services
- **L.** Logbook Entries and Certificate Endorsements
- **M.** Water and Seaplane Characteristics
- **N.** Seaplane Bases, Rules, and Aids to Marine Navigation

III. PREFLIGHT PREPARATION

- **A.** Certificates and Documents
- **B.** Weather Information
- **C.** Airworthiness Requirements

IV. PREFLIGHT LESSON ON A MANEUVER TO BE PERFORMED IN FLIGHT

- **A.** Maneuver Lesson

V. PREFLIGHT PROCEDURES

- **A.** Preflight Inspection
- **B.** Single-Pilot Resource Management

- **C.** Engine Starting
- **D.** Taxiing—Landplane
- **E.** Taxiing—Seaplane
- **F.** Sailing
- **G.** Before Takeoff Check

VI. AIRPORT AND SEAPLANE BASE OPERATIONS

- **A.** Radio Communications and ATC Light Signals
- **B.** Traffic Patterns
- **C.** Airport/Seaplane Base, Runway and Taxiway, Signs, Markings, and Lighting

VII. TAKEOFFS, LANDINGS AND, GO-AROUNDS

- **A.** Normal and Crosswind Takeoff and Climb
- **B.** Short-Field (Confined Area (AMES)) Takeoff and Maximum Performance Climb
- **C.** Glassy-Water Takeoff and Climb
- **D.** Rough-Water Takeoff and Climb
- **E.** Rough-Water Takeoff and Climb
- **F.** Go-Around/Rejected Landing
- **G.** Short-Field (Confined Area (AMES)) Approach and Landing
- **H.** Glassy-Water Approach and Landing
- **I.** Rough-Water Approach and Landing

VIII. FUNDAMENTALS OF FLIGHT

- **A.** Straight-and-Level Flight
- **B.** Level Turns
- **C.** Straight Climbs and Climbing Turns
- **D.** Straight Descents and Descending Turns

IX. PERFORMANCE MANEUVERS

- **A.** Steep Turns

X. GROUND REFERENCE MANEUVERS

- **A.** Rectangular Course
- **B.** S-Turns Across a Road
- **C.** Turns Around a Point

XI. SLOW FLIGHT AND STALLS

- **A.** Maneuvering During Slow Flight
- **B.** Power-On Stalls
- **C.** Power-Off Stalls
- **D.** Accelerated Maneuver Stalls (Demonstration)

XII. BASIC INSTRUMENT MANEUVERS

- **A.** Straight-and-Level Flight

B. Constant Airspeed Climbs

C. Constant Airspeed Descents

D. Turns to Headings

E. Recovery from Unusual Flight Attitudes

XIII. EMERGENCY OPERATIONS

A. Systems and Equipment Malfunctions

B. Engine Failure during Takeoff Before VMC

C. Engine Failure After Lift-Off

D. Approach and Landing with an Inoperative Engine

E. Emergency Descent

F. Emergency Equipment and Survival Gear

XIV. MULTIENGINE OPERATIONS

A. Operations of Systems

B. Performance and Limitations

C. Flight Principles—Engine Inoperative

D. Maneuvering with One Engine Inoperative

E. VMC Demonstration

F. Demonstrating the Effects of Various Airspeeds and Configurations During Engine Inoperative Performance

XV. POSTFLIGHT PROCEDURES

A. Postflight Procedures

B. Anchoring

C. Docking and Mooring

D. Beaching

E. Ramping

1.3 AREAS OF OPERATION

I. AREA OF OPERATION: FUNDAMENTALS OF INSTRUCTING

Note: The examiner must select TASK F and one other TASK.

A. TASK: THE LEARNING PROCESS

Objective: To determine that the applicant exhibits instructional knowledge of the elements of the learning process by describing:

(1) Learning theory
(2) Characteristics of learning
(3) Principles of learning
(4) Levels of learning
(5) Learning physical skills
(6) Memory
(7) Transfer of learning

B. TASK: HUMAN BEHAVIOUR AND EFFECTIVE COMMUNICATION

Objective: To determine that the applicant exhibits instructional knowledge of the elements of the teaching process by describing:

(1) Human behaviour:
  (a) Control of human behaviour
  (b) Human needs
  (c) Defence mechanisms
  (d) The flight instructor as a practical psychologist
(2) Effective communication:
  (a) Basic elements of communication
  (b) Barriers of effective communication
  (c) Developing communication skills

C. TASK: THE TEACHING PROCESS

Objective: To determine that the applicant exhibits instructional knowledge of the elements of the teaching process by describing:

(1) Preparation of a lesson for a ground or flight instructional period.
(2) Presentation methods.
(3) Application, by the student, of the knowledge and skills presented.
(4) Review and evaluation of student performance.

D. TASK: TEACHING METHODS

Objective: To determine that the applicant exhibits instructional knowledge of the elements of teaching methods by describing:

(1) Material organisation
(2) The lecture method
(3) The cooperative or group learning method
(4) The guided discussion method
(5) The demonstration-performance method
(6) Computer-based training method

E. TASK: CRITIQUE AND EVALUATION

Objective: To determine that the applicant exhibits instructional knowledge of the elements of critique and evaluation by explaining:

(1) Critique:
  (a) Purpose and characteristics of an effective critique.
  (b) Methods and ground rules for a critique.
(2) Evaluation:

(a) Characteristics of effective oral questions and what types to avoid.
(b) Responses to student questions.
(c) Characteristics and development of effective written questions.
(d) Characteristics and uses of performance tests, specifically, the FAA skill test standards.

F. TASK: FLIGHT INSTRUCTOR CHARACTERISTICS AND RESPONSIBILITIES

Objective: To determine that the applicant exhibits instructional knowledge of the elements of flight instructor characteristics and responsibilities by describing:

(1) Aviation instructor responsibilities in:
(a) Providing adequate instruction.
(b) Establishing standards of performance.
(c) Emphasising the positive.

(2) Flight instructor responsibilities in:
(a) Providing student pilot evaluation and supervision.
(b) Preparing skill test recommendations and endorsements.
(c) Determining requirements for conducting additional training and endorsement requirements.

(3) Professionalism as an instructor by:
(a) Explaining important personal characteristics.
(b) Describing methods to minimize student frustration.

G. TASK: PLANNING INSTRUCTIONAL ACTIVITY

Objective: To determine that the applicant exhibits instructional knowledge of the elements of planning instructional activity by describing:

(1) Developing objectives and standards for a course of training.
(2) Theory of building blocks of learning.
(3) Requirements for developing a training syllabus.
(4) Purpose and characteristics of a lesson plan.

II. AREA OF OPERATION: TECHNICAL SUBJECT AREAS

Note: The examiner must select TASK L and at least one other TASK.

A. TASK: AEROMEDICAL FACTORS

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to aeromedical factors by describing:

(1) How to obtain an appropriate medical certificate.
(2) How to obtain a medical certificate in the event of a possible medical deficiency.
(3) The causes, symptoms, effects, and corrective action of the following medical factors:
(a) Hypoxia
(b) Hyperventilation
(c) Middle ear and sinus problems
(d) Spatial disorientation
(e) Motion sickness
(f) Carbon monoxide poisoning
(g) Fatigue and stress
(h) Dehydration
(4) The effects of alcohol and drugs, and their relationship to flight safety.
(5) The effect of nitrogen excesses during scuba dives and how this affects pilots and passengers during flight.

B. TASK: VISUAL SCANNING AND COLLISION AVOIDANCE

Objective: To determine that the applicant exhibits instructional knowledge of the elements of visual scanning and collision avoidance by describing:

(1) Relationship between a pilot's physical condition and vision.
(2) Environmental conditions that degrade vision.
(3) Vestibular and visual illusions.
(4) "See and avoid" concept.
(5) Proper visual scanning procedure.
(6) Relationship between poor visual scanning habits and increased collision risk.
(7) Proper clearing procedures.
(8) Importance of knowing aircraft blind spots.
(9) Relationship between aircraft speed differential and collision risk.
(10) Situations which involve the greatest collision risk.

C. TASK: PRINCIPLES OF FLIGHT

Objective: To determine that the applicant exhibits instructional knowledge of the elements of principles of flight by describing:

(1) Aerofoil design characteristics.
(2) Aeroplane stability and controllability.
(3) Turning tendency (torque effect).
(4) Load factors in aeroplane design.
(5) Wingtip vortices and precautions to be taken.

D. TASK: AEROPLANE FLIGHT CONTROLS

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to the aeroplane flight controls by describing the purpose, location, direction of movement, effect and proper procedure for use of the:

(1) Primary flight controls
(2) Trim control(s)
(3) Wing flaps

E. TASK: AEROPLANE WEIGHT AND BALANCE

Objective: To determine that the applicant exhibits instructional knowledge of the elements of aeroplane weight and balance by describing:

(1) Weight and balance terms.
(2) Effect of weight and balance on performance.
(3) Methods of weight and balance control.
(4) Determination of total weight and centre of gravity and the changes that occur when adding, removing, or shifting weight.

F. TASK: NAVIGATION AND FLIGHT PLANNING

Objective: To determine that the applicant exhibits instructional knowledge of the elements of navigation and flight planning by describing:

(1) Terms used in navigation.
(2) Features of aeronautical charts.
(3) Importance of using the proper and current aeronautical charts.
(4) Method of plotting a course, selection of fuel stops and alternates, and appropriate actions in the event of unforeseen situations.
(5) Fundamentals of pilotage and dead reckoning.
(6) Fundamentals of radio navigation.
(7) Diversion to an alternate.
(8) Lost procedures.
(9) Computation of fuel consumption.
(10) Importance of preparing and properly using a flight log.

(11) Importance of a weather check and the use of good judgement in making a "go/no-go" decision.
(12) Purpose of, and procedure used in, filing a flight plan.
(13) Global positioning system (GPS) navigation.

G. TASK: NIGHT OPERATIONS

Objective: To determine that the applicant exhibits instructional knowledge of the elements of night operations by describing:

(1) Factors related to night-vision.
(2) Disorientation and night optical illusions.
(3) Proper adjustment of interior lights.
(4) Importance of having a flashlight with a red lens.
(5) Night pre-flight inspection.
(6) Engine starting procedures, including use of position and anti-collision lights prior to start.
(7) Taxiing and orientation on an aerodrome.
(8) Take-off and climb-out.
(9) In-flight orientation.
(10) Importance of verifying the aeroplane's attitude by reference to flight instruments.
(11) Night emergency procedures.
(12) Traffic patterns.
(13) Approaches and landings with and without landing lights.
(14) Go-arounds.

H. TASK: HIGH-ALTITUDE OPERATIONS

References: SLCAR Part 6; POH/AFM

Objective: To determine that the applicant exhibits instructional knowledge of the elements of high- altitude operations by describing:

(1) Regulatory requirements for use of oxygen.
(2) Physiological hazards associated with high-altitude operations.
(3) Characteristics of a pressurised aeroplane and various types of supplemental oxygen systems.
(4) Importance of "aviator's breathing oxygen."
(5) Care and storage of high-pressure oxygen bottles.
(6) Problems associated with rapid decompression and corresponding solutions.

I. TASK: MERAVIAN CIVIL AVIATION REGULATIONS AND ASSOCIATED PUBLICATIONS

References: 14 CFR parts 1, 61, 91; NTSB part 830: FAA-H-8083-25; POH/AFM, AIM

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to Sierra Leone Civil Aviation Regulations (SLCARs) by describing:

(1) Availability and method of revision of SLCAR Parts 1A, 6 and 22
    (a) Purpose
    (b) General content
(2) Availability of flight information publications, advisory circulars, skill test standards, pilot operating handbooks, and FAA-approved aeroplane flight manuals by describing:
    (a) Availability
    (b) Purpose
    (c) General content

J. TASK: NATIONAL AIRSPACE SYSTEM

References: SLCAR Part 6

Objective: To determine that the applicant exhibits instructional knowledge of the elements of the national airspace system by describing:

(1) Basic VFR weather minimums – for all classes of airspace.

(2) Airspace classes – their operating rules, pilot certification, and aeroplane equipment requirements for the following:

(a) Class A
(b) Class B
(c) Class C
(d) Class D
(e) Class E
(f) Class G

(3) Special use airspace (SUA).

(4) Temporary flight restrictions (TFR).

K. TASK: NAVIGATION SYSTEMS AND RADAR SERVICES

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to navigation aids and radar service by describing:

(1) One ground-based navigational aid (VOR/VORTAC, NDB, DME, LORAN).

(2) Satellite-based navigation aids.

(3) Radar service and procedures.

L. TASK: LOGBOOK ENTRIES AND LICENCE ENDORSEMENTS

References: SLCAR Part 1A

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to logbook entries and licence endorsements by describing:

(1) Required logbook entries for instruction given.

(2) Required student pilot licence endorsements, including appropriate logbook entries.

(3) Preparation of a recommendation for a pilot skill test, including appropriate logbook entry for:

(a) Initial pilot certification
(b) Additional pilot certification
(c) Additional aircraft qualification

(4) Required endorsement of a pilot logbook for the satisfactory completion of the required FAA flight review

(5) Required flight instructor records

M. TASK: WATER AND SEAPLANE CHARACTERISTICS (AMES)

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to water and seaplane characteristics by describing:

(1) The characteristics of water surface as affected by features, such as:

(a) Size and location of water operating area.
(b) Protected and unprotected operating areas.
(c) Surface wind.
(d) Direction and height of waves.
(e) Direction and strength of water current.
(f) Floating and partially submerged debris.
(g) Sandbars, islands, and shoals.

(2) Seaplane float or hull construction and its relationship to performance.

(3) Causes of porpoising and skipping and pilot action necessary to prevent or to correct those occurrences.

N. TASK: SEAPLANE BASES, RULES, AND AIDS TO MARINE NAVIGATION (AMES)

References: MCAR Part 6

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to seaplane bases, rules, and aids to marine navigation by describing:

(1) How to locate and identify seaplane bases on charts or in directories.
(2) Operating restrictions at various seaplane bases.
(3) Right-of-way, steering, and sailing rules pertinent to seaplane operation.
(4) Purpose and identification of marine navigation aids such as buoys, beacons, lights, and sound signals.

III. AREA OF OPERATION: PRE-FLIGHT PREPARATION

Note: The examiner must select at least one TASK.

A. TASK: LICENCES AND DOCUMENTS

References: MCAR Parts 1A, 6 and 8, POH/AFM

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to licences and documents by describing:

(1) The training requirements for the issuance of recreational, private, and commercial pilot licences.
(2) The privileges and limitations of pilot licences and ratings at recreational, private, and commercial levels.
(3) Class and duration of medical certificates.
(4) Recent pilot flight experience requirements.
(5) Required entries in pilot logbook or flight record.

B. TASK: WEATHER INFORMATION

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to weather information by describing:

(1) Importance of a thorough pre-flight weather briefing.
(2) Means and sources of obtaining weather information.
(3) Use of real-time weather reports, forecasts, and charts for developing scenario-based training.
(4) In-flight weather advisories.
(5) Recognition of aviation weather hazards to include wind shear.
(6) Factors to be considered in making a "go/no-go" decision.

C. TASK: AIRWORTHINESS REQUIREMENTS

References: SLCAR Part 8; POH/AFM

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to required airworthiness by explaining:

(1) Required instruments and equipment for day/night VFR.
(2) Procedures and limitations for determining airworthiness of the aeroplane with inoperative instruments and equipment without a minimum equipment list (MEL).
(3) Requirements and procedures for obtaining a special flight permit.
(4) Airworthiness directives, compliance records, maintenance/inspection requirements, and appropriate records.
(5) Procedures for deferring maintenance on aircraft without an approved MEL.

IV. AREA OF OPERATION: PRE-FLIGHT LESSON ON A MANOEUVRE TO BE PERFORMED IN- FLIGHT

Note: Examiner must select at least one manoeuvre TASK from AREAS OF OPERATION VII through XIV, and ask the applicant to present a pre-flight lesson on the selected manoeuvre as the lesson would be taught to a student.

A. TASK: MANOEUVRE LESSON

References: POH/AFM

Objective: To determine that the applicant exhibits instructional knowledge of the selected manoeuvre by:

(1) Stating the purpose.

(2) Giving an accurate, comprehensive oral description, including the elements and common errors.

(3) Using instructional aids, as appropriate.

(4) Describing the recognition, analysis, and correction of common errors.

V. AREA OF OPERATION: PRE-FLIGHT PROCEDURES

Note: The examiner must select at least one TASK.

A. TASK: PRE-FLIGHT INSPECTION (AMEL and AMES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of a pre-flight inspection, as applicable to the aeroplane used for the skill test, by describing:

- (a) Reasons for the pre-flight inspection, items that should be inspected, and how defects are detected.
- (b) Importance of using the appropriate checklist.
- (c) How to determine fuel and oil quantity and contamination.
- (d) Detection of fuel, oil, and hydraulic leaks.
- (e) Inspection of the oxygen system, including supply and proper operation (if applicable).
- (f) Inspection of the flight controls and water rudder (if applicable).
- (g) Detection of visible structural damage.
- (h) Removal of tie-downs, control locks, and wheel chocks.
- (i) Removal of ice and frost.
- (j) Importance of the proper loading and securing of baggage, cargo, and equipment.
- (k) Use of sound judgement in determining whether the aeroplane is in an airworthy condition for safe flight.

(2) Exhibits instructional knowledge of common errors related to a pre-flight inspection by describing:

- (a) Failure to use or the improper use of checklist.
- (b) Hazards which may result from allowing distractions to interrupt a visual inspection.
- (c) Inability to recognise discrepancies to determine airworthiness.
- (d) Failure to assure servicing with the proper fuel and oil.
- (e) Failure to ensure proper loading and securing of baggage, cargo, and equipment.

(3) Demonstrates and simultaneously explains a pre-flight inspection from an instructional standpoint.

B. TASK: COCKPIT MANAGEMENT (AMEL and AMES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of engine starting, as appropriate to the aeroplane used for the skill test by describing:
   (a) Safety precautions related to starting.
   (b) Use of external power.
   (c) Effect of atmospheric conditions on starting.
   (d) Importance of following the appropriate checklist.
   (e) Adjustment of engine controls during start.
   (f) Prevention of aeroplane movement during and after start.

(2) Exhibits instructional knowledge of common errors related to engine starting by describing:
   (a) Failure to properly use the appropriate checklist.
   (b) Failure to use safety precautions related to starting.
   (c) Improper adjustment of engine controls during start.
   (d) Failure to assure proper clearance of the propeller.

(3) Demonstrates and simultaneously explains engine starting from an instructional standpoint.

D. TASK: TAXIING – LANDPLANE (AMEL)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of landplane taxiing by describing:
   (a) Proper brake check and correct use of brakes.
   (b) Compliance with aerodrome/taxiway surface marking, signals, and ATC clearances or instructions.
   (c) How to control direction and speed.
   (d) Flight control positioning for various wind conditions.
   (e) Procedures used to avoid other aircraft and hazards.
   (f) Avoiding runway incursions.

(2) Exhibits instructional knowledge of common errors related to landplane taxiing by describing:
   (a) Improper use of brakes.
   (b) Improper positioning of the flight controls for various wind conditions.
   (c) Hazards of taxiing too fast.
   (d) Failure to comply with aerodrome/taxiway surface marking, signals, and ATC clearances or instructions.

(3) Demonstrates and simultaneously explains landplane taxiing from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to landplane taxiing.

E. TASK: TAXIING – SEAPLANE (AMES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of seaplane taxiing by describing:
   (a) Wind effect.
   (b) Prevention of porpoising and skipping.
   (c) Selection of the most suitable course for taxiing, following available marking aids.
   (d) Conditions where idle, ploughing, and step taxiing are used.
   (e) Procedures for idle, ploughing, and step taxiing.

(f) Control positioning for various wind conditions.
(g) Use of water rudders.
(h) Procedures used to avoid other aircraft and hazards.
(i) Procedures used to avoid excessive water spray into the propeller.
(j) 180° and 360° turns in idle, ploughing, and step positions.
(k) Application of right-of-way rules.

(2) Exhibits instructional knowledge of common errors related to seaplane taxiing by describing:
(a) Improper positioning of flight controls for various wind conditions.
(b) Improper control of speed and direction.
(c) Failure to prevent porpoising and skipping.
(d) Failure to use the most suitable course and available marking aids.
(e) Failure to use proper clearing procedures to avoid hazards.
(f) Failure to apply right-of-way rules.

(3) Demonstrates and simultaneously explains seaplane taxiing from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to seaplane taxiing.

F. TASK: SAILING (AMES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of sailing by describing:
(a) Procedures used in sailing (engine idling or shut down, as appropriate).
(b) Conditions and situations where sailing would be used.
(c) Selection of the most favourable course to follow.
(d) Use of flight controls, flaps, doors, and water rudders to follow the selected course.
(e) Procedures used to change direction from downwind to crosswind.
(f) Control of speed.

(2) Exhibits instructional knowledge of common errors related to sailing by describing:
(a) Failure to select the most favourable course to destination.
(b) Improper use of controls, flaps, and water rudders.
(c) Improper procedure when changing direction.
(d) Improper procedure for speed control.

(3) Demonstrates and simultaneously explains sailing from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to sailing.

G. TASK: BEFORE TAKE-OFF CHECK (AMEL and AMES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of the before take-off check by describing:
(a) Positioning the aeroplane with consideration for other aircraft, surface conditions and wind.
(b) Division of attention inside and outside the cockpit.
(c) Importance of following the checklist and responding to each checklist item.
(d) Reasons for ensuring suitable engine temperatures and pressures for run-up and take-off.
(e) Method used to determine that aeroplane is in a safe operating condition.

(f) Importance of reviewing take-off performance airspeeds, expected take-off distances, and emergency procedures.
(g) Method used for ensuring that the take-off area or path is free of hazards.
(h) Method of avoiding runway incursions and ensures no conflict with traffic prior to taxiing into take-off position.

(2) Exhibits instructional knowledge of common errors related to the before take-off check by describing:
(a) Failure to properly use the appropriate checklist.
(b) Improper positioning of the aeroplane.
(c) Improper acceptance of marginal engine performance.
(d) An improper check of flight controls.
(e) Hazards of failure to review take-off and emergency procedures.
(f) Failure to avoid runway incursions and to ensure no conflict with traffic prior to taxiing into take-off position.

(3) Demonstrates and simultaneously explains a before take-off check from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to a before take-off check.

VI. AREA OF OPERATION: AERODROME AND SEAPLANE BASE OPERATIONS

Note: The examiner must select at least one TASK.

A. TASK: RADIO COMMUNICATIONS AND ATC LIGHT SIGNALS (AMEL and AMES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of radio communications and ATC light signals by describing:
(a) Selection and use of appropriate radio frequencies.
(b) Recommended procedure and phraseology for radio communications.
(c) Receipt of, acknowledgement of, and compliance with ATC clearances and instructions.
(d) Interpretation of, and compliance with, ATC light signals.

(2) Exhibits instructional knowledge of common errors related to radio communications and ATC light signals by describing:
(a) Use of improper frequencies.
(b) Improper procedure and phraseology when using radio communications.
(c) Failure to acknowledge, or properly comply with, ATC clearances and instructions.
(d) Failure to understand, or to properly comply with, ATC light signals.

(3) Demonstrates and simultaneously explains radio communication procedures from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to radio communications and ATC light signals.

B. TASK: TRAFFIC PATTERNS (AMEL and AMES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of traffic patterns by describing:
(a) Operations at aerodromes and seaplane bases with and without operating control towers.
(b) Adherence to traffic pattern procedures, instructions, and rules.
(c) How to maintain proper spacing from other traffic.
(d) How to maintain the desired ground track.
(e) Wind shear and wake turbulence avoidance procedures.

(f) Orientation with the runway or landing area in use.
(g) How to establish a final approach at an appropriate distance from the runway or landing area.
(h) Use of checklist.

(2) Exhibits instructional knowledge of common errors related to traffic patterns by describing:
(a) Failure to comply with traffic pattern instructions, procedures, and rules.
(b) Improper correction for wind drift.
(c) Inadequate spacing from other traffic.
(d) Poor altitude or airspeed control.

(3) Demonstrates and simultaneously explains traffic patterns from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to traffic patterns.

C. TASK: AERODROME/SEAPLANE BASE, RUNWAY AND TAXIWAY SIGNS, MARKINGS, AND LIGHTING (AMEL and AMES)

Objective: To determine that the applicant exhibits instructional knowledge of the elements of aerodrome/seaplane base, runway and taxiway signs, markings, and lighting by describing:

(1) Exhibits instructional knowledge of the elements of aerodrome/seaplane base, runway and taxiway signs, markings, and lighting by describing:
(a) Identification and proper interpretation of airport/seaplane base, runway and taxiway signs and markings, with emphasis on runway incursion avoidance.
(b) Identification and proper interpretation of aerodrome/seaplane base, runway and taxiway lighting, with emphasis on runway incursion avoidance.

(2) Exhibits instructional knowledge of common errors related to aerodrome/seaplane base, runway and taxiway signs, markings, and lighting by describing:
(a) Failure to comply with aerodrome/seaplane base, runway and taxiway signs and markings.
(b) Failure to comply with aerodrome/seaplane base, runway and taxiway lighting.
(c) Failure to use proper runway incursion avoidance procedures.

(3) Demonstrates and simultaneously explains aerodrome/seaplane base, runway and taxiway signs, markings, and lighting from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to aerodrome/seaplane base, runway and taxiway signs, markings, and lighting.

VII. AREA OF OPERATION: TAKE-OFFS, LANDINGS, AND GO-AROUNDS

Note: The examiner must select at least two take-off *and two landing TASKS.*

A. TASK: NORMAL AND CROSSWIND TAKE-OFF AND CLIMB (AMEL and AMES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of a normal and crosswind take-off and climb by describing:
(a) Procedures before taxiing onto the runway or take-off area to ensure runway incursion avoidance.
(b) Normal and crosswind take-off procedures.
(c) Difference between a normal and a glassy-water take-off (seaplane).
(d) Normal and crosswind lift-off procedures.

(e) Proper climb attitude, power setting, and airspeed (VY).
(f) Proper use of checklist.

(2) Exhibits instructional knowledge of common errors related to a normal and crosswind take-off and climb by describing:
(a) Improper runway incursion avoidance procedures.
(b) Improper use of controls during a normal or crosswind take-off.
(c) Inappropriate lift-off procedures.
(d) Improper climb attitude, power setting and airspeed (VY).
(e) Improper use of checklist.

(3) Demonstrates and simultaneously explains a normal or a crosswind take-off and climb from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to a normal or a crosswind take-off and climb.

B. TASK: SHORT-FIELD (CONFINED AREA (AMES) TAKE-OFF AND MAXIMUM PERFORMANCE AND CLIMB (AMEL and AMES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of a short-field take-off and climb by describing:
(a) Procedures before taxiing onto the runway or take-off area to ensure runway incursion avoidance.
(b) Short-field take-off procedures.
(c) Short-field lift-off procedures.
(d) Initial climb attitude and airspeed (VX) until obstacle is cleared (50 feet AGL).
(e) Proper use of checklist.

(2) Exhibits instructional knowledge of common errors related to a short-field take-off and climb by describing:
(a) Improper runway incursion avoidance procedures.
(b) Improper use of controls during a short-field take-off.
(c) Improper lift-off procedures.
(d) Improper initial climb attitude, power setting, and airspeed (VX) to clear obstacle.
(e) Improper use of checklist.

(3) Demonstrates and simultaneously explains a short-field take-off and climb from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to a short-field take-off and climb.

C. TASK: GLASSY-WATER TAKE-OFF AND CLIMB (AMES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of a glassy-water take-off and climb by describing:
(a) Procedures before taxiing onto the take-off area to ensure waterway is clear of objects or obstructions.
(b) Flight control, flap and water rudder use during glassy-water take-off procedures.
(c) Appropriate planning attitude and lift-off procedures on glassy water.
(d) Initial climb attitude and airspeed (VX, if an obstacle is present (50 feet AGL), or VY).

(e) Proper use of after take-off checklist.

(2) Exhibits instructional knowledge of common errors related to a glassy-water take-off and climb by describing:
- (a) Improper take-off water way clearance procedures.
- (b) Poor judgement in the selection of a suitable take-off area.
- (c) Improper use of controls during a glassy-water take-off.
- (d) Inappropriate lift-off procedures.
- (e) Hazards of inadvertent contact with the water after becoming airborne.
- (f) Improper climb attitude, power setting, and airspeed (VY or VX).
- (g) Improper use of checklist.

(3) Demonstrates and simultaneously explains a glassy-water take-off and climb from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to a glassy-water take-off and climb.

D. TASK: ROUGH-WATER TAKE-OFF AND CLIMB (AMES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of a rough-water take-off and climb by describing:
- (a) Procedures before taxiing onto the take-off area to ensure waterway is clear of objects or obstructions.
- (b) Flight control, flap, and water rudder use during rough-water take-off procedures.
- (c) Appropriate planning attitude and lift-off procedures on rough water.
- (d) Initial climb attitude and airspeed (VX, if an obstacle is present (50 feet AGL), or VY).
- (e) Proper use of after take-off checklist.

(2) Exhibits instructional knowledge of common errors related to a rough-water take-off and climb by describing:
- (a) Improper take-off water way clearance procedures.
- (b) Poor judgement in the selection of a suitable take-off area.
- (c) Improper use of controls during a rough-water take-off.
- (d) Inappropriate lift-off procedures.
- (e) Hazards of inadvertent contact with the water after becoming airborne.
- (f) Improper climb attitude, power setting, and airspeed (VY or VX).
- (g) Improper use of checklist.

(3) Demonstrates and simultaneously explains a rough-water take-off and climb from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to a rough-water take-off and climb.

E. TASK: NORMAL AND CROSSWIND APPROACH AND LANDING (AMEL and AMES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of a normal and a crosswind approach and landing by describing:
- (a) How to determine landing performance and limitations.
- (b) Configuration, power, and trim.

(c) Obstructions and other hazards which should be considered.
(d) A stabilised approach at the recommended airspeed to the selected touchdown area.
(e) Course of action if selected touchdown area is going to be missed.
(f) Coordination of flight controls.
(g) A precise ground track.
(h) Wind shear and wake turbulence.
(i) Crosswind procedure.
(j) Timing, judgement, and control procedure during round out and touchdown.
(k) Directional control after touchdown.
(l) Use of brakes (landplane).
(m) Use of checklist.

(2) Exhibits instructional knowledge of common errors related to a normal and a crosswind approach and landing by describing:
(a) Improper use of landing performance data and limitations.
(b) Failure to establish approach and landing configuration at appropriate time or in proper sequence.
(c) Failure to establish and maintain a stabilised approach.
(d) Inappropriate removal of hand from throttles.
(e) Improper procedure during round out and touchdown.
(f) Poor directional control after touchdown.
(g) Improper use of brakes (landplane).

(3) Demonstrates and simultaneously explains a normal or a crosswind approach and landing from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to a normal or crosswind approach and landing.

F. TASK: GO-AROUND/REJECTED LANDING (AMEL and AMES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of a go-around/rejected landing by describing:
(a) Situations in which a go-around is necessary.
(b) Importance of making a prompt decision.
(c) Importance of applying take-off power immediately after the go-around decision is made.
(d) Importance of establishing proper pitch attitude.
(e) Wing flaps retraction.
(f) Use of trim.
(g) Landing gear retraction.
(h) Proper climb speed.
(i) Proper track and obstruction clearance
(j) Use of checklist.
(k) Importance of manufacturer's recommended procedures.

(2) Exhibits instructional knowledge of common errors related to a go-around/rejected landing by describing:
(a) Failure to recognise a situation where a go-around/rejected landing is necessary.
(b) Hazards of delaying a decision to go around.
(c) Improper power application.

(d) Failure to control pitch attitude.
(e) Failure to compensate for torque effect.
(f) Improper trim technique.
(g) Failure to maintain recommended airspeeds.
(h) Improper wing flaps or landing gear retraction procedure.
(i) Failure to maintain proper track during climb-out.
(j) Failure to remain well clear of obstructions and other traffic.

(3) Demonstrates and simultaneously explains a go-around/rejected landing from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to a go-around/rejected landing.

G. TASK: SHORT-FIELD (CONFINED AREA – AMES) APPROACH AND LANDING (AMEL and AMES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of a short-field approach and landing by describing:

(a) How to determine landing performance and limitations.
(b) Configuration and trim.
(c) Proper use of pitch and power to maintain desired approach angle.
(d) Barriers and other hazards which should be considered.
(e) Effect of wind.
(f) Selection of touchdown and go-around points.
(g) A stabilised approach at the recommended airspeed to the selected touchdown point.
(h) Coordination of flight controls.
(i) A precise ground track.
(j) Timing, judgement, and control procedure during round out and touchdown.
(k) Directional control after touchdown.
(l) Use of brakes (landplane).
(m) Use of checklist.

(2) Exhibits instructional knowledge of common errors related to a short-field approach and landing by describing:

(a) Improper use of landing performance data and limitations.
(b) Failure to establish approach and landing configuration at appropriate time or in proper sequence.
(c) Failure to establish and maintain a stabilised approach.
(d) Improper technique in use of power, wing flaps, and trim.
(e) Inappropriate removal of hand from throttles.
(f) Improper procedure during round out and touchdown.
(g) Poor directional control after touchdown.
(h) Improper use of brakes (landplane).

(3) Demonstrates and simultaneously explains a short-field approach and landing from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to a short-field approach and landing.

H. TASK: GLASSY-WATER APPROACH AND LANDING (AMES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of a glassy-water approach and landing by describing:
- (a) How to determine landing performance and limitations.
- (b) Configuration and trim.
- (c) Deceptive characteristics of glassy water.
- (d) Selection of a suitable landing area and go-around point.
- (e) Terrain and obstructions which should be considered.
- (f) Detection of hazards in the landing area such as shallow water, obstructions, or floating debris.
- (g) Coordination of flight controls.
- (h) A precise ground track.
- (i) A power setting and pitch attitude that will result in the recommended airspeed and rate of descent throughout the final approach to touchdown.
- (j) How to maintain positive after landing control.
- (k) Use of checklist.

(2) Exhibits instructional knowledge of common errors related to a glassy-water approach and landing by describing:
- (a) Improper use of landing performance data and limitations.
- (b) Failure to establish approach and landing configuration at appropriate time and in proper sequence.
- (c) Failure to establish and maintain a stabilised approach at the recommended airspeed and rate of descent.
- (d) Improper technique in use of power, wing flaps, or trim.
- (e) Inappropriate removal of hand from throttles.
- (f) Failure to touch down with power in the proper stabilised attitude.
- (g) Failure to maintain positive after landing control.

(3) Demonstrates and simultaneously explains a glassy-water approach and landing from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to a glassy-water approach and landing.

I. TASK: ROUGH-WATER APPROACH AND LANDING (AMES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of a rough-water approach and landing by describing:
- (a) How to determine landing performance and limitations.
- (b) Review of wind conditions.
- (c) How landing area characteristics can be evaluated.
- (d) Selection of a suitable landing area and go-around point.
- (e) Terrain and obstructions which should be considered.
- (f) Detection of hazards in the landing area such as shallow water, obstructions, or floating debris.
- (g) Configuration and trim.
- (h) Coordination of flight controls.
- (i) A precise ground track.
- (j) A stabilised approach at the recommended airspeed to the selected touchdown area.

(k) Timing, judgement, and control procedure during round out and touchdown.
(l) Maintenance of positive after landing control.
(m) Use of checklist.

(2) Exhibits instructional knowledge of common errors related to a rough-water approach and landing by describing:
(a) Improper use of landing performance data and limitations.
(b) Failure to establish approach and landing configuration at appropriate time and in proper sequence.
(c) Failure to establish and maintain a stabilised approach.
(d) Improper procedure in use of power, wing flaps, or trim.
(e) Inappropriate removal of hand from throttles.
(f) Improper procedure during round out and touchdown.
(g) Failure to maintain positive after landing control.

(3) Demonstrates and simultaneously explains a rough-water approach and landing from an instructional standpoint.

(4) Analyses and corrects simulated common errors related a rough-water approach and landing.

VIII. AREA OF OPERATION: FUNDAMENTALS OF FLIGHT

Note: *The examiner must select at least one TASK.*

A. TASK: STRAIGHT-AND-LEVEL FLIGHT (AMEL and AMES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of straight-and-level flight by describing:
(a) Effect and use of flight controls.
(b) The integrated flight instruction method.
(c) Outside and instrument references used for pitch, bank, and power control; the crosscheck and interpretation of those references; and the control technique used.
(d) Trim technique.
(e) Methods that can be used to overcome tenseness and over controlling.

(2) Exhibits instructional knowledge of common errors related to straight-and-level flight by describing:
(a) Failure to cross-check and correctly interpret outside and instrument references.
(b) Application of control movements rather than pressures.
(c) Uncoordinated use of flight controls.
(d) Faulty trim technique.

(3) Demonstrates and simultaneously explains straight-and-level flight from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to straight-and-level flight.

B. TASK: LEVEL TURNS (AMEL and AMES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of level turns by describing:
(a) Effect and use of flight controls.
(b) The integrated flight instruction method.

(c) Outside and instrument references used for pitch, bank, and power control; the crosscheck and interpretation of those references; and the control technique used.
(d) Trim technique.
(e) Methods that can be used to overcome tenseness and over controlling.

(2) Exhibits instructional knowledge of common errors related to level turns by describing:
(a) Failure to cross-check and correctly interpret outside and instrument references.
(b) Application of control movements rather than pressures.
(c) Uncoordinated use of flight controls.
(d) Faulty altitude and bank control.

(3) Demonstrates and simultaneously explains a level turn from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to level turns.

C. TASK: STRAIGHT CLIMBS AND CLIMBING TURNS (AMEL and AMES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of straight climbs and climbing turns by describing:
(a) Effect and use of flight controls.
(b) The integrated flight instruction method.
(c) Outside and instrument references used for pitch, bank, and power control; the cross-check and interpretation of those references; and the control technique used.
(d) Trim technique.
(e) Methods that can be used to overcome tenseness and over controlling.

(2) Exhibits instructional knowledge of common errors related to straight climbs and climbing turns by describing:
(a) Failure to cross-check and correctly interpret outside and instrument references.
(b) Application of control movements rather than pressures.
(c) Improper correction for torque effect.
(d) Faulty trim technique.

(3) Demonstrates and simultaneously explains straight climbs and a climbing turns from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to straight climbs and climbing turns.

D. TASK: STRAIGHT DESCENTS AND DESCENDING TURNS (AMEL and AMES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of straight descents and descending turns by describing:
(a) Effect and use of flight controls.
(b) The integrated flight instruction method.
(c) Outside and instrument references used for pitch, bank, and power control; the cross-check and interpretation of those references; and the control technique used.
(d) Trim technique.
(e) Methods that can be used to overcome tenseness and over controlling.

(2) Exhibits instructional knowledge of common errors related to straight descents and descending turns by describing:
  (a) Failure to cross-check and correctly interpret outside and instrument references.
  (b) Application of control movements rather than pressures.
  (c) Uncoordinated use of flight controls.
  (d) Faulty trim technique.
  (e) Failure to clear engine and use carburettor heat, as appropriate.

(3) Demonstrates and simultaneously explains straight descents and descending turns from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to straight descents and descending turns.

IX. AREA OF OPERATION: PERFORMANCE MANOEUVRES

TASK: STEEP TURNS (AMEL and AMES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of steep turns by describing:
  (a) Relationship of bank angle, load factor, and stalling speed.
  (b) Overbanking tendency.
  (c) Torque effect in right and left turns.
  (d) Selection of a suitable altitude.
  (e) Orientation, division of attention, and planning.
  (f) Entry and rollout procedure.
  (g) Coordination of flight and power controls.
  (h) Altitude, bank, and power control during the turn.
  (i) Proper recovery to straight-and-level flight.

(2) Exhibits instructional knowledge of common errors related to steep turns by describing:
  (a) Improper pitch, bank, and power coordination during entry and rollout.
  (b) Uncoordinated use of flight controls.
  (c) Improper procedure in correcting altitude deviations.
  (d) Loss of orientation.

(3) Demonstrates and simultaneously explains steep turns from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to steep turns.

X. AREA OF OPERATION: GROUND REFERENCE MANOEUVRES

Note: The examiner must select at least one TASK.

A. TASK: RECTANGULAR COURSE (AMEL and AMES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of a rectangular course by describing:
  (a) How to select a safe altitude.
  (b) How to select a suitable ground reference with consideration given to emergency landing areas.
  (c) Orientation, division of attention, and planning.
  (d) Configuration and airspeed prior to entry.
  (e) Relationship of a rectangular course to an aerodrome traffic pattern.
  (f) Wind drift correction.

(g) How to maintain desired altitude, airspeed, and distance from ground reference boundaries.
(h) Timing of turn entries and rollouts.
(i) Coordination of flight controls.

(2) Exhibits instructional knowledge of common errors related to a rectangular course by describing:
(a) Poor planning, orientation, or division of attention.
(b) Uncoordinated flight control application.
(c) Improper correction for wind drift.
(d) Failure to maintain selected altitude or airspeed.
(e) Selection of a ground reference where there is no suitable emergency landing area within gliding distance.

(3) Demonstrates and simultaneously explains a rectangular course from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to a rectangular course.

B. TASK: S-TURNS ACROSS A ROAD (AMEL and AMES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of S turns across a road by describing:
(a) How to select a safe altitude.
(b) How to select a suitable ground reference line with consideration given to emergency landing areas.
(c) Orientation, division of attention, and planning.
(d) Configuration and airspeed prior to entry.
(e) Entry procedure.
(f) Wind drift correction.
(g) Tracking of semicircles of equal radii on either side of the selected ground reference line.
(h) How to maintain desired altitude and airspeed.
(i) Turn reversal over the ground reference line.
(j) Coordination of flight controls.

(2) Exhibits instructional knowledge of common errors related to S turns across a road by describing:
(a) Faulty entry technique.
(b) Poor planning, orientation, or division of attention.
(c) Uncoordinated flight control application.
(d) Improper correction for wind drift.
(e) An unsymmetrical ground track.
(f) Failure to maintain selected altitude or airspeed.
(g) Selection of a ground reference line where there is no suitable emergency landing area within gliding distance.

(3) Demonstrates and simultaneously explains S turns across a road from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to S turns across a road.

C. TASK: TURNS AROUND A POINT (AMEL and AMES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of turns around a point by describing:

(a) How to select a safe altitude.
(b) How to select a suitable ground reference point with consideration given to emergency landing areas.
(c) Orientation, division of attention, and planning.
(d) Configuration and airspeed prior to entry.
(e) Entry procedure.
(f) Wind drift correction.
(g) How to maintain desired altitude, airspeed, and distance from reference point.
(h) Coordination of flight controls.

(2) Exhibits instructional knowledge of common errors related to turns around a point by describing:
(a) Faulty entry procedure.
(b) Poor planning, orientation, or division of attention.
(c) Uncoordinated flight control application.
(d) Improper correction for wind drift.
(e) Failure to maintain selected altitude or airspeed.
(f) Selection of a ground reference point where there is no suitable emergency landing area within gliding distance.

(3) Demonstrates and simultaneously explains turns around a point from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to turns around a point.

XI. AREA OF OPERATION: SLOW FLIGHT AND STALLS

***Note**: The examiner must select at least one TASK. Stalls must not be performed with one engine at reduced power or inoperative and the other engine(s) developing effective power.*

Stalls using high power settings should not be performed. The high pitch angles necessary to induce these stalls could possibly result in uncontrollable flight. Examiners and instructors should be alert to the possible development of high sink rates when performing stalls in multi-engine aeroplanes *with high wing loading.*

A. TASK: MANOEUVREING DURING SLOW FLIGHT (AMEL and AMES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of manoeuvring during slow flight by describing:
(a) Relationship of configuration, weight, centre of gravity, manoeuvring loads, angle of bank, and power to flight characteristics and controllability.
(b) Relationship of the manoeuvre to critical flight situations, such as go-arounds.
(c) Performance of the manoeuvre with selected landing gear and flap configurations in straight-and-level flight and level turns.
(d) Specified airspeed for the manoeuvre.
(e) Coordination of flight controls.
(f) Trim technique.
(g) Reestablishment of cruise flight.

(2) Exhibits instructional knowledge of common errors related to manoeuvring during slow flight by describing:
(a) Failure to establish specified gear and flap configuration.
(b) Improper entry technique.
(c) Failure to establish and maintain the specified airspeed.

(d) Excessive variations of altitude and heading when a constant altitude and heading are specified.
(e) Rough or uncoordinated control technique.
(f) Improper correction for torque effect.
(g) Improper trim technique.
(h) Unintentional stalls.
(i) Inappropriate removal of hand from throttles.

(3) Demonstrates and simultaneously explains manoeuvring during slow flight from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to manoeuvrings during slow flight.

B. TASK: POWER-ON STALLS (AMEL and AMES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of power-on stalls, in climbing flight (straight or turning), with selected landing gear and flap configurations by describing:
(a) Aerodynamics of power-on stalls.
(b) Relationship of various factors, such as landing gear and flap configuration, weight, centre of gravity, load factor, and bank angle to stall speed.
(c) Flight situations where unintentional power-on stalls may occur.
(d) Entry technique and minimum entry altitude.
(e) Performance of power-on stalls in climbing flight (straight or turning).
(f) Coordination of flight controls.
(g) Recognition of the first indications of power-on stalls.
(h) Recovery technique and minimum recovery altitude.

(2) Exhibits instructional knowledge of common errors related to power-on stalls, in climbing flight (straight or turning), with selected landing gear and flap configurations by describing:
(a) Failure to establish the specified landing gear and flap configuration prior to entry.
(b) Improper pitch, heading, and bank control during straight-ahead stalls.
(c) Improper pitch and bank control during turning stalls.
(d) Rough or uncoordinated control technique.
(e) Failure to recognise the first indications of a stall.
(f) Failure to achieve a stall.
(g) Improper torque correction.
(h) Poor stall recognition and delayed recovery.
(i) Excessive altitude loss or excessive airspeed during recovery.
(j) Secondary stall during recovery.

(3) Demonstrates and simultaneously explains power-on stalls, in climbing flight (straight or turning), with selected landing gear and flap configurations, from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to power-on stalls, in climbing flight (straight and turning), with selected landing gear and flap configurations.

C. TASK: POWER-OFF STALLS (AMEL and AMES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of power-off stalls, in descending flight (straight or turning), with selected landing gear and flap configurations by describing:
   (a) Aerodynamics of power-off stalls.
   (b) Relationship of various factors, such as landing gear and flap configuration, weight, centre of gravity, load factor, and bank angle to stall speed.
   (c) Flight situations where unintentional power-off stalls may occur.
   (d) Entry technique and minimum entry altitude.
   (e) Performance of power-off stalls in descending flight (straight or turning).
   (f) Coordination of flight controls.
   (g) Recognition of the first indications of power-off stalls.
   (h) Recovery technique and minimum recovery altitude.

(2) Exhibits instructional knowledge of common errors related to power-off stalls, in descending flight (straight or turning), with selected landing gear and flap configurations by describing:
   (a) Failure to establish the specified landing gear and flap configuration prior to entry.
   (b) Improper pitch, heading, and bank control during straight-ahead stalls.
   (c) Improper pitch and bank control during turning stalls.
   (d) Rough or uncoordinated control technique.
   (e) Failure to recognise the first indications of a stall.
   (f) Failure to achieve a stall.
   (g) Improper torque correction.
   (h) Poor stall recognition and delayed recovery.
   (i) Excessive altitude loss or excessive airspeed during recovery.
   (j) Secondary stall during recovery.

(3) Demonstrates and simultaneously explains power-off stalls, in descending flight (straight or turning), with selected landing gear and flap configurations, from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to power-off stalls, in descending flight (straight or turning), with selected landing gear and flap configurations.

D. TASK: ACCELERATED MANOEUVRE STALLS (DEMONSTRATION) (AMEL and AMES)

***Note**: This TASK can either be completed by oral examination or demonstrated at examiner's discretion.*

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of accelerated manoeuver stalls by describing:
   (a) Aerodynamics of accelerated manoeuvre stalls.
   (b) Flight situations where accelerated manoeuvre stalls may occur.
   (c) Hazards of accelerated stalls during stall or spin recovery.
   (d) Entry procedure and minimum entry altitude.
   (e) Recognition of the accelerated stall.
   (f) Recovery procedure and minimum recovery altitude.

(2) Demonstrates and simultaneously explains accelerated manoeuvre stall, from an instructional standpoint.

(3) Exhibits instructional knowledge of common errors related to accelerated manoeuvre stalls by describing:
   (a) Failure to establish proper configuration prior to entry.
   (b) Improper or inadequate demonstration of the recognition of and recovery from an accelerated manoeuvre stall.
   (c) Failure to present simulated student instruction that adequately emphasises the hazards of poor procedures in recovering from an accelerated stall.

(4) Analyses and corrects simulated common errors related to accelerated stalls.

XII. AREA OF OPERATION: BASIC INSTRUMENT MANOEUVRES

***Note**: The examiner must select at least one TASK.*

A. TASK: STRAIGHT-AND-LEVEL FLIGHT (AMEL and AMES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of straight-and-level flight, solely by reference to instruments by describing:
   (a) Instrument cross-check, instrument interpretation, and aircraft control.
   (b) Instruments used for pitch, bank, and power control, and how those instruments are used to maintain altitude, heading, and airspeed.
   (c) Trim technique.

(2) Exhibits instructional knowledge of common errors related to straight-and-level flight solely by reference to instruments by describing:
   (a) "Fixation," "omission," and "emphasis" errors during instrument cross-check.
   (b) Improper instrument interpretation.
   (c) Improper control applications.
   (d) Failure to establish proper pitch, bank, or power adjustments during altitude, heading, or airspeed corrections.
   (e) Faulty trim technique.

(3) Demonstrates and simultaneously explains straight-and-level flight, solely by reference to instruments, from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to straight-and-level flight, solely by reference to instruments.

B. TASK: CONSTANT AIRSPEED CLIMBS (AMEL and AMES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of straight and turning, constant airspeed climbs, solely by reference to instruments by describing:
   (a) Instrument cross-check, instrument interpretation, and aircraft control.
   (b) Instruments used for pitch, bank, and power control during entry, during the climb, and during level off, and how those instruments are used to maintain climb heading and airspeed.
   (c) Trim technique.

(2) Exhibits instructional knowledge of common errors related to straight and turning, constant airspeed climbs, solely by reference to instruments by describing:
   (a) "Fixation," "omission," and "emphasis" errors during instrument cross-check.
   (b) Improper instrument interpretation.
   (c) Improper control applications.
   (d) Failure to establish proper pitch, bank, or power adjustments during heading and airspeed corrections.
   (e) Improper entry or level-off technique.

(f) Faulty trim technique.

(3) Demonstrates and simultaneously explains a straight, constant airspeed climb, solely by reference to instruments, from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to straight, constant airspeed climbs, solely by reference to instruments.

C. TASK: CONSTANT AIRSPEED DESCENTS (AMEL and AMES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of straight and turning, constant airspeed descents, solely by reference to instruments by describing:

(a) Instrument cross-check, instrument interpretation, and aircraft control.

(b) Instruments used for pitch, bank, and power control during entry, during the descent, and during level off, and how those instruments are used to maintain descent heading and airspeed.

(c) Trim technique.

(2) Exhibits instructional knowledge of common errors related to straight and turning, constant airspeed descents, solely by reference to instruments by describing:

(a) "Fixation," "omission," and "emphasis" errors during instrument cross-check.

(b) Improper instrument interpretation.

(c) Improper control applications.

(d) Failure to establish proper pitch, bank, or power adjustments during heading and airspeed corrections.

(e) Improper entry or level-off technique.

(f) Faulty trim technique.

(3) Demonstrates and simultaneously explains a straight, constant airspeed descent, solely by reference to instruments, from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to straight, constant airspeed descents, solely by reference to instruments.

D. TASK: TURNS TO HEADINGS (AMEL and AMES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of turns to headings, solely by reference to instruments by describing:

(a) Instrument cross-check, instrument interpretation, and aircraft control.

(b) Instruments used for pitch, bank, and power control during turn entry, during the turn, and during the turn rollout, and how those instruments are used.

(c) Trim technique.

(2) Exhibits instructional knowledge of common errors related to turns to headings, solely by reference to instruments by describing:

(a) "Fixation," "omission," and "emphasis" errors during instrument cross-check.

(b) Improper instrument interpretation.

(c) Improper control applications.

(d) Failure to establish proper pitch, bank, and power adjustments during altitude, bank, and airspeed corrections.

(e) Improper entry or rollout technique.

(f) Faulty trim technique.

(3) Demonstrates and simultaneously explains a turn to a heading, solely by reference to instruments, from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to turns to headings, solely by reference to instruments.

E. TASK: RECOVERY FROM UNUSUAL FLIGHT ATTITUDES (AMEL and AMES)

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of recovery from unusual flight attitudes by describing:
- (a) Conditions and situations that may result in unusual flight attitudes.
- (b) The two basic unusual flight attitudes – nose-high (climbing turn) and nose-low (diving spiral).
- (c) How unusual flight attitudes are recognised.
- (d) Control sequence for recovery from a nose-high attitude and the reasons for that sequence.
- (e) Control sequence for recovery from a nose-low attitude and the reasons for that sequence.
- (f) Reasons why the controls should be coordinated during unusual flight attitude recoveries.

(2) Exhibits instructional knowledge of common errors related to recovery from unusual flight attitudes by describing:
- (a) Failure to recognise an unusual flight attitude.
- (b) Consequences of attempting to recover from an unusual flight attitude by "feel" rather than by instrument indications.
- (c) Inappropriate control applications during recovery.
- (d) Failure to recognise from instrument indications when the aeroplane is passing through a level flight attitude.

(3) Demonstrates and simultaneously explains recovery from a nose-high and a nose-low unusual flight attitude from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to recovery from unusual flight attitudes.

XIII. AREA OF OPERATION: EMERGENCY OPERATIONS

Note: *The examiner shall select TASKS B or C, D, and one other TASK.*

A. TASK: SYSTEMS AND EQUIPMENT MALFUNCTIONS (AMEL and AMES)

References: POH/AFM

Note: *The examiner must not simulate a system or equipment malfunction in a manner that may jeopardise safe flight or result in possible damage to the aeroplane.*

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to systems and equipment malfunctions, appropriate to the aeroplane used for the skill test, by describing recommended pilot action for at least five (5) of the following:

(1) Smoke, fire, or both, during ground or flight operations
(2) Rough running engine, partial power loss, or sudden engine stoppage
(3) Propeller malfunction
(4) Loss of engine oil pressure
(5) Fuel starvation
(6) Engine overheat
(7) Hydraulic system malfunction
(8) Electrical system malfunction
(9) Carburettor or induction icing

(10) Door or window opening in flight
(11) Inoperative or "runaway" trim
(12) Landing gear or flap malfunction
(13) Pressurisation malfunction

B. TASK: ENGINE FAILURE DURING TAKE-OFF BEFORE VMC (AMEL and AMES)

Note: Engine failure must not be simulated at a speed greater than 50 percent VMC.

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements related to engine failure during take-off before VMC by describing:
  (a) Use of prescribed emergency procedure
  (b) Prompt closing of throttles
  (c) How to maintain directional control
  (d) Proper use of brakes (landplane)
(2) Exhibits instructional knowledge of common errors related to engine failure during take-off before VMC by describing:
  (a) Failure to follow prescribed emergency procedure.
  (b) Failure to promptly recognise engine failure.
  (c) Failure to promptly close throttles following engine failure.
  (d) Faulty directional control and use of brakes.
(3) Demonstrates and simultaneously explains a simulated engine failure during take-off before VMC from an instructional standpoint.
(4) Analyses and corrects simulated common errors related to engine failure during take-off before VMC.

C. TASK: ENGINE FAILURE AFTER LIFT-OFF (AMEL and AMES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements related to engine failure after lift-off by describing:
  (a) Use of prescribed emergency checklist to verify accomplishment of procedures for securing the inoperative engine.
  (b) Proper adjustment of engine controls, reduction of drag, and identification and verification of the inoperative engine.
  (c) How to establish and maintain a pitch attitude that will result in the best engine inoperative airspeed, considering the height of obstructions.
  (d) How to establish and maintain a bank as required for best performance.
  (e) How to maintain directional control.
  (f) Methods to be used for determining reason for malfunction.
  (g) Monitoring and proper use of the operating engine.
  (h) An emergency approach and landing, if a climb or level flight is not within the aeroplane's performance capability.
  (i) Positive aeroplane control.
  (j) How to obtain assistance from the appropriate facility.
(2) Exhibits instructional knowledge of common errors related to engine failure after lift-off by describing:
  (a) Failure to follow prescribed emergency checklist.
  (b) Failure to properly identify and verify the inoperative engine.
  (c) Failure to properly adjust engine controls and reduce drag.
  (d) Failure to maintain directional control.

(e) Failure to establish and maintain a pitch attitude that will result in best engine inoperative airspeed, considering the height of obstructions.
(f) Failure to establish and maintain proper bank for best performance.

(3) Demonstrates and simultaneously explains a simulated engine failure after lift-off from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to engine failure after lift-off.

D. TASK: APPROACH AND LANDING WITH AN INOPERATIVE ENGINE (AMEL and AMES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements related to an approach and landing with an inoperative engine by describing:
(a) Use of the prescribed emergency checklist to verify accomplishment of procedures for securing the inoperative engine.
(b) Proper adjustment of engine controls, reduction of drag, and identification and verification of the inoperative engine.
(c) How to establish and maintain best engine inoperative airspeed.
(d) Trim procedure.
(e) How to establish and maintain a bank as required for best performance.
(f) The monitoring and adjusting of the operating engine.
(g) Proper approach to selected touchdown area, at the recommended airspeed.
(h) Proper application of flight controls.
(i) How to maintain a precise ground track.
(j) Wind shear and turbulence.
(k) Proper timing, judgement, and control procedure during round out and touchdown.
(l) Directional control after touchdown.
(m) Use of brakes (landplane).

(2) Exhibits instructional knowledge of common errors related to an approach and landing with an inoperative engine by describing:
(a) Failure to follow prescribed emergency checklist.
(b) Failure to properly identify and verify the inoperative engine.
(c) Failure to properly adjust engine controls and reduce drag.
(d) Failure to establish and maintain best engine inoperative airspeed.
(e) Improper trim procedure.
(f) Failure to establish proper approach and landing configuration at appropriate time and in proper sequence.
(g) Failure to use proper procedure for wind shear or turbulence.
(h) Faulty technique during round out and touchdown.
(i) Improper directional control after touchdown.
(j) Improper use of brakes (landplane).

(3) Demonstrates and simultaneously explains an approach and landing with a simulated inoperative engine from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to an approach and landing with an inoperative engine.

E. TASK: EMERGENCY DESCENT (AMEL and AMES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements related to an emergency descent by describing:
   (a) Situations that require an emergency descent.
   (b) Proper use of the prescribed emergency checklist to verify accomplishment of procedures for initiating the emergency descent.
   (c) Proper use of clearing procedures before initiating and during the emergency descent.
   (d) Procedures for recovering from an emergency descent.
   (e) Follows manufacturer's procedures.

(2) Exhibits instructional knowledge of common errors related to an emergency descent by describing:
   (a) The consequences of failing to identify reason for executing an emergency descent.
   (b) Improper use of the prescribed emergency checklist to verify accomplishment of procedures for initiating the emergency descent.
   (c) Improper use of clearing procedures before initiating and during the emergency descent.
   (d) Improper procedures for recovering from an emergency descent.

(3) Demonstrates and simultaneously explains an approach and landing with a simulated inoperative engine from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to an approach and landing with an inoperative engine.

F. TASK: EMERGENCY EQUIPMENT AND SURVIVAL GEAR (AMEL and AMES)

References: POH/AFM

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to emergency equipment and survival gear appropriate to the aeroplane flown by describing:

(1) Equipment and gear appropriate for operation in various climates, over various types of terrain, and over water.

(2) Purpose, method of operation or use, servicing and storage of appropriate equipment.

XIV. AREA OF OPERATION: MULTI-ENGINE OPERATIONS

***Note**: The examiner must select TASKS D, E, and one other TASK.*

A. TASK: OPERATIONS OF SYSTEMS (AMEL and AMES)

References: POH/AFM

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to the operation of systems, as applicable to the multi-engine aeroplane used for the skill test, by describing at least five (5) of the following systems:

(1) Primary flight controls and trim
(2) Flaps, leading edge devices, and spoilers
(3) Water rudders
(4) Powerplant and propellers
(5) Landing gear
(6) Fuel, oil, and hydraulic system
(7) Electrical
(8) Avionics
(9) Pitot static/vacuum system and associated instruments
(10) Environmental
(11) De-icing and anti-icing

B. TASK: PERFORMANCE AND LIMITATIONS (AMEL and AMES)

References: POH/AFM

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to multi-engine performance and limitations by describing:

(1) Determination of weight and balance condition.

(2) Use of performance charts, tables, and other data in determining performance in various phases of flight.

(3) Effects of exceeding limitations.

(4) Effects of atmospheric conditions on performance.

(5) Factors to be considered in determining that the required performance is within the aeroplane's single and multi-engine capabilities.

C. TASK: FLIGHT PRINCIPLES – ENGINE INOPERATIVE (AMEL and AMES)

References: POH/AFM

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to flight principles – engine inoperative by describing:

(1) Meaning of the term "critical engine."

(2) Effects of density altitude on the VMC demonstration.

(3) Effects of aeroplane weight and centre of gravity on control.

(4) Effects of bank angle on VMC.

(5) Relationship of VMC to stall speed.

(6) Reasons for loss of directional control.

(7) Indications of loss of directional control.

(8) Importance of maintaining the proper pitch and bank attitude, and the proper coordination of controls.

(9) Loss of directional control recovery procedures.

(10) Engine failure during take-off including planning, decisions, and single-engine operations.

D. TASK: MANOEUVREING WITH ONE ENGINE INOPERATIVE (AMEL and AMES)

References: POH/AFM

Note: *The feathering of one propeller can be demonstrated in any multi-engine* aeroplane *equipped with propellers that can be safely feathered and unfeathered in flight. Feathering for pilot flight test purposes should be performed only under such conditions and at such altitudes (no lower than 3,000 feet above the surface) and positions where safe landings on established aerodromes can be readily accomplished, in the event difficulty is encountered in unfeathering. At altitudes lower than 3,000 feet above the surface, simulated engine failure will be performed by throttling the engine and then establishing zero thrust.*
In the event a propeller cannot be unfeathered during the skill test, it should be treated as an emergency.

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements related to manoeuvrings with one engine inoperative by describing:

(a) Flight characteristics and controllability associated with manoeuvrings with one engine inoperative.

(b) Use of prescribed emergency checklist to verify accomplishment of procedures for securing inoperative engine.

(c) Proper adjustment of engine controls, reduction of drag, and identification and verification of the inoperative engine.
(d) How to establish and maintain the best engine inoperative airspeed.
(e) Proper trim procedure.
(f) How to establish and maintain a bank, as required, for best performance.
(g) Appropriate methods to be used for determining the reason for the malfunction.
(h) Importance of establishing a heading towards the nearest suitable aerodrome or seaplane base.
(i) Importance of monitoring and adjusting the operating engine.
(j) Performance of straight-and-level flight, turns, descents, and climbs, if the aeroplane is capable of those manoeuvres under existing conditions.

(2) Exhibits instructional knowledge of common errors related to manoeuvrings with one engine inoperative by describing:
(a) Failure to follow prescribed emergency checklist.
(b) Failure to recognise an inoperative engine.
(c) Hazards of improperly identifying and verifying the inoperative engine.
(d) Failure to properly adjust engine controls and reduce drag.
(e) Failure to establish and maintain the best engine inoperative airspeed.
(f) Improper trim procedure.
(g) Failure to establish and maintain proper bank for best performance.
(h) Failure to maintain positive control while manoeuvrings.
(i) Hazards of attempting flight contrary to the aeroplane's operating limitations.
(3) Demonstrates and simultaneously explains manoeuvring with one engine inoperative from an instructional standpoint.
(4) Analyses and corrects simulated common errors related to manoeuvring with one engine inoperative.

E. TASK: VMC DEMONSTRATION (AMEL and AMES)

References: POH/AFM

Note: Performing this manoeuvre by increasing pitch attitude to a high angle with both engines operating and then reducing power on the critical engine should be avoided. This technique is hazardous and may result in loss of aircraft control.

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements related to VMC demonstration by describing:
(a) Causes of loss of directional control at airspeeds less than VMC, the factors affecting VMC, and the safe recovery procedures.
(b) Establishment of aeroplane configuration, adjustment of power controls, and trim prior to the demonstration.
(c) Establishment of engine inoperative pitch attitude and airspeed.
(d) Establishment of a bank attitude as required for best performance.
(e) Entry procedure to demonstrate loss of directional control.
(f) Indications that enable a pilot to recognise loss of directional control.
(g) Proper recovery procedure.
(2) Exhibits instructional knowledge of common errors related to VMC demonstration by describing:
(a) Inadequate knowledge of the causes of loss of directional control at airspeeds less than VMC, factors affecting VMC, and safe recovery procedures.

(b) Improper entry procedures, including pitch attitude, bank attitude, and airspeed.
(c) Failure to recognise imminent loss of directional control.
(d) Failure to use proper recovery procedure.

(3) Demonstrates and simultaneously explains engine inoperative loss of directional control from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to engine inoperative loss of directional control.

F. TASK: DEMONSTRATING THE EFFECTS OF VARIOUS AIRSPEEDS AND CONFIGURATIONS DURING ENGINE INOPERATIVE PERFORMANCE (AMEL and AMES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements related to the effects of various airspeeds and configurations during engine inoperative performance by describing:
(a) Selection of proper altitude for the demonstration.
(b) Proper entry procedure to include pitch attitude, bank attitude, and airspeed.
(c) Effects on performance of airspeed changes at, above, and below VYSE.
(d) Effects on performance of various configurations:
1) Extension of landing gear
2) Extension of wing flaps
3) Extension of both landing gear and wing flaps
4) Windmilling of propeller on inoperative engine
(e) Airspeed control throughout the demonstration.
(f) Proper control technique and procedures throughout the demonstration.

(2) Exhibits instructional knowledge of common errors related to the effects of various airspeeds and configurations during engine inoperative performance by describing:
(a) Inadequate knowledge of the effects of airspeeds above or below VYSE and of various configurations on performance.
(b) Improper entry procedures, including pitch attitude, bank attitude, and airspeed.
(c) Improper airspeed control throughout the demonstration.
(d) Rough and/or uncoordinated control technique.
(e) Improper procedures during resumption of cruise flight.

(3) Demonstrates and simultaneously explains the effects of various airspeeds and configurations during engine inoperative performance from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to the effects of various airspeeds and configurations during engine inoperative performance.

XV. AREA OF OPERATION: POST-FLIGHT PROCEDURES

Note: *The examiner shall select TASK A and for ASES applicants at least one other TASK.*

A. TASK: POST-FLIGHT PROCEDURES (AMEL and AMES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of post-flight procedures by describing:
(a) Parking procedure (landplane)
(b) Engine shutdown and securing cockpit

(c) Deplaning passengers
(d) Securing aeroplane
(e) Post-flight inspection
(f) Refuelling

(2) Exhibits instructional knowledge of common errors related to post-flight procedures by describing:
(a) Hazards resulting from failure to follow recommended procedures.
(b) Poor planning, improper procedure, or faulty judgement in performance of post-flight procedures.

(3) Demonstrates and simultaneously explains post-flight procedures from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to post-flight procedures.

B. TASK: ANCHORING (AMES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of anchoring by describing:
(a) How to select a suitable area for anchoring.
(b) Recommended procedure for anchoring in a lake, river, or tidal area.
(c) Number of anchors and lines to be used to ensure seaplane security in various conditions.
(d) Hazards to be avoided during anchors.
(e) Requirements for anchoring lights.

(2) Exhibits instructional knowledge of common errors related to anchoring by describing:
(a) Hazards resulting from failure to follow recommended anchoring procedures.
(b) Consequences of poor planning, improper procedure, or poor judgement when anchoring.
(c) Consequences of failure to use anchor lines of adequate length and strength to ensure seaplane security.

(3) Demonstrates and simultaneously explains anchoring from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to anchoring.

C. TASK: DOCKING AND MOORING (AMES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of anchoring and mooring by describing:
(a) How to select a suitable area for docking and mooring.
(b) Recommended procedure for mooring in a lake, river, or tidal area.
(c) Number of tie-downs and lines to be used to ensure seaplane security in various conditions.
(d) Hazards to be avoided during docking and mooring.
(e) Requirements for docking and mooring lights.

(2) Exhibits instructional knowledge of common errors related to docking and mooring by describing:
(a) Hazards resulting from failure to follow recommended procedures.
(b) Consequences of poor planning, improper procedure, or poor judgement when docking and mooring.

(c) Consequences of failure to use docking or mooring lines of adequate length and strength to ensure seaplane security.

(3) Demonstrates and simultaneously explains docking and mooring from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to docking and mooring.

D. TASK: BEACHING (AMES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of beaching by describing:
- (a) Recommended procedures for beaching.
- (b) Factors to be considered such as beach selection, water depth, current, tide, and wind.
- (c) Procedures to be followed to ensure seaplane security.
- (d) Hazards to be avoided.

(2) Exhibits instructional knowledge of common errors related to beaching by describing:
- (a) Hazards resulting from failure to follow recommended procedures.
- (b) Consequences of poor beach selection, poor planning, improper procedure, or faulty judgement when beaching.
- (c) A consequence of failure to take appropriate precautions to avoid hazards or to ensure that seaplane is secure.

(3) Demonstrates and simultaneously explains beaching from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to beaching.

E. TASK: RAMPING (AMES)

References: POH/AFM

Objective: To determine that the applicant:

(1) Exhibits instructional knowledge of the elements of ramping by describing:
- (a) Factors, such as type of ramp surface, wind, current, and direction and control of approach speed.
- (b) Recommended procedures for ramping.
- (c) Hazards to be avoided.

(2) Exhibits instructional knowledge of common errors related to ramping by describing:
- (a) Hazards resulting from failure to follow recommended procedures.
- (b) Consequences of poor planning, improper procedure, or faulty judgement when ramping.
- (c) Consequences of failure to take appropriate precautions to avoid hazards or to ensure that the seaplane is secure.

(3) Demonstrates and simultaneously explains ramping from an instructional standpoint.

(4) Analyses and corrects simulated common errors related to ramping.

APPENDIX 1: TASK VS. FLIGHT SIMULATION DEVICE CREDIT RESERVED

AEROPLANE SINGLE-ENGINE LAND TASK VS SIMULATION DEVICE CREDIT

Examiners conducting the Commercial Pilot – Aeroplane Skill Tests with flight simulation devices should consult appropriate documentation to ensure that the device has been approved for training, testing, or checking. The documentation for each device should reflect that the following activities have occurred:

(1) The device must be evaluated, determined to meet the appropriate standards, and assigned the appropriate qualification level. The device must continue to meet qualification standards through continuing evaluations

(2) The SLCAA must approve the device for training, testing, and checking the specific flight TASKs listed in this appendix.

(3) The device must continue to support the level of student or applicant performance required by this PTS.

Note: *Users of the following chart are cautioned that use of the chart alone is incomplete. The description and OBJECTIVE of each TASK as listed in the body of the PTS, including all notes, must also be incorporated for accurate simulation device use.*

A.2 USE OF CHART

X Creditable.

A Creditable if appropriate systems are installed and operating.

* Asterisk items require use of FTD or simulator visual reference.

Notes:

(1) Use of Level 2 or Level 3 FTDs authorised only for those aeroplanes not requiring a type rating.

(2) For skill tests, not more than 50 % of the manoeuvres may be accomplished in an FTD or simulator UNLESS:

(a) *Each manoeuvre has been satisfactorily accomplished for an instructor, in the appropriate aeroplane, not less than three (3) times, OR*

(b) *The applicant has logged not less than 500 hours of flight time as a pilot in aeroplanes.*

(3) Not all AREAS OF OPERATION (AOO) and TASKs required by this PTS are listed in the appendix. The remaining AOO and TASKs must be accomplished in an aeroplane.

A.3 FLIGHT SIMULATION TRAINING DEVICE LEVEL

FLIGHT TASK						FLIGHT SIMULATION DEVICE LEVEL					
AREAS OF OPERATION	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**A**	**B**	**C**	**D**
II. Pre-flight Procedures											
A. Pre-flight Inspection (Cockpit Only)	--	A	X	A	A	X	X	X	X	X	X
B. Cockpit Management	--	A	X	A	A	X	X	X	X	X	X
C. Engine starting	--	A	X	A	A	X	X	X	X	X	X
D. Taxiing	--	--	--	--	--	--	--	--	--	X	X
E. Before Take-off Check	--	A	X	A	A	X	X	X	X	X	X
IV. Take-offs, Landings and Go-Arounds											
A. Normal and Crosswind Take-off and Climb	--	--	--	--	--	--	--	--	--	X	X
B. Normal and Crosswind Approach and Landing	--	--	--	--	--	--	--	--	--	X	X
E. Short-Field Take-off and Climb	--	--	--	--	--	--	--	X	X	X	X
F. Short-Field Approach and Landing	--	--		--	--					X	X
G. Go-Around*	--	--	X	--	--	X	X	X	X	X	X
V. Performance Manoeuvres											
A. Steep Turns	--	--	X	--	--	X	X	X	X	X	X
VII. Navigation*											
B. Navigation Systems and ATC Radar Services	--	A	--	--	A	X	X	X	X	X	X
C. Diversion	--	A	X	--	A	X	X	X	X	X	X
D. Lost Procedures	--	A	X	--	A	X	X	X	X	X	X
VIII. Slow Flight and Stalls											
A. Manoeuvring During Slow Flight	--	--	X	--	--	X	X	X	X	X	X
IX. Emergency Operations											
A. Emergency Descent	--	--	X	--	--	X	X	X	X	X	X
B. Emergency Approach and Landing	--	--	--	--	--	--	--	--	--	X	X
C. Systems and Equipment Malfunctions	--	A	X	A	A	X	X	X	X	X	X
D. Loss of Gyro Attitude and/or Heading Indicators	--	--	--	--	--	X	X	X	X	X	X
X. High-Altitude Operations											
B. Pressurisation	--	A	X	A	A	X	X	X	X	X	X
XI. Post-flight Procedures											
A. After Landing	--	A	X	A	A	X	X	X	X	X	X

* Aircraft required for those items that cannot be checked using a flight training device or flight simulator.

APPENDIX 2: TASK VS. FLIGHT SIMULATION DEVICE CREDIT AEROPLANE MULTI-ENGINE LAND

AEROPLANE MULTI-ENGINE LAND TASK VS SIMULATION DEVICE CREDIT

Examiners conducting the Commercial Pilot–Airplane Skill Tests with flight simulation devices should consult appropriate documentation to ensure that the device has been approved for training, testing, or checking. The documentation for each device should reflect that the following activities have occurred:

1. The device must be evaluated, determined to meet the appropriate standards, and assigned the appropriate qualification level. The device must continue to meet qualification standards through continuing evaluations
2. The SLCAA must approve the device for training, testing, and checking the specific flight TASKs listed in this appendix.
3. The device must continue to support the level of student or applicant performance required by the PTS.

NOTE: Users of the following chart are cautioned that use of the chart alone is incomplete. The description and objective of each TASK as listed in the body of the PTS, including all notes, must also be incorporated for accurate simulation device use.

USE OF CHART

X Creditable.

A Creditable if appropriate systems are installed and operating.

* Asterisk items require use of FTD or Simulator visual reference.

Notes:

(1) Use of Level 2 or Level 3 FTDs authorised only for those aeroplanes not requiring a type rating.

(2) For skill tests, not more than 50 % of the manoeuvres may be accomplished in an FTD or simulator UNLESS:

(a) *Each manoeuvre has been satisfactorily accomplished for an instructor, in the appropriate aeroplane, not less than three (3) times, OR*

(b) *The applicant has logged not less than 500 hours of flight time as a pilot in aeroplanes.*

(3) Not all AREAS OF OPERATION (AOO) and TASKs required by this PTS are listed in the appendix. The remaining AOO and TASKs must be accomplished in an aeroplane.

(4) Standards for and use of Level 1 FTDs have not been determined.

A.3 FLIGHT SIMULATION TRAINING DEVICE LEVEL

FLIGHT TASK						FLIGHT SIMULATION DEVICE LEVEL					
AREAS OF OPERATION	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**A**	**B**	**C**	**D**
II. Pre-flight Procedures											
A. Pre-flight Inspection (Cockpit Only)	--	A	X	A	A	X	X	X	X	X	X
B. Cockpit Management	--	A	X	A	A	X	X	X	X	X	X
C. Engine starting	--	A	X	A	A	X	X	X	X	X	X
D. Taxiing	--	--	--	--	--	--	--	--	--	X	X
E. Before Take-off Check	--	A	X	A	A	X	X	X	X	X	X
IV. Take-offs, Landings and Go-Arounds											
A. Normal and Crosswind Take-off and Climb	-	--	--	--	--	--	--	--	--	X	X
B. Normal and Crosswind Approach and Landing	--	--	--	--	--	--	--	--	--	X	X
E. Short-Field Take-off and Climb	--	--	--	--	--	--	--	X	X	X	X
F. Short-Field Approach and Landing	--	--	--	--	--	--	--	--	X	X	--
G. Go-Around*	--	--	X	--	--	X	X	X	X	X	X
V. Performance Manoeuvres											
A. Steep Turns	--	--	X	--	--	X	X	X	X	X	X
VI. Navigation*											
B. Navigation Systems and ATC Radar Services	--	A	--	--	A	X	X	X	X	X	X
C. Diversion	--	A	X	--	A	X	X	X	X	X	X
D. Lost Procedures	--	A	X	--	A	X	X	X	X	X	X
VII. Slow Flight and Stalls											
A. Manoeuvring During Slow Flight	--	--	X	--	--	X	X	X	X	X	X
VIII. Emergency Operations											
A. Emergency Descent	--	--	X	--	--	X	X	X	X	X	X
B. Manoeuvring with One-Engine Inoperative	--	--	--	--	--	--	--	X	X	X	X
C. Engine Inoperative – Loss of Directional Control Demonstration	--	--	--	--	--	--	--	X	X	X	X
D. Engine Failure During Take-off Before VMC	--	--	--	--	--	--	--	X	X	X	X
E. Engine Failure After Lift-Off (simulated)	--	--	--	--	--	--	--	X	X	X	X
F Approach and Landing with an Inoperative Engine (simulated)	--	--	--	--	--	--	--	X	X	X	X
G. Systems and Equipment Malfunctions	--	A	X	A	A	X	X	X	X	X	X
IX. Multi-engine Operations											
A. Engine Failure During	--	--	X	--	--	X	X	X	X	X	X

Flight (by reference to instruments)											
B. Instrument Approach – All Engines Operating (by reference to instruments)	--	--	X	--	--	X	X	X	X	X	X
C. Instrument Approach – One Engine Inoperative (by reference to instruments)	--	--	--	--	--	--	--	X	X	X	X
X. High-Altitude Operations											
B. Pressurization	--	A	X	A	A	X	X	X	X	X	X
XI. Post-flight Procedures											
A. After Landing	--	A	X	A	A	X	X	X	X	X	X

* Aircraft required for those items that cannot be checked using a flight training device or flight simulator.